



RHB Bank Thailand Operations

Basel III Pillar 3 Disclosures

31st December 2022

Statement by Chief Executive Officer, RHB Bank Thailand Operations

In accordance with the requirements set forth in the Notification of the Bank of Thailand No. SorNorSor 4/2556 Re: Disclosure of Information on Capital Fund Maintenance for Commercial Banks, dated 2nd May 2013, SorNorSor. 14/2562 Re: Capital Disclosure Requirements for Commercial Banks (No.2), dated 7th May 2019, and SorNorSor 2/2561 Re: Liquidity Coverage Ratio Disclosure Standard, dated 25th January 2018. On behalf of the Management of RHB Bank Thailand Operations, I am pleased to provide an attestation that the Pillar 3 disclosures of RHB Bank Thailand Operations for the year ended 31st December 2022 are accurate and complete.

Piyanat Aranyakasemsuke
Chief Executive Officer
RHB Bank, Thailand Operations

RHB Bank Thailand Operations Basel III Pillar 3 Disclosures

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1.0 Disclosure A: Scope of Application

The Basel III Pillar 3 Disclosures contained in this document relate to RHB Bank Thailand Operations for the year ended 31st December 2022 and is the annual disclosure prepared in compliance with the requirements set forth in Bank of Thailand's Notification No. SorNorSor 4/2556 Re: Disclosure of Information on Capital Fund Maintenance for Commercial Banks, dated 2nd May 2013, SorNorSor. 14/2562 Re: Capital Disclosure Requirements for Commercial Banks (No.2), dated 7th May 2019, and No.SorNorSor 2/2561 Re: Liquidity Coverage Ratio Disclosure Standard, dated 25th January 2018. This report also includes comparative quantitative information of the preceding year 2021.

RHB Bank Berhad ('the Bank') has a network of two branches in Thailand. RHB Bank Thailand Operations is a branch office of the Bank and is part of RHB Banking Group with its Head Office in Malaysia. In operating the business, RHB Bank Thailand Operations is guided by the Group Policies, Bank Negara Malaysia's Guidelines and Bank of Thailand's Guidelines, whichever is more stringent.

The quantitative disclosure herein relates to RHB Bank Thailand Operations only whereas the general qualitative disclosure under Section 3.0: Disclosure C contains the Group's Risk Management Framework, Policies and Guidelines, which are also applicable to RHB Bank Thailand Operations.

Other details pertaining to the RHB Banking Group are available under the Corporate Profile: Investor Relations of the Bank's official website at www.rhbgroup.com.

Disclosure AA

Table 1.1: Key prudential metrics

Unit: THB

No.	Items	31-Dec-2022	31-Dec-2021
Available capital (THB)			
1.	Common equity tier 1 (CET)	-	-
1a	Fully loaded ECL CET1	-	-
2	Tier 1	-	-
2a	Fully loaded ECL tier 1	-	-
3	Total capital	2,290,000,000	2,100,000,000
3a	Fully loaded ECL total capital	2,290,000,000	2,100,000,000
Risk-weighted assets			
4	Total risk-weighted assets (RWA)	15,677,452,921	14,554,517,708
Risk-based capital ratios as a percentage of RWA			
5	CET1 ratio	-	-
5a	Fully loaded ECL CET1 ratio	-	-
6	Tier 1 ratio	-	-
6a	Fully loaded ECL Tier 1 ratio	-	-
7	Total capital ratio (%)	14.61	14.43
7a	Fully loaded ECL total capital ratio (%)	14.61	14.43
Capital buffer ratios as a percentage of RWA			
8	Conservation buffer ratio (%)	2.5	2.5
9	Countercyclical buffer ratio (%)	-	-
10	Higher loss absorbency ratio (%)	-	-
11	Total capital buffer ratio (%)	2.5	2.5
12	Total capital ratio after deduct Total capital buffer (%)	12.11	11.93
Liquidity Coverage Ratio (LCR) ⁽²⁾			
13	Total HQLA (THB)	9,418,766,553	7,753,849,222

14	Total net cash outflows (THB)	8,167,313,401	6,694,186,558
15	LCR (%)	115	116

Remarks:

- (1) There is no significant change to risk indicators as well as key risk drivers
- (2) For the detailed disclosure of LCR data, please refer to Section 5.0 Disclosure E

2.0 Disclosure B: Capital

2.1 Capital Structure

2.1.1 Qualitative Disclosure

Total capital of RHB Bank Thailand Operations consists of assets maintained under Section 32 of the Financial Institutions Businesses Act B.E. 2551, as set forth by the Bank of Thailand Notification's No. SorNorSor. 8/2562 Re: Capital Components for Foreign Bank Branches, dated 7th May 2019.

As at 31st December 2022, total regulatory capital of RHB Bank Thailand Operations was THB 2,290 million.

Total assets maintained under Section 32 amounted to THB 2,290 million, and comprised two primary components, i.e. Treasury Bills and Central Bank bonds. Treasury Bills are short-term discounted government debt securities backed by the Thailand Government, whereas Central Bank bonds are short-term debt securities issued by the Bank of Thailand (BOT).

2.1.2 Quantitative Disclosure

Table 1: Capital of RHB Bank Thailand Operations

Unit: THB

No.	Items	31-Dec-2022	31-Dec-2021
1.	Assets Required to be Maintained under Section 32 of the Financial Institutions Businesses Act B.E. 2551	2,290,000,000	2,100,000,000
2.	Sum of Net Capital for Maintenance of Assets under Section 32 and Net Balance of Inter-office Accounts	2,290,000,000	2,100,000,000
2.1	Capital for Maintenance of Assets under Section 32	2,290,000,000	2,100,000,000
2.2	Net Balance of Inter-office Accounts which the branch is the Debtor (the Creditor) to the Head Office and Other Branches Located in Other Countries, the Parent Company and Subsidiaries of the Head Office	-	-
3.	Total Regulatory Capital	2,290,000,000	2,100,000,000
3.1	Total Regulatory Capital Before Deduction	2,290,000,000	2,100,000,000
3.2	Deductions	-	-

Note: There is no amount to be included in or deducted from capital under Basel III as required under disclosure of capital information during the transitional period under Basel III.

2.2 Capital Adequacy

2.2.1 Qualitative Disclosure

RHB Bank Thailand Operations calculates and reports its capital adequacy ratio for regulatory reporting purposes to Bank of Thailand on a monthly basis. In view of its small portfolio compared relatively to that of the overall portfolio of the Bank, RHB Bank Thailand Operations has adopted the Standardised Approach ('SA') for the calculation of its credit and market risks, and the Basic Indicator Approach ('BIA') for its operational risk.

Under the Bank of Thailand's Notification No. SorNorSor.12/2555 Re: Regulations on Capital Supervision for Commercial Banks, dated 8th November 2012, and as a foreign commercial bank branch, RHB Bank Thailand Operations is required to maintain a minimum capital adequacy ratio of 8.5%. A foreign commercial bank's branch shall also maintain the capital conservation buffer ratio in addition to its minimum regulatory total capital ratio. As such, commercial banks shall gradually increase their capital ratio at least 0.625% a year starting from 1 January 2016 until the capital buffer ratio of at least 2.5% is reached on 1 January 2019. Therefore, with effect from 1 January 2019 when calculating the sum of minimum capital ratio and conservation buffer ratio, commercial banks must maintain the ratio of total capital to total risk-weighted assets of 11.0%

As of 31 December 2022, the Bank's capital adequacy ratios were higher than the BOT's minimum capital ratios and capital buffer requirement.

2.2.2 Quantitative Disclosures

Minimum Capital Requirement for Credit Risk Classified By Type of Assets Under Standardised Approach

RHB Bank Thailand Operations subscribes to the Bank of Thailand's Notification No. SorNorSor. 9/2562 Re: Regulations on the Calculation of Credit Risk-Weighted Assets for Commercial Banks Using the Standardised Approach ('SA') for classification of its assets into the various asset categories for capital adequacy purposes.

External ratings provided by eligible external credit assessment institutions ('ECAIs') are applied to assign risk weights to calculate the risk-weighted asset of the exposures. These ECAIs are Moody's, Standard & Poor's, Fitch, Fitch Thailand and TRIS. Exposures which are not rated by any of the eligible ECAIs are considered 'unrated exposures' and the appropriate risk weight for unrated exposures is assigned.

