Citibank, N.A. Bangkok Branch

Basel III Pillar 3

Capital and Liquidity Management Disclosure

31 December 2022

Basel III – Pillar 3
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1. Scope of Application

The Capital Requirements Directive, often referred to as Basel III, introduced the need for banks operating under this new legislative framework to publish certain information relating to their risk management and capital adequacy. The disclosure of this information is known as Pillar 3 and is designed to complement the two other pillars of the Basel III, namely the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2). The disclosure has been prepared in accordance with the BOT Notification No. SorNorSor. 14/2562 Re : Disclosure of Information on Capital Fund Maintenance for Commercial Banks which requires foreign banks to disclose information of the branch in Thailand only. Therefore, this disclosure reflects only information of the Bangkok Branch. Citi's capital and global risk management is presented in Citi Annual Report 2022 at http://www.citigroup.com/citi/investor/corporate_governance.html.

In December 2008, Citibank, N.A. Bangkok Branch (hereafter referred to as "the Bank" or "Citibank") adopted the Standardized Approach (SA) for credit and operational risks and the Hybrid Approach between Standardized and Internal Model Approaches for market risk.

2. Capital

2.1 Capital Structure

Capital has historically generated by cash injections from Citibank Head Office and net earnings retained in Thailand. As of December 31, 2022, Citibank recorded total capital of Baht 25,800 million. The detailed capital composition can be found in the "Capital Structure" table.

2.2 Capital Adequacy

Generally, capital is used primarily to support assets in Citibank's businesses and to absorb credit, market and operational risks. The Bank's capital management framework is designed to ensure that Citibank maintains sufficient capital consistent with the Bank's risk profile and all applicable regulatory standards and guidelines. Citibank, N.A., Bangkok Branch is a branch of Citigroup's main global banking entity. As such, it does not have its own Board of Directors as one exists at the parent level. The Country Coordinating Committee (CCC) thus assumes much of the responsibilities of a Board of Directors at the local level. Senior Management oversight of the capital adequacy assessment process lies with the CCC which approves polices concerning capital adequacy and strategies by evaluating business plans and risk levels.

3. Risk Exposure and Assessment

Credit Policy and Procedure Manuals are the doctrines by which the Bank's risk management functions. The objective of these policies is to implement risk management and control practices such that consistent criteria are used to appraise similar risks; leading to prudent management of the overall risk profile, and optimization of risk versus return. The policies and principles for risk and control assessment require that appropriate controls and tools are in place to manage, measure and actively mitigate risks taken by the Bank. The global policies and local programs and procedures contain limits and control framework which set guidelines to ensure that business concentrations are within the Bank's risk and loss tolerance levels.

The Country Senior Management's objectives, budgets, portfolios, and investments must be prudent and reflect their view of risk and reward arising from market conditions and should dynamically adjust these strategies and budgets to fit changing environments. Business concentrations must be managed with the goal of a diversified portfolio and risks undertaken should not be disproportionate to the Bank's capital. Stress testing is a core responsibility which acts as one of the many preventive measures of extreme event risks. Significant stress losses will be escalated to the Country Senior Management.

Material Risk Managers must be vigilant in ensuring that they communicate and escalate risk awareness to other parts of the organization that may be impacted by developments in their respective risk domains. All business activity must report into the Compliance/Control, Risk, or Finance systems to ensure they are properly tracked and monitored. Material Risk Managers must periodically review communications with or actions by regulators, any material legal affairs of Citibank, and compliance with applicable laws on all Risk Management related matters. Internal Audit and Control units will test important risks as per their audit plans. Each business unit/function will perform self-assessments of their important risks on a quarterly basis. Any material issues raised by internal control, audit, or other reviews and steps taken to address any such issues should be highlighted to Senior Management.

Internal Audit (IA) has the responsibility to perform the internal, independent audit and control review function for the Bank, covering all businesses, functions, and geographies. Audit results are communicated to appropriate senior management personnel. IA examines and evaluates the adequacy and effectiveness of the Bank system of internal controls and risk management processes and the quality of performance in carrying out assigned responsibilities to achieve the Bank's stated goals and objectives. It also tracks the development and implementation of corrective actions to address significant control weaknesses identified.

4. <u>Risk Categorization</u>

4.1 Credit Risk

Credit Risk is the risk of loss resulting from the decline in credit quality (or downgrade risk) or failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations.

4.1.1 Credit Risk Management

<u>Credit Risk Management Processes</u>

The credit risk management process at Citibank relies on the global Wholesale Credit Risk (WCR) Framework, supported by WCR Policy and supplemental standards and procedures to ensure consistency and integrity, while keeping in mind at all times, the local regulatory framework under which we operate in.

Risk tolerance is governed by the Bank's credit and product polices and standards as well as Local Operating Procedures (LOP). The policies document the core standards and methodology for identifying, measuring, approving, and reporting risk in the respective businesses and drive escalation of larger exposures and exceptions to higher approval levels. Credit authority levels, delegation processes, approval processes for portfolio classification, product and transaction approval, other types of required approvals, and the appointment of credit officers and their responsibilities are defined in these documents. LOP's were developed locally to incorporate applicable local regulations, market practices, and requirements and are used in conjunction with the credit policies.

All policies and programs are developed keeping in mind local and US regulations and are governed on the principles of prudence and long-term viability. Product programs need formal approval from country and regional risk management along with business, compliance and legal concurrence. Credit Officers and Senior Credit Officers are independent from the business.

Structure and Responsibilities of Credit Risk Management Units

Credit risk is managed across designated functional units that focus on credit analysis, credit approval, early warning monitoring, remedial management, and portfolio monitoring. The respective credit policies and standards provide guidance on the minimum requirements for each function, thereby ensuring consistent credit risk management practices across the Bank.

Credit Risk Measurement, Monitoring, and Reporting Systems

Each unit follows established processes that quantify and measure credit risk in addition to reporting it independently from the respective business, both in report format and data that is aggregated in bank-wide credit risk systems. Indicators used to measure, monitor, and report risk include but are not limited to the below.

- Portfolio and obligor limits;
- Stress test results;
- Portfolio profitability measures; and
- Cost of credit and non-performing loans.
-

Credit Risk Hedging or Mitigation

Hedging and mitigating credit risk is done through eligible collateral, personal and/or corporate guarantees, and derivatives. Hedges and risk mitigation are subject to the applicable credit policies.

Credit Risk Control limits

Each individual credit exposure is subject to an obligor limit as applicable to the obligor profile which helps maintain a diversified credit portfolio of risk assets. In addition, concentration reporting provides cross section views into the portfolio by name or across names.

Past due, Impairment and Provision

An integral part of the monitoring process is the early identification of credit deterioration which, in turn, allows for the proactive workout of the exposure and prompt execution of risk mitigation techniques. Classification is the process of categorizing facilities based on credit quality and/or the ability or willingness of the obligor to honor its commitments. Classification does not necessarily equate to a loss on a facility. It may merely signify that the facility is under pressure due to a variety of causes, and the facility requires special attention to ensure that Citibank does not experience a loss. Classification should thus be viewed as consisting of two levels:

Problem Levels: Classification categories Pass Watch List, Special Mention and Substandard-Performing generally denote that a facility has a potential or well-defined weakness that requires attention.

- Pass Watch List is considered if a facility exhibits potential weakness but that weakness is mitigated by current and projected financial and operating strength of the obligor.

- Special Mention is considered if there is a potential weakness that deserves management's close attention. If left uncorrected, these potential weaknesses may result in deterioration of the repayment prospect of the facility.
- Substandard facility has a well-defined weakness and could jeopardize repayment capacity,

Loss Levels: Classification categories Substandard-Non Performing, Doubtful and Loss indicate that the likelihood of an actual loss is high. Substandard-Non Performing and Doubtful identify a potential loss, while Loss identifies an actual loss. In most cases, classification of Substandard-Non Performing and Doubtful requires an additional reserve build and Loss, an actual write-off. Early identification and proactive management of facilities in the Special Mention and Substandard-Performing classification can result in lower exposure in the event that the facility continues to deteriorate to Substandard-Non Performing, Doubtful or Loss.

