JPMORGAN CHASE BANK, N.A. - BANGKOK BRANCH

FINANCIAL STATEMENTS

31 DECEMBER 2021



Independent auditor's report

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

My opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of JPMorgan Chase Bank, N.A. - Bangkok Branch (the Bank) as at 31 December 2021, and its financial performance and its cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS) and the Bank of Thailand Notifications in relation to the preparation and presentation of financial reporting.

What I have audited

The Bank's financial statements comprise:

- the statement of financial position as at 31 December 2021;
- 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 significant accounting policies and other explanatory information.

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 Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions 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 TFRS and the Bank of Thailand Notifications in relation to the preparation and presentation of financial reporting, 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.

Sakuna Yamsakul

Certified Public Accountant (Thailand) No. 4906

Bangkok 7 April 2022

		2021	2020
	Notes	Baht	Baht
Assets			
Cash		2,756,547	1,821,191
Interbank and money market items, net	6, 11	16,350,501,556	10,677,280,552
Accounts receivable from securities trading		1,225,636,072	1,195,134,855
Financial assets measured at fair value			
through profit or loss	7	15,569,126,299	10,811,520,350
Financial derivatives assets	8	32,114,384,884	41,217,491,599
Investments, net	9	23,267,179,819	22,792,896,161
Loans to customers and accrued interest receivables, net	10, 11	1,502,531,537	893,690,383
Equipment, net	12	26,310,000	21,276,428
Right-of-use assets, net	13	18,643,780	26,931,726
Deferred tax assets	18	100,151,980	68,180,513
Other assets, net	14	33,631,859	82,991,685
Total assets		90,210,854,333	87,789,215,443

(Mr. Jarin Pintusopon) Branch Manager

	Notes	2021 Baht	2020 Baht
	Hotes		
Liabilities and Head Office's equity and balances			
with other branches under the same entity			
Liabilities			
Deposits	15	25,999,696,600	18,071,118,132
Interbank and money market items	16	3,358,243,447	2,448,413,558
Accounts payable from securities trading		545,073,897	715,271,706
Liability payable on demand		45,045,668	72,955,767
Financial liabilities designated at fair value			
through profit or loss	17	13,555,582,109	14,315,506,764
Financial derivatives liabilities	8	26,162,747,087	34,439,609,471
Lease liabilities, net	13	9,973,503	14,508,212
Provision	19	119,354,168	179,044,925
Other liabilities	20	217,277,857	273,883,458
Total liabilities		70,012,994,336	70,530,311,993
Head Office's equity and balances with other			
branches under the same entity			
Fund remitted into Thailand for maintaining			
assets under law	23	12,688,965,166	12,688,965,166
Net balance of inter-office accounts with Head Office			
and other branches under the same entity	23	5,628,485,907	3,008,853,039
Others component of accounts with head office and			
other branches under the same entity		58,639,552	71,754,259
Retained earnings		1,821,769,372	1,489,330,986
Total Head Office's equity and balances with other			
branches under the same entity	,	20,197,859,997	17,258,903,450
Total liabilities and Head Office's equity and balances			
with other branches under the same entity	B	90,210,854,333	87,789,215,443

	Natas	2021	2020 Baht
	Notes	Baht	Бапі
Interest income	28	479,088,071	588,175,959
Interest expense	29	(193,161,971)	(122,614,690)
	9		
Net interest income	,	285,926,100	465,561,269
Fee and service income	30	38,497,195	34,567,023
Fee and service expenses	,	(17,454,942)	(15,592,654)
Net fee and service income		21,042,253	18,974,369
Not lee and service moonie	,		,
Gains (Losses) on financial instruments measured at			
fair value through profit or loss	31	(742,774,145)	1,995,592,400
Gains (Losses) on financial liabilities designated at			
fair value through profit or loss	31	1,468,063,909	(708,934,602)
Other operating income	32	196,381,143	185,209,562
Total operating income		1,228,639,260	1,956,402,998
Other energting evenence			
Other operating expenses		377,839,870	361,334,257
Employee expenses		49,578,993	48,714,985
Premise and equipment expenses Taxes and duties		28,066,973	58,525,870
Other expenses	33	393,308,968	381,124,175
Other expenses	-		001,121,170
Total other operating expenses		848,794,804	849,699,287
	-		
Reversal expected credit losses	34	(2,438,433)	(73,280)
Profit before income tax		382,282,889	1,106,776,991
	35	(84,314,169)	(228,084,273)
Income tax expense	-	(04,514,103)	(220,004,210)
Net profit for the year		297,968,720	878,692,718
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	Notes	2021 Baht	2020 Baht
Other comprehensive income (expense)			
Items that will not be subsequently reclassified to profit or loss Remeasurements of provision for employment benefit plan Income tax relating to components of other comprehensive		42,916,428	-
income that will not be subsequently reclassified to profit or loss	18	(8,446,762)	
Total items that will not be subsequently reclassified to profit or loss	,	34,469,666	
Items that will be subsequently reclassified to profit or loss Losses on debt instruments classified at fair value through			
other comprehensive income Income tax relating to components of other comprehensive income that will be subsequently reclassified to	9	(34,584,540)	(13,423,307)
profit or loss	18 .	6,916,908	2,536,661
Total items that will be reclassified subsequently to profit or loss		(27,667,632)	(10,886,646)
Other comprehensive income (expense) for the year, net of tax	•	6,802,034	(10,886,646)
Total comprehensive income for the year		304,770,754	867,806,072

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 2021

				Other components of accounts with Head Office and other branches	ounts with		
			Net balance of	under the same entity	ntity		
		Fund remitted into Thailand	inter-office accounts with Head Office	Unrealised gain (loss) on changes in fair value	Provision for		
		for maintaining	and other branches	of investments	share-based	Retained	
	Notes	assets under law Baht	under the same entity Baht	measured at FVOCI Baht	payment Baht	earnings Baht	Total
Balance as at 1 January 2020		11,029,529,666	1,683,594,169	63,533,102	18,019,941	610.638.268	13 405 315 146
Net profit for the year					•	878.692.718	878 692 718
Fund injection during the year	23	1,606,925,000	•	•		1	1 606 925 000
Translation adjustment		52,510,500	ì	i	ì		52.510.500
Increase during the year		J	1,325,258,870	•	i	я	1 325 258 870
Unrealised loss on changes in fair value of							
investments measured at fair value through							
other comprehensive income	თ	1	•	(13,423,307)	,	1	(13 423 307)
Provision for share-based payment		•	i		1.087.862	,	1 087 862
Income tax relating to other component							
of other comprehensive income for the year		,		2,536,661	ı	L	2,536,661
Balance as at 31 December 2020		12,688,965,166	3,008,853,039	52,646,456	19,107,803	1,489,330,986	17,258,903,450
Balance as at 1 January 2021		12,688,965,166	3,008,853,039	52,646,456	19,107.803	1,489.330.986	17,258,903,450
Net profit for the year						297,968,720	297,968,720
Increase during the year			2,619,632,868				2,619,632,868
Unrealised loss on changes in fair value of							
investments measured at fair value through	6			(34,584,540)			(34 584 540)
other comprehensive income							(2. 2) (2. 2)
Provision for share-based payment					14,552,925		14.552.925
Actuarial gain on employee benefits				•		42.916.428	42.916.428
Income tax relating to other component							
of other comprehensive income for the year				6,916,908		(8,446,762)	(1,529,854)
Balance as at 31 December 2021		12,688,965,166	5,628,485,907	24,978,824	33,660,728	1,821,769,372	20,197,859,997

		2021	2020
	Notes	Baht	Baht
Cash flows from operating activities:			
Net profit from operating before income tax		382,282,889	1,106,776,991
Adjustments to reconcile net profit from operating before income			
tax to net cash provided by (used in) operating activities:			
Reversal expected credit loss	34	(2,438,433)	(73,280)
Depreciation and amortisation	12, 13, 14	25,517,299	23,136,382
Provision for employee benefit plan		1,754,918	34,611,710
Provision for share based payment expense	22	23,440,107	8,174,230
Unrealised loss on financial instrument measured			
at fair value through profit an loss		80,384,802	29,088,409
Loss on write-off of equipment	12	720,547	1,251
Unrealised (gain) loss on changes in fair value of financial			
derivative instruments		826,244,331	(489,094,986)
Revaluation of fund injection			52,510,500
Interest income	28	(479,088,071)	(588,175,959)
Interest expense	13, 29	193,161,971	122,719,314
Operating profit before changes in operating assets and liabilities		1,051,980,360	299,674,562
(Increase) decrease in operating assets:			
Interbank and money market items		2,597,100,353	3,029,951,849
Financial assets measured at fair value through profit or loss		(5,038,689,777)	(3,016,586,246)
Loans to customers		(604,841,288)	1,063,496,814
Other assets		26,125,435	(4,254,330)
Increase (decrease) in operating liabilities:			
Deposits		7,928,578,468	4,618,603,993
Interbank and money market items		909,829,889	(702,982,580)
Liability payable on demand		(27,910,099)	5,968,970
Financial liabilities designated at fair value through profit or loss		(759,924,655)	(5,993,920,331)
Provision for employee benefit plan		(18,107,337)	-
Provision for share based payment expense		(8,887,182)	(7,086,368)
Other liabilities		(24,588,603)	(53,169,778)
Net balance of inter-office accounts with Head Office			
and other branches under the same entity	<u>.</u>	2,655,237,441	1,369,427,850
Net cash provided by operating activities before interest received,			
interest paid and income tax paid - carried forward		8,685,903,005	609,124,405
Interest received		391,176,800	387,237,809
Interest paid		(186,489,136)	(153,239,186)
Income tax paid	-	(142,387,295)	(166,823,587)
Net cash provided by operating activities	-	8,748,203,374	676,299,441

		2021	2020
	Notes	Baht	Baht
Cash flows from investing activities:			
Cash paid for debt securities measured at fair value			
through other comprehensive income		(43,920,106,223)	(26,204,796,260)
Proceeds for debt securities measured at fair value			
through other comprehensive income		43,500,000,000	23,570,000,000
Purchase of equipment	12	(16,170,271)	(8,925,547)
Purchase of leasehold improvement		_	(4,318,992)
Net cash used in investing activities		(436,276,494)	(2,648,040,799)
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Cash flows from financing activities:			
Fund injection	23		1,606,925,000
Cash paid for lease liabilities	13	(5,254,488)	(4,176,765)
·			
Net cash (used in) provided by financing activities		(5,254,488)	1,602,748,235
Net increase (decrease) in cash and cash equivalents		8,306,672,392	(368,993,123)
Cash and cash equivalents at the beginning of the year		948,283,673	1,317,276,796
Cash and cash equivalents at end of the year		9,254,956,065	948,283,673
Cash and cash equivalents			
Cash on hand		2,756,547	1,821,191
Interbank and money market items		9,141,760,024	871,627,561
Net balance of inter-office accounts with Head Office			
and other branches under the same entity		110,439,494	74,834,921
		9,254,956,065	948,283,673
Non cash item:			
Increase in accounts receivable from securities trading		30,501,217	1,100,571,776
Increase (decrease) in accounts payable from securities trading		(170,197,809)	671,507,442
Purchase equipment not paid	12		122,680
Increase in right-of-use assets	13	678,166	14,413,361
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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 7 April 2022.