As at 31st December 2022, the total credit risk-weighted assets amounted to THB 14,980 million and credit risk capital requirement was THB 1,273.3 million. [The increase in minimum capital requirement for Credit Risk from THB 1,186 million to THB 1,273 million was largely due to the increase in corporate loan & advances.](#)

Table 2: Minimum Capital Requirement for Credit Risk Classified by Type of Assets under Standardised Approach

Unit: THB

		31-Dec-2022	31-Dec-2021
Performing Assets			
1.	Claims on sovereigns and central banks, multilateral development banks ('MDBs'), and non-central government public sector entities ('PSEs') treated as claims on sovereigns	-	-
2.	Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	50,380,144	25,258,155
3.	Claims on corporates, and PSEs treated as claims on corporates	1,158,481,005	1,100,120,016
4.	Claims on retail portfolios	2,267,154	2,558,988
5.	Claims on housing loans	-	-
6.	Other assets	15,043,603	21,544,472
Non-performing Claims		47,103,125	37,345,474
First-to-default Credit Derivatives and Securitisation		-	-
Total Minimum Capital Requirement for Credit Risk under Standardised Approach		1,273,275,030	1,186,827,106

Note: The above table shows 8.5% of the total Credit RWA – the minimum capital requirement of each assets.

Minimum Capital Requirement for Market Risk for Positions in the Trading Book

RHB Bank Thailand Operations applies the Standardised Approach as per the Bank of Thailand's Notification No. SorNorSor. 94/2551 Re: Guideline on Supervision of Market Risk and Capital Requirement for Market Risk of Financial Institutions dated 27th November 2008, to measure the market risk capital charge for exposures in the trading book.

As at 31st December 2022, the market risk capital requirement was THB 1.8 million. [The increase was due to higher utilization of FX transaction more than 1 month – 3 months.](#) Total market risk-weighted assets amounted to THB 23.1 million.

Table 3: Minimum Capital Requirement for Market Risk

	Unit:THB	
	31-Dec-2022	31-Dec-2021
Minimum Capital Requirement for Market Risk under Standardised Approach	1,849,802	953,765

Note: Minimum Capital Requirement for Operational Risk is 8% of total Market RWA

Minimum Capital Requirement for Operational Risk

RHB Bank Thailand Operations calculates its operational risk capital charge by using the Basic Indicator Approach ('BIA') as per Bank of Thailand's Notification No. SorNorSor. 95/2551 Re: Regulations on Minimum Capital Requirement for Operational Risk, dated 27th November 2008.

By applying the Basic Indicator Approach to measure operational risk, RHB Bank Thailand Operations uses its gross income, which includes net interest income and non-interest income, as a proxy. For the year ended 31st December 2022, the operational risk capital requirement was THB 54 million. [The increase was mainly attributable to higher average 3 years gross income.](#) Total operational risk-weighted assets amounted to THB 674.6 million.

Table 4: Minimum Capital Requirement for Operational Risk

	Unit: THB	
	31-Dec-2022	31-Dec-2021
Minimum Capital Requirement for Operational Risk under BIA	53,969,932	46,393,905

Note: Minimum Capital Requirement for Operational Risk is 8% of total Operational RWA

Total Capital Ratio

As at 31st December 2022, the Total Capital Ratio ('TCR') of RHB Bank Thailand Operations was 14.61% on total risk-weighted assets of THB 15,677.5 million, against a total regulatory capital of THB 2,290 million, and which was above the minimum TCR of 11.0% required of a foreign commercial bank branch.

Table 5: Total Capital Ratio

Unit: %

	31-Dec-2022	31-Dec-2021
Total Capital Ratio	14.61	14.43

Note: Total Capital Ratio = Total Capital divided by Risk Weighted Assets

3.0 Disclosure C: Risk Exposures and Assessment

The risk management objectives and policies of the RHB Banking Group also apply to RHB Bank Thailand Operations. However, since RHB Bank Thailand Operations is a local network of branches in Thailand, its operations are also subject to the regulatory requirements of the Bank of Thailand, and these are indicated accordingly.

3.1 Risk Management

Risk is inherent in the Bank's activities and is managed through a process of on-going identification, measurement and monitoring, subject to limits and other controls. Besides credit risk, the Bank is exposed to a range of other risk types such as market, liquidity, operational, legal, strategic and cross-border, as well as other forms of risk inherent to its strategy, product range and geographical coverage.

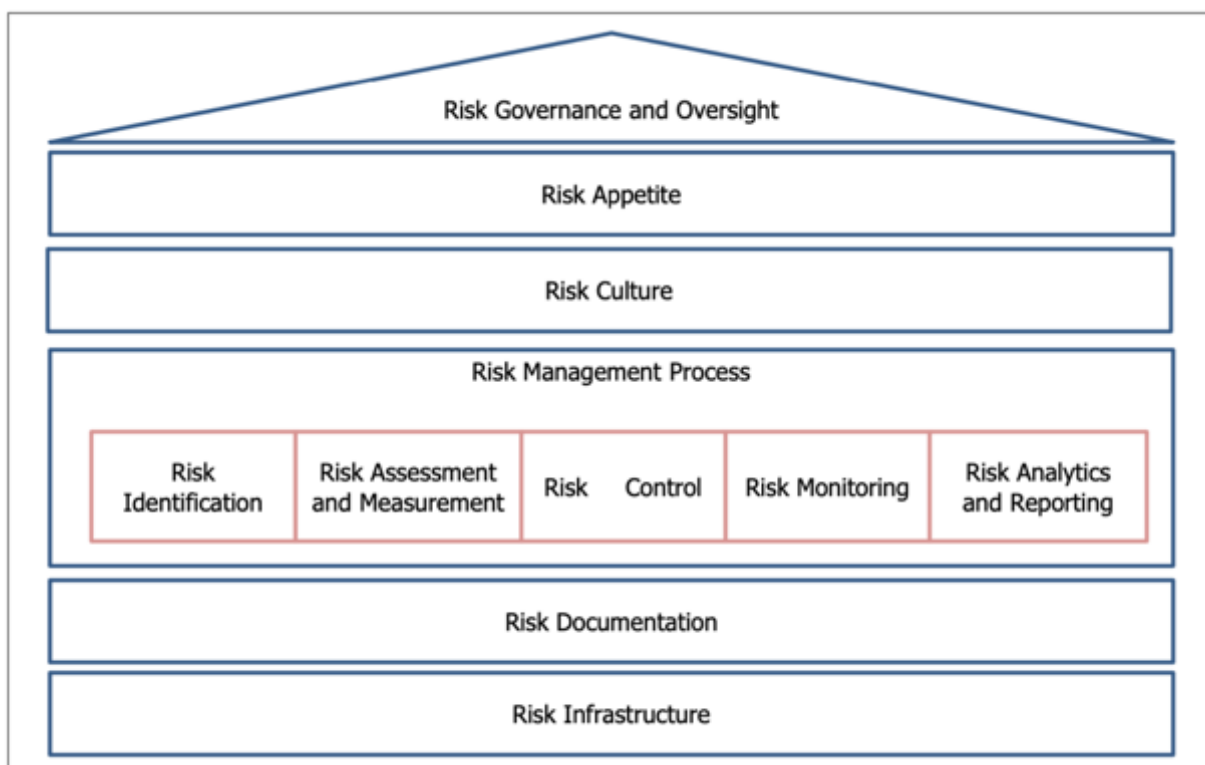
Effective risk management is fundamental to drive sustainable growth and shareholder value, while sustaining competitive advantage, and is thus a central part of the proactive risk management of the Bank.

The Group's Risk Management Framework governs the management of risks in the RHB Banking Group (the Group) inclusive of RHB Bank Thailand Operations as follows:

- It provides a holistic overview of the risk and control environment of the Group, with risk management aimed towards loss minimisation and protection against losses which may occur through, principally, the failure of effective checks and controls in the organisation.
- It sets out the strategic progression of risk management towards becoming a value creation enterprise. This is realised through building up capabilities and infrastructure in risk management sophistication, and enhanced risk quantification to optimise risk-adjusted returns.

The Bank adopts and is guided by the Group Risk Management Framework in administration and implementation of its risk management activities.

The Group Risk Management Framework is represented in the following diagram:



Key features of the framework are:

Risk Governance and Oversight

The Board of Directors sits at the apex of the risk governance structure and is ultimately responsible for the Group's/respective entities' risk management strategy, appetite, framework and oversight of risk management activities.

The Board of Directors (Board) through the respective risk committees, Group Capital and Risk Committee (GCRC) and the Group Risk & Credit Management function, establishes the risk appetite and risk principles of the Group and relevant entities. The BRC is the principal Board Committee that provides oversight over risk management activities for the Group to ensure that the Group's risk management process is in place and functional. The BRC assists the Board to review the Group's overall risk management philosophy, frameworks, policies and models.