The equivalent BOT classifications are as follows, although exceptions can be approved on a case by case basis:-

Citi	**IFRS/TFRS9**
Pass, Pass Watch List	Stage 1
Special Mention, Substandard-Performing	Stage 2
Substandard-Non Performing	Stage 3
Doubtful and past due > 180 days	Stage 3
Loss	Stage 3

4.1.2 Credit risk exposures

Credit Ratings and Credit Quality Grade

In compliance with BOT guidelines, ratings by Moody's Investors Service and Standard & Poor's, where available, are used to rate obligors. For the purposes of risk-weighting, S&P and Moody's ratings are assigned to an equivalent BOT rating with a corresponding risk weight.

Long-term Credit Quality Grades	S&P	Moody's
1	AAA AA+ AA AA-	Aaa Aa1 Aa2 Aa3
2	A+ A A-	A1 A2 A3
3	BBB+ BBB BBB-	Baa1 Baa2 Baa3
4	BB+ BB BB-	Ba1 Ba2 Ba3
5	B+ B B-	B1 B2 B3
6	CCC+ CCC CCC- CC C D	Caa1 Caa2 Caa3 Ca C

Short-term Credit Quality Grades	S&P	Moody's
1	A-1+ A-1	P-1

2	A-2	P-2
3	A-3	P-3
4	Others[1]	Others

4.1.3 Credit risk mitigation

Wholesale

On/Off-Balance Sheet Netting

Cross-product netting and cross-product margining can be achieved through a qualifying master netting agreement that provides for termination, cross-default, and close-out netting across multiple types of financial transactions documented under multiple agreements. Close-out netting occurs when termination values of all transactions documented under a single agreement are calculated and netted to determine a single lump sum close-out amount that is either due to, or by, a counterparty. Determination on whether a margin can function as a legally recognizable risk mitigant against exposure and thereby decrease Citibank's exposure is made on a counterparty by counterparty, agreement by agreement basis, giving consideration to such factors as the place of organization of the counterparty, the insolvency laws applicable, the location of the margin, and the relevant documentation. Margining must be covered by an ISDA, Credit Support Annex (where appropriate) or equivalent Master Agreements if required by local law and/or as required by Legal.

Collateral Management and Valuation

Collateral and other secured assets should have perfected first priority security interest. This includes physical collateral (evaluated by an approved outside appraiser) as well as cash and financial collateral. All qualifying collateral that is pledged to support direct and contingent risk exposures must be legally enforceable and documented with insurance coverage as applicable. An approved technology system for collateral data collection and aggregation is used to track current collateral values for regulatory capital treatment. Collateral is reviewed annually or more often as deemed appropriate.

The Bank accepts physical collateral such as real estate in addition to cash and financial collateral. Acceptable guarantees are personal, third-party, and corporate guarantees.

Risk from collateral is mitigated by accepting only approved assets. Guarantees are primarily from qualified parties that are related to obligors or acceptable third parties in the form of SBLCs. Citibank does not maintain open positions in credit derivatives markets.

Credit Concentration Risk

Credit concentration risk is mitigated through established limits on specific portfolio characteristics such as obligor risk ratings, industry classifications, Risk Acceptance Criteria (RAC) deviations, and banking product types. These limits are regularly reviewed by management and escalated at certain thresholds. While the Institutional Clients Group (ICG) portfolio can potentially have some exposure concentrations, these are monitored through the monthly ICAPP Report circulated by CRMS, measuring relationship exposures against Legal Lending Limit rules, and the industry concentration tracking on the Risk Management update to CCC. The CCB portfolio has a high degree of granularity with small exposures that are individually limited by maximum customer facility limits as mandated by the credit policies, therefore, concentration risk is limited in this portfolio.

[1] Others: includes Non-prime ratings and B and C credit ratings

4.2 Market Risk for Trading Book

Market risk is the potential loss resulting from a change in the current economic value of a position due to changes in the associated underlying market risk factors. Market risk can arise in earnings risk from changes in interest rates, foreign exchange rates, and equity and commodity prices as well as in their implied volatilities.

The Bank is fully integrated into the overall Citi risk and control framework, balancing senior management oversight with well-defined independent risk management functions. It is the responsibility of the senior management of Citibank to implement Citi's risk policies and practices, and to respond to the needs and issues in the bank. The Bank's market risk management process is part of the Citibank N.A. risk management process.

In terms of internal controls, Market Risk unit, an independent group oversees market and liquidity risk and ensures the approved risk profile is consistent with Citibank's overall risk appetite. Market risk limits are approved by Regional Market Risk Manager based on discussion with business management in view of their business plans and revenue budget for the year.

Limits are monitored on a daily basis and excesses are highlighted to senior management and ratification by the traders whether to hold, reduce or close the position would be discussed together with the concurrence of Market Risk unit and the management of the Risk Taking Unit (RTU).

Trading Risk Measurement

The Bank has established limits to define risk tolerance and to keep trading risk exposure under control through several risk measurement parameters as follows:

Factor Sensitivities (FS): The FS are used to measure an instrument's sensitivity to a change in value e.g. DV01, IR Vega, FX Delta, FX Vega etc. Market Risk unit ensures that FS are calculated, monitored and an appropriate limit defined to manage the relevant risk in a trading portfolio.

Value-at-Risk (VaR): VaR estimates the potential decline in the value of a position or a portfolio, under normal market conditions, at a 99% confidence level over a 1 day holding, consistent with Basel III framework.

Stress Testing

Stress testing serves as a way in making management aware of the risks and P&L impact of extreme, abnormal movements of market variables and served as early warning triggers. In line with Basel III requirements, stress testing procedures are developed in response to business or market specific concerns and the scenarios are usually idiosyncratic in nature designed to probe the risk of each specific portfolio. Stress tests are applied to all Trading/Accrual portfolios within a specific business, as appropriate.

Back Testing

Back-testing is required by BOT on a periodic basis, in order to assess the adequacy of allocated market risk capital (derived from VaR) as a cushion to absorb losses. It is the comparison of ex-ante VaR to ex-post Profit and Loss (P&L) and excludes fees, commissions and intra-day trading from the P&L.

Capital Charge

For market risk capital charge, Citibank got approval from BOT to use a hybrid model which is a mixture of both Internal Model Approach (IMA) and Standardized Approach (SA).

The IMA is used to calculate capital charge for risk taking activities across all trading positions for all asset classes e.g. Interest Rate Risks, Foreign Exchange Risks etc. based on the VaR.

The SA is used only to calculate the capital charge arising from the funding of trading positions. The capital charge is calculated based on long or short position over a tenor bucket.

4.3 Interest Rate Risk in the Banking Book

Citibank is exposed to various risks associated with the effects of the fluctuations in the prevailing market interest rates on its financial positions and cash flows. Interest rate risk arises in both trading portfolios and non-trading portfolios. Interest rate risk primarily results from the timing differences in the re-pricing of interest-bearing assets and liabilities. It is also related to positions from non-interest bearing liabilities including shareholders' funds and current accounts, as well as from certain fixed rate loans and liabilities.

Interest rate risk is managed by the Treasury Department within limits approved by the Regional Treasury Risk Manager, including interest rate gap limits. The Country Assets and Liability Committee (ALCO) and Market Risk Manager ensure that it is consistently and fully applied within Citibank.

Asset and liabilities which are contractual in nature are monitored up to the re-pricing tenors. Non-interest bearing and perpetual products, e.g. current/saving accounts, credit cards, ready credit, are monitored for interest rate risk on core and non-core balances.

Interest Rate Risk Measurement

The Bank has established the following interest rate risk measurement and control limits for the Banking Book:

Interest Rate Exposure (IRE): IRE measures the potential pre-tax earnings impact, over a specified reporting period, for the accrual positions, from a defined change in the yield curve. It is a forward-looking measure.

Other comprehensive Income (OCI) Risk: OCI Risk measures the potential impact to the OCI accounts of a specified change in interest rates for the Available-for-Sale (AFS) portfolios. It is measured on a currency-by-currency basis for all portfolios that have significant AFS.

Stress Testing

Bank assesses interest rate risk in banking book by examining impacts on economic value stemming from a change in interest rate under several Stress scenarios.
Stress testing serves as a way in making management aware of the risks and P&L impact of extreme, abnormal movements of market variables and served as early warning triggers.

4.4 Equity Risk

Citibank did not engage in equity transaction during 2022.

