

Bangkok Bank Public Company Limited

Management Discussion and Analysis

for the Quarter and the Year Ended December 31, 2022



Management Discussion and Analysis

Overview of the Economy and Banking Industry

Thai Economy in 2022

The Thai economy continued to improve throughout 2022 due to the success of the government's nationwide vaccination program, the easing of Covid restrictions which enabled life around the country to return to normal with people coming out, living and spending normally, and measures to reopen the country and encourage the return of foreign tourists to Thailand. International tourist arrivals increased from about 130,000 per month at the beginning of the year to more than 2 million per month by the year-end. This supported a steady recovery in the tourism sector, which normally contributes about 15 percent of Thai GDP, including related industries and employment. Exports, which continued to expand from the beginning of the year, were another significant driver of the recovery. As a result, the Thai economy grew by 2.6 percent in 2022 compared with 1.5 percent the previous year.

Rising global inflation presented constant economic challenges throughout 2022. Inflation in the United States, European Union, United Kingdom and many other countries reached its highest level in 40 years causing many central banks to increase interest rates in order to help curb inflation. However, this resulted in high volatility across financial markets – namely, stocks, bonds and foreign exchange. Moreover, Russia's conflict with Ukraine and the resulting geopolitical tensions with NATO members increased inflationary pressures on global oil, food, and commodities prices, all of which rose sharply in the six months following the start of the war.

Headline inflation in 2022 increased by 6.08 percent from 1.23 percent in the previous year due to higher energy and food prices, exceeding the Bank of Thailand's (BOT) inflation target of 1-3 percent. Meanwhile, annual average core inflation, excluding the cost of fresh food and energy, peaked at 3.23 percent in December 2022.

As a result the BOT gradually raised the interest rate by 0.25 percent on three occasions, 0.75 percent in total, during 2022 which increased the policy rate from 0.5 percent to 1.25 percent by year-end to curb rising inflation meanwhile to normalize the policy rates to the normal level after keeping the low interest rate during the Covid-19 situation to facilitate a long-term and sustainable recovery in the Thai economy.

Economic Outlook for 2023

The Thai economy is expected to recover continuously throughout 2023 with economic growth forecast about 3 percent supported by the recovery of the tourism sector. International tourist arrivals are expected to exceed 20 million throughout the year and Thailand is already benefiting from China's decision to open up the country and to allow Chinese tourists to once again start traveling overseas from the beginning of 2023. However, a number of critical risks remain which could affect the recovery of the global and Thai economies. Many countries entered a period of stagnation or recession after central banks raised interest rates to manage inflation which significantly affected the export sector.

The BOT is expected to gradually increase the policy interest rate this year in order to bring the rate back to normal levels as well as to reinstate regulatory policies that were relaxed during the pandemic.

Thai Banking Industry in 2022

In 2022, the Thai banking system faced challenges from the Covid-19 situation for the third consecutive year. However, the situation started to improve due to the high vaccination rate and the decreasing severity of symptoms of infected people. This led the government in the third quarter to relax containment measures and lift restrictions for foreign tourists traveling to Thailand which helped spur a recovery in domestic economic activities, particularly in the service sector. Nevertheless, the Bank of Thailand (BOT) and financial institutions have continued to assist people affected by Covid-19 by providing liquidity and debt restructuring along with easing regulations to increase the flexibility of commercial banks to support debtors. Another challenge was the rapid increase in inflation rates around the world caused by rising energy prices as a result of the Russia-Ukraine war, global supply chain issues and the recovery in demand from the reopening of countries after the Covid-19 situation had improved. These prompted central banks of major countries to accelerate the increase of interest rates to control inflation which had affected global financial markets and asset prices and put countries with weaker economies at risk of economic crisis. The Thai economy also faced rising inflation. However, inflationary pressures were primarily supply related and as such the BOT did not increase the policy interest rate to the same level as other central banks.