The responsibility for the supervision of the day-to-day management of enterprise risk and capital matters is delegated to the GCRC comprising senior management of the Group and which reports to the relevant board committees and the Group Management Committee. The Group Asset and Liability Committee (Group ALCO) oversees market risk, liquidity risk and balance sheet management.

Roles and Responsibilities for the risk management function:

The Group Chief Risk Officer (GCRO) of the Group is [responsible for the risk management function and reports directly to the Group Managing Director](#). The incumbent is independent

from the business units and does not have any management or financial responsibility in respect of any business lines or revenue-generating functions.

The main roles and responsibilities of GCRO are:

- Facilitating the setting of the strategic direction and overall policy on management and control of risks of the Group;
- Ensuring industry best practices in risk management are adopted across the Group, including the setting of risk management parameters and risk models;
- Developing proactive, balanced and risk attuned culture within the Group; and
- Advising senior management, management level committees, board level risk committees and Board of Directors of the Group's entities on risk issues and their possible impact on the Group in the achievement of its objectives and strategies.

Risk Management Department of RHB Bank Thailand Operation's main function is to assess and manage the enterprise risk and liaise with regulators in Thailand. They are supported by the risk management function from the Group, who specialize in the respective risks and responsible for the active oversight of Group-wide functional risk management, such as Group Credit Risk Management, Group Operational Risk Management, Group Technology and Cyber Risk Management, Group Shariah Risk Management, Risk Strategy & Transformation, Enterprise Risk Management, Group Credit Management, Investment Banking & Regional Risk, and Insurance Risk Management.

Risk Appetite

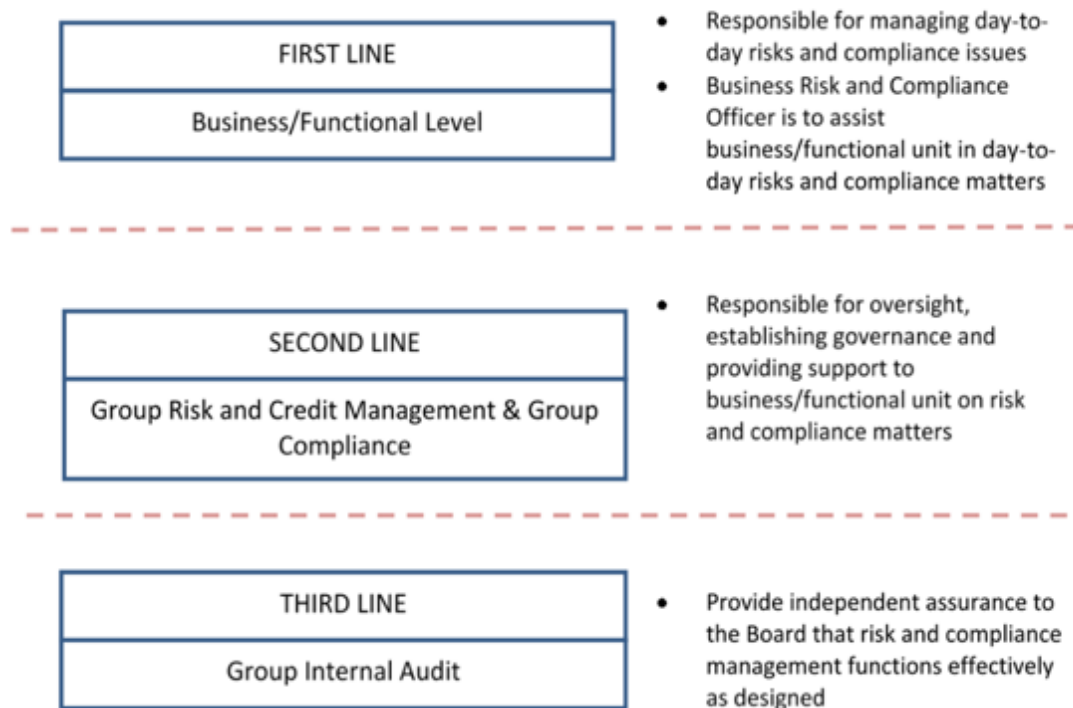
The Board of Directors sets the risk appetite and tolerance level that are consistent with the Group and each entity's overall business objectives and desired risk profile. It describes the types and level of risks the Group is prepared to accept in delivering its business strategies, and reported through various metrics that enable the Group to manage capital resources and shareholders' expectations.

The alignment of the Group's business strategy with its risk strategy, and vice-versa is articulated through the risk appetite setting and the Group's annual business and financial budgetary plan, which is facilitated by the integration of risk measures in capital management.

Risk Culture

The Group subscribes to the principle of 'Risk and Compliance is Everyone's Responsibility' and risk management is managed via a 'three lines of defence' model. Business/functional units of the respective operating entities in the Group are collectively responsible for identifying, managing and reporting risk.

The approach is based on the 'three lines of defence' model as depicted below:



Risk Management Process

The risk management process identifies, assesses and measures, controls, monitors and reports/analyses risk. This ensures that risk exposures are adequately managed and that the expected return compensates for the risk taken.

- Identification: The identification and analysis of the existing and potential risks is a continuing process, in order to facilitate and proactive and timely identification of risk within the Group's business operations, including emerging risks. This ensures that risks can be managed and controlled within the risk appetite of the Group and specific entity, where necessary.
- Assessment and Measurement: Risks are measured, assessed and aggregated using comprehensive qualitative and quantitative risk measurement methodologies, and the process also serves as an important tool as it provides an assessment of capital adequacy and solvency.
- Controlling: Risks identified during the risk identification process must be adequately managed and mitigated to control the risk of loss. This is also to ensure risk exposures are managed within the Group's or entity's risk appetite.
- Monitoring: Effective monitoring process ensures that the Group is aware of the condition of its exposures vis-à-vis its approved appetite and to facilitate early identification of potential problem on a timely basis by using continuous and on-going monitoring of risk exposures and risk control/mitigation measures.
- Analytics and Reporting: Risk analysis and reports are prepared by the respective entities at a consolidated level as well as business level are regularly escalated to the senior management and relevant Boards of the Group's entities to ensure that the risks identified remain within the established appetite and to support an informed decision making process. Reporting and analytics are also being continuously enhanced to

provide the necessary information to relevant stakeholders within the Group to facilitate more effective decision making.

In addition, risk management seeks to ensure that risk decisions are consistent with strategic business objectives and within the risk appetite.

Risk Documentation

The Group recognises that effective implementation of the risk management system and process must be supported by a robust set of documentation. Towards this end, the Group has established frameworks, policies and other relevant control documents to ensure clearly defined practices and processes are effected consistently across the Group. Documents are subject to a robust review process to ensure they remain current.

Risk Infrastructure

The Group has organised its resources and talents into specific functions, and invested in the technology, including data management to support the Group's and the Bank's risk management activities. Staff have clear roles and responsibilities, given access to relevant and up-to-date risk information, and the latitude to continuously enhance competency through learning and development programs.

Risk systems and tools are designed to provide accessibility of risk information that complement the risk management process. The availability of data for analytics and monitoring, and dashboards and reporting assists in continuously enhancing risk management capabilities.

Effective risk management requires the Group to continuously review its risk management capabilities to effectively manage risk and to improve risk management practices across the Group. Therefore, the Group has embarked on transformation journeys striving for improvements for better efficiency and effectiveness.

3.2 Credit Risk

Credit risk is the risk of loss arising from customers' or counterparties' failure to fulfill their financial and contractual obligations in accordance with the agreed terms. It stems primarily from the RHB Bank Thailand Operation's lending, trade finance, investment, hedging and trading activities from on- and off-balance sheet transactions. Credit risk does not typically happen in isolation as certain risk events (e.g. fluctuation of interest rate and foreign exchange) presence of other risks may also arise.

Credit risk management is conducted in a holistic manner. Credit underwriting standards are articulated in an approved Group Credit Policy and Group Credit Guidelines which are developed for the assurance of asset quality that is in line with the Group's risk appetite. Industry best practices are instilled in the continual updating of the Group's credit policies/guidelines including independent assessment of credit proposals, assignment of rating and adoption of multi-tiered delegated lending authorities spanning from individuals to credit approving committees.

Credit reviews and rating, where applicable are conducted on the credit exposures at least annually. Specific loans may be reviewed more frequently under appropriate circumstances. Such circumstances may arise if, for instance, the Group believes that heightened risk exists in a particular industry, or the borrower has defaulted on obligations to suppliers or other financial institutions or is facing cash flow or other difficulties.