2 Basis of preparation

JPMorgan Chase Bank, N.A. - 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 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 ("TFRS"). 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. 21/2561, "The Preparation and Format of the Financial Statements of Commercial Bank and Holding Parent Company of Financial Group" dated on 31 October 2018.

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 Amended financial reporting standards that are effective for accounting period beginning or after 1 January 2022 and relevant to the Bank

Certain amended TFRSs have been issued that are not mandatory for the current reporting period and have not been early adopted by the Bank.

a) Interest rate benchmark (IBOR) reform - phase 2, amendments to TFRS 9, TFRS 7, TFRS 16 and TFRS 4, and accounting guidance, financial instruments and disclosures for insurance business provide relief measures addressing issues that might affect financial reporting during the reform, including the effects of changes to contractual cash flows or hedging relationship arising from the replacement of one benchmark with an alternative benchmark.

Key relief measures of the phase 2 amendments are as follows:

- When changing the basis for determining contractual cash flows for financial assets and financial liabilities (including lease liabilities), changes that are necessary as a direct result of the IBOR reform and which are considered economically equivalent, will not result in an immediate gain or loss in the income statement. TFRS 16 has also been amended to require lessees to use a similar practical expedient when accounting for lease modifications that change the basis for determining future lease payments as a result of the IBOR reform.
- Hedge accounting relief measures will allow most TFRS 9 hedge relationships that are directly affected by the IBOR reform to continue. However, additional ineffectiveness might need to be recorded.

TFRS 7 requires additional disclosure about:

- the nature and extent of risks arising from the IBOR reform to which the entity is exposed to
- · how the entity manages those risks
- the entity's progress in transitioning from the IBOR to alternative benchmark rates and how the entity is managing this transition.

The Bank's management is currently assessing the impacts from these standards.

3.2 Accounting policies

3.2.1 Financial asset

a) Classification

The Bank classifies its debt instrument financial assets in the following measurement categories depending on i) business model for managing the asset and ii) the cash flow characteristics of the asset whether they represent solely payments of principal and interest (SPPI).

- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss); and
- those to be measured at amortised cost.

The Bank reclassifies debt investments when and only when its business model for managing those assets changes.

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.

Loans

Overdrafts are stated at the principal amounts including interest. Other loans are stated at the principal amount. Unearned discounts received in advance are presented as deduction from the loans.

Recognition and derecognition

Regular way purchases, acquires and sales of financial assets are recognised on tradedate, the date on which the Bank commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Bank has transferred substantially all the risks and rewards of ownership.

c) Measurement

At initial recognition, the Bank measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether the cash flows are solely payment of principal and interest.

d) Debt instruments

Subsequent measurement of debt instruments depends on the Bank's business model for managing the asset and the cash flow characteristics of the financial assets. There are two measurement categories which the Bank classifies its debt instruments:

- FVOCI: Financial assets that are held for i) collection of contractual cash flows; and ii) for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income (OCI), expect for the recognition of impairment gains or losses, interest income using the effective interest method, and foreign exchange gains and losses which are recognised in profit or loss. When the financial assets is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains or losses. Interest income is included in finance income. Impairment expenses are presented separately in the statement of profit or loss and comprehensive income.
- FVPL: Financial assets that do not meet the criteria for amortised cost or FVOCI are
 measured at FVPL. A gain or loss on a debt investment that is subsequently measured at
 FVPL is recognised in profit or loss and presented net within other gains/(losses) in
 the period in which it arises.

e) Impairment

For other financial assets carried at amortised cost and FVOCI, the Bank applies TFRS 9 general approach in measuring the impairment of those financial assets. Under the general approach, the 12-month or the lifetime expected credit loss is applied depending on whether there has been a significant increase in credit risk since the initial recognition, except accounts receivable from securities trading applied simplified approach

The significant increase in credit risk (from initial recognition) assessment is performed every end of reporting period by comparing i) expected risk of default as of the reporting date and ii) estimated risk of default on the date of initial recognition.

The Bank assesses expected credit loss by taking into consideration forward-looking information and past experiences. The expected credit loss is a probability-weighted estimate of credit losses (probability-weighted present value of estimated cash shortfall). The cash shortfall is the difference between all contractual cash flows that are due to the Bank and all cash flows expected to receive, discounted at the original effective interest rate.

When measuring expected credit losses, the Bank reflects the following:

- probability-weighted estimated uncollectible amounts
- time value of money; and
- supportable and reasonable information as of the reporting date about past experience, current conditions and forecasts of future situations.

Impairment and reversal of impairment losses are recognised in profit or loss.

d) Surplus reserve

The Bank measures the surplus reserve on the date of adoption for new financial reporting standards related to financial instruments by comparing the difference between allowance for expected credit losses according to requirement under new financial reporting standards related to financial instruments and total reserves that the Bank had on 31 December 2020. In which, the Bank will amortised the surplus reverse using straight-line method by 5 years consecutively in accordance with notification to utilise surplus reserve from Bank of Thailand dated on 6 November 2020.

3.2.2 Financial liabilities

a) Classification

Financial instruments issued by the Bank are classified as either financial liabilities or equity securities by considering contractual obligations.

- Where the Bank has an unconditional contractual obligation to deliver cash or another
 financial asset to another entity, it is considered a financial liability unless there is a
 predetermined or possible settlement for a fixed amount of cash in exchange of a
 fixed number of the Bank's own equity instruments.
- Where the Bank has no contractual obligation or has an unconditional right to avoid delivering cash or another financial asset in settlement of the obligation, it is considered an equity instrument.

b) Measurement

Financial liabilities are initially recognised at fair value and are subsequently measured at amortised cost.

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c) Derecognition

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

d) 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.

3.2.3 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.

3.2.4 Offsetting of financial instruments

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.

3.2.5 Recognition of income

Interest income is calculated by applying the effective interest rate to the gross carrying is applied to the amortised cost of the financial asset, except for:

- Purchased or originated credit-impaired financial asset (POCI), for which the original credit-adjusted effective interest rate is applied to the amortised cost of financial asset.
- Financial assets that are not (POCI) but have subsequently becomes credit-impaired (a stage 3), for which interest revenue is calculated by applying the effective interest rate to their amortised cost (net of the expected credit loss provision).

Fee and service income relating to local transactions such as foreign currency conversion fee and foreign currency transaction facilitation fee are recognised only when a performance obligation is satisfied which is at a point in time.

Fee and service income relating to cross-border transactions such as income attribution from related parties, for which the Bank receives a percentage allocation of total fees are recognised over the period which the related service is provided.

3.2.6 Recognition of expenses

Interest on financial liabilities measured at amortised cost and fair value through profit or loss are recognised as expense by using the effective interest rate method.

The Bank recognises other expenses on an accrual basis.

3.2.7 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 equipment3 yearsOffice equipment5 yearsFurniture and fixtures & fitting10 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.

3.2.8 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.

3.2.9 Leases

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Bank. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- · any initial direct costs, and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise store rental contract.

3.2.10 Impairment of assets

Assets that have an indefinite useful life 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 that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

3.2.11 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.

3.2.12 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.

3.2.13 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.

3.2.14 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.

3.2.15 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.

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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 determined the expected credit loss by projecting the PD, LGD, and EAD for each future month. These three components are multiplied together for an efficeint ECL calculation. The Bank determined the appropriateness of financial assets grouping when the Bank measured the expected credit loss for those by using collective approach with forward-looking economic information adjustment.

Expected credit loss is the discounted product of the probability of default (PD), exposure at default (EAD), and loss given default (LGD), defined as follows:

- Probability of default (PD) represents the likelihood of a borrower defaulting on its financial obligation (as per definition of default and credit-impaired), either over the next 12 months (12-month PD) or over the remaining lifetime (lifetime PD) of the obligation.
- Exposure at default (EAD) is based on the amounts that the Bank expects to be owed at the time of default, over the next 12 months (12-month EAD) or over the remaining lifetime (lifetime EAD)
- Loss given default (LGD) represents the Bank's expectation of the extent of the loss on a
 defaulted exposure. LGD varies by type of counterparty, type and seniority of claim and
 availability of collateral or other credit support. LGD is expressed as a percentage loss per
 unit of exposure at the time of default (EAD). LGD is calculated on a 12-month or lifetime
 basis, where 12-month LGD is the percentage of loss expected to be made if the default
 occurs over the remaining expected lifetime of the loan.

b) 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.

c) 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.

d) 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 23.