Among the aforementioned business challenges, the combined net profit of the commercial banking system in 2022 was Baht 236.5 billion, a 30.7 percent increase from the previous year, due to an increase in net interest income in line with increasing loan volume and upward interest rates and a decrease in reserves. Loan growth at the end of 2022 was 2.1 percent, down from 6.5 percent the previous year due to corporate repayments, government loans and soft loans, as well as the transfer of retail credit portfolios to a subsidiary of a commercial bank and debt quality management. Business loans and consumer loans grew by 2.3 and 1.7 percent, respectively.

Deposits increased by 4.5 percent from the end of 2021. The ratio of loans to deposits at the end of 2022 was 92.0 percent, lower than 94.2 percent at the end of 2021. The Liquidity Coverage Ratio (LCR) stood at 197.3 percent. For liquidity management, commercial banks focused on deposit restructuring, cost management and reserve requirements to comply with LCR guidelines under Basel III.

In terms of loan quality at the end of 2022, non-performing loans (NPL), or Stage 3 loans, stood at Baht 499.2 billion or a ratio of 2.73 percent of gross NPL to total loans, down from Baht 530.7 billion or a ratio of 2.98 percent of gross NPL at the end of the previous year. The ratio of Significant Increase in Credit Risk (SICR), or Stage 2, loans to total loans was 6.22 percent, a decrease from 6.39 percent at the end of the previous year. Commercial banks set aside capital reserves and loan loss reserves to build stability. Total capital remained relatively high, enabling banks to accommodate NPL resulting from the economic impact of the pandemic. Loan quality reflected the unevenness of the recovery across each economic sector. Therefore, commercial banks focused on sustainably restructuring debt in line with a debtor's ability to repay in the long term, especially SME and retail businesses. At the end of 2022, the Capital Adequacy Ratio (CAR) was 19.4 percent. Commercial banks also placed great emphasis on managing credit quality in line with Thai Financial Reporting Standard No.9 (TFRS 9), which came into effect in January 2020.



Thai Banking Industry in 2023

The foreign and Thai economies will continue to face high uncertainty from significant factors such as muted global economic growth, high inflation, rising interest rates, geopolitical and geoeconomic tensions between powerful countries, global supply chain issues, China's real estate sector, high public debt and foreign debt in some countries, volatile international capital flows, and the economic impact from climate change and the technology disruption.

The BOT's policy direction will evolve to normalize monetary policy in line with the economic context and focus on resolving household debt to strengthen economic stability and growth. Furthermore, the BOT will use financial measures to support the transition to a more sustainable economy and improve financial sector infrastructure, especially digital infrastructure, to support future economic growth.

Economic uncertainty will affect the recovery of customers and their ability to repay debt. Consequently, commercial banks will focus on continuously increasing revenues while controlling expenses by adjusting the deposit structure, managing costs, maintaining the LCR and Net Stable Funding Ratio (NSFR), and managing credit quality in line with TFRS 9.

Changes in the economy, business operations, customer behavior, technology as well as new regulations and measures from authorities, are prompting commercial banks to place greater emphasis on gaining insights into customer needs to drive the development of products and services. By collaborating with partners, banks can create new revenue opportunities and improve internal operations to better control costs and increase operational efficiency.

Going forward, Thai commercial banks will need to adapt to the new Thai financial landscape consisting of

- (1) Leveraging technology and data to drive innovation and better financial services through the 3 Open's: Open Competition to allow financial institutions to expand business scope or increase flexibility while also allowing non-bank financial institutions and new players to enter the market; Open Infrastructure to allow more players to access key infrastructure in order to efficiently develop financial innovation to support the transition to a digital economy and to lower costs; Open Data to allow financial service providers to connect to one another's databases to increase efficiency, support risk management, develop products which better suit the needs of customers, access shared data more conveniently, and utilize more data from digital transactions (digital footprint). The 3 Open's aim to improve competitive efficiency, financial innovation development and the creation of a financial infrastructure to enable the transition to a digital and network economy, including the development of a central bank digital currency for citizens (Retail CBDC).
- (2) Managing the transition towards sustainability in which the financial sector must incorporate environmental risk assessments into their business operations, support the transition of business away from environmentally unsustainable activities without causing a wide impact, and supporting the households and vulnerable groups to survive and adapt in a sustainable manner.
- (3) Shifting from stability to resilience to better address emerging risks which will help financial service providers to adapt, develop innovation and cope with significant emerging risks in a timely manner.