Regular risk reporting is made to the MANCO, GIBC, GCRC, BRC and the Board. These reports include various credit risk aspects such as portfolio quality and concentration risk exposures by business portfolio. Such reporting allows senior management to identify adverse credit trends, take prompt corrective actions, and ensure appropriate risk-adjusted decision making. Regular credit stress tests are conducted to assess the credit portfolio's vulnerability to adverse credit risk events.

Group Internal Audit conducts independent post-approval reviews on a sampling basis to ensure that the quality of credit appraisals and approval standards is in accordance with the credit underwriting standards and financing policies established by the Group's management, and relevant laws and regulations.

3.2.1 Credit Concentration Risk

The analysis of large customer group exposures is conducted regularly. The lending units undertake **regular** account updates, monitoring and management of these exposures. In addition, the Group together with RHB Bank Thailand Operation's Risk Management Department also continuously updates lending or financing guidelines based on periodic reviews of sector risk factors and economic outlook.

RHB Bank Thailand Operations is guided by the single counterparty exposure limit, bullet and balloon repayment limit, sectorial limit and country risk limits, as well as the Bank of Thailand's Notification No. SorNorSor. 22/2555 Re: Supervisory Guidelines on Large Exposure (Single Lending Limit) dated 17th December 2012.

3.2.2 Credit Risk Mitigation

RHB Bank Thailand Operations generally does not grant credit facilities solely on the basis of collateral provided. All credit facilities are granted based on the credit standing of the borrower/customer, source of repayment and debt/financing servicing ability.

Collateral is taken whenever possible to mitigate the credit risk assumed, subject to the Group's policies and guidelines that govern the eligibility of collateral used for credit risk mitigation. Reliance on collateral when taken is carefully assessed in the light of issues such as legal certainty and enforceability, market valuation and counter party risk of the guarantor. Recognised collaterals where relevant, include both financial and physical assets. Financial collaterals include cash deposits while physical collateral includes land and buildings. Apart from financial collateral and physical collateral, the Group has defined standards on the acceptance of guarantors as credit risk mitigants.

3.2.3 Impaired Loans and Impairment Provisioning

RHB Bank Thailand Operations follows the general guideline on the management of impaired loans as prescribed by the Group's Non-Performing Loans/Impaired Loans Policy. For asset classification, classification for case of debt restructuring, making provision and write-offs of impaired assets, the Bank of Thailand's Notification No. SorNorSor. 23/2018 Re: Guidelines on Asset Classification and Provisioning of Financial Institutions, dated 31st October 2018, is being adhered to.

RHB Bank Thailand Operations categorises its loan portfolio into six categories, i.e. Loss, Doubtful of Loss, Doubtful, Substandard, Special Mention and Normal.

Allowance for provision for loans classified as normal (Acceptable) and Special Mention is calculated based on the minimum percentage of 1.2% and 2% respectively in accordance with the Bank of Thailand's Guidelines. For loans classified as Substandard, Doubtful and Doubtful of Loss, the allowance rate is the full amount of the difference between the outstanding loan value and present value of expected cash flow from proceeds of collaterals.

3.2.4 Quantitative Disclosures

Table 6: Outstanding Amounts of Significant On-balance Sheet Assets and Off-Balance Sheet Items before Adjusted by Credit Risk Mitigation

Unit: THB

Item		31-Dec-2022	31-Dec-2021
1.	On-balance Sheet Items	12,344,639,592	11,475,969,424
1.1	Net Loans	12,281,226,566	11,468,428,078
1.2	Net investment in Debt Securities	-	-
1.3	Deposits (including accrued interest receivables)	-	-
1.4	Derivatives	63,413,026	7,541,346
2.	Off-balance Sheet Items	11,439,645,008	10,298,061,555
2.1	Aval of Bills, Guarantees, and Letter of Credits	576,959,526	703,713,728
2.2	OTC Derivatives	2,839,807,224	2,241,041,377
2.3	Undrawn Committed Lines	8,022,878,258	7,353,306,450

Table 7.1 : Outstanding Amounts of Significant On-balance Sheet Assets and Off-balance Sheet Items Before Credit Risk Mitigation Classified by Country or Geographic Area of Debtor as at 31st December 2022

Unit: THB

Country or Geographic Area of Debtor	On-balance Sheet Assets					Off-balance Sheet Items			
	Total	Net Loans	Net Investment in Debt Securities	Deposit (include accrued interest receivables)	Derivatives	Total	Undrawn committed Lines	OTC Derivatives	Aval of Bills, Guarantees of Borrowings, and Letter of Credits
Thailand	12,344,639,592	12,281,226,566	-	-	63,413,026	11,185,064,087	8,022,878,258	2,839,807,224	322,378,605
Asia Pacific (exclude Thailand)	-	-	-	-	-	254,580,921	-	-	254,580,921
North America and Latin America	-	-	-	-	-	-	-	-	-
Africa and Middle East	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-
Total	12,344,639,592	12,281,226,566	-	-	63,413,026	11,439,645,008	8,022,878,258	2,839,807,224	576,959,526

Table 7.2 : Outstanding Amounts of Significant On-balance Sheet Assets and Off-balance Sheet Items Before Credit Risk Mitigation Classified by Country or Geographic Area of Debtor as at 31st December 2021

Unit: THB

Country or Geographic Area of Debtor	On-balance Sheet Assets					Off-balance Sheet Items			
	Total	Net Loans	Net Investment in Debt Securities	Deposit (include accrued interest receivables)	Derivatives	Total	Undrawn committed Lines	OTC Derivatives	Aval of Bills, Guarantees of Borrowings, and Letter of Credits
Thailand	11,475,969,424	11,468,428,078	-	-	7,541,346	9,925,048,689	7,353,306,450	2,241,041,377	330,700,862
Asia Pacific (exclude Thailand)	-	-	-	-	-	373,012,866	-	-	373,012,866
North America and Latin America	-	-	-	-	-	-	-	-	-
Africa and Middle East	-	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-	-
Total	11,475,969,424	11,468,428,078	-	-	7,541,346	10,298,061,555	7,353,306,450	2,241,041,377	703,713,728

Table 8.1 : Outstanding Amounts of On-balance Sheet Assets and Off-balance Sheet Items Before Credit Risk Mitigation Classified by Residual Maturity as at 31st December 2022

Unit: THB

Item	Maturity Not Exceeding 1 year	Maturity Exceeding 1 year	Total
1. On-balance Sheet Assets			
1.1 Net Loans (include inter-bank and money market item)	8,812,556,060	3,468,670,506	12,281,226,566
1.2 Net Investment in Debt Securities	-	-	-
1.3 Deposit (include accrued interest receivables)	-	-	-
1.4 Derivatives	63,413,026	-	63,413,026
2. Off-balance Sheet Items			
2.1 Aval of Bills, Guarantees of Borrowings, and Letter of Credits	576,959,526	-	576,959,526
2.2 OTC Derivatives	2,839,807,224	-	2,839,807,224
2.3 Undrawn Committed Lines	8,022,878,258	-	8,022,878,258

Table 8.2 : Outstanding Amounts of On-balance Sheet Assets and Off-balance Sheet Items Before Credit Risk Mitigation Classified by Residual Maturity as at 31st December 2021

Unit: THB

Item	Maturity Not Exceeding 1 year	Maturity Exceeding 1 year	Total
1. On-balance Sheet Assets			
1.1 Net Loans (include inter-bank and money market item)	8,621,434,174	2,846,993,904	11,468,428,078
1.2 Net Investment in Debt Securities	-	-	-
1.3 Deposit (include accrued interest receivables)	-	-	-
1.4 Derivatives	7,541,346	-	7,541,346
2. Off-balance Sheet Items			
2.1 Aval of Bills, Guarantees of Borrowings, and Letter of Credits	703,713,728	-	703,713,728
2.2 OTC Derivatives	2,241,041,377	-	2,241,041,377
2.3 Undrawn Committed Lines	7,353,306,450	-	7,353,306,450

Table 9.1 : Net Loans and Investments in Debt Securities Before Credit Risk Mitigation Classified By Country or Geographic Area of Debtors and By Asset Classification Specified by the Bank of Thailand as at 31st December 2022

Unit: THB

Country or Geographic Area of Debtor	Net Loans							Investment in Debt Securities Classified as Doubtful loss
	Normal	Special Mention	Substandard	Doubtful	Doubtful of Loss	Loss	Total	
Thailand	9,054,758,472	3,005,831,489	-	-	220,636,605	-	12,281,226,566	-
Asia Pacific (excluding Thailand)	-	-	-	-	-	-	-	-
North America and Latin America	-	-	-	-	-	-	-	-
Africa and Middle East	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-
Total	9,054,758,472	3,005,831,489	-	-	220,636,605	-	12,281,226,566	-