6 Interbank and money market items, net (assets)		
_	2021	2020
	Total	Total
	Baht	Baht
Domestic items The Bank of Thailand Commercial banks	8,739,444,437 7,382,454,827	2,655,369,100 7,876,567,193
Total Less Allowance for expected credit loss	16,121,899,264 (566,682)	10,531,936,293 (755,576)
Total domestic items	16,121,332,582	10,531,180,717
Foreign items		
Euro	218,183,072	133,313,160
Swiss Franc	539,823	584,741
Australian Dollar	-	661,096
Singapore Dollar	1,887,512	3,287,540
Others	8,558,567	8,253,298
Total	229,168,974	146,099,835
Total foreign items	229,168,974	146,099,835
Total interbank and money market items, net	16,350,501,556	10,677,280,552

7 Financial assets measured at fair value through profit or loss

	Fair v	alue
	31 December 2021 Baht	31 December 2020 Baht
Government and state enterprise securities Reverse repo	15,569,126,299	10,211,002,813 600,517,537
Total	15,569,126,299	10,811,520,350

8 Financial derivatives

8.1 Trading derivatives

Fair value and notional amount classified by types of risks as at 31 December 2021 and 2020 comprise of the followings:

	2021	
Fair va	65-000000000000000000000000000000000000	
Assets	Liabilities	Notional amount
Baht	Baht	Baht
16,860,388,071	13,622,053,027	842,745,998,436
		996,527,724,247
802,403,496	396,681,540	56,362,661,350
377,622,781	37,603,389	7,224,157,805
	408,172,785	<u> </u>
32,114,384,884	26,162,747,087	1,902,860,541,838
	2020	
Fair va	lue	
Assets	Liabilities	Notional amount
Baht	Baht	Baht
16.798.124.375	13.778.979.635	705,413,598,096
		977,634,149,691
982,548,782	450,959,766	57,716,287,650
163,769,794	23,028,943	2,997,467,216
	405,738,796	
41,217,491,599	34,439,609,471	1,743,761,502,653
	Assets Baht 16,860,388,071 14,073,970,536 802,403,496 377,622,781 32,114,384,884 Fair va Assets Baht 16,798,124,375 23,273,048,648 982,548,782 163,769,794	Baht Baht 16,860,388,071 13,622,053,027 14,073,970,536 11,698,236,346 802,403,496 396,681,540 377,622,781 37,603,389 - 408,172,785 2020 Fair value Assets Liabilities Baht Baht 16,798,124,375 13,778,979,635 23,273,048,648 19,780,902,331 982,548,782 450,959,766 163,769,794 23,028,943 - 405,738,796

Proportion of derivative contract balances as at 31 December 2021 and 2020 classified by counterparties comprise of the followings:

	2021 Percentage	2020 Percentage
Financial institutions Affiliated companies Third parties	54 36 10	59 32 9
Total trading derivatives	100	100

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9 Investments, net

9.1 Classification of investments

_	Fair va	lue
_	31 December 2021 Baht	31 December 2020 Baht
Investments in debt instruments measured at fair value through other comprehensive income Government and state enterprise securities	23,267,179,819	22,792.896,161
Total Less Allowance for expected credit losses	23,267,179,819	22,792,896,161
<u>_</u>	23,267,179,819	22,792,896,161

9.2 Recognition of transaction in other comprehensive income for debt instruments measured at fair value through other comprehensive income

Recognition of transaction in other comprehensive income for debt instruments measured at fair value through other comprehensive income for the years ended 31 December 2021 and 2020 are as follow:

	2021 Baht	2020 Baht
Loss from changes in value of investments in debt instruments measured at FVOCI	34,584,540	13,423,307

10 Loans to customers and accrued interest receivables, net

10.1 Classified by types of loans:

	2021 Baht	2020 Baht
Loans to customers net from deferred revenue Add Accrued interest receivables	1,518,504,233 31,059	913,542,673 32,871
Total loans to customers net from deferred revenue, and accrued interest receivables Less Allowance for expected credit loss	1,518,535,292 (16,003,755)	913,575,544 (19,885,161)
Total loans to customers and interest receivables, net	1,502,531,537	893,690,383

10.2 Classified by currencies and domiciles of customers:

	2021 Baht	2020 Baht
Domestic items Foreign items	1,518,454,275 49,958	913,082,805 459,868
Total loans to customers net from deferred revenue	1,518,504,233	913,542,673

10.3 Classified by classification:

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

2021	2020
Loans	Loans
outstanding and interest	outstanding and interest
receivables	receivables
Baht	Baht
1,518,535,292	913,575,544
	-
1,518,535,292	913,575,544
	Loans outstanding and interest receivables Baht 1,518,535,292

10.4 Movement in the gross carrying amount of loans that contributed to changes in the ECL

3	, ,			
		2021		
	Financial assets with an insignificant increase in credit risk Baht	Financial assets with a significant increase in credit risk Baht	Credit-impaired financial assets Baht	Total
As of 1 January 2021	913,575,544			913,575,544
Change due to new estimation of credit loss	548,316,754			548,316,754
Newly acquired or purchased financial assets Derecognised financial assets	74,490,738 (17,847,744)	•	-	74,490,738 (17,847,744)
As of 31 December 2021	1,518,535,292		-	1,518,535,292
		2020		
	Financial assets with an insignificant increase in credit risk Baht		Credit-impaired inancial assets Baht	Total Baht
As of 1 January 2020 Change due to new estimation of	1,977,032,694		-	913,575,544
credit loss	193,245,633	-	-	193,245,633
Newly acquired or purchased financial assets	18,949,341	-	=	18,949,341
Derecognised financial assets	(1,275,652,124)	-		(1,275,652,124)
As of 31 December 2020	913,575,544		-	913,575,544

11 Allowance for expe	cted credit losse	S			
	<u> </u>		2024		
	Financial assets with an insignificant increase in credit risk Baht	Financial assets with a significant increase in credit risk Baht	Credit- impaired financial assets Baht	Surplus reserve Baht	Total Baht
Interbank and money					
market items As of 1 January 2021 Amortisation of surplus reserve	-	-		755,576 (188,894)	755,576 (188,894)
As of 31 December 2021		-		566,682	566,682
			2021		
	Financial assets with an insignificant increase in credit risk Baht	Financial assets with a significant increase in credit risk Baht	Credit- impaired financial assets Baht	Surplus reserve Baht	Total Baht
Loans	4,000,500			15,815,638	19,885,161
As of 1 January 2021 Change due to new estimation of credit loss	4,069,523 5,799	-		15,615,656	5,799
Newly acquired or purchased	102 502				103,592
financial assets Derecognised financial assets	103,592 (36,887)				(36,887)
Amortisation of surplus reserve		<u> </u>	<u> </u>	(3,953,910)	(3,953,910)
As of 31 December 2021	4,142,027	· · · · · · · · · · · · · · · · · · ·	-	11,861,728	16,003,755
			2020		
	Financial assets with an insignificant increase in credit risk Baht	Financial assets with a significant increase in credit risk Baht	Credit- impaired financial assets Baht	Surplus reserve Baht	Total Baht
Interbank and money					
market items As of 1 January 2020 Amortisation of surplus reserve	-	-	<u>-</u>	944,470 (188,894)	944,470 (188,894)
As of 31 December 2020	-	9	-	755,576	755,576
			2020		
	Financial assets with an insignificant increase in credit risk Baht	Financial assets with a significant increase in credit risk Baht	Credit- impaired financial assets Baht	Surplus reserve Baht	Total Baht
Loans					
As of 1 January 2020 Change due to new estimation	-	Ŧ	-	19,769,548	19,769,548
of credit loss Newly acquired or purchased	4,120,061	-	•	8 .5.	4,120,061
financial assets Derecognised financial assets	579 (51,117)	2 2	2- 10	2 -	579 (51,117)
Amortisation of surplus reserve	(01,117)		-	(3,953,910)	(3,953,910)
As of 31 December 2020	4,069,523			15,815,638	19,885,161

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12 Equipment, net				
	Computer equipment Baht	Office equipment Baht	Furniture and fixture Baht	Total Baht
As at 1 January 2020				
Cost <u>Less</u> Accumulated depreciation	55,955,012 (48,727,795)	51,270,251 (41,622,249)	28,758,926 (23,191,632)	135,984,189 (113,541,676)
Net book value	7,227,217	9,648,002	5,567,294	22,442,513
For the year ended 31 December 2020				
Opening net book value	7,227,217	9,648,002	5,567,294	22,442,513
Additions	6,485,450	2,511,388	51,389	9,048,227
Write off, net	(1,245)	(6)	(4.000.045)	(1,251)
Depreciation charge	(4,851,072)	(4,072,674)	(1,289,315)	(10,213,061)
Closing net book value	8,860,350	8,086,710	4,329,368	21,276,428
As at 31 December 2020				
Cost	60,735,822	53,500,822	28,810,315	143,046,959
Less Accumulated depreciation	(51,875,472)	(45,414,112)	(24,480,947)	(121,770,531)
Net book value	8,860,350	8,086,710	4,329,368	21,276,428
For the year ended 31 December 2021				
Opening net book value	8,860,350	8,086,710	4,329,368	21,276,428
Additions	15,170,373	999,898	-	16,170,271
Write off, net			(720,547)	(720,547)
Depreciation charge	(6,409,005)	(3,111,732)	(895,415)	(10,416,152)
Closing net book value	17,621,718	5,974,876	2,713,406	26,310,000
As at 31 December 2021				
Cost	75,906,195	54,500,720	25,057,292	155,464,207
Less Accumulated depreciation	(58,284,477)	(48,525,844)	(22,343,886)	(129,154,207)
Net book value	17,621,718	5,974,876	2,713,406	26,310,000

13 Right-of-use assets, net and Lease liabilities, net

The statement of financial position included following transactions relating to leases.

	2021	2020
	Baht	Baht
Right-of-use assets, net		
Building and building improvements, net	18,643,780	26,931,726
Total right-of-use assets, net	18,643,780	26,931,726
Lease liabilities, net		
Current portion of lease liabilities	5,195,243	345,804
Non-current portion of lease liabilities	4,778,260	14,162,408
Total lease liabilities, net	9,973,503	14,508,212

During the period ended 31 December 2021, additions to the right-of-use assets of the Bank was Baht 0.7 million (2020: Baht 14.4 million).

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The statement of profit or loss and other comprehensive income included following transactions related to leases.

	2021 Baht	2020 Baht
Depreciation charge of right-of-use assets		
Building and building improvements	10,818,770	8,948,717
Total right-of-use assets	10,818,770	8,948,717
Finance cost relating to leases Expenses relating to leases of low value assets that		104,624
are not shown above as short-term leases (included in premises and equipment expenses)	60,000	60,000

The total cash outflow for leases of the Bank for the year ended 31 December 2021 was Baht 5.3 million (2020: Baht 4.2 million).