Moreover, commercial banks will need to increasingly prioritize operating their businesses in line with sustainable banking principles, especially the integration of environmental, social, and governance (ESG) measures into their business processes and promoting ESG culture and values while developing green finance taxonomy. The BOT has issued the directional paper on "Transitioning towards environmental sustainability under the new Thai financial landscape" to enable the financial sector to better assist other sectors. Going forward, the public sector will play a greater role in establishing directions and timeframes to enable other sectors of the Thai economy to achieve carbon neutrality within 2050.

Factors affecting banking industry performance

The business environment in the New Normal era can be described as BANI (Brittle, Anxious, Nonlinear and Incomprehensible). Over the past three-to-four years, many events with BANI characteristics occurred such as Covid-19, which caused the business sector to accelerate the adoption of technology and digital strategy in order to remodel their businesses, and geopolitical conflicts in many parts of the world. As such, all sectors of the Thai economy will face greater challenges in their business operations. Major factors that may affect the operations of commercial banks in the future are:

- **1. Uncertainties in economic conditions** Conditions causing the global economy to slow more than expected and increase volatility are:
 - (1) The acceleration of interest rate rising made by major central banks to curb inflationary pressures. This could result in a tight financial market where the cost of borrowing increases which could cause the economics slow down. In addition, there is a risk that some economics will enter a recession and default on debt payments which could escalate into an economic crisis.
 - (2) Protracted geopolitical conflicts, especially between Western powers led by the US and the European Union with China and Russia, which could deepen the polarization surrounding disputes. This would have implications for global trade and investment. For example, the US friend-shoring policy to limit trade, investment and supply chain networks to allies and friendly countries. Meanwhile, China has adopted a more self-reliant Dual Circulation strategy to prioritize domestic consumption (internal circulation) while remaining open to international trade and investment (external circulation). This has caused shifts in the global supply chain relocation. In addition, the polarization between superpowers may hinder global cooperation in solving the world's major problems, such as climate change, cyber threats and food security.
 - (3) Despite China's relaxation of its Zero Covid policy and the reopening of the country, which will support the local and global economic recoveries, global inflation could continue to increase due to pent-up demand from Chinese consumers. However, the Chinese economy is likely to grow below pre-Covid levels due to problems in its real estate sector, which are more severe than expected, and its trade, technology and security conflicts with the US which are likely to intensify.
 - (4) Greater market dysfunction resulting from certain economic policies, such as the use of accommodative monetary policy for too long, might cause accumulated risks to the economy but it was not observed due to high liquidity. Consequently Central banks accelerating interest rate hikes could cause unintended severe consequence to the country, market, or product.
- **2.** The future landscape of the Thai financial system The Bank of Thailand has issued guidelines to reposition Thailand's financial sector as key part of the country's sustainable digital economy, with the following key directions:
 - (1) Leveraging technology and data to drive innovation and develop financial services that meet the changing needs of people through: Open Competition to allow financial institutions and non-bank financial institutions to expand their business scope or increase flexibility while also allowing new entrants to the market under appropriate supervision and audit mechanisms, including measures to ensure fairness in business operations; Open Infrastructure to allow more players to access key infrastructure at an appropriate and fair cost in order to increase competitive efficiency and to develop financial innovation and financial infrastructure to support the transition to a digital economy and interoperable payment infrastructure, including the development of a retail Central Bank Digital Currency (CBDC); and Open Data to allow financial service providers to connect to one another's databases to support policy making and risk management which enables financial service providers to develop and scale their services and to develop products which better suit the needs of customers with regard to data security and privacy of service users.