4.5 Operational Risk

OPERATIONAL RISK MANAGEMENT PROCESS

Operational risk is defined as the risk of loss resulting from inadequacy or failure of a commercial bank's internal control processes, people and systems, or from external events, including legal risk (e.g. prosecutorial or litigation risk or authority-imposed fine as well as any loss stemming from out of court settlement agreement, etc.). However, this type of risk excludes strategic risk and reputational risk (BOT's notification No.SorNorSor. 95/2551).

Mitigating Operational Risk

The bank has **three lines of defense** to manage its operational risk. This is composed of the following: 1) units that own risks (first line of defense), 2) those that independently assess risk (second line of defense) and 3) units that provide independent assurance on effectiveness of the governance and management of risks (third line of defense). Additionally, the bank has units identified to maintain strong control environment (control and support functions). The lines of defense and control and support functions coordinate to identify, measure, monitor and control risk arising from activities.

The bank has several tools to monitor and manage operational risks. A few of the tools are mentioned below:

Manager's Control Assessment (MCA) Governance Risk and Control (GRC)– Risk is identified, assessed, and managed at different levels within the bank. The objective of the GRC is to standardize at the most appropriate level, how risks are assessed. This enhances data aggregation, reporting and analysis.

The MCA establishes a comprehensive self-assessment program, methodology and tools to support managers in mitigating their GRC Risks through consistent:

- Risk and control identification
- Risk and control assessment and monitoring
- Residual risk management

Internal Operational Risk Events Capture –is a system to capture losses, gains and recoveries for actual operational risk events, including credit boundary, near-miss and timing difference events

Lessons Learned and Event Reviews –business is required to assess significant internal or external adverse events if there is potential for similar event to occur or to prevent the internal event from occurring again.

Integrated Corrective Action Plans (iCAPS) – is the system used for management of issues and corrective action plans that are identified from various assessment processes. These include vendor reviews, internal audit, regulatory review, management observation, compliance testing and manager's control assessment.

The governance and oversight of significant compliance and operational risk is handled by the **Business Risk and Control Committee (BRCC)**. The BRCC is mandated to ensure that all material compliance and operational risks are adequately identified, monitored, reported, managed, and escalated. The committee ensures that actions are taken to address material risks in line with strategic objectives, policies, risk appetite thresholds and regulatory expectations. It is tasked to promote culture of risk awareness and high standards of conduct.

The bank uses a standard Taxonomy to identify, assess and report risks. These are:

1. Fraud Risk (excl. Technology)
2. Money Laundering Risk
3. Sanctions Risk
4. Bribery Risk
5. Customer/Client Protection Risk
6. Market Practices Risk
7. Governance & Prudential Risk
8. Risk Oversight Errors
9. Reporting Risk
10. Model Risk
11. Physical Damage Risk
12. Human Capital Risk
13. Processing Risk
14. Third Party Risk
15. Data Management Risk
16. Technology Risk (incl. Cyber)

Specific examples of programs for Continuity of Business (COB) and Cyber that are in place to mitigate Operational Risk include the following.

Citibank Thailand's COB standards support the safety of Citi's personnel and the soundness of its businesses through consistent enterprise-wide CoB risk management practices, including but not limited to risk assessment, recovery planning, testing, and crisis management. It's Citi's objective to ensure Business and Technology senior management engagement in and oversee the CoB practices. Citi is aware that failure to plan for and mitigate the effects of business disruptions could result in financial loss, legal or regulatory repercussions, reputational damage, or even physical harm to staff. This is why Citi's CoB Standards globally are aligned to the Federal Financial Institutions Examination Council (FFIEC) IT Examination Handbook on Business Continuity Planning, the Interagency Paper on Sound Practices to Strengthen the Resilience of the U.S. Financial System, as well as the International Standards Organization's ISO 22301 and ISO 22313 Standards on Societal Security – Business Continuity Management Systems. In addition, Citi's CoB Testing Standards define the testing required for business, application, and technology recovery strategies (including End User Computing and Third Parties) for the following business disruption scenarios:

- Unavailability of or "Denial of Access" to Primary Premises (includes Unavailability of Staff)
- Unavailability or "Denial of Service" of Technology due to a Data Center or Technology Room Outage
- Unavailability of services provided by External Third-Parties

Citi applies a risk-based approach in defining CoB testing requirements by distinguishing between Business Functions and supporting applications that have been classified as "Franchise Critical" versus all others classified with a subordinate business criticality level. It is also the objective of these standards to establish oversight, at the Citi-level, of the Business processes, to ensure appropriate consistency in practices. In summary, Citi's CoB program is designed to safeguard Citi's staff, business operations, and technology under a diverse set of conditions, including the resolution to ensure effective risk management and the resiliency of Citibank Thailand's continuity of business.

In addition, as the reliance on digital banking technology grows, Citi continues to enhance its Cyber Risk mitigation with an intelligence-led and information-sharing approach to Information Security. Citi brings together experts from its Global Information Security (GIS), Citi Security & Investigative Services (CSIS), and Security Operations Center (SOC) to ensure effective collaboration, information sharing, and strategic intelligence analysis that can support, enhance, and contribute to Citi's information security risk decision-making.

Citi's information security strategy is spearheaded by The Cyber Security Fusion Center (CSFC) located in three cities globally (New York, U.S.A., Budapest, Hungary and Singapore) that connects its collective intelligence around the clock with automation, analytics, and most important, human judgment, to support Citi's three strategic objectives:

- Prevent cyber-attacks against Citi and our critical partners by deterring, detecting, predicting, planning for, and preempting threats
- Reduce Citi's vulnerability and risk to cyber-attacks by sharing new knowledge and providing relentless follow-up on priority issues
- Minimize damage and recovery time from cyber-attacks that do occur by serving as a coordinating entity

The CSFC provides real time cyber security support (including timely and actionable intelligence) to each country through daily coordinated regional cyber calls (to share the latest cyber incidents and preventative actions) and provides a forum for local country incident escalation and immediate action to mitigate cyber risk.

Operational Risk Assessment

The Bank implemented Governance, Risk & Compliance (GRC) Standard and Procedure in Q2, 2019 that aim to achieve greater convergence across the company through common frameworks, assessment methodologies, processes and platforms for managing operational, compliance, conduct, legal and reputational risk and better alignment and transparency between the 1st, 2nd & 3rd Line of Defense. The Management's Control Assessment (MCA) Standard and Procedure establish a comprehensive self-assessment program, methodology and tools to support managers in mitigating their GRC Risks through consistent :

- Risk and control identification
- Risk and control assessment and monitoring
- Residual risk management

Individual residual risks and aggregated residual risk ratings are automatically derived between Tier 1 to 5, where Tier 1 is the highest risk and Tier 5 is the lowest risk. The MCA Governance Entity Owner (MGE owner) must review the main risk drivers of the MGE Residual Risk Rating and where necessary take steps to manage residual risk down. MGE rating for Thailand has been Tier 4 residual risk (low risk) since implementation in Q2, 2019. Control issues have little to no impact on the ability to meet business objectives and are mainly self-identified by management. Corrective action plans are generally short-term and compensating controls are consistently in place. Management has sufficient resources to fully correct all open issues timely.

For all products subject to review pursuant to the Citi New or Complex Products, Services and Business Line Policy or any other such new product approval policy or standard, relevant operational risks should be identified and documented where approval is required to ensure that these risks, both initially and ongoing, are properly considered and controlled.

The Bank currently uses the Standardized Approach (SA-OR) for calculating operational risk capital based on revenue, which is categorized into eight business lines according to the Bank of Thailand.

Bank of Thailand (BOT)'s requirement- Notification No. Sor.Nor.Sor. 95/2551: The calculation of value equivalent to operational risk-weighted asset by using SA-OR can be summarized in the formula below:

$$ERWA_{SA\text{-}OR} = 12.5 \times K_{SA\text{-}OR}$$

$$K_{SA\text{-}OR} = \frac{\sum_{Year1\text{-}3} max\,[\sum(GI_{1\text{-}8} \times \beta_{1\text{-}8}),0]}{3}$$

Where

$ERWA_{SA\text{-}OR}$	= Value equivalent to operation risk-weighted asset under SA-OR
$K_{SA\text{-}OR}$	= Minimum capital base for operational risk under SA-OR
$GI_{1\text{-}8}$	= Annual gross income for each of eight business lines
$\beta_{1\text{-}8}$	= Constant risk value under SA-OR which is assigned a different value for each type of eight business lines

To derive operational risk, the Bank has methodology as follows;

1. Allocating gross income for each business line by local General Ledgers (GL) with Local Product ID (PROD MIS). One GL with PROD MIS can go to only one type of income.
2. Apply beta in below table to each GI which is standardized approach from BOT to derive operational risk for year.