14 Other assets, net		
*	2021 Baht	2020 Baht
Leasehold right and leasehold improvement, net Accrued interest receivables Prepaid expenses Account receivables from option sold premium Collateral of reverse repo Other receivables	9,515,565 13,796,379 3,571,715 233 - 6,747,967	13,797,940 14,765,543 3,437,470 209 35,210,410 15,780,113
Total other assets, net	33,631,859	82,991,685
The amortisation cost of leasehold right and depreciation of leasehold improvement for the year	4,282,377	3,974,604

15 Deposits

15.1 Classified by types of deposits:

	2021 Baht	2020 Baht
On demand Savings	20,872,421,701 5,127,274,899	14,054,212,684 4,016,905,448
Total deposits	25,999,696,600	18,071,118,132

15.2 Classified by currencies and domiciles of depositors:

	3	2021	
	Domestic Baht	Foreign Baht	Total Baht
Thai Baht US Dollar Euro Pound Yen Yuan	21,422,981,958 2,933,248,256 269,273,348 22,549 24,603,428 1,010	323,199,527 1,026,366,524 - - - -	21,746,181,485 3,959,614,780 269,273,348 22,549 24,603,428 1,010
Total deposits	24,650,130,549	1,349,566,051	25,999,696,600
		2020	
	Domestic Baht	Foreign Baht	Total Baht
Thai Baht US Dollar Euro Pound	14,731,978,281 2,463,030,843 105,080,581 20,320	193,185,758 577,822,349 -	14,925,164,039 3,040,853,192 105,080,581 20,320
Total deposits	17,300,110,025	771,008,107	18,071,118,132

16 Interbank and money market items (liabilities) 2021 2020 **Baht** Baht **Domestic items** 3,293,862,838 2,347,896,297 Other financial institutions Total domestic items 3,293,862,838 2,347,896,297 Foreign items Thai Baht 64,380,609 100,517,261 Total foreign items 64,380,609 100,517,261 3,358,243,447 2,448,413,558 Total interbank and money market items

17 Financial liabilities designated at fair value through pro	fit or loss	
	2021 Baht	2020 Baht
Bill of exchange	13,555,582,109	14,315,506,764
Total financial liabilities designated at fair value through profit or loss	13,555,582,109	14,315,506,764
Proportion of transactions being classified by type of counte	rparties	
	2021 Percentage	2020 Percentage
Third parties	100	100
Total proportion of transactions being classified by type of counterparties	100	100
18 Deferred income tax		
The analysis of deferred tax assets and liabilities is as follows:		
	2021 Baht	2020 Baht
Deferred tax assets: Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months		
Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months	2,451,010	18,021,029
Deferred tax asset to be recovered within 12 months	2,451,010 120,774,818	18,021,029 126,933,852
Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months Deferred tax liabilities: Deferred tax liabilities to be settled within 12 months	2,451,010 120,774,818 123,225,828	18,021,029 126,933,852 144,954,881 (71,388,023)
Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months Deferred tax liabilities: Deferred tax liabilities to be settled within 12 months	2,451,010 120,774,818 123,225,828 (23,073,848)	18,021,029 126,933,852 144,954,881 (71,388,023) (5,386,345)
Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months Deferred tax liabilities: Deferred tax liabilities to be settled within 12 months Deferred tax liability to be settled after more than 12 months	2,451,010 120,774,818 123,225,828 (23,073,848) (23,073,848) 100,151,980	18,021,029 126,933,852 144,954,881 (71,388,023) (5,386,345) (76,774,368)
Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months Deferred tax liabilities: Deferred tax liabilities to be settled within 12 months Deferred tax liability to be settled after more than 12 months Deferred tax assets (net)	2,451,010 120,774,818 123,225,828 (23,073,848) (23,073,848) 100,151,980	18,021,029 126,933,852 144,954,881 (71,388,023) (5,386,345) (76,774,368)
Deferred tax asset to be recovered within 12 months Deferred tax asset to be recovered after more than 12 months Deferred tax liabilities: Deferred tax liabilities to be settled within 12 months Deferred tax liability to be settled after more than 12 months Deferred tax assets (net)	2,451,010 120,774,818 123,225,828 (23,073,848) (23,073,848) 100,151,980 follows:	18,021,029 126,933,852 144,954,881 (71,388,023) (5,386,345) (76,774,368) 68,180,513

JPMorgan Chase Bank, N.A. - Bangkok Branch Notes to the Financial Statements For the year ended 31 December 2021

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	Provision for derivatives Baht	Others Baht	Total Baht
Deferred tax assets As at 1 January 2021 Charged debited (credited) to profit and loss Recognised in other comprehensive income	18,021,028 (15,570,020) -	35,808,985 (3,805,991) (8,446,762)	3,821,561 2,910,585	81,147,759 6,084,777	6,155,548 (2,901,642)	144,954,881 (13,282,291) (8,446,762)
As at 31 December 2021	2,451,008	23,556,232	6,732,146	87,232,536	3,253,906	123,225,828
Deferred tax assets As at 1 January 2020 Charged debited (credited) to profit and loss Recognised in other comprehensive income	6,039,970 11,981,058	28,886,643 6,922,342	3,603,988 217,573	132,692,498 (51,544,739)	2,590,795 3,564,753	173,813,894 (28,859,013)
As at 31 December 2020	18,021,028	35,808,985	3,821,561	81,147,759	6,155,548	144,954,881

JPMorgan Chase Bank, N.A. - Bangkok Branch Notes to the Financial Statements For the year ended 31 December 2021

	Unrealised gain (loss) on changes in fair value of investment measured at FVPL Baht	Unrealised gain (loss) on changes in fair value of investment measured at FVOCI Baht	Derivative assets for option purchased premium Baht	Other	Total Baht
Deferred tax liabilities As at 1 January 2021 Charged debited (credited) to profit and loss Recognised in other comprehensive income	11,425,310 (9,670,437) -	13,161,614 - (6,916,908)	46,801,098 (31,726,829)	5,386,346 (5,386,346)	76,774,368 (46,783,612) (6,916,908)
As at 31 December 2021	1,754,873	6,244,706	15,074,269	,	23,073,848
Deferred tax liabilities As at 1 January 2020 Charged debited (credited) to profit and loss Recognised in other comprehensive income	11,966,958 (541,648)	15,698,275 - (2,536,661)	18,845,818 27,955,280 -	5,386,346	46,511,051 32,799,978 (2,536,661)
As at 31 December 2020	11,425,310	13,161,614	46,801,098	5,386,346	76,774,368

19 Provision		
	2021 Baht	2020 Baht
Post-employment benefits obligation Other	117,781,160 1,573,008	179,044,925
Total provision for employee benefits plan	119,354,168	179,044,925

Post-employment benefits obligation

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 2021 and 2020, the post-employment benefits provided unfunded obligation as follows:

	2021 Baht	2020 Baht
Present value of obligations Provision for long service award	111,837,562 5,943,598	174,856,245 4,188,680
Total provision for employee benefits plan	117,781,160	179,044,925
Movements of provision for post-employment benefits are as foll	ows:	
	2021 Baht	2020 Baht
As at 1 January Current service costs Interest costs Remeasurements:	174,856,245 - -	140,615,411 32,019,114 2,221,720
Actuarial (gains) losses - Demographic assumptions - Financial assumptions - Experience gain	5,671,766 (80,616,528) 30,033,416	-
Less Reversal of provision for post-employment benefits As at 31 December	(18,107,337) 111,837,562	174,856,245

The reversal of provision for post-employment benefits came from an employee decide to early retire during this year. The Company already paid the early retirement benefit to the employee.

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

	2021 Baht	2020 Baht
Current service costs Interest costs		32,019,114 2,22 <u>1,720</u>
Total	<u> </u>	34,240,834

31

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

	2021	2020
Discount rate	1.83%	1.58%
Salary increase rate	6%	11%
Pre-retirement mortality rate	100% of Thai Mortality	100% of Thai Mortality
Tro remembers mercaning remains	Ordinary Table 2017	Ordinary Table 2017
Disability rate	5% of Thai Mortality	5% of Thai Mortality
Diodomity rate	Ordinary Table 2017	Ordinary Table 2017
Pre-retirement withdrawal rate		From 5 years historical data
Retirement age	60 years old	60 years old
Turnover rate	9%	10%

Sensitivity analysis on key assumptions changes are as follows:

	Increase (D	ecrease)
	2021 Baht	2020 Baht
Discount rate Increase 1% Decrease 1%	(10,495,460) 12,064,514	(19,950,225) 23,551,064
Salary rate Increase 1% Decrease 1%	11,918,543 (10,589,145)	23,741,128 (20,552,006)
Turnover rate Increase 5% Decrease 5%	(44,638,731) 21,443,594	(80,943,029) 58,721,824

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.

Maturity profile of post-employment benefits is as follows:

	2021	2020
Maturity duration of the post-employment benefits (Years)	20.02	17.54
Maturity analysis of benefits to be paid Less than 1 year (Baht) Between 1 - 2 years (Baht) Between 2 - 5 years (Baht)	2,091,020 263,374 6,786,326	2,435,459 12,281,216
Over 5 years (Baht)	736,010,469	1,828,538,523

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	2021 Baht	2020 Baht
Accrued interest payable Accrued bonuses Accrued FIDF charges Cash received in advance from forward contracts Income tax payable Withholding tax payable Others	4,057,541 85,236,951 37,188,334 12,762,332 819,725 1,493,325 75,719,649	3,397,783 64,472,109 31,175,257 79,960,070 39,714,264 1,288,619 53,875,356
Total other liabilities	217,277,857	273,883,458

21 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 2021, the Bank contributed Baht 20.4 million (31 December 2020: Baht 18.2 million).

22 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 Bank 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.