Table 9.2 : Net Loans and Investments in Debt Securities Before Credit Risk Mitigation Classified By Country or Geographic Area of Debtors and By Asset Classification Specified by the Bank of Thailand as at 31st December 2021

Unit: THB

Country or Geographic Area of Debtor	Net Loans							Investment in Debt Securities Classified as Doubtful loss
	Normal	Special Mention	Substandard	Doubtful	Doubtful of Loss	Loss	Total	
Thailand	8,414,373,192	2,785,581,580	-	-	268,473,306	-	11,468,428,078	-
Asia Pacific (excluding Thailand)	-	-	-	-	-	-	-	-
North America and Latin America	-	-	-	-	-	-	-	-
Africa and Middle East	-	-	-	-	-	-	-	-
Europe	-	-	-	-	-	-	-	-
Total	8,414,373,192	2,785,581,580	-	-	268,473,306	-	11,468,428,078	-

Table 10.1 : Provisions and Bad Debts Written-off During the Period For Net Loans and Investments in Debt Securities Classified by Country or Geographic Area as at 31st December 2022

Unit: THB

Country or Geographic Area of Debtor	Provision			Specific Provision for Investment in Debt Securities
	General Provision	Specific Provision	Bad Debt Written-Off /(written back) During Period	
Thailand	196,591,998	251,331,537	(66,957,824)	-
Asia Pacific (exclude Thailand)	-	-	-	-
North America and Latin America	-	-	-	-
Africa, Middle East and Europe	-	-	-	-
Total	196,591,998	251,331,537	(66,957,824)	-

Table 10.2 : Provisions and Bad Debts Written-off During the Period For Net Loans and Investments in Debt Securities Classified by Country or Geographic Area as at 31st December 2021

Unit: THB

Country or Geographic Area of Debtor	Provision			Specific Provision for Investment in Debt Securities
	General Provision	Specific Provision	Bad Debt Written-Off /(written back) During Period	
Thailand	163,571,341	298,860,999	-	-
Asia Pacific (exclude Thailand)	-	-	-	-
North America and Latin America	-	-	-	-
Africa, Middle East and Europe	-	-	-	-
Total	163,571,341	298,860,999	-	-

**Table 11.1 : Net Loans Before Credit Risk Mitigation Classified by Type of Business
as at 31st December 2022**

Unit: THB

Type of Business	Normal	Special Mention	Substandard	Doubtful	Doubtful of Loss	Loss	Total
Agriculture and Mining	308,624,152	138,242,299	-	-	-	-	446,866,451
Manufacturing and Commerce	5,164,094,544	1,556,164,777	-	-	55,785,710	-	6,776,045,031
Property and Construction	1,695,222,377	613,897,443	-	-	67,881,129	-	2,377,000,949
Public Utilities and Services	1,291,830,552	598,667,963	-	-	94,401,701	-	1,984,900,216
Housing	-	-	-	-	-	-	-
Others	594,986,847	98,859,007	-	-	2,568,065	-	696,413,919
Total	9,054,758,471	3,005,831,489	-	-	220,636,605	-	12,281,226,566

**Table 11.2 : Net Loans Before Credit Risk Mitigation Classified by Type of Business
as at 31st December 2021**

Unit: THB

Type of Business	Normal	Special Mention	Substandard	Doubtful	Doubtful of Loss	Loss	Total
Agriculture and Mining	423,145,193	-	-	-	-	-	423,145,193
Manufacturing and Commerce	4,127,221,461	1,215,201,444	-	-	185,837,350	-	5,528,260,255
Property and Construction	1,394,693,416	501,730,138	-	-	68,003,837	-	1,964,427,391
Public Utilities and Services	1,628,288,877	798,254,321	-	-	11,873,751	-	2,438,416,949
Housing	-	-	-	-	-	-	-
Others	841,024,245	270,395,677	-	-	2,758,368	-	1,114,178,290
Total	8,414,373,192	2,785,581,580	-	-	268,473,306	-	11,468,428,078

**Table 12.1 : Provisions and Bad Debt Written-off During Period of Net Loans
Classified by Types of Business as at 31st December 2022**

Unit: THB

Type of Business	General Provision	Specific Provision	Bad Debt Written-off/ (Written-back) During Period
Agriculture and Mining		-	-
Manufacturing and Commerce		181,910,742	(66,957,824)
Property and Construction		41,921,827	-
Public Utilities and Services		26,631,645	-
Housing		-	-
Others		867,323	-
Total	196,591,998	251,331,537	(66,957,824)

**Table 12.2 : Provisions and Bad Debt Written-off During Period of Net Loans
Classified by Types of Business as at 31st December 2021**

Unit: THB

Type of Business	General Provision	Specific Provision	Bad Debt Written-off/ (Written-back) During Period
Agriculture and Mining		-	-
Manufacturing and Commerce		256,520,696	-
Property and Construction		41,825,945	-
Public Utilities and Services		-	-
Housing		-	-
Others		514,358	-
Total	163,571,341	298,860,999	-

Table 13.1 : Reconciliation of Changes in Provisions for Classified Assets as at 31st December 2022

Unit: THB

Item	General Provision	Specific Provision	Total
Provisions at the beginning of the period	163,571,341	298,860,999	462,432,340
Bad Debts written-off/(written back) during the period	-	(66,957,824)	(66,957,824)
Increases or (decreases) of provisions during the period	33,020,657	19,428,362	52,449,019
Other provisions (provisions for losses from foreign exchange, provisions for merger and sale of businesses)	-	-	-
Provisions at the end of the period	196,591,998	251,331,537	447,923,535

Table 13.2 : Reconciliation of Changes in Provisions for Classified Assets as at 31st December 2021

Unit: THB

Item	General Provision	Specific Provision	Total
Provisions at the beginning of the period	135,672,411	259,704,439	395,376,850
Bad Debts written-off/(written back) during the period	-	-	-
Increases or (decreases) of provisions during the period	27,898,930	39,156,560	67,055,490
Other provisions (provisions for losses from foreign exchange, provisions for merger and sale of businesses)	-	-	-
Provisions at the end of the period	163,571,341	298,860,999	462,432,340

Table 14.1 : Outstanding Amounts of On-balance Sheet Assets and Off-balance Sheet Items By Type of Assets Under Standardised Approach as at 31st December 2022

Unit: THB

Type of Asset	On-balance Sheet Assets	Off-balance Sheet Item	Total
1. Performing Claims			
1.1 Claims on sovereigns and central banks	6,969,962,864	-	6,969,962,864
1.2 Claims on non-central government public sector entities	1,226,897,493	-	1,226,897,493
1.3 Claims on multilateral development banks	-	-	-
1.4 Claims on banks	74,443,418	33,945,467	108,388,885
1.5 Claims on securities companies	400,073,425	143,800,000	543,873,425
1.6 Claims on corporate	12,876,871,110	1,654,324,808	14,531,195,918
1.7 Claims on retail portfolios	911,175	28,110,415	29,021,590
1.8 Residential mortgage exposures	-	-	-
1.9 Other assets	258,977,138	-	258,977,138
2. Non-Performing Claims	307,146,919	122,263,111	429,410,030
3. First-to-default Credit Derivatives and Securitizations	-	-	-
Total	22,115,283,542	1,982,443,801	24,097,727,343

Table 14.2 : Outstanding Amounts of On-balance Sheet Assets and Off-balance Sheet Items By Type of Assets Under Standardised Approach as at 31st December 2021

Unit: THB

Type of Asset	On-balance Sheet Assets	Off-balance Sheet Item	Total
1. Performing Claims			
1.1 Claims on sovereigns and central banks	5,358,608,334	-	5,358,608,334
1.2 Claims on non-central government public sector entities	1,593,737,324	-	1,593,737,324
1.3 Claims on multilateral development banks	-	-	-
1.4 Claims on banks	113,610,979	10,626,271	124,237,250
1.5 Claims on securities companies	50,006,301	213,800,000	263,806,301
1.6 Claims on corporate	12,366,187,527	1,461,293,340	13,827,480,867
1.7 Claims on retail portfolios	3,363,777	29,484,660	32,848,437
1.8 Residential mortgage exposures	-	-	-
1.9 Other assets	270,743,067	-	270,743,067
2. Non-Performing Claims	229,599,474	-	229,599,474
3. First-to-default Credit Derivatives and Securitizations	-	-	-
Total	19,985,856,783	1,715,204,271	21,701,061,054

Table 15.1 : Outstanding of On-balance Sheet Assets and Off-balance Sheet Items After Credit Risk Mitigation for Each Type of Assets Classified by Risk Weight as at 31st December 2022