Gross Income type	Beta
Corporate Finance	18%
Trading and Sales	18%
Retail Banking	12%
Commercial Banking	15%
Payment and Settlement	18%
Agency Services	15%
Asset Management	12%
Retail Brokerage	12%

3. Calculate average amount of current year and 2 years prior.
4. Compute operational risk weight by multiplying 12.5.

To achieve a qualitative risk appetite, the Bank is committed to effective operational risk management and has a consistent, transparent replicable methodology and framework. Our Framework ensures operational risks are adequately identified, measured, monitored, managed, and reported by all business segments. Citi implemented the Operational Risk Management Policy and related Standards to assist in consistent and effective execution globally.

The Bank's Framework is aimed at achieving:

- Effective management of operational risks by determining that a well-controlled operating environment is in place; and
- Accurate operational risk measurement and quantification of the Bank's operational risk capital.

4.6 Liquidity Risk

Liquidity Risk is the risk that the firm will not be able to efficiently meet both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or the financial condition of the firm.

Thailand ALCO and Country Treasurer monitor the liquidity to maintain the flexibility required to meet regulatory and financial commitments. Management of liquidity is performed on a daily basis and is monitored by the Markets Treasury team which includes liquidity planning and the use of ratios, limits, triggers, and stress testing with the addition of management of the transfer pricing. To mitigate the risk associated with intraday volatility, the escalation triggers for intraday liquidity monitoring have been established. Any failure to meet the minimum funding requirement will be escalated to seniors/ALCO together with the corrective action. In addition, five days cash flow forecast has been provided on a daily basis to estimate short-term cash inflows/outflows. A series of standard firm wide liquidity ratios has been established to monitor the structural elements of the Bank's liquidity.

4.7 Strategic Risk

Strategic risk is the immediate and potential impact on earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to external and internal changes. This risk is a function of the compatibility of the Bank's strategic goals, the business strategies developed to achieve those goals, the resources deployed against these goals, and the quality of implementation.

Strong governance processes and controls around the approval of new products, activities, complex transactions, structures and core processes help mitigate such risks.

4.8 Reputation Risk

Reputation risk is defined as the risk to current or projected financial condition and resilience arising from negative public opinion. As a service-based company, this risk is material and closely related to franchise risk. Part of the assessment process of all products and lines of business is a specific assessment of reputation risk impacting the franchise's reputational position. Among other things, the suitability and appropriateness of products offered and the intrinsic sophistication of clients in understanding the risk factors behind the same are considered. There are specified rules of conduct in both the wholesale and retail segments that ensure that the reputational and regulatory risks of the franchise are kept in mind at all times.

Mitigations for reputation risk exist across the franchise at numerous levels and functions. The Bank has a comprehensive grievance addressing mechanism where there is an escalation process to ensure that all complaints are handled with an unbiased and objective approach.

Citi's corporate reputation is a valuable corporate asset and the way information is communicated to the media and the public has an impact on its reputation. Importance is given to ensuring fair and accurate reporting of the company's business to all external stakeholders and audiences. As an internal control for reputational risk management, Citi has a strict Public Disclosure and Communication Policy that details the guidelines for speaking to the media and the sharing of company and product information. Only authorized spokespersons can speak on behalf of or about Citi with the media, investors, securities analysts, or government officials. External communication is reviewed to ensure clarity and consistency as well as transparency. For cases where there is possible impact on Citi's reputation, senior management and Public Affairs work closely together to negate any potential impact. Internally, Public Affairs is the key guardian of Citi's reputation and there is an escalation policy in place that ensures Public Affairs is kept informed of any potential negative impact arising from internal business decisions, staff behavior, customer complaints, business partner relationships, or regulatory actions.

5. Key Internal Governance Committees / Forums

Strong governance is driven through the involvement of senior management in various governance meetings. The key meetings are detailed below:

Committee	Role of Committee	Committee Members	Frequency
Country Coordinating Committee (CCC)	A high level strategic committee in which senior managers of all businesses and functions are brought together to raise and discuss issues, including legal, compliance, regulatory, risk, control, or public relations that could affect the franchise. It also provides a clearinghouse for the escalation process up to region and corporate management.	CCO, All Business Heads, CBM, Heads of global functions (Finance, RMCO, Legal, Compliance, ORM, HR, O&T, CSIS, IA, Government Affairs, Public Affairs)	Monthly
Business Risk Compliance & Control Committee (BRCC)	The purpose of the BRCC Committee is to provide a Senior Management forum to discuss significant risk, control, compliance and legal issues and events that can have a significant regulatory, reputational or financial impact towards meeting business objectives. Note: Local Regulatory Reporting Governance was merged with BRCC starting 2018.	CCO, CBM, CFO, O&T Head, Risk, All Business Heads, Legal, ORM, Compliance, HR, Government Affairs, IA, CSIS	Quarterly
Asset & Liability Committee (ALCO)	The Thailand Asset and Liability Committee has been established for governing Liquidity Risk and Market Risk in the Accrual Book/Non-Trading Book, and for monitoring and influencing the balance sheet, investment securities and capital management activities. The Committee oversees all legal entities in Thailand.	CCO, Country Treasurer, CFO, RMCO, Market Risk Manager, Corporate Treasury, Cluster Treasurer and key Business heads	The Committee shall meet as frequently as it determines necessary but no less than a minimum frequency of one (1) time quarterly, and the Chair can convene the Committee at any time, provided all members are given notice in advance.
Country Third Party Risk Steering Committee (CTPM- SC)	The Country Third Party Risk Steering Committee's primary purpose is to ensure effective implementation, execution and prescribed governance of Third Party Management Policy & Standards within the country and businesses and drive sustainable management practices that are commensurate with the level of risk and complexity of all third party relationships.	CCO, Country Third Party Risk Manager, Country O&T Head, Country ERC Head, BISO, Country RMO, ICG Risk & Control, CSIS Head, Country CBORC, CHRO, Country Finance Officer, Country Legal	No Less than Quarterly

		Counsel, CCCO, and Country ORM Head.	
Information Technology Steering Forum (ITSF)	Facilitate IT related updates to the business units to ensure that they are aware of the risks and issues being faced by technology. ITSF was established to address the gap that was found in the published 2018 BoT IT Risk Guidelines. ITSF is not a chartered committee.	CCO, CBM, CFO, SCOO, TTS Prod Head, CCB Head, ICRM Head, CST Head	Monthly
AML Governance & Business Risk Committee (GBRC)	The purpose of the AML Thailand GBRC is to provide a governance structure for (i) the identification, assessment, monitoring, control and reporting of Bank Secrecy Act (“BSA”), anti-money laundering (“AML”), and economic sanctions (including, but not limited to, the Office of Foreign Assets Control sanctions) (“Sanctions”) risks and (ii) the implementation, evaluation and enhancement of policies and procedures relating to compliance with relevant BSA/AML/Sanctions and country-specific rules and regulations (the “AML and Sanctions Program”). The objective is to maintain oversight of and implement enhancements to a globally standardized governance model that represents an integrated, consistent, and proactive AML and Sanctions risk management framework for program execution, risk assessment and issue escalation with the goal of preventing money laundering, sanctions violation and terrorist financing.	CCO, CBM, AMLCO, ORM, Compliance, O&T Head, Risk, Legal, Business Head (CCB, TTS, RB, BCMA, Markets and Card) CBOC and Regional AML M&I FIU	Bi-monthly
Risk Management Country Forum (RMCF)	A forum for all the in-country / respective country risk management heads to provide an update for their respective businesses, deal with franchise level risk matters related to their businesses, provide risk management partnership to the CCO to ensure timely escalation and resolution of franchise level risk issues and foster best practices and knowledge sharing among all the in-country risk managers. The RMCO serves as the single point of contact for all franchise level risk matters in the country.	CCO, CFO, RMCO and the Risk Management Heads for Operational Risk, Consumer Risk, Financial Institutions Risk, Regional Credit Risk, Commercial Bank Risk, and Market Risk Management.	Quarterly
Legal Entity Management	Bring senior managers of all businesses and functions together to raise and discuss issues	CFO, CCO, CBM, Country Treasurer,	Semi-Annual