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 2021	3,452.76	114.95	6,477
Granted during the year	4,654.06	139.26	3,416
Exercised during the year	(3,515.72)	105.20	(3,605)
Transferred during the year	4,304.62	128.80	2,299
As at 31 December 2021	4,304.62	128.80	8,587
As at 1 January 2020	7,911.83	99.94	6,565
Granted during the year	4,126.50	137.38	2,259
Exercised during the year	(4,099.46)	136.48	(2,354)
Transferred during the year	3,452.76	114.95	7
As at 31 December 2020	3,452.76	114.95	6,477

For the year ended 31 December 2021, the total share based payment expense recognised during the year amounting to Baht 23.4 million (31 December 2020: Baht 8.2 million).

23 Capital funds		
	2021 Baht	2020 Baht
Assets maintained in accordance with Section 32	12,688,965,166	12,688,965,166
Total funds for maintaining assets in accordance with Section 32 and net balance of inter-office accounts	10 000 005 100	40 000 005 400
Funds for maintaining assets in accordance with Section 32 Net inter-office balance which branch is debtor of the head office, others branches and subsidiary	12,688,965,166 5,628,485,907	12,688,965,166 3,008,853,039
Total	18,317,451,073	15,697,818,205
Capital funds	12,688,965,166	12,688,965,166
Total capital funds to risk weighted assets ratio (%)	19.80	20.35

On 11 May 2020, the Bank received fund injection from JPMorgan Chase Bank, National Association totaling US Dollars 50,000,000 or equals to Baht 1,606,925,000. 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. On 14 May 2020, the Bank registered this fund as assets maintained in accordance with Section 32 amounting to Baht 1,606,925,000.

The Bank will disclose capital maintenance information as at 31 December 2021 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 2022.

Moreover, the Bank has disclosed information related to Liquidity Coverage Ratio as at 31 December 2021 under the Notification of Bank of Thailand, no. Sor Nor Sor 2/2561, as the above location and date of disclosure.

24 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 2021 amounted to Baht 5,925,529,201 (31 December 2020: Baht 6,179,971,307).

25 Commitments

As at 31 December 2021 and 2020, the Bank has the following commitments (excluding derivatives in Note 8) which were incurred in the normal course of business as follows:

	2021		
	Thai Baht Baht	Foreign currencies Baht	Total Baht
Unused overdraft credit line Unused credit facilities	110,000,000	- 1,355,194,000	110,000,000 1,355,194,000
Total commitments	110,000,000	1,355,194,000	1,465,194,000

	2020		
	Thai Baht Baht	Foreign currencies Baht	Total Baht
Unused overdraft credit line	90,000,000	-	90,000,000
Total commitments	90,000,000	-	90,000,000

26 Related party transactions

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.

The significant related party transactions are transacted with The Bank 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 Securities Plc Paris Branch
- J.P. Morgan Securities LLC

- · J.P. Morgan Securities Plc
- · JPMorgan Securities Japan Co., Ltd.
- · J.P. Morgan Europe Limited
- · J.P. Morgan Securities Australia Limited
- JPMorgan Securities (Malaysia) Sdn. Bhd.
- · J.P. Morgan AG Paris Branch
- J.P. Morgan AG London Branch

The significant related party transactions, outstanding balances as of 31 December 2021 and 2020 and income and expenses for the years then ended 31 December 2021 and 2020 consisted of the followings:

	2021 Million Baht	2020 Million Baht
Statements of financial position	Million Built	IIIIII Dani
Interbank and money market items, net (assets) J.P. Morgan, A.G. J.P. Morgan Chase Bank Berhad	218 1	133 1
Interbank and money market items (liabilities) J.P. Morgan Securities (Thailand) Ltd.	3,294	2,348
Provision for share based payment J.P. Morgan Chase & Co Net balance of inter-office accounts with Head Office	34	19
and other branches under the same entity JPMorgan Chase Bank, N.A. Other Branches	(5,721) 93	(3,061) 52
Off statement of financial position with Head office, Other branches and Fellow subsidiaries Commitments	663,613	559,343
Statements of profit or loss and other comprehensive income with Head office, Other branches and Fellow subsidiaries		
Interest expense Fees and service incomes Other operating income Employee expenses Fees and services expenses and other expenses	32 19 196 21 332	34 17 185 8 312

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.

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

27.1 Position classified by type of transaction

		2021			2020	
e e	Domestic Million Baht	Foreign Million Baht	Total Million Baht	Domestic Million Baht	Foreign Million Baht	Total Million Baht
Total assets	90,211		90,211	87,785	-	87,785
Interbank and money						
market items, net (assets)	16,351	te vyře s l	16,351	10,677	y -	10,677
Accounts receivable from				No PALADONANA		
securities trading	1,226		1,226	1,195	-	1,195
Financial assets measured at fair				577 5 95		
value through profit or loss	15,569		15,569	10,812	U ≡ ,	10,812
Investments, net	23,267	-	23,267	22,793	=	22,793
Loans to customers						
and accrued interest	4.500		4 500	894		894
receivables, net	1,503	1 8 .8	1,503			250 mm c 2 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
Deposits	26,000	-	26,000	18,071	S.=	18,071
Interbank and money	2.250		2 250	2 449		2,448
market items (liabilities)	3,358	-	3,358	2,448	.=	2,440
Accounts payable from	545		545	715		715
securities trading	545		545	713	1.5	715
Financial liabilities						
designated at fair value	13,556		13,556	14,316	:2:	14,316
through profit or loss	13,330	-	13,550	14,510		14,010

27.2 Performance classified by types of transaction

Total interest income

	2021				2020	
	Domestic Million Baht	Foreign Million Baht	Total Million Baht	Domestic Million Baht	Foreign Million Baht	Total Million Baht
Interest income Interest expense	479 (193)	-	479 (193)	588 (123)		588 (123)
Net interest income Net fee and service income Other operating incomes Other operating expenses	286 20 922 (846)		286 20 922 (846)	465 20 1,472 (850)	:	465 20 1,472 (850)
Profit before income tax	382	-	382	1,107	-	1,107

28 Interest income		
	2021	2020
	Baht	Baht
Interbank and money market items, net (assets)	68,537,537	88,216,389
Investment in debt securities	387,658,698	470,791,315
Loans to customers	22,891,836	29,168,255

479,088,071

588,175,959

29 Interest expense		
	2021 Baht	2020 Baht
Deposits Interbank and money market items (liabilities)	90,137,993 32,301,384	26,643,344 35,617,630
Contribution fee to the Deposit Protection Agency and Financial Institution Development Fund	70,722,594	60,353,716
Total interest expense	193,161,971	122,614,690
30 Fee and service income		
·	2021 Baht	2020 Baht
Money transfer and collection services Service fees from related companies (Note 26) Others	14,933,245 18,846,056 4,717,894	13,830,072 17,094,629 3,642,322
Total fee and service income	38,497,195	34,567,023
Revenue transactions classified by timing of revenue recognition 2021 and 2020 are as follows:	for the years ende	d 31 December
·	2021 Baht	2020 Baht
Timing of revenue recognition At a point in time Over time	38,497,195 -	34,567,023
Total fee and service income	38,497,195	34,567,023

31 Gains (losses) on financial instruments measured at fair value through profit or loss, net

Gains (losses) on financial instruments measured at fair value through profit or loss, net for the years ended 31 December 2021 and 2020 are as follows:

1. Gains (Losses) on financial instruments measured at fair value through profit or loss

	2021 Baht	2020 Baht
Gains on foreign currencies and foreign exchange rate derivatives Gains (Losses) on interest rate derivatives Gains (Losses) on debt securities Gains (Losses) on reverse repo Others	598,088,555 (443,096,709) (160,249,213) 194,994 (737,711,772)	852,850,031 544,351,266 155,451,905 (1,786,114) 444,725,312
Total gains (losses) on trading and foreign exchange transactions	(742,774,145)	1,995,592,400

Others

Total other expenses

2.	Gains (Losse	s) from financial liabilities designated at fair value through profit or lo	SS
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	2021 Baht	2020 Baht
Changes in fair value of bill of exchange Losses on redemption and interest expense paid	2,610,477,200 (1,142,413,291)	1,478,643,394 (2,187,577,996)
Total gains (losses) from financial liabilities designated at fair value through profit or loss	1,468,063,909	(708,934,602)
32 Other operating income		
	2021 Baht	2020 Baht
Revenue sharing from related parties (Note 26) Others	196,294,895 86,248	185,133,532 76,030
Total other operating income	196,381,143	185,209,562
Revenue transactions classified by timing of revenue recognition for and 2020 are as follows:	r the years ended 3	1 December 2021
	2021 Baht	2020 Baht
Timing of revenue recognition		
At a point in time Over time	22,100 187,047,696	22,320 176,666,900
Total fee and service income	187,069,796	176,689,220
33 Other expenses		
	2021 Baht	2020 Baht
Service fees to related companies (Note 26) Brokerage commissions Others	331,991,500 9,158,139 52,159,329	311,953,395 8,028,702 61,142,078

8,028,702 61,142,078

381,124,175

9,158,139 52,159,329

393,308,968

34 Reversal expected credit losses		
	2021 Baht	2020 Baht
Interbank and money market items Loans Investment in debt instrument measured at	(188,894) (3,822,547)	(188,894) 115,614
fair value through other comprehensive income Loan commitments and financial guarantees	1,573,008	-
Total	(2,438,433)	(73,280)
35 Income tax expense		
	2021 Baht	2020 Baht
Current income tax: Adjustments in respect of prior year Current income tax on profits for the year	4,626,745 99,070,717	- 166,425,282
Total current income tax	103,697,462	166,425,282
Deferred income tax: Adjustments in respect of prior year Origination and reversal of temporary differences (Note 18)	14,118,028 (33,501,321)	- 61,658,991
Total deferred income taxes	(19,383,293)	61,658,991
Total income tax expense	84,314,169	228,084,273
The income tax on profits before tax of the Bank differs from the theo the basic income tax rate of the home country of the Bank as follows:		would arise using
	2021 Baht	2020 Baht
Profit before tax	382,282,889	1,106,776,991
Tax calculated at a tax rate of 20% Adjustments in respect of prior year Tax effect of:	76,456,578 4,626,745	221,355,398
Expenses not deductible for tax purpose	3,230,846	6,728,875
Income tax charge	84,314,169	228,084,273

The weighted average applicable income tax rate was 22% (31 December 2020: 21%).