Unit: THB

Type of Asset	Rated Outstanding				Unrated Outstanding						
	0	20	50	100	0	20	35	50	75	100	150
Performing Claims											
Claims on sovereigns and central banks	6,969,962,864	-	-	-	-	-	-	-	-	-	-
Claims on non-central government public sector entities	1,226,897,493	-	-	-	-	-	-	-	-	-	-
Claims on multilateral development banks	-	-	-	-	-	-	-	-	-	-	-
Claims on banks	-	74,443,418	-	33,945,467	-	-	-	-	-	-	-
Claims on securities companies	-	-	-	-	-	-	-	-	-	543,873,425	-
Claims on corporate	-	766,238,856	254,434,895	-	-	-	-	-	-	13,510,522,167	-
Claims on retail portfolios	-	-	-	-	-	-	-	-	395,189	28,626,401	-
Claims on housing loans	-	-	-	-	-	-	-	-	-	-	-
Other assets	-	-	-	-	81,993,573	-	-	-	-	176,983,565	-
Non-Performing Claims	-	-	-	-	-	-	-	-	-	57,658,165	249,488,754
Items which BOT allows to deduct from capital of FIs	-	-	-	-	-	-	-	-	-	-	-

Table 15.2 : Outstanding of On-balance Sheet Assets and Off-balance Sheet Items After Credit Risk Mitigation for Each Type of Assets Classified by Risk Weight as at 31st December 2021

Unit: THB

Type of Asset	Rated Outstanding				Unrated Outstanding						
	0	20	50	100	0	20	35	50	75	100	150
Performing Claims											
Claims on sovereigns and central banks	5,358,608,334	-	-	-	-	-	-	-	-	-	-
Claims on non-central government public sector entities	1,593,737,324	-	-	-	-	-	-	-	-	-	-
Claims on multilateral development banks	-	-	-	-	-	-	-	-	-	-	-
Claims on banks	-	113,610,979	-	10,626,271	-	-	-	-	-	-	-
Claims on securities companies	-	-	-	-	-	-	-	-	-	263,806,301	-
Claims on corporate	-	699,687,652	256,219,066	-	-	-	-	-	-	12,871,574,148	-
Claims on retail portfolios	-	-	-	-	-	-	-	-	2,149,254	30,699,183	-
Claims on housing loans	-	-	-	-	-	-	-	-	-	-	-
Other assets	-	-	-	-	17,278,690	-	-	-	-	253,464,377	-
Non-Performing Claims	-	-	-	-	-	-	-	-	-	54,607,598	174,991,876
Items which BOT allows to deduct from capital of FIs	-	-	-	-	-	-	-	-	-	-	-

Table 16.1 : Part of Outstanding that is Secured by Collateral under Standardised Approach Classified by Type of Assets and Collateral as at 31st December 2022

Unit: THB

Type of Asset		Eligible Financial Collateral	Guarantee and Credit Derivative
Performing Assets			
1.	Claims on sovereigns and central banks, multilateral development banks, and PSEs treated as claims on sovereigns	-	-
2.	Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	-	-
3.	Claims on corporates, and PSEs treated as claims on corporates	287,100,861	477,715,366
4.	Claims on retail portfolios	1,495,199	-
5.	Claims on housing loans	-	-
6.	Other Assets	-	-
Substandard Assets		-	-
Total		288,596,060	477,715,366

Table 16.2 : Part of Outstanding that is Secured by Collateral under Standardised Approach Classified by Type of Assets and Collateral as at 31st December 2021

Unit: THB

Type of Asset		Eligible Financial Collateral	Guarantee and Credit Derivative
Performing Assets			
1.	Claims on sovereigns and central banks, multilateral development banks, and PSEs treated as claims on sovereigns	-	-
2.	Claims on financial institutions, PSEs treated as claims on financial institutions, and securities firms	-	-
3.	Claims on corporates, and PSEs treated as claims on corporates	289,861,913	628,489,643
4.	Claims on retail portfolios	1,480,189	-
5.	Claims on housing loans	-	-
6.	Other Assets	-	-
Substandard Assets		-	-
Total		291,342,102	628,489,643

3.3 Market Risk

3.3.1 Qualitative Disclosure

Market risk is the risk of loss arising from adverse movements in market drivers, such as interest rates, credit spreads, equity prices, currency exchange rates and commodity prices. Under this definition, market risk will constitute:

- the interest/profit rate and equity risks pertaining to financial instruments in the trading book; and
- foreign exchange risk and commodities risk in the trading and banking books.

The Group transacts in financial instruments such as debt papers and derivative instruments such as futures, forwards, swaps, and options. Derivative instruments are contracts whose characteristics and value are derived from the underlying instruments that can be a reference to an underlying that may constitute of interest rates, exchange rates, debt paper, equity, indices and commodities.

The Group Asset and Liability Committee (Group ALCO) and GCRC perform a critical role in the management of the market risk and supports the BRC in the overall market risk management. The management committees meet regularly and is the forum where strategic and tactical decisions are made for the management of market risk; this includes the development of the Bank's market risk strategy, market risk management structure and the policies as well as measurement techniques to be put in place.

RHB Bank Thailand Operations' Treasury Head is responsible for managing all trading activities on a day-to-day basis and within established trading limits.

For effective control of operations, defined management action triggers and risk limits are established and monitored. Market risk measures include risk quantification methodologies such as risk factor sensitivity analysis and value-at-risk (VaR) measures. Stress testing is rigorously applied in ascertaining the susceptibility of and the extent to which the Group's financials and earnings are affected by prospective changes in market interest rates, key risk drivers or scenarios.

3.3.2 Quantitative Disclosure

Table 17: Minimum Capital Requirement for Each Type of Market Risk Under Standardised Approach

Unit: THB

Minimum Capital Requirement for Each Type of Market Risk Under Standardised Approach	31-Dec-2022	31-Dec-2021
Interest Rate Risk	1,409,505	471,811
Equity Position Risk	-	-
Foreign Exchange Rate Risk	440,297	481,953
Commodity Risk	-	-
Total Minimum Capital Requirements	1,849,802	953,764

Note: Total minimum capital requirements for Market Risk are 8% of Market RWA

RHB Bank Thailand Operations do not have equity or commodity position as at 31st December 2022 and 31st December 2021 respectively.

3.4 Interest Rate Risk in the Banking Book

Interest rate risk in the banking book refers to the risk to the Group's earnings and economic value of equity due to the adverse movements in interest rate. The risk may arise from the mismatches in the timing of repricing of assets and liabilities from both on and off-balance sheet positions in the banking book, changes in slope and shape of the yield curve, basis risk and optionality risk.

Earnings-at-Risk ("EaR") and Economic Value of Equity ("EVE") are used to assess interest rate risk in the banking book.

In line with the Group [ALM Framework](#) to achieve a balance between [optimizing](#) profitability from banking activities and minimising risk to earnings and capital from changes in interest rates, RHB Bank Thailand Operations' exposure to interest rate risk is managed with the objective that profits will not be unduly impacted by the volatility of the interest rates.

Analysis of interest rate risk is performed quarterly by applying the re-pricing gap model to evaluate assets, liabilities, and off-balance sheet positions affected by interest rate movements based on the remaining contractual duration until maturity (for fixed interest rates) or until the [next interest repricing date](#) (for floating interest rates).

RHB Bank Thailand Operations is closely guided by the Bank of Thailand's Notification No. SorNorSor. 42/2008 Re. Supervision Guideline on Interest Rate Risk for Banking Book of the Financial Institutions dated 3rd August 2008, for the management of the interest rate risk in its banking book.

The impact to net earnings have been prepared on the following basis:

- Interest rate sensitive assets and liabilities with residual maturity of re-pricing tenure of up to one year that is not captured in the trading portfolio are slotted into time bands based on the maturity or re-pricing tenure, whichever is earlier.
- A set of risk weights with its respective time band is used to project the applicable basis point interest rate change impact.
- For assets and liabilities with indefinite maturity, e.g., current and saving accounts, certain assumptions are made to reflect the sensitivity behavior of interest bearing items.

Economic value is characterised by the impact of interest rate on the Bank's assets, liabilities and off-balance sheet positions. The economic value of all these items means the present value discounted by the market interest rate of expected cash inflow from assets, minus expected cash outflow from liabilities, plus the net expected cash flow of off balance-sheet items. This provides a more comprehensive view of the potential long-term effects of changes in interest rates. The economic value reflects sensitivity of the Bank's net worth to interest rate fluctuations which is a more comprehensive view than the earnings perspective since it analyzes long-term effects on the Bank.