- (2) Support sustainable economic transition by requiring the financial sector to seriously assess environmental risks in business operations and support the business sector to transition without causing widespread negative impacts, as well as helping households and vulnerable groups to survive and adapt to the changing world in a sustainable manner.
- (3) Flexible governance that can manage new forms of risk by adjusting regulatory flexibility to enable financial service providers to adapt, innovate and deal with significant new risks in a timely manner.
- 3. The requirement for the financial sector to play an increasing role in sustainable development The transition to a sustainable economy requires large investments. While the market is still unable to create sufficient incentives for each sector to accelerate their timely transition, the financial sector, especially commercial banks, play an important role in supporting the transition of all sectors in the economy through the provision of financing to enable the business sector to invest in technology and develop business models to cope with the changing environmental regulations and requirements. In the past, commercial banks played an increasingly important role in supporting sustainable development including offering responsible lending, promoting access to financial services for customers, especially grassroots customers, and incorporating ESG factors into business processes as well as promoting them as part of the culture and values of the organization. For the future direction, the BOT has issued the Repositioning Thailand's Financial Sector for a Sustainable Digital Economy paper to support the role of the financial sector in order to better meet the needs of all sectors. The plan consists of the following five key building blocks:
 - (1) Developing "Thailand Taxonomy" to define what economic activities are considered "green" or "in transition" to create a common understanding and reduce ambiguity in the preparation process for each sector.
 - (2) Developing data platforms for environment-related data to provide sufficient information for the preparation of "Thailand Taxonomy", including the design of financial products and services that are environmentally conscious. This should solve the Information Asymmetry problem of the financial sector.
 - (3) Issuing policy guidelines for how financial institutions can conduct business with regards to environmental and climate change dimensions to encourage financial institutions to accelerate and standardize the integration of environmental concepts into their operations. This will help to sufficiently and appropriately allocate capital and provide products and services to support environmental transition for the business sector.
 - (4) Promoting incentive measurements to encourage financial institutions, the business sector, and consumers to recognize the urgency of making environment-related transitions, as well as to alleviate any cost burden that may be incurred in terms of operating costs and risk costs.
 - (5) Enhancing the knowledge and expertise of financial sector personnel through learning courses in order to create awareness and understanding, and improve their capability in assessing environment-related opportunities and risks as well as in providing advisory support to businesses.
- 4. The Bank of Thailand's 3-year (2022 2024) directions for development of payment systems under the new financial sector landscape of Thailand Electronic payment systems are a key driver of the country's financial transformation into a digital economy and its sustainable development. The BOT together with related agencies have successfully developed and implemented electronic payment services that connect and streamline economic activities, facilitate innovation development and enable more efficient, flexible financial transactions between Thailand and other countries. The BOT plans to further develop and modernize the payment system infrastructure to effectively connect service providers, businesses, government and people and to increase accessibility, competitiveness and innovation in order to increase the range of services and public adoption. For the business sector, the BOT plans to develop a fully digitalized payment



infrastructure for businesses that is flexible, timely and effectively governed without creating a systemic risk for the financial system. To this end, the BOT launched the 3-year (2022 - 2024) directions for development of payment systems under the new financial sector landscape of Thailand to provide guidance for all relevant sectors under the principles of Openness, Inclusivity and Resiliency. The goal is to increase the use of digital payments by 2.5 times to 800 times per person per year while reducing the use of cash and checks.