36 Financial instruments

36.1 Measurement basis of financial assets and liabilities

The accounting policies in Note 3 describe how different classes of financial instruments are measured, and how income and expenses, including fair value gains and losses, are recognised. The following table analyses the carrying amounts of the financial assets and liabilities by category and by statement of financial position heading.

	2021				
	At fair value through profit or loss Baht	At fair value through other comprehensive income Baht	Amortised cost Baht	Total Baht	
Financial assets					
Cash Interbank and money market items, net			2,756,547 16,350,501,556	2,756,547 16,350,501,556	
Account receivable from securities trading Financial assets measured at fair value through profit or loss	15,569,126,299	-	1,225,636,072	1,225,636,072 15,569,126,299	
Derivatives assets	32,114,384,884			32,114,384,884	
Investments, net		23,267,179,819		23,267,179,819	
Loans to customers and accrued interest receivables, net		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	1,502,531,537	1,502,531,537	
Total financial assets	47,683,511,183	23,267,179,819	19,081,425,712	90,032,116,714	
Financial liabilities					
Deposits			25,999,696,600	25,999,696,600	
Interbank and money market items, net			3,358,243,447	3,358,243,447	
Account payable from securities trading Liabilities payable on demand			545,073,897 45,045,668	545,073,897 45,045,668	
Financial liabilities measured at		-	45,045,006	45,045,008	
fair value through profit or loss	13,555,582,109			13,555,582,109	
Derivatives liabilities Lease liabilities	26,162,747,087		0.072.502	26,162,747,087	
9			9,973,503	9,973,503	
Total financial liabilities	39,718,329,196		29,958,033,115	69,676,362,311	
		202	20		
	At fair value	At fair value			
	through	through other comprehensive	Amortised		
	profit or loss	income	cost	Total	
	Baht	Baht	Baht	Baht	
Financial assets					
Cash	2	2	1,821,191	1,821,191	
Interbank and money market items, net Account receivable from securities trading Financial assets measured at fair value	•	-	10,677,280,552 1,195,134,855	10,677,280,552 1,195,134,855	
through profit or loss	10,811,520,350	-	=	10,811,520,350	
Derivatives assets	41,217,491,599	22 702 000 404	=	41,217,491,599	
Investments, net Loans to customers and accrued) -	22,792,896,161	-	22,792,896,161	
interest receivables, net		-	893,690,383	893,690,383	
Total financial assets	52,029,011,949	22,792,896,161	12,767,926,981	87,589,835,091	
Financial liabilities					
Deposits		-	18,071,118,132	18,071,118,132	
Interbank and money market items, net Account payable from securities trading		-	2,448,413,558 715,271,706	2,448,413,558 715,271,706	
Liabilities payable on demand	-	-	72,955,767	72,955,767	
Financial liabilities measured at			12 m = 10 10 10 10 10 10 10 10 10 10 10 10 10		
fair value through profit or loss	14,315,506,764	-	17.	14,315,506,764	
Derivatives liabilities Lease liabilities	34,439,609,471 -		14,508,212	34,439,609,471 14,508,212	
Total financial liabilities	48,755,116,235		21,322,267,375	70,077,383,610	
- Lord Midifold Habilities	+0,100,110,200		۱,322,201,313	10,011,303,010	

37 Offsetting of financial assets and liabilities

The following table presents the recognised financial instruments that are offset, or subject to enforceable master netting arrangements and other similar agreements but not offset. The column 'net amount' shows the impact on the Bank's statement of financial position if all set-off rights were exercised.

As at 31 December 2021, the Bank has no reverse repurchase agreement subject to master netting arrangements.

			20	20		
	Effects of off	setting on the fir	nancial position	Related am	ounts not offset	
	Gross amounts Baht	Gross amounts set off in the financial position Baht	Net amounts presented in the financial position Baht	Amount subject to master netting arrangements Baht	Financial instrument Collateral * Baht	Net amounts Baht
Financial assets Reverse repurchase agreement	8,196,297,054		8,196,297,054	35,210,410	(8,231,507,464)	
Total financial assets	8,196,297,054	_	8,196,297,054	35,210,410	(8,231,507,464)	

^{*} Amount of financial instrument collateral is presented less than or equal to offsetting amount of 'net amounts presented in the financial position' and 'amount subject to master netting arrangements'.

38 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.

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.

As at 31 December 2021 and 2020, concentrations of credit risk relative to the loans and receivables summarised by type of industry are as follows;

	2021	2020	
	Baht	Baht	
Manufacturing and commerce	860,675,135	903,606,585	
Utilities and services	657,829,098	9,936,088	
Total loans and receivables	1,518,504,233	913,542,673	

Expected credit loss measurement

The Bank applies general approach to measure expected credit losses on cash, interbank and money market, investments in debts, loans to and accrued interest receivables, and commitments. The Bank always accounts for expected credit losses which involves a three-stage expected credit loss impairment model. The stage dictates how the entity measures impairment losses and applies the effective interest rate method, except accounts receivable from securities trading applied simplified approach.

Under the three-stage expected credit loss impairment model, the impairment will be assessed by using collective approach model with forward looking information adjustment.

Credit risk exposure

Maximum exposure to credit risk

The maximum credit risk exposure of the Bank in the event of other parties failing to perform their obligation is detailed below. No account taken of any collateral held and the maximum exposure to loss is considered to be the statement of financial position carrying amount or, for non-derivative off-statement of financial position transaction and financial guarantee, their contractual nominal amounts. The exposure to credit risk of the Bank equals their carrying amount in the statement of financial position as at reporting date, except for the followings:

	2021	2020
	Maximum	Maximum
	exposure	exposure
	Baht	Baht
Credit risk exposures of		
on-statement of financial position assets:		
Financial assets measured at fair value		
through profit or loss	15,288,315,000	10,557,331,000
Investment in debt securities	23,270,000,000	22,770,000,000
	38,558,315,000	33,327,331,000

Collateral

The Bank employs a range of policies and practices to mitigate credit risk. The Bank has internal policies on the acceptability of specific classes of collateral or credit risk mitigation.

Reverse repo is generally secured; term loan financing and lending to corporate entities are generally unsecured.

The Bank prepares a valuation of the collateral obtained as part of the origination process. This assessment is reviewed periodically. The collateral type accepted and given value by the Bank is charges over financial instruments such as marketable securities.

		31 December 2021						
	Gross carrying amount Baht	Expected credit losses Baht	Net carrying amount Baht	Fair value of collateral held Baht				
Reverse repo	7,019,834,215	_	7,019,834,215	7,083,783,669				
Total	7,019,834,215		7,019,834,215	7,083,783,669				
		31 Decem	ber 2020					
	Gross carrying amount Baht	Expected credit losses Baht	Net carrying amount Baht	Fair value of collateral held Baht				
Reverse repo	8,196,297,054	-	8,196,297,054	8,399,335,611				
Total	8,196,297,054	_	8,196,297,054	8,399,335,611				

Total loans to customers - credit quality

All loans to customers are categorised into 'neither past due nor impaired', 'past due but not impaired' and 'impaired'.

Past due loans financing refer to loans, advances and financing that are overdue by one day or more. Loans to customers are classified impaired when they fulfil any of the following criteria:

- i) the principal or interest both is past due more than 90 days or 3 months from the first day of default;
- where the account is in arrears for less than 90 days or 3 months, there is evidence
 of impairment to indicate that the borrower customer is 'unlikely to repay' its credit
 obligations; or
- iii) the loans to customers is classified as rescheduled and restructured

Distribution of loans, advances and financing by credit quality

	31 December 2021						
	12-month ECL	not credit-	Lifetime ECL credit-	Total			
	Baht	impaired Baht	impaired Baht	Total Baht			
Neither past due nor impaired Past due but not impaired	1,518,535,292	•	•	1,518,535,292			
Impaired			-				
Gross carrying amount Less Allowance for expected	1,518,535,292		•	1,518,535,292			
credit loss	(16,003,755)			(16,003,755)			
Net carrying amount	1,502,531,537	•	•	1,502,531,537			

	31 December 2020					
	12-month ECL Baht	Lifetime ECL not credit- impaired Baht	Lifetime ECL credit- impaired Baht	Total Baht		
Neither past due nor impaired	913,575,544	-	•	913,575,544		
Past due but not impaired Impaired	-	-	-	-		
Gross carrying amount Less Allowance for expected	913,575,544	-	-	913,575,544		
credit loss	(19,885,161)	-	_	(19,885,161)		
Net carrying amount	893,690,383		-	893,690,383		

The table below presents credit quality of Interbank asset items, financial assets measured at fair value through profit or loss, investments, and derivatives that neither past due nor impaired, past due but not impaired and impaired, analysed by rating:

	31 December 2021				
	L	ifetime ECL	Lifetime		
			ECL credit-	200 12 12	
	12-month ECL	impaired	impaired	Total	
	Baht	Baht	Baht	Baht	
Interbank asset items					
Sovereigns	8,739,444,437			8,739,444,437	
AAA	198,539,451	-	-	198,539,451	
AA- to AA+	455,988	-	-	455,988	
A- to A+	7,412,628,362			7,412,628,362	
Lower than A-	-		-	-	
Unrated	/FCC COO\	-	-	(566,682)	
Less: Expected credit losses	(566,682)				
	16,350,501,556	-	<u> </u>	16,350,501,556	
Financial assets measured at fair value through profit or loss					
Sovereigns	15,569,126,299			15,569,126,299	
AAA	-	-	-		
AA- to AA+		•			
A- to A+		-	-		
Lower than A-	-	-	_		
Unrated				-	
	15,569,126,299	-		15,569,126,299	
Investment in debt securities					
Sovereigns	23,267,179,819			23,267,179,819	
AAA					
AA- to AA+					
A- to A+				•	
Lower than A-					
Unrated			<u> </u>		
	23,267,179,819	-	_	23,267,179,819	
Derivative assets					
Sovereigns	54,256,008	-		54,256,008	
AAA	187,574,545			187,574,545	
AA- to AA+	11,601,742,591			11,601,742,591	
A- to A+	6,265,555,439			6,265,555,439	
Lower than A-	12,495,999,552		<u> </u>	12,495,999,552	
Unrated	1,509,256,749		<u>.</u>	1,509,256,749	
	32,114,384,884			32,114,384,884	