The effect of changes in interest rates to net earnings for position 31st December 2022 and 31st December 2021 is shown below:

Table 18 : The Effect of Changes in Interest Rates to Net Earnings

Currency	31-Dec-2022	31-Dec-2021
	Effect to net earnings (%)	Effect to net earnings (%)
THB	-5.36	-2.77
USD	-0.11	-0.15
JPY	-0.02	-0.03
EUR	-0.01	-0.01
AUD	-0.01	-0.01
Total effect	-5.51	-2.97

* Commercial banks shall use the percentage changes in interest rates of 100bps.

3.5 Liquidity Risk

Liquidity risk is the risk of the Bank being unable to maintain sufficient liquid assets to meet its financial commitments and obligations when they fall due and transact at a reasonable cost. Liquidity risk also arises from the inability to manage unplanned decreases or changes in funding sources.

There are two types of liquidity risk, namely funding liquidity and market liquidity risk. Funding liquidity risk is the risk that the Bank is unable to meet efficiently both expected and unexpected current and future cash flow and collateral needs without affecting either daily operations or the financial condition of the Bank. Market liquidity risk is the risk that the Bank cannot easily offset or eliminate a position at the market price because of inadequate market depth or market disruption.

Periodic reports are presented to various operating and management level, including the Group Assets Liability Committee (ALCO), Risk Management Committee and Board of Directors. The Group ALCO supports the BRC by performing the critical role in the management of liquidity risk, and is responsible in establishing strategies that assist in controlling and reducing any potential exposure to liquidity risk. The Group ALCO meets regularly and is the forum where strategic and tactical decisions are made for the management of liquidity risk and the Bank's balance sheet profile.

RHB Bank Thailand's Liquidity Policy Statement sets out the framework for liquidity risk management and control, whereas the Group Liquidity Incident Management Plan Guideline covers governance and contingency plans to address its liquidity incidents. Liquidity is managed both quantitatively and qualitatively, involving monitoring of depositors' behavior, economic conditions, financial markets and competitive environments. The responsibility to manage liquidity risk on day-to-day basis rests on the Thailand Operations Treasury Head, under Head of Group Treasury's oversight.

RHB Bank Thailand Operations is guided by the Bank of Thailand's Notification No.9/2558 Re: Guidelines on Liquidity Coverage Ratio date 27th May 2015 and Notification No. SorNorSor. 4/2000 Re. Regulations on Liquidity Coverage Ratio (LCR) (No.2) dated 20th April 2020, for its liquidity risk management.

3.6 Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, systems and/or external events, which also includes IT and legal risk but excludes strategic and reputational risk. Operational risk is inherent in the Bank's operations and can never be eliminated entirely. The impact can be in the form of actual financial loss as well as non-financial loss such as loss of reputation, non-compliance and unsatisfactory service level to customers.

One of the Bank's primary safeguards against operational risk is the existence of a sound internal control system based on the principle of dual control checks and balances, segregation of duties, independent checks and verification processes, and a segmented system access control and authorisation process. These controls are documented through a set of policies and procedures at the respective business and operation level.

The Group's Operational Risk Management Framework comprises a wide range of activities and elements, broadly classified into:

- Enhancement – The Group has implemented a Basel II compliant operational risk management system to support its workflow and analytical capabilities.
- Education and Awareness – The Group undertakes change management activities to improve the risk management knowledge, culture and policies of the Bank personnel. This is aligned with the principle and requirement that the front-line business and support units of the Group, are by nature of their direct involvement in interfacing with customers and in operating the business, responsible for managing operational risk and acting as the first line of defence.
- Monitoring and Intervention – This is where the principal head office risk control units, including the risk management function, compliance function and the internal audit function, actively manage operational non-compliances, and incidences as a second and third line of defence respectively. The second line of defence monitors and oversees the recovery actions, including business continuity measures in cases of incidences causing disruption to business activities as proposed and undertaken by First Line of Defense.

Operational Risk Management Processes and Tools

The Bank applies a defined operational risk management process in managing operational risk to enable an institutional and transparent operational risk management practice. The five (5) processes are as follows:-

1. Establish the context,
2. Risk identification,
3. Risk analysis,
4. Risk mitigating and
5. Risk monitoring

The Bank uses relevant operational risk tools and methodologies to support and ensure an effective operational risk management process. The following tools are being used:-

- **Risk and Control Self-Assessment (RCSA)**
RCSA is a methodology to build risk profile for each business and support unit. RCSA sets out a structured process for the identification and assessment of inherent operational risk, the effectiveness of the control environment, and the adequacy of the risk mitigation in place. The RCSA process is facilitated by the business and support units themselves jointly with personnel from Group Operational Risk Management.
- **Key Risk Indicators (KRI)**
KRI is a measurable indicator utilised to track and monitor key operational risk exposures. KRI serves as an early warning signal: once a risk indicator exceeds the predefined threshold, a warning message is sent to a predefined list of users. Business and support

units are required to monitor their risk exposures via KRIs and are required to develop specific and concrete plans to address those where indicators are unfavourable. KRIs are embedded into critical processes to provide early warning signals of increasing risk and/or control failures by flagging up frequencies of events as a mechanism for continuous risk assessment and monitoring.

- **Key Control Testing (KCT)**

KCT is a methodology to assist business/functional units in performing assessments periodically to determine the effectiveness of key controls by evaluating whether the control procedures/activities are adequately designed to achieve the goals of the function and control objectives; and testing whether the key controls are operating as intended in actual practice. Effective KCT can lead to early detection of control weakness and deficiencies which will assist the senior management and business/functional units to quickly focus on control weakness and take concentrated efforts where they are most needed.

- **Incident Management and Loss Data Collection (IMLDC)**

IMLDC provides structured process for the management of operational risk incidents that have occurred, from the point of discovery until resolution. Business and functional units are required to report all incidences within defined reporting timeline operational losses for further analysis of root cause to avoid further recurrence. This is also useful for reviewing the effectiveness of the RCSA and KRIs.

- **Operational Risk Scenario Analysis**

Operational Risk Scenario Analysis is used to identify plausible risk scenario that could materialise for assessment. A plausible risk scenario is a possible event resulting in unexpected and extreme losses which may arise when considering a sequence of control failures or individually significant events.

Business/functional departments are required to assess the potential outcomes related to a variety of operational risks failure, evaluate the vulnerabilities of the Bank to the manifestation of plausible risk scenario, and put in appropriate risk mitigation plans to safeguard the Bank's safety and soundness.

Risk Mitigation and Controls

Risk mitigation strategies are used to minimise risk to an acceptable level and aim to decrease the likelihood of an undesirable event and the impact on the business, should it occur. The control tools and techniques, amongst others, are as follows:

- **Strengthening internal controls**

Internal controls are designed to commensurate operational risk exposures faced by the Bank. It is mainly categorised into five components, namely:

- a. Control environment – management oversight and risk culture, which sets the tone and serves as a foundation for all other components;
- b. Risk assessment – analyses identified risks to achieve objectives and ensure risks are well managed;
- c. Control activities – policies and procedures implemented manually and/or system-based to ensure management’s directives are executed effectively and efficiently;
- d. Information and communication – relevant operational risk information are captured and communicated accordingly for decision making. Such information must be effective for utilisation, delivered timely, confidentiality is preserved, conform integrity needs, comply with relevant law/regulations, sufficient availability and reliable; and
- e. Monitoring – ongoing assessment and correcting deficiencies of internal control to assure it is operating as intended.

- **Business Continuity Management**

To mitigate the impact of unforeseen operational risk events, the Group and Bank has ongoing and actively managed Business Continuity Management ('BCM') programme for its major critical business operations and activities at the Head Office, data centre, and branches' locations. The BCM programme is subject to regular review and testing including continuous enhancement initiatives to ensure efficacy, reliability and functionality, and comes under the responsibility of the Bank's Risk Management Department.

- **Outsourcing**

Due to the need to outsource for cost and operational efficiency, policy and guidelines are put in place to ensure that the risks arising from outsourcing activities are adequately identified, assessed and managed prior to entering into any new arrangements and on an on-going basis.

- **Insurance**

The Bank considers risk transfer by means of insurance to mitigate operational risk. The Bank has a programme of insurance designed to reduce its exposure to liability and to protect its assets. The Bank purchases insurance from leading insurers in the market covering fraud, theft, property and casualty, business disruption, liability and other risks for which it may be held responsible. These are provided by third-party insurers providers and will financially mitigate the economic consequences of risks.

Technology Risk

Technology Risk refers to the business risk associated with the use, ownership, operation, involvement, influence and adoption of Information Technology (IT) within [the Group](#).