- 5. The role of non-bank service providers is likely to increase Non-bank service providers operate independently or in partnership with banks and new service providers from other industries, such as fintech groups, who provide services that fill the gap in services provided by commercial banks. For example, a peer-to-peer lending platform that directly connects borrowers and lenders, or a "Big Tech" platform that provides a full range of services from buying and selling products to delivering goods, investing, and providing financial services. There is also emerging business related to digital assets for which the Securities and Exchange Commission (SEC) has issued digital asset business licenses and maintains continuous oversight as well as decentralized finance (DeFi) that reduces the role of financial intermediaries. In the future, there will be commercial banks that are digital-only or virtual banks to compete in the Thai financial system. Therefore, the BOT is studying the suitability, impact, and risks of establishing a virtual bank for these new players. It will bring more intense competition in the financial sector, so banks need to accelerate their adaptation to timely compete with the new players.
- **6. Progress of digital technology and financial innovation** The exponential development of digital technology affects commercial banks in many aspects. These include infrastructure development to increase operational efficiency, conduct big data analyses of the changing behavior of each customer group and develop financial products and services that can respond to customer needs in terms of speed and providing more comprehensive financial product and services offering. For example, the development of e-Payment systems and the L/C issuance via blockchain technology to corporate customers. This will greatly increase efficiency and reduce costs for businesses. Going forward, the development of financial services via decentralized finance (DeFi) based on blockchain technology will replace the role of intermediaries such as financial institutions, banks or various exchange centers in recording and processing transactions as every transaction will be executed according to the conditions specified through smart contracts.
- 7. Central bank digital currencies (CBDC) will play a role within the financial system Once alternative digital currencies, especially cryptocurrencies and the development of financial services through DeFi, start to play a greater role in the financial system and are able to meet the needs of certain groups of users, in terms of convenience and reduction of financial costs, fiat money controlled by central banks is at risk of having its role diminished. Many central banks have developed CBDCs, such as China's e-CNY, India's e-Rupee, Europe's Digital Euro, and the US's Digital Dollar, among others, which are in trial phase. In Thailand, the BOT is in the process of developing a retail CBDC that can be applied to a wide range of financial services. In addition, a wholesale CBDC which has been tested in conjunction with the Hong Kong Monetary Authority, Central Bank of the United Arab Emirates and the Institute for Digital Currency Studies of the Central Bank of the People's Republic of China (Multiple Central Bank Digital Currency Bridge Project: mBridge), and the BOT will consider expanding the scope of development and testing in terms of actual use in the future.
- **8.** The problem regarding SME's competitiveness Thai SME continued to be challenged by poor access to financial services, especially loans, from formal financial institutions. This limits the ability of SME to develop their competitiveness and adapt to disruption and market changes, especially in terms of innovation development, to differentiate themselves and continue to add value to their products and services. During the pandemic, some SME adopted more digital technology, such as selling food and products through online platforms, but in general the level of digital transformation of small businesses has been insufficient. As a result, the competitiveness of small SME is falling further behind that of large corporates and SME



that have adopted technology, and they may not be able to continue doing business. This will lead to more serious problems relating to economic inequality. The BOT seeks to address this issue by altering the financial landscape to allow existing and new players to compete to provide services and develop financial innovations. At the same time the BOT also allows them to capitalize on the use of data from multiple sources to develop innovation and deliver financial services, such as credit analysis based on borrower behavior and potential, and using risk-based pricing to determine loan interest rates. In addition, the BOT introduced transformation loans to reduce risks and costs which are a significant obstacle for businesses in the initial phase of the transformation process. The transformation loans are soft loans offered to SME looking to adapt their business to new trends and movements. This will help SME to access credit in more systematic, thorough and in appropriate way, develop their competitiveness and adapt to digital transformation which will support the sustainable development of the Thai economy.

The above changing environment are important factors in driving the Thai economy forward through the implementation of government policies, and changes in business models and consumer behavior. Thai commercial banks therefore need to prepare appropriate support to be able to adapt to such changes and move forward sustainably.

Overall Picture of the Bank and its Subsidiaries

							N.	lillion Baht
Item	Q4/22	Q3/22	Q4/21	%QoQ	%YoY	Y'22	Y'21	%YoY
Net profit /1	7,569	7,657	6,318	(1.1)%	19.8%	29,306	26,507	10.6%
Earnings per share (Baht)	3.97	4.01	3.31	(1.1)%	19.8%	15.35	13.89	10.6%
Net interest margin	2.84%	2.49%	2.09%	0.35%	0.75%	2.42%	2.10%	0.32%
Net fees and service income to operating income ratio	18.9%	18.7%	21.5%	0.2%	(2.6)%	19.8%	21.7%	(1.9)%
Cost to income ratio	51.7%	46.3%	54.6%	5.4%	(2.9)%	49.7%	50.0%	(0.3)%
Return on average assets /1	0.68%	0.69%	0.58%	(0.01)%	0.10%	0.67%	0.65%	0.02%
Return on average equity /1	5.92%	6.05%	5.12%	(0.13)%	0.80%	5.86%	5.62%	0.24%