Committee (LEMC)	important to each Legal Vehicle and support a consistent view of the Citi to regulators, minimize reputational risk, and monitor that legal entities within Thailand jurisdictions are operated as approved and in accordance with applicable laws and Citi Legal Entity Management Policy.	Country Counsel, Markets Treasury Head, Controller, Compliance, Tax, Product and Control Heads, HR, ORM	
Accounts Review Forum (ARF)	To provide senior oversight, monitoring and guidance on the overall Balance Sheet Control framework and issues and help resolve account related issues.	O&T Head, CFO, ERC, Controller, ORM, Risk, BSS	Monthly

Table 1 : Key Prudential Metrics

Unit : Million Baht

Item		Dec-22	Jun-22
1	**Capital Fund**		
1	Total Capital	25,800	25,688
1	Fully loaded ECL total Capital	25,800	25,688
2	**Risk Weighted Assets**		
2	Total Risk Weighted Assets (RWA)	113,243	169,808
3	**Total Capital to risk weighted assets (%)**		
3	Total Capital Ratio	22.78%	15.13%
3	Fully loaded ECL total capital ratio	22.78%	15.13%
4	**Capital Buffers Ratio (%)**		
4	Conservation Buffer	2.50%	2.50%
4	Counter cyclicle Buffer	0.00%	0.00%
4	Capital Buffer (Sum of 4.1 and 4.2)	2.50%	2.50%
4	Total Capital Ratio after minimum capital requirement	15.11%	15.11%
5	**Liquidity Coverage Ratio (LCR %)**		
5	Total high-quality liquid assets (HQLA)	132,187	74,063
5	Total net cash outflows within the 30 day time horizon	20,561	16,149
5	LCR (%)	642.90%	458.62%

Table 2 : Capital structure

Unit : Million Baht

Item	Dec-22	Jun-22
1. Assets required to be maintained under Section 32	**25,800**	**25,800**
2. Sum of net capital for maintenance of assets under Section 32 and net balance of inter-office accounts (2.1+2.2)		
2.1 Capital for maintenance of assets under Section 32	25,800	25,800
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	1,547	3,204
3. Total regulatory capital (3.1 - 3.2)		
3.1 Total regulatory capital before deductions (The lowest amount among item 1 item 2 and	25,800	25,800
3.2 Deductions	**0**	**111**

Table 3 Minimum capital requirements

Unit : Million Baht

Credit risk classified by type of assets under the SA	Dec-22	Jun-22
Performing claims		
1. Claims on sovereigns and central banks, multilateral development banks (MDBs), and non-central government public sector entities (PSEs) treated as claims on sovereigns	66	28
2. Claims on financial institutions, non-central government public sector entities (PSEs) treated as claims on financial institutions, and securities firms	1,824	2,590
3. claims on corporates , non-central government public sector entities (PSEs) treated as claims on co	5,723	5,858
4. Claims on retail portfolios	0	5,469
5. Claims on housing loans	0	3
6. Other assets	193	444
Non-performing claims	0	46
First-to-default credit derivatives และ Securitisation	**0**	**0**
Total minimum capital requirement for credit risk under the SA	**7,806**	**14,438**

Market risk	Dec-22	Jun-22
1. Standardised approach	N/A	N/A
2. Internal model approach	1,357	799
Total minimum capital requirement for market risk	**1,357**	**799**

Opeational isk	Dec-22	Jun-22
Calculate by Standardised Approach	3,292	3,441

Unit : %

Capital ratio	Dec-22	Jun-22
Total capital to risk-weighted assets	22.78%	15.13%

Table 4 Outstanding amounts of significant on-balancesheet assets and off-balance sheet items before adjusted by Credit risk mitigation

Unit : Million Baht

	Item	Dec-22	Dec-21
1	**On-Balance Sheet assets (1.1 + 1.2 + 1.3 + 1.4)**	**249,563**	**231,606**
	1.1 Net Loan s and accrued in terest, Net	112,717	134,086
	1.2 Net Investment in debt securities	82,173	60,058
	1.3 Deposits (Including accrued interest receivables)	23,948	17,001
	1.4 Derivative Assets	30,725	20,461
2	**Off-Balance Sheet assets (2.1 + 2.2 + 2.3)**	**2,062,229**	**1,891,837**
	2.1 Aval of bills, guarantees, and letter of credits	7,714	8,234
	2.2 OTC derivatives	2,030,554	1,579,287
	2.3 Undrawn committed lines	23,961	304,316

Table 5 Outstanding amounts of on-balance sheet assets and off-balance sheet items before adjusted credit risk mitigation classified by country or geographic area of debtor

Dec-22 Unit : Million Baht

Country or geographic area of debtor	On-Balance sheet assets					Off-balance sheet items			
	Total	Net Loans and Accrued Interest	Net Investment in debt securities	Deposits (Including accrue interest receivables)	Derivative Assetrs	Total	Aval of bills, guarantees, and letter of credits	OTC derivatives	Undrawn committed line
1. Thailand	211,001	112,364	82,173	2,985	13,479	**1,075,415**	5,699	1,046,240	23,476
2. Asia Pacific (Excluded Thailand)	26,576	324		20,956	5,296	**201,170**	10	201,061	99
3. North America and Latin America	9,594	22			9,572	**497,776**	1,988	495,446	342
4. Africa and Middle East	-					**3**	3	-	-
5. Europe	2,391	6		7	2,378	**287,865**	15	287,806	44
Total	**249,562**	**112,716**	**82,173**	**23,948**	**30,725**	**2,062,229**	**7,715**	**2,030,553**	**23,961**

Dec-21

Country or geographic area of debtor	On-Balance sheet assets					Off-balance sheet items			
	Total	Net Loans and Accrued Interest	Net Investment in debt securities	Deposits (Including accrue interest receivables)	Derivative Assetrs	Total	Aval of bills, guarantees, and letter of credits	OTC derivatives	Undrawn committed line
1. Thailand	209,889	133,627	60,058	2,555	13,649	**1,382,509**	6,236	1,075,810	300,463
2. Asia Pacific (Excluded Thailand)	16,643	459		14,423	1,761	**156,607**	931	152,383	3,293
3. North America and Latin America	4,082				4,082	**231,670**	969	230,701	-
4. Africa and Middle Eash	-					**-**	-	-	-
5. Europe	992			23	969	**121,051**	98	120,393	560
Total	**231,606**	**134,086**	**60,058**	**17,001**	**20,461**	**1,891,837**	**8,234**	**1,579,287**	**304,316**

Table 6 Outstanding amounts of on-balance sheet and off balance sheet. Items before credit risk mitigation classified by residential maturity.

Unit : Million Baht

Item		Dec-22		
		Maturity not exceeding 1 year	Maturity exceeding 1 year	Total
1	**On-Balance Sheet assets (1.1 + 1.2 + 1.3 + 1.4)**	**70,356**	**179,206**	**249,562**
	1.1 Net Loan s and accrued in terest, Net	6,399	106,317	112,716
	1.2 Net Investment in debt securities	45,825	36,348	82,173
	1.3 Deposits (Including accrued interest receivables)	4	23,944	23,948
	1.4 Derivative Assets	18,128	12,597	30,725
2	**Off-Balance Sheet assets (2.1 + 2.2 + 2.3)**	**1,039,129**	**1,023,100**	**2,062,229**
	2.1 Aval of bills, guarantees, and letter of credits	4,297	3,418	7,715
	2.2 OTC derivatives	1,011,904	1,018,649	2,030,553
	2.3 Undrawn committed lines	22,928	1,033	23,961

Item		Dec-21		
		Maturity not exceeding 1 year	Maturity exceeding 1 year	Total
1	**On-Balance Sheet assets (1.1 + 1.2 + 1.3 + 1.4)**	**110,941**	**120,666**	**231,607**
	1.1 Net Loan s and accrued in terest, Net	62,520	71,566	134,086
	1.2 Net Investment in debt securities	23,248	36,810	60,058
	1.3 Deposits (Including accrued interest receivables)	17,001	-	17,001
	1.4 Derivative Assets	8,172	12,290	20,462
2	**Off-Balance Sheet assets (2.1 + 2.2 + 2.3)**	**1,084,769**	**807,068**	**1,891,837**
	2.1 Aval of bills, guarantees, and letter of credits	4,144	4,090	8,234
	2.2 OTC derivatives	780,059	799,228	1,579,287
	2.3 Undrawn committed lines	300,566	3,750	304,316