The Group recognises the risk arising from the advancement and reliance upon information technology to support business operations through the deployment of advance technology and online systems to provide customers with convenient and reliable products and services. The

Group's [Risk Management in Technology \(RMiT\) Framework](#) ensures that a governance structure is in place for the identification, assessment and management of technology risks within existing IT operations as well as prior to deployment of applications and systems for internal as well as external customers.

Cyber Risk

Cyber Risk refers to threats or vulnerabilities emanating from the connectivity of internal [technology infrastructure to the Internet](#).

This is an inherent risk associated to the industry moving towards the Internet as a channel for the delivery of banking services. The Group recognises the risks associated to cyber and as part of the mitigation shall continuously identify suitable security devices to be deployed and ensure sufficient resources with the right skill sets are allocated to manage this risk. The Group also [subscribes](#) to the various threat intelligence services to obtain the latest [information on cyber threat and incidence which can be used for the](#) risk mitigation. To further provide assurance that the Internet facing application systems are secured, the Group engaged reputable IT security service providers to perform periodic penetration testing where weaknesses detected shall be duly resolved with attestation from external consultants. [To further strengthen the controls, Red Team and compromise assessment activities are performed regularly to test the effectiveness of the implemented safeguards.](#)

Regular operational risk reporting is made to the senior management, MANCO, and GIBC. These reports include various operational risk aspects such as reporting of significant operational loss events. Such reporting enables senior management to identify adverse operational lapses, take prompt corrective actions, and ensure appropriate risk mitigation decision making and action plans.

In this respect, RHB Bank Thailand Operations is also closely guided by the Bank of Thailand's Policy Statements on Operational Risk Management, and Business Continuity Management and Business Continuity Plans.

3.7 Reputational Risk

Reputational risk is often seen as significant threat to business as damage to reputation is often irreparable. It is defined as the risk that negative publicity regarding the conduct of the Bank or any of the entities within the Group, and its business practices or associations, whether true or not, will adversely affect its revenues, operations or customer base, or require costly litigation or other defensive measures. It also undermines public confidence in the Bank and the Group, affecting the share price.

Reputational risk in the Bank is managed and controlled through codes of conduct, governance practices and risk management practices, policies, procedures and training. Towards this end, the Group has developed and implemented a reputational risk management policy.

The key elements for management of reputational risk include:

- Practice good corporate governance and culture of integrity to promote execution and achievement of corporate strategies and business objective.
- Manage reputational risk within a very low risk appetite with zero tolerance for incidences that affect the Group's reputation.
- Adopt sound risk management practices that include the practice of building "reputation capital" and earning the goodwill of key stakeholder.
- Maintain proper mechanisms to monitor and escalate material lapses/breaches of internal and regulatory policies/guidelines that may place the Bank's and Group's reputation at risk.
- Maintain proper channels of communication in dealing with internal and external stakeholders.

It is the responsibility of the Chief Executive Officer of RHB Bank Thailand Operations to promote awareness and application of the Group's policy and procedures regarding reputational risk, in all dealings with customers, potential investors and host regulators.

3.8 Internal Capital Adequacy Assessment Process

Basel III Pillar 2 requires banks to undertake a comprehensive assessment of their risks and to determine the appropriate amount of capital to be held against these risks where other suitable risk mitigation techniques are not available. This risk and capital assessment is commonly referred to as an Internal Capital Adequacy Assessment Process ('ICAAP') which covers much broader risk types beyond Pillar 1 risks, and these include credit concentration risk, interest rate risk in the banking book, liquidity risk, strategic risk, and reputational risk.

The Group has implemented ICAAP with the objective to forge a strong alignment between risk and capital. Capital adequacy is assessed in relation to the Bank's risk profile, and strategies are in place to maintain appropriate capital levels.

RHB Bank Thailand Operations is guided by the Bank of Thailand's Notification No. ThorPorTor. ForTor (52) 2136/2552 Re: Dispatch of Notification of the Bank of Thailand on Supervisory Guideline on Capital Fund under Pillar 2 dated 16th October 2009, and has commenced its ICAAP reporting since 2010 as required under the Bank of Thailand's Notification.

4.0 Disclosure D: Additional Disclosure of Capital Information under the Basel Committee on Banking Supervision (BCBS) Guideline

Table 19: Disclosure of Capital Information

Value of Capital, Inclusions, Adjustments and Deductions for the six months ended 31 December 2022	
Capital of RHB Bank Thailand Operations	2,290,000,000
Net amount of item to be included in or deducted from capital under Basel III	-
Total Capital of RHB Bank Thailand Operations	2,290,000,000

5.0 Disclosure E: Liquidity coverage Ratio Disclosure Standard

Table 20: Liquidity Coverage Ratio (LCR)

Unit: THB thousands

	Quarter 4/2022 (average)	Quarter 4/2021 (average)
(1) Total high-quality liquid assets (HQLA)	8,529	8,161
(2) Total net cash outflows within the 30-day time horizon	7,031	7,319
(3) LCR (%) <i>Minimum LCR as specified by the Bank of Thailand (%)</i>	122% 100%	112% 100%

Table 21: LCRs of the preceding quarters (for comparison)

Unit: %

	2022 (average)	2021 (average)
3 rd quarter	124%	117%
4 th quarter	122%	112%

Commercial banks are required to maintain the liquidity coverage ratio in accordance with the guidelines as specified by the Bank of Thailand. The LCR is expected to encourage commercial banks to have robust and adequate liquidity position so that they can survive short-term severe liquidity stress. The minimum LCR, which is the ratio of high-quality liquid assets to total net cash outflows within the 30-day time horizon, of 60% was introduced on 1st January 2016 and increased by 10% each year until it reaches 100% in 2020.

$$\text{LCR} = \frac{\text{High Quality Liquid Assets (HQLA)}}{\text{Total net cash outflows within the 30-day time horizon under stressed scenarios}}$$

The average LCR for the 4th quarter of 2022 of the Bank is 122%, which is 22% higher than the minimum LCR as specified by the Bank of Thailand. This LCR is the average of LCRs as at the end of October – 127%, November – 123% and December – 115%. The LCR consists of 2 main components, namely:

1. High-quality liquid assets (HQLA) include unencumbered high-quality assets with low risk and low volatility that can be easily monetized without any significant changes to their values, even in times of liquidity stress. The value of each type of HQLA is after the application of both haircuts and any applicable caps as specified by the Bank of Thailand.

The average HQLA of the Bank for the 4th quarter of 2022 is 8,529 million Baht (60% of which is Level 1 assets, namely government bonds and cash), which is the average of HQLA as at the end of October – December. In this regard, the Bank holds several types of high-quality liquid assets to ensure the diversification of the stock of HQLA.

2. The amount of net cash outflows (net COF) is equal to expected cash outflows within the 30-day time horizon minus expected cash inflows within the 30-day time horizon under liquidity stress scenarios; but the expected cash inflows must not exceed 75% of the expected cash outflows. The average net COF of the Bank for the 4th quarter of 2022 is 7,031 million Baht, which is the average of net cash outflows within the 30-day time horizon as at the end of October – December. The expected cash outflows on which the Bank focuses under the severe liquidity stress scenarios are mostly corporate deposits and interbank borrowings to which the run-off rates as specified by the Bank of Thailand have been assigned. On the other hand, expected cash inflows are mostly from loan repayments with high-quality customers, deposits from high-quality counterparties, and maturing debt securities, to which the inflow rates as specified by the Bank of Thailand have been assigned.

In addition, the Bank also regularly examines its liquidity gaps and funding concentrations, which is part of the assessment and analysis of liquidity risk, to ensure that it has adequate liquidity to support the business. Liquidity risk is measured and effectively managed in accordance to the Bank's liquidity risk appetite.

Appendix Glossary of Terms

Abbreviation	Brief Description
BIA	Basic Indicator Approach
Board	Board of Directors
BOT	Bank of Thailand
BRC	Board Risk Committee
ECAIs	External Credit Assessment Institutions
Fitch	Fitch Ratings
Fitch Thailand	Fitch Ratings (Thailand) Limited
GIBC	Group International Business Council
Group ALCO	Group Asset and Liability Committee
GCRC	Group Capital and Risk Committee
ICAAP	Internal Capital Adequacy Assessment Process
JPY	Japanese Yen (¥)
MANCO	Management committee
MDBs	Multilateral Development Banks
Moody's	Moody's Investor Service
OTC	Over the Counter
PSEs	Non Federal Government Public Sector Entities
SA	Standardised Approach
S&P	Standard & Poor's
TCR	Total Capital Ratio
THB	Thai Baht
TRIS	TRIS Rating Agency
USD	US Dollar (\$)
VaR	Value at Risk