	31 December 2020				
		Lifetime ECL	Lifetime		
			ECL credit-		
	12-month ECL	impaired	impaired	Total	
	Baht	Baht	Baht	Baht	
	Dant	Dant	Dant	Dane	
Interhant accet items					
Interbank asset items	2 655 260 100			2,655,369,100	
Sovereigns	2,655,369,100	-	-	2,000,000,100	
AAA AA- to AA+	143,495,256	-	-	143,495,256	
A- to A+	2,604,579	_	-	2,604,579	
	7,876,567,193	-	_	7,876,567,193	
Lower than A-	1,010,001,193	-	·-	7,070,007,100	
Unrated	(755 576)	-	-	(755,576)	
Less: Expected credit losses	(755,576)			(133,310)	
	10 677 280 552		_	10,677,280,552	
	10,677,280,552			10,077,200,332	
Financial assets measured at fair value through profit or loss			8		
Sovereigns	10,211,002,813	=	-	10,211,002,813	
AAA	J=	-	-	Y4	
AA- to AA+	-	-	-	¥.	
A- to A+	600,517,537	=	-	600,517,537	
Lower than A-	-	-	-	-	
Unrated			-		
	40.044.500.050			10 011 520 250	
	10,811,520,350			10,811,520,350	
luccosture and in elaborate and unities					
Investment in debt securities	22 702 906 464			22,792,896,161	
Sovereigns AAA	22,792,896,161	-	_	22,792,090,101	
	-	-	_		
AA- to AA+ A- to A+	-	-	_	-	
Lower than A-	-	_	_	_	
Unrated	_	_	_	-	
Unialed					
	22,792,896,161	_	-	22,792,896,161	
				 	
Derivative assets					
Sovereigns	290,485,982	-	=	290,485,982	
AAA	202,597,569	-	-	202,597,569	
AA- to AA+	14,573,689,038	17 <u>-</u>	-	14,573,689,038	
A- to A+	11,744,751,825	-	_	11,744,751,825	
Lower than A-	10,109,431,330	=	-	10,109,431,330	
Unrated	4,296,535,855	-	-	4,296,535,855	
	41,217,491,599		-	41,217,491,599	

Other financial assets - credit quality

Other financial assets of the Bank are neither past due nor impaired, past due but not impaired and impaired are summarised as below:

	31 December 2021					
	12-month ECL Baht	Lifetime ECL not credit- impaired Baht		Total Baht		
Accounts receivable from securities trading	1,225,636,072		<u>-</u>	1,225,636,072		
Total	1,225,636,072	-	-	1,225,636,072		
		31 Decem	ber 2020			
	12-month ECL Baht	Lifetime ECL not credit- impaired Baht	Lifetime ECL credit- impaired Baht	Total Baht		
Accounts receivable from securities trading	1,195,134,855			1,195,134,855		
Total	1,195,134,855	-		1,195,134,855		

(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 2021 and 2020, financial assets and liabilities classified by type of interest rate were as follows:

	2021						
Descriptions	Floating interest rate Million Baht	Fixed interest rate Million Baht	Non-interest bearing Million Baht	Total Million Baht			
200							
Financial assets			3	3			
Cash Interbank and money market items, net	38	7,209	9,104	16,351			
Accounts receivable from securities trading	-	7,203	1,226	1,226			
Financial assets measured at fair value			.,,	.,			
through profit or loss		15,569		15,569			
Investments, net		23,267		23,267			
Loan to customers and accrued interest							
receivables from deferred revenue	650	869	<u> </u>	1,519			
Total financial assets	688	46,914	10,333	57,935			
Financial liabilities			4.004	00.000			
Deposits	-	24,639	1,361	26,000			
Interbank and money market items	1,994	1,300	64 545	3,358 545			
Accounts payable from securities trading Demand liabilities	-		45	45			
Lease liabilities	<u> </u>	10		10			
Total financial liabilities	1,994	25,949	2,015	29,958			
	2020						
	Floating	Fixed	Non-interest				
	interest rate	interest rate	bearing	Total			
Descriptions	Million Baht	Million Baht	Million Baht	Million Baht			
Financial assets							
Cash	-	5 0.	. 2	2			
Interbank and money market items, net	34	9,806	837	10,677			
Accounts receivable from securities trading		=20	1,195	1,195			
Financial assets measured at fair value		12.21.1		10.010			
through profit or loss	601	10,211	=	10,812			
Investments, net	•	22,793	. .	22,793			
Loan to customers and accrued interest receivables from deferred revenue	306	608	-	914			
Total financial assets	941	43,418	2.034	46,393			
Total ilitaticial assets	V41	10,110	2,001				
Financial liabilities		47.457	64.4	40.074			
Deposits	4.040	17,457	614 100	18,071 2,448			
Interbank and money market items	1,048	1,300	715	715			
Accounts payable from securities trading Demand liabilities	• =	•	73	73			
Lease liabilities		15	-	15			
Total forencial liabilities	1,048	18,772	1,502	21,322			
Total financial liabilities	1,048	10,772	1,502	21,022			

				2	021			
		Re	pricing or i					
Transactions	At call Million Baht	0 - 3 months Million Baht	3 - 12 months Million Baht	1 - 5 years Million Baht	Over 5 years Million Baht	Non- Performing Ioans Million Baht	Non- interest bearing Million Baht	Total Million Baht
Financial assets								
Cash Interbank and money market items, net	38	7,209	-				9,104	3 16,351
Accounts receivable from securities trading	00	7,200				12	1,226	1,226
Financial assets measured at fair value	658				4.040		1,220	0.800-20070
through profit or loss Investments, net		4,222 17,996	5,801 4,751	4,534 520	1,012		1	15,569 23,267
Loans to customers and accrued interest receivables net from deferred revenue	172	565	782			-	-	1,519
Total financial assets	210	29,992	11,334	5,054	1,012		10,333	57,935
Financial liabilities								
Deposits	24,639	4 000	-	_ <u></u> -	453		1,361	26,000
Interbank and money market items Accounts payable from securities	1,994	1,300	•, •	•	-		64	3,358
trading Demand liabilities	3	-					545 45	545 45
Lease liabilities	-			5	5			10
Total financial liabilities	26,633	1,300	≔ (= 1) =	5	5	-	2,015	29,958
-				20	020			
-	Repricing or maturity date							
						Non-	Non-	
Transactions	At call Million Baht	0 - 3 months Million Baht	3 - 12 months Million Baht	1 - 5 years Million Baht	Over 5 years Million Baht	Non- Performing Ioans Million Baht	Non- interest bearing Million Baht	Total Million Baht
Financial assets	Million	months Million	months Million	years Million	years Million	Performing Ioans Million	interest bearing Million Baht	Million Baht
Financial assets Cash Interbank and money market items, net	Million	months Million	months Million	years Million	years Million	Performing Ioans Million	interest bearing Million	Million
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading	Million Baht	months Million Baht	months Million	years Million	years Million	Performing Ioans Million	interest bearing Million Baht	Million Baht
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss	Million Baht	months Million Baht 9,806	months Million Baht	years Million	years Million Baht	Performing Ioans Million	interest bearing Million Baht	Million Baht 2 10,677 1,195 10,812
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest	Million Baht	months Million Baht 9,806	months Million Baht	years Million Baht	years Million Baht	Performing Ioans Million	interest bearing Million Baht	2 10,677 1,195 10,812 22,793
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest receivables net from deferred revenue	Million Baht	9,806 636 5,239	months Million Baht 	years Million Baht	years Million Baht	Performing Ioans Million	interest bearing Million Baht	2 10,677 1,195 10,812 22,793 914
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest	Million Baht	months Million Baht 9,806	months Million Baht	years Million Baht	years Million Baht	Performing Ioans Million	interest bearing Million Baht	2 10,677 1,195 10,812 22,793
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest receivables net from deferred revenue Total financial assets Financial liabilities Deposits Interbank and money market items	Million Baht	9,806 636 5,239	months Million Baht 	years Million Baht	years Million Baht	Performing Ioans Million	interest bearing Million Baht	2 10,677 1,195 10,812 22,793 914
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest receivables net from deferred revenue Total financial assets Financial liabilities Deposits Interbank and money market items Accounts payable from securities trading	Million Baht	9,806 636 5,239 473	months Million Baht 	years Million Baht	years Million Baht	Performing Ioans Million	interest bearing Million Baht 2 837 1,195 - - 2,034 614 100 715	2 10,677 1,195 10,812 22,793 914 46,393 18,071 2,448 715
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest receivables net from deferred revenue Total financial assets Financial liabilities Deposits Interbank and money market items Accounts payable from securities	Million Baht	9,806 636 5,239 473	months Million Baht 	years Million Baht	years Million Baht	Performing Ioans Million	interest bearing Million Baht 2 837 1,195 - - 2,034	2 10,677 1,195 10,812 22,793 914 46,393 18,071 2,448
Financial assets Cash Interbank and money market items, net Accounts receivable from securities trading Financial assets measured at fair value through profit or loss Investments, net Loans to customers and accrued interest receivables net from deferred revenue Total financial assets Financial liabilities Deposits Interbank and money market items Accounts payable from securities trading Demand liabilities	Million Baht	9,806 636 5,239 473	3,110 17,013 20,258	years Million Baht	years Million Baht	Performing loans Million Baht	interest bearing Million Baht 2 837 1,195 - - 2,034 614 100 715 73	2 10,677 1,195 10,812 22,793 914 46,393 18,071 2,448 715 73

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 year, and the average interest rate for the years ended 31 December 2021 and 2020, can be summarised as follows:

		2021			2020	
		Interest			Interest	
	Average balances Million Baht	and dividend Million Baht	Average rate (%)	Average balances Million Baht	and dividend Million Baht	Average rate (%)
Performing financial assets						
Interbank and money market items, net	13,519	69	0.51	12,508	88	0.70
Investments, net Loans to customers and accrued	36,601	388	1.06	34,441	471	1.37
interest receivables	1,097	23	2.10	1,394	29	2.08
Total	51,217	480		48,343	588	
Performing financial liabilities						
Deposits	21,378	90	0.42	18,627	27	0.14
Interbank and money market items	2,910	32	1.10	3,056	36	1.18
Total	24,288	122		21,683	63	