^{/1} Attributable to owners of the Bank

					Million Baht
Item	Dec'22	Sep'22	Dec'21	%QoQ	%YTD
Loans	2,682,691	2,796,849	2,588,339	(4.1)%	3.6%
Deposits	3,210,896	3,165,479	3,156,940	1.4%	1.7%
Loan to deposit ratio	83.5%	88.4%	82.0%	(4.9)%	1.5%
Non-performing loan (Gross NPL) /1	97,188	107,023	101,103	(9.2)%	(3.9)%
Gross NPL to total loans ratio /1	3.1%	3.5%	3.2%	(0.4)%	(0.1)%
Allowance for expected credit losses to NPL ratio $^{\prime 1}$	260.8%	240.1%	225.8%	20.7%	35.0%
Total capital adequacy ratio	19.13%	18.47%	19.57%	0.66%	(0.44)%

^{/1} Including interbank and money market lending

In 2022, Bangkok Bank and its subsidiaries report a net profit of Baht 29,306 million, an increase of 10.6 percent from 2021. Net interest income rose by 24.4 percent due to higher loan volume and interest rates. The net interest margin increased to 2.42 percent in line with the rising interest rate trend and the Bank's liquidity management. Non-interest income declined by 30.0 percent mainly due to lower gains on financial instruments measured at FVTPL in line with the market situation, as well as lower net fees and service income from the securities business, bancassurance and mutual funds, while fees from loan related and trade finance services increased. The cost to income ratio stood at 49.7 percent. The Bank set aside Baht 32,647 million in expected credit losses, a decrease of 4.4 percent from last year. This is consistent with the Bank's prudent management by taking into account global economic volatility which may affect the recovery of the Thai economy going forward.

At the end of December 2022, the Bank's total loans amounted to Baht 2,682,691 million, an increase of 3.6 percent from the end of last year, due mainly to increase in loans to large corporate customers and loans made through the international network. The non-performing loan to total loans ratio remained manageable at 3.1 percent. Under the Bank's continuous prudent management approach, the ratio of the allowance for expected credit losses to non-performing loans remained strong at 260.8 percent.

As of December 31, 2022, the Bank's deposits amounted to Baht 3,210,896 million, an increase of 1.7 percent from the end of December 2021. While the loan to deposit ratio stood at 83.5 percent. The total capital adequacy ratio, Tier 1 capital adequacy ratio, and Common Equity Tier 1 capital adequacy ratio of the Bank and its subsidiaries stood at 19.13 percent, 15.67 percent and 14.88 percent respectively, comfortably above the Bank of Thailand's minimum capital requirements.

Operating Income and Expenses of the Bank and its Subsidiaries

							N	Million Baht
Item	Q4/22	Q3/22	Q4/21	%QoQ	%YoY	Y'22	Y'21	%YoY
Net interest income	30,454	26,496	21,716	14.9%	40.2%	102,223	82,156	24.4%
Non-interest income	6,431	10,211	13,698	(37.0)%	(53.1)%	36,672	52,385	(30.0)%
Operating expenses	19,071	17,006	19,336	12.1%	(1.4)%	69,019	67,266	2.6%
Expected credit loss	7,914	9,889	8,127	(20.0)%	(2.6)%	32,647	34,134	(4.4)%
Operating profit before tax	9,900	9,812	7,951	0.9%	24.5%	37,229	33,141	12.3%
Income tax expenses	2,257	2,032	1,517	11.1%	48.8%	7,484	6,189	20.9%
Net profit	7,643	7,780	6,434	(1.8)%	18.8%	29,745	26,952	10.4%
Net profit /1	7,569	7,657	6,318	(1.1)%	19.8%	29,306	26,507	10.6%
Total comprehensive income (losses)/1	(4,726)	18,399	5,822	(125.7)%	(181.2)%	20,251	50,394	(59.8)%