Net Loan - Including accrued interest receivablews and net of deferred incomes, allowances for expected c redit loss and including net loans and accrued interest of interbank and money market

Net Loan - Including accrued interest receivablews and net of deferred incomes, allowances for expected c redit loss and including net loans and accrued interest of interbank and money market

Deposits - Including accrued interest and net from allowance for expected credit loss

Off-Balance sheet items presneted notional amount before multiplying credit conversion factor

Tabnle 7 Outstanding Amounts of financial instruments before credit riskmitigation and provision (General Provision and Specific Provision)

Unit : Million Baht

Item	Dec-22						
	Outstanding amount			Provision under SA			Net Amount 2/
	Defaulted Exposures	Non-Defaulted Exposures	Total	General Provision	Specific Provision	Provision 1/	
1. Net Loans and accrued Interest 3?	635	112,775	113,410	-	694	694	112,716
2. Net Investment in debt securities 4/	-	82,205	82,205	-	31	31	82,174
3. Deposits (Including accrued interest receivablews)	-	23,948	23,948	-	-	-	23,948
4. Undrawn commitment and financial Guarantee	-	23,631	23,631	-	3	3	23,628

Item	Dec-21						
	Outstanding amount			Provision under SA			Net Amount 2/
	Defaulted Exposures	Non-Defaulted Exposures	Total	General Provision	Specific Provision	Provision 1/	
1. Net Loans and accrued Interest 3?	1,235	138,419	139,654	309	5,607	5,916	133,738
2. Net Investment in debt securities 4/	-	60,095	60,095	- 10	37	27	60,068
3. Deposits (Including accrued interest receivablews)	-	17,020	17,020	-	18	18	17,002
4. Undrawn commitment and financial Guarantee	27	312,523	312,550	-	24	24	312,526

1/ Allowance for expected credit loss under TFRS9. For financial instrument measured at fair value through other comprehensive income, provision is not reported as per TFRS7 disclosure of Financial Instrument. The outstanding balance under this instrument is to be reported with net amount after provision.

2/ Outstanding amount - provision

3/ Including accrued interest receivables and net of deferred income, allowance for expected credit loss and including net loans and accrued interest of interbank and money market

4/ Excluding accrued interest receivables and net of allowances for revaluation of securities and allowance for expected credit loss

5/ Including accrued interest and net from allowance for expected credit loss

6/ Before multiplying credit conversion factor

Table 8 Outstanding amount of loans and including accrued interest receivables and investment in debt securities before adjusted by credit risk mitigation by countries and geographic area of debtors and classification defined by the Bank

Unit : Million Baht

	Dec-22						
	Net Loans and accrued interest					Net Investment in Debt Securities	
Item	Performing	Under-performing	Non-Performing	POCI	Total	Performing	Total
1. Thailand	112,192	173	-	-	112,365	82,173	82,173
2. Asia Pacific (Excluded Thaila	324	-		-	324	-	-
3. North America and Latin Am	22				22		-
4. Europe	6				6		-
Total	**112,544**	**173**	**-**	**-**	**112,717**	**82,173**	**82,173**

	Dec-21						
	Net Loans and accrued interest					Net Investment in Debt Securities	
Item	Performing	Under-performing	Non-Performing	POCI	Total	Performing	Total
1. Thailand	132,578	779	270	-	133,627	60,058	60,058
2. APAC	458	-		-	458	-	
Total	**133,036**	**779**	**270**	**-**	**134,085**	**60,058**	**60,058**

Table 9 Provisions (General provision and Specific provision) and bad debt written-off during period for loan including accrued interest receivables and investment in debt securities classified by country or geographic area

Unit : Million Baht

Item	Dec-22				
	Net Loans and accrued interest [1/]			Net Investment in Debt Securities	
	General Provision	Specific provision	Bad debt written-off during the period	Performing	Total
1. Thailand		689	-	31	31
2. Asia Pacific (Excluded Thailand)		-		-	
Total	**414**	**689**	**-**	**31**	**31**

Item	Dec-21				
	Net Loans and accrued interest			Net Investment in Debt	
	General Provision	Specific provision	Bad debt written-off during the period	Performing	Total
1. Thailand		5,539	3,581	37	37
2. APAC		-		-	
Total	**412**	**5,539**	**3,581**	**37**	**37**

1/ Including specific provision and bad debt written-off during the period of loan and interest receivable for interbank and money market

Table 10 Outstanding amout of loan including accrued interest receivables before adjusted by credit risk mitigation classified by type of business and classification defined by the Bank of Thailand

Unit : Million Baht

Typew of business	Dec-22 Performing	Under Performing	Non-Performing	POCI	Total
-Agriculture and mining	92			-	92
- Manufacturing and commerce	31,727	158		-	31,885
- Real estate buiess and construction	116				116
- Public utilities & service	4,586	14			4,600
- Housing Loans	-				-
- Credit Card	-	-	-		-
- Personal Consumption	-	-	-		-
- Interbank and money market	71,552				71,552
- Leasing service	3,011				3,011
- Other Financial services	1,461				1,461
- Other					-
Total	112,545	172	-	-	112,717

Unit : Million Baht

Typew of business	Dec-21 Performing	Under Performing	Non-Performing	POCI	Total
-Agriculture and mining	291			-	291
- Manufacturing and commerce	26,614			-	26,614
- Real estate buiess and construction	52				52
- Public utilities & service	4,865	2			4,867
- Housing Loans	71				71
- Credit Card	43,973	198	129		44,300
- Personal Consumption	20,727	579	140		21,446
- Interbank and money market	29,858				29,858
- Leasing service	3,801				3,801
- Other Financial services	2,056				2,056
- Other	731				731
Total	133,039	779	269	-	134,087

Table 11 Provisions (General provision and Specific provision) and bad debt written-off during period for loan including accrued interest receivables * classified by types of business

Typew of business	Dec-22			Dec-21		
	General provision	Specific provision	Bad debt written off	General Provision	Specific Provision	Bad debt written off
-Agriculture and mining					-	
- Manufacturing and commerce		679			669	
- Real estate buiess and construction		-			-	
- Public utilities & service		7			4	
- Housing Loans		-			-	
- Credit Card		-			1,859	1,639
- Personal Consumption		-			3,004	1,941
- Interbank and money market		4				
- Leasing service		1			1	
- Other Financial services		2				
- Other		-			1	
Total		693	-	283	5,538	3,580

Table 12 Reconciliaion of change in provisions (General provision and Specific provision) for loans including accrued interest receivables*

Descriptions	Dec-22			Dec-21		
	General provision	Specific provision	Total	General Provision	Specific Provision	Total
Provision at the beginning of the period		5,538	5,538		5,024	5,024
Bad debts written-off during the period		-	-		3,580	3,580
Increased decreased of provision		- 4,848	- 4,848		4,094	4,094
Other provisions		-	-		-	-
Provision at the end of peirod	**414**	**690**	**690**	**283**	**5,538**	**5,538**

* Including interbank and money market

Table 13 Outstanding amounts of on-balance sheet assets and off-balance sheet items classified by type of assets under the SA

Unit : Million Baht : Million Baht : Million Baht

Credit risk classified by type of assets under the SA	Dec-22			Dec-21		
	On balance sheet	Off Balance Sheet	Total	On Balance Sheet	Off Balance Sheet	Total
Performing claims						
1. Claims on sovereigns and central banks, multilateral development banks (MDBs), and non-central government public sector entities (PSEs) treated as claims on sovereigns	87,650	245	87,895	62,205	361	62,566
2. Claims on financial institutions, non-central government public sector entities (PSEs) treated as claims on financial institutions, and securities	118,146	15,150	133,296	46,866	25,202	72,068
3. claims on corporates , non-central government public sector entities (PSEs	46,263	5,922	52,185	39,255	9,513	48,768
4. Claims on retail portfolios	0		0	65,475		65,475
5. Claims on housing loans	0		0	71		71
6. Other assets	1,922	0	1,922	37,811		37,811
Non-performing claims	0	0	0	270	37	307
First-to-default credit derivatives และ Securitisation	**0**	**0**	**0**	**0**	**0**	**0**
Total minimum capital requirement for credit risk under the SA	**253,981**	**21,317**	**275,298**	**251,953**	**35,113**	**287,066**

Table 14 Minimum capital requirement for each type of market risk under the Standardized Approach