(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 2021 and 2020 as follow:

			2021		
		US	Japanese		
	Baht	Dollar	Yen	Others	Total
	Million	Million	Million	Million	Million
	Baht	Baht	Baht	Baht	Baht
Cash	3				3
Interbank and money market items, net	16,121	-	-	230	16,351
Accounts receivable from securities trading	1,226	-			1,226
Financial assets measured at fair value					
through profit or loss	15,569	-		-	15,569
Financial derivative assets	8,762	22,419	307	626	32,114
Investments, net	23,267	-			23,267
Loans to customers and accrued interest					
receivables net from deferred revenue	1,519				1,519
Total assets	66,467	22,419	307	856	90,049
Deposits	21,746	3,960	25	269	26,000
Interbank and money market items	3,303	55		•	3,358
Accounts payable from securities trading	545	-		•	545
Demand liabilities	45	1			45
Financial liabilities designated					
at fair value through profit or loss	13,556				13,556
Financial derivative liabilities	11,235	9,292	3,844	1,792	26,163
Lease liabilities	10				10
Total liabilities	50,440	13,307	3,869	2,061	69,677
Net foreign currency position in the					
statement of financial position	16,027	9,112	(3,562)	(1,205)	20,372

			2020		
		US	Japanese		
	Baht Million Baht	Dollar Million Baht	Yen Million Baht	Others Million Baht	Total Million Baht
Cash	2	:=:	* :	-	2
Interbank and money market items, net	10,532		-	145	10,677
Accounts receivable from securities trading	1,195	-	-	=	1,195
Financial assets measured at fair value					
through profit or loss	10,211	601	-	-	10,812
Financial derivative assets	20,444	16,088	1,335	3,350	41,217
Investments, net	22,793	-	● 2	=	22,793
Loans to customers and accrued interest					
receivables net from deferred revenue	914	•	-	-	914
Total assets	66,091	16,689	1,335	3,495	87,610
Deposits	14,925	3,041	-	105	18,071
Interbank and money market items	2,439	9	= 0	₩0	2,448
Accounts payable from securities trading	715	===	-	=01	715
Demand liabilities	73	-	E 0	-0	73
Financial liabilities designated					
at fair value through profit or loss	14,316	50	-	-	14,316
Financial derivative liabilities	6,663	25,645	1,691	441	34,440
Lease liabilities	15	-			15
Total liabilities	39,146	28,695	1,691	546	70,078
Net foreign currency position in the					
statement of financial position	26,945	(12,006)	(356)	2,949	17,532

Value-at-risk (VaR)

The Bank utilises VaR, a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment. The Bank has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

The VaR framework is employed across the Bank using historical simulation based on data for the previous 12 months. Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 99% confidence level. The VaR of the Bank as at 31 December 2021, based on one-day time horizon at 99% confidence level, is Baht 25.56 million (2020: 45.54 million).

(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.

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 2021 and 2020.

	2021						
	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
		Dant	Dant	Dant	Dant	Dant	Baht
Cash	3	-	-	-	- T-	· -	3
Interbank and money							
market items, net Accounts receivable	9,142	7,209	-1-	*			16,351
from securities trading		4 000					
Financial assets measured at fair value through	-	1,226	-				1,226
profit or loss	_	4,222	5,801	4,534	1,012	-	15,569
Financial derivative Assets	-	5,158	5,072	11,341	10,543	-	32,114
Investments, net		17,996	4,751	520	-		23,267
Loans to customers and accrued interest receivables net from							
deferred revenue	172	565	782				1,519
Total assets	9,317	36,376	16,406	16,395	11,555		90,049
Deposits	26,000	_					26,000
Interbank and money market items	2,058	1,300					3,358
Accounts payable							0,000
from securities trading	-	545					545
Demand liabilities	45	-	-	-			45
Financial liabilities designated at fair value							
through profit or loss	-	1,108	1,718	1,553	9,177		13,556
Financial derivative liabilities	2. •	3,430	4,307	11,866	6,560		26,163
Lease liabilities			5	5			10
Total liabilities	28,103	6,383	6,030	13,424	15,737		69,677
Liquidity, net	(18,786)	29,993	10,376	2,971	(4,182)	•	20,372

	2020						
	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	2	<u>=</u>	.500				2
Interbank and money	2	-	5.		3. 	2B	2
market items, net	871	9.806					10 677
Accounts receivable	0/1	3,000	3.=	, <u>-</u> ,	-	-	10,677
from securities trading		1,195					4.405
Financial assets measured at	•	1,195	-	-	-	-	1,195
fair value through							
profit or loss		000	2.440	F 700	4.070		10.010
Financial derivative Assets	20-	636	3,110	5,796	1,270	-	10,812
Investments, net		5,559	3,343	15,952	16,363	-	41,217
Loans to customers and	×-	5,239	17,013	•	541	-	22,793
accrued interest receivables net from							
deferred revenue	306	473	135			<u>_</u>	914
		170	100				314
Total assets	1,179	22,908	23,611	21,748	18,174	-	87,610
Deposits	18,071	-	-	-	_	_	18,071
Interbank and money market items	1,148	1,300	-	=	_	7/2	2,448
Accounts payable							
from securities trading	-	715	-	-	-	-	715
Demand liabilities	73	= 2	-	_	-		73
Financial liabilities designated at fair value							12.150
through profit or loss	<u>~</u>	307	980	3,291	9,738	_	14,316
Financial derivative liabilities	-	4,717	3,928	14,875	10,920	-	34,440
Lease liabilities				15		-	15
Total liabilities	19,292	7,039	4,908	18,181	20,658	~	70,078
Liquidity, net	(18,113)	15,869	18,693	3,567	(2,484)		17,532

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.

39 Management benefits		
	2021 Baht	2020 Baht
Short-term employee benefits Post-employment benefits Share based payment	131,099,175 7,239,590 12,760,161	107,975,297 13,655,743 9,014,583
Total	151,098,926	130,645,623

40 Long-term lease commitment

As at 31 December 2021 and 2020, the Bank has payment obligations of service agreement and short-term leases as follows:

	2021 Baht	2020 Baht
Due within 1 year Due more than 1 years but no later than 5 years	4,532,291 4,060,952	2,251,600 1,089,938
Due more than 5 years	666,820	
Total	9,260,063	3,341,538

41 Fair value

41.1 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).

			202	1		
			Fair va	Fair value		
	Book value Million Baht	Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	Total Million Baht	
Assets						
Financial derivatives Assets Financial assets measured at fair value through	32,114		32,114		32,114	
profit or loss	15,569		15,569		15,569	
Investment, net	23,267		23,267	-	23,267	
Total assets	70,950	<u> </u>	70,950		70,950	
Liabilities Financial liabilities designated at fair value						
through profit or loss	13,556			13,556	13,556	
Financial derivatives liabilities	26,163	•	26,163		26,163	
Total liabilities	39,719		26,163	13,556	39,719	

			202	:0		
			Fair v	Fair value		
	Book value Million Baht	Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	Total Million Baht	
Assets						
Financial derivatives Assets	41,217	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	41,217		41 217	
Financial assets measured at fair value through	1.08.77.10		71,211		41,217	
profit or loss	10,812	:=:	10,812	20	10,812	
Investment, net	22,793	-	22,793	ä	22,793	
Total assets	74,822	-	74,822	=	74,822	
Liabilities Financial liabilities designated at fair value						
through profit or loss	14,316	<u>~</u>	-	14,316	14,316	
Financial derivatives liabilities	34,440		34,440	- 1,010	34,440	
Total liabilities	48,756		34,440	14,316	48,756	

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

41.2 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

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 financial assets measured at fair value through profit or loss and other comprehensive income 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.

Reverse repurchase agreement

Fair value of reverse repurchase agreement measured at fair value through profit or loss is calculated using the discounted cash flow by reference to the risk-free yield curve adjusted by an appropriate risk premium.

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

	Financial liabilities designated at fair value		
	2021 Million Baht	2020 Million Baht	
As at 1 January Total unrealised gains recognised in profit and loss Settlement and redemption	14,316 (561) (199)	20,309 (1,436) (4,557)	
As at 31 December	13,556	14,316	

The ranges of unobservable inputs for interest rate correlation are (30%) - 50% (31 December 2020: (30%) - 50%).

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

41.4 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.

41.5 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 2021 and 2020 are as follows:

			2004				
	2021 Fair value						
	Book value Million Baht	Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	Total Million Baht		
Assets	- Willion Danc	Willion Danc	Willion Dant	Willion Bant	Willion Bant		
Cash Interbank and money	3	3		-	3		
market items, net Accounts receivable from	16,351	9,142	7,209		16,351		
securities trading Loans to customers and	1,226		1,226		1,226		
accrued interest receivables, net	1,503	-	1,503	<u>-</u>	1,503		
Total assets	19,083	9,145	9,938		19,083		
Liabilities							
Deposits Interbank and money market items	26,000	2.059	26,000		26,000		
Accounts payable from	3,358	2,058	1,300		3,358		
securities trading	545		545		545		
Liability payable on demand	45		45		45		
Total liabilities	29,948	2,058	27,890		29,948		
	2020						
			Fair val				
	Book value Million Baht	Level 1 Million Baht	Level 2 Million Baht	Level 3 Million Baht	Total Million Baht		
Assets							
Cash Interbank and money	2	2	=	造	2		
market items, net	10,677	872	9,805		10,677		
Accounts receivable from securities trading	1,195	1,195	2	-	1,195		
Loans to customers and accrued interest receivables, net	894		894	•	894		
Total assets	12,768	2,069	10,699		12,768		
Liabilities							
Deposits	18.071	2	18,071	_	18,071		
Interbank and money market items Accounts payable from	2,448	1,148	1,300	-	2,448		
securities trading	715	715		-	715		
Liability payable on demand	73	73		<u>-</u>	73		
Total liabilities	21,307	1,936	19,371	-	21,307		

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 expected credit loss. 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.