Unit : Million Baht

Minimum capital requirement for market risk under the standardised approach	Dec-22	Jun-22
Interest rate risk	-	-
Equity position risk	-	-
Foreign exchange rate risk	-	-
Commodity risk	-	-
Total minimum capital requirement	-	-

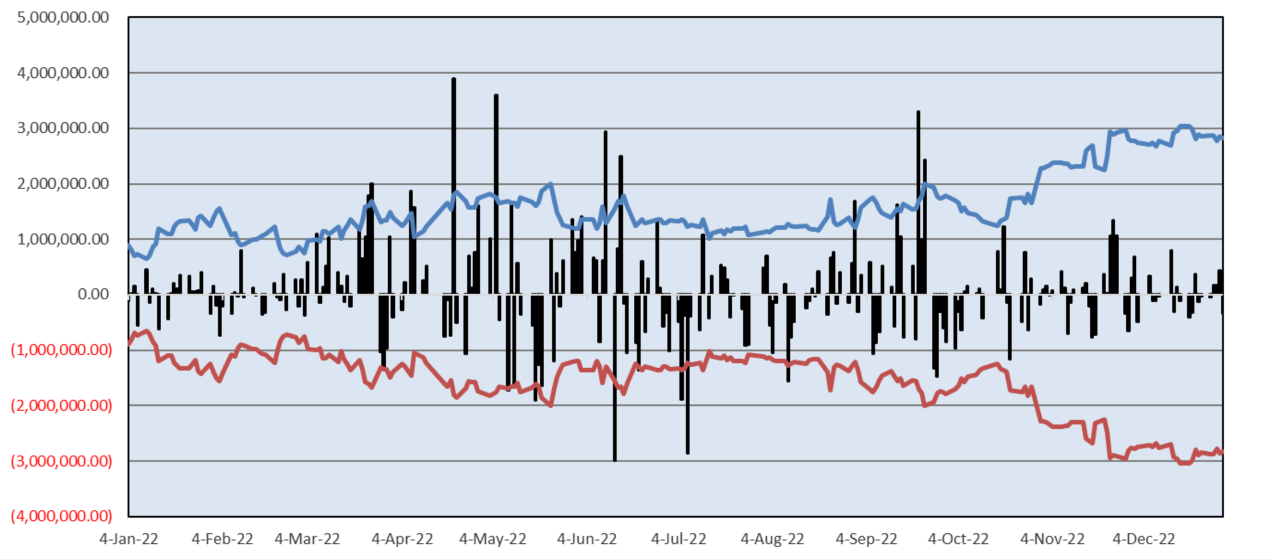
Citibank Thailand uses Internal Model

Table 15 Market risk under Internal Model Approach

Unit: Million Baht

Type of Market Risk	Dec-22	Jun-22
Interest rate risk		
Maximum VaR during the reporting period	103	70
Average VaR during the reporting period	63	45
Minimum VaR during the reporting period	35	23
VaR at the end of the period	96	44
Equitiy position risk		
Maximum VaR during the reporting period	-	-
Average VaR during the reporting period	-	-
Minimum VaR during the reporting period	-	-
VaR at the end of the period	-	-
Foreign exchange rate risk		-
Maximum VaR during the reporting period	47	28
Average VaR during the reporting period	6	5
Minimum VaR during the reporting period	1	1
VaR at the end of the period	6	11
Commodity risk		
Maximum VaR during the reporting period	-	-
Average VaR during the reporting period	-	-
Minimum VaR during the reporting period	-	-
VaR at the end of the period	-	-
Total market risk		
Maximum VaR during the reporting period	105	71
Average VaR during the reporting period	64	46
Minimum VaR during the reporting period	35	23
VaR at the end of the period	98	46

Table 16 Backtesting result



* Commercial banks are allowed to disclose the information in form of "Graph"

** Together with an analysis of outliners from Backtesting

Backtesting Outliners

P&L date (T)	VaR (in THB MM) (T - 1)	Hypo P&L (in THB MM) (T)	Explanation
8-Mar-22	996.55	1,093.88	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB rate curve 2Y to 3Y tenor by 8.50 to 9.50 bps with a positive $151k DV01, resulting to a $1.4mm gain & Onshore THB USD XCCY 5Y tenor by 10.50 bps with a negative $39k DV01, resulting to a $407k loss
22-Mar-22	1,178.57	1,210.76	This is a positive VAR back testing break. The gain mainly driven by increase of onshore THB rate curve 3Y tenor by 11.50 bps with a positive $80k DV01, resulting to a $924k gain
25-Mar-22	1,605.51	1,778.01	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR 7Y tenor by 11.00 bps with a positive $82k DV01, resulting to a $905k gain & Onshore THB rate curve 3Y to 5Y tenor by 14.50 to 15.00 bps with a positive $60k DV01, resulting to a $857k gain

P&L date (T)	VaR (in THB MM) (T - 1)	Hypo P&L (in THB MM) (T)	Explanation
28-Mar-22	1,679.10	1,995.65	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR 7Y tenor by 12.00 bps with a positive $82k DV01, resulting to a $986k gain & Onshore THB rate curve 3Y tenor by 4.50 bps with a positive $80k DV01, resulting to a $358k gain
30-Mar-22	1,339.39	-1,340.68	The break was mainly driven by the delta effect of derivative positions amounting to a $1.37mm loss and is mainly coming from the following: - Onshore THB rate curve 2Y to 3Y tenor which decreased by 14.50 bps with a positive $131k DV01, resulting to a $1.89mm loss. The MFCV vols for onshore THB IRS in 2Y and 3Y are 7 to 8 bps which are lower than the actual THB interest rate movement at 14.5bps, hence VAR backtesting break.
8-Apr-22	1,466.23	1,871.70	This is a positive VAR back testing break. The gain mainly driven by increase of Offshore THB rate curve 4Y to 5Y tenor by 11.00 bps with a positive $86k DV01
11-Apr-22	1,051.09	1,577.28	This is a positive VAR back testing break. The gain mainly driven by increase of offshore THB rate curve 4Y to 5Y tenor by 11.00 to 12.50 bps with a positive $85k DV01
22-Apr-22	1,806.78	3,888.05	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR 7Y tenor by 18.00 bps with a positive $71k DV01, resulting to a $1.28mm gain & Offshore THB rate curve 5Y tenor which increased by 13.00 bps with a positive $75k DV01, resulting to a $980k gain
6-May-22	1,756.73	3,590.05	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR 7Y to 10Y tenor by 20.00 bps with a positive $69k DV01, resulting to a $1.38mm gain & Offshore THB rate curve 5Y tenor by 17.50 bps with a positive $70k DV01, resulting to a $1.23mm gain
10-May-22	1,683.27	-1,729.80	The break was mainly driven by the delta effect of derivative positions amounting to a $1.61mm loss and is mainly coming from the following: - Onshore THB rate curve 2Y tenor which decreased by 11.00 bps with a positive $64k DV01, resulting to a $703k loss. The MFCV vols for Onshore THB rate curve 2Y is 7bps which are lower than the actual THB interest rate movement at 11bps, hence VAR backtesting break.
19-May-22	1,607.34	-1,903.47	The break was mainly driven by the delta effect of derivative positions amounting to a $2.08mm loss and is mainly coming from the following: - Onshore THB THOR 7Y tenor which decreased by 17.00 bps with a positive $75k DV01, resulting to a $1.28mm loss. The MFCV vols for onshore THB THOR in 7Y is 15bps which are lower than the actual THB interest rate movement at 17bps, hence VAR backtesting break.
31-May-22	1,207.37	1,355.70	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB rate curve 2Y tenor by 7.00 bps with a positive $68k DV01, resulting to a $476k gain & Onshore THB THOR 7Y tenor by 5.50 bps with a positive $68k DV01, resulting to a $372k gain
6-Jun-22	1,355.17	1,402.39	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB rate curve 2Y tenor by 10.00 bps with a positive $78k DV01, resulting to a $781k gain & Offshore THB rate curve 5Y tenor by 4.00 bps with a positive $51k DV01, resulting to a $203k gain
13-Jun-22	1,291.91	2,939.39	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB rate curve 3Y tenor by 26.00 bps with a positive $67k DV01, resulting to a $1.75mm gain & Offshore THB rate curve 5Y tenor which increased by 27.50 bps with a positive $49k DV01, resulting to a $1.34mm gain

(T)	(T - 1)	(T)	
14-Jun-22	1,534.18	-2,986.02	The break was mainly driven by the delta effect of derivative positions amounting to a $2.29mm loss and is mainly coming from the following: - Onshore THB THOR curve 7Y tenor which decreased by 13.00 bps with a positive $57k DV01, resulting to a $743k loss. - Onshore THB rate curve 3Y to 4Y tenor which decreased by 6.50 to 8.00 bps with a positive $91k DV01, resulting to a $629k loss. - Onshore THB THOR curve 2Y tenor which decreased by 8.00 bps with a positive $59k DV01, resulting to a $474k loss. - Offshore THB rate curve curve 5Y tenor which decreased by 6.50 bps with a positive $48k DV01, resulting to a $309k loss. - Onshore THB THOR curve 1Y tenor which increased by 2.50 bps with a negative $65k DV01, resulting to a $162k loss. Based on the comparison against implied MFVC vols/day from CVAR, the implied rate movement is lower (implied daily vols for THOR curve 7Y at 7bps) than the actual rate movement (13bps). Hence, VaR backtesting break
16-Jun-22	1,650.35	2,496.20	This is a positive VAR back testing break. The gain mainly driven by increase of Offshore THB rate curve 3Y to 7Y tenor by 18.50 to 23.50 bps with a positive $57k DV01, resulting to a $1.32mm gain & Onshore THB THOR 2Y to 3Y tenor by 8.00 to 9.50 bps with a positive $91k DV01, resulting to a $815k gain
22-Jun-22	1,307.18	-1,353.41	The break was mainly driven by the delta effect of derivative positions amounting to a $839k loss and is mainly coming from the following: - Onshore THB rate curve 3Y tenor which decreased by 10.00 bps with a positive $68k DV01, resulting to a $677k loss. Based on the comparison against implied MFVC vols/day from CVAR, the implied rate movement is lower (implied daily vols for Onshore THB rate curve 3Y at 8bps) than the actual rate movement (10bps). Hence, VaR backtesting break
6-Jul-22	1,354.09	-1,884.20	The break was mainly driven by the delta effect of derivative positions amounting to a $1.52mm loss and is mainly coming from the following: - Onshore THB rate curve 2Y tenor which decreased by 12.50 bps with a positive $71k DV01, resulting to a $893k loss. - Onshore THB THOR 7Y tenor which decreased by 11.00 bps with a positive $54k DV01, resulting to a $590k loss Based on the comparison against implied MFVC vols/day from CVAR, the implied rate movement is lower (implied daily vols for Onshore THB rate curve in 2Y at 8bps and implied volatility for THOR curve in 7Y is at 8bps) than the actual rate movement (11bps - 12.5bps). Hence, VaR backtesting break
8-Jul-22	1,229.23	-2,860.23	The break was mainly driven by the delta effect of derivative positions amounting to a $2.00mm loss and is mainly coming from the following: - Onshore THB rate curve 2Y tenor which decreased by 14.00 bps with a positive $72k DV01, resulting to a $1.00mm loss. - Onshore THB THOR 2Y to 3Y tenor which decreased by 11.50 bps with a positive $76k DV01, resulting to a $871k loss Based on the comparison against implied MFVC vols/day from CVAR, the implied rate movement is lower (implied daily vols for Onshore THB rate curve 2Y at 8bps, implieand daily vols for THOR in 2Y & 3Y are 8bps & 9bps) than the actual rate movement (14bps & 11.5bps). Hence, VaR backtesting break
10-Aug-22	1,273.30	-1,557.02	The break was mainly driven by the delta effect of derivative positions amounting to a loss of $804k and is mainly coming from the following: - Onshore THB USD XCCY 1Y tenor which increased by 7.16 bps with a negative $50k DV01, resulting to a $356k loss. - Onshore THB rate curve 4Y tenor which decreased by 6.50 bps with a positive $41k DV01, resulting to a $266k loss. Based on the comparison against implied MFVC vols/day from CVAR, the implied rate movement is lower (implied daily vols for Onshore THB USD XCCY curve 1Y at 1bps, implied daily vols for Onshore THB rate curve 4Y at 3bps) than the actual rate movement (7.16bps & 6.5bps). Hence, VaR backtesting break
1-Sep-22	1,209.86	1,682.89	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR rate 3Y tenor by 13 bps with a positive $38k DV01 and the increase of THB THOR rate 10Y tenor by 12.5bps with a positive $39k DV01, resulting to a $0.98mm gain & Offshore THB rate 4Y to 5Y tenor which increased by 15.5 bps to 16.5 bps with a positive $21k DV01, resulting to a $0.34mm gain
15-Sep-22	1,554.09	1,618.66	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR rate 7Y tenor by 9.5 bps with a positive $77k DV01 resulting to a $0.7mm gain, and the increase of onshore THB rate 3Y tenor by 10bps with a positive $48k DV01, resulting to a $0.48mm gain & onshore THB X ccy swap rate 1Y tenor which decreased by 10.35 bps with a negative $35k DV01, resulting to a $0.36mm gain
22-Sep-22	1,704.04	3,300.60	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR rate 1.5Y to 2Y tenor by 16 bps to 16.84 bps with a positive $102k DV01 resulting to a $1.64mm gain, and the increase of onshore THB rate 3Y to 4Y tenor by 14.5 bps to 16 bps with a positive $78k DV01, resulting to a $1.2mm gain & THB THOR rate 10Y tenor which increased by 6.5 bps with a positive $38k DV01, resulting to a $0.25mm gain
26-Sep-22	2,000.60	2,423.64	This is a positive VAR back testing break. The gain mainly driven by increase of Onshore THB THOR rate 2Y to 3Y tenor by 12 bps with a positive $125k DV01 resulting to a $1.5mm gain, and the increase of onshore THB rate 4Y tenor by 11 bps with a positive $29k DV01, resulting to a $0.3mm gain & THB THOR rate 10Y tenor which increased by 8.5 bps with a positive $37k DV01, resulting to a $0.31mm gain

Table 17 Equity exposures in the banking book

Equity Exposures	Dec-21	Dec-20
1 Equity Exposures		
1.1 Equities listed and publicly traded in the stock exchange		
- Book Value		
- Fair Value		
1.2 Other equities	N/A	N/A
2 Gain / (Losses) of sale of equities in the reporting period		
3 Net revaluation surplus (deficit) from valuation of AFS Equity		
4 Equity values for commercial banks applying IRB which the Bank of		
- SA		
- IRB		
5 Equity values for commercial banks applying IRB which the Bank of Thailand allows to use		

Table 18 The effect of changes in interest rates to net earnings in the banking book

Unit : Million Baht

Currency	Dec-22	Jun-22
	Effect to net earnings	Effect to net earnings
THB	179	-397
USD	-62	-67
EURO	0	0
Others	0	0
Total effect	117	-465

Percentage changes in interest rates of 100 bps

Table 19 Liquidity Coverage Ratio (LCR)

	Average Q4 2022	Average Q2 2022
1 Total High quality Liquid Asstes (HQLA)	109,134	72,280
2 Total net cash outflows within the 30-days time horizon	17,451	16,516
3 LCR* (%)	626%	439%
Minimum LCR as specified by the Bank of Thailand (%)	100%	100%

LCR* in item (3) is not necessarily equal to the total high-quality liquid assets (1) divided by the total net cash outflows within the 30-days time horizon (item (2))

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 1 January 2016, and increased by 10% each year until it reaches 100% in 2020.

The average LCR for the 4th quarter of 2022 of the "Bank" was 626%, which was 526% higher than the minimum LCR as specified by the Bank of Thailand. This average figure was calculated from the ratio as of the end of each month which was 525% at October, 710% at November and 643% at December. The LCR consists of tow 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" during the last quarter of 2022 was 109,134 million Baht which was Level 1 assets, namely government bonds and cash. On this, 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** 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 was 17,451 million Baht, which was 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 Deposits run-off at the run-off rates as specified by the Bank of Thailand. On the other hand, expected cash inflows are mostly from loan repayments from high-quality counterparties and customers, 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. And, as the "Bank" has developed risk-monitoring tools in accordance with the internal policy and business directions so that the "Bank" can better manage its liquidity positions.

Table 20 LCR Comparison

	Average 2022	Average 2021
3rd Quarter	476%	458%
4th Quarter	626%	421%