^{/1} Attributable to owners of the Bank

Bangkok Bank and its subsidiaries reported a net profit attributable to owners of the Bank in the fourth quarter of 2022 of Baht 7,569 million, a slight decrease from the previous quarter due to an increase in operating expenses from seasonality. Non-interest income decreased from lower gains on financial instruments measured at Fair Value Through Profit or Loss (FVTPL) in line with the market situation. Net interest income increased from higher yield on earning assets resulting from an increase in market interest rates. In addition, the Bank had lower expected credit losses, but continued to take a prudent approach in setting aside its reserves.



Compared with the fourth quarter of 2021, net profit attributable to owners of the Bank rose by 19.8 percent. For 2022 net profit attributable to owners of the Bank amounted to Baht 29,306 million or an increase of 10.6 percent from the previous year. Net interest income increased on higher loan volume and the rise in interest rates. Non-interest income declined mainly due to lower gains on financial instruments measured at FVTPL in line with the market situation. The Bank set aside lower expected credit losses compared to the previous year. This is consistent with the Bank's prudent management approach by maintaining its reserves at an appropriate level.

Net Interest Income

Net interest income in the fourth quarter of 2022 amounted to Baht 30,454 million, increasing by 14.9 percent from the previous quarter from all types of earning assets. This was contributed by yield improvement in line with the market interest rate trend.

Compared with the fourth quarter of 2021, net interest income rose by 40.2 percent. For 2022, net interest income amounted to Baht 102,223 million, an increase of 24.4 percent from the previous year due to higher business loan volume, interest rate increase and the Bank's liquidity management.

							N	Million Baht
Item	Q4/22	Q3/22	Q4/21	%QoQ	%YoY	Y'22	Y'21	%YoY
Interest Income								
Loans	34,170	29,969	25,546	14.0%	33.8%	116,499	96,929	20.2%
Interbank and money market items	3,221	1,996	1,436	61.4%	124.3%	8,169	6,250	30.7%
Investments	4,017	3,856	3,040	4.2%	32.1%	14,420	11,133	29.5%
Total interest income	41,408	35,821	30,022	15.6%	37.9%	139,088	114,312	21.7%
Interest expenses								
Deposits	6,329	4,647	4,514	36.2%	40.2%	19,708	18,195	8.3%
Interbank and money market items	951	615	218	54.6%	336.2%	2,163	891	142.8%
Contributions to the Deposit Protection Agency and Financial Institutions Development Fund	1,700	1,706	1,680	(0.4)%	1.2%	6,800	6,500	4.6%
Debt issued and borrowings	1,974	2,357	1,894	(16.2)%	4.2%	8,194	6,570	24.7%
Total interest expenses	10,954	9,325	8,306	17.5%	31.9%	36,865	32,156	14.6%
Net interest income	30,454	26,496	21,716	14.9%	40.2%	102,223	82,156	24.4%
Yield on earning assets	3.86%	3.36%	2.88%	0.50%	0.98%	3.30%	2.92%	0.38%
Cost of funds	1.20%	1.02%	0.92%	0.18%	0.28%	1.02%	0.94%	0.08%
Net interest margin	2.84%	2.49%	2.09%	0.35%	0.75%	2.42%	2.10%	0.32%

Bangkok Bank Interest Rate	Dec'22	Sep'22	Jun'22	Mar'22	Dec'21	Sep'21	Jun'21	Mar'21	Dec'20
Loans (%)									
MOR	6.350	6.250	5.875	5.875	5.875	5.875	5.875	5.875	5.875
MRR	6.250	6.250	5.950	5.950	5.950	5.950	5.950	5.750	5.750
MLR	5.850	5.650	5.250	5.250	5.250	5.250	5.250	5.250	5.250
Deposits (%)									
Savings	0.450	0.450	0.250	0.250	0.250	0.250	0.250	0.250	0.250
3-month Fixed	0.600	0.550	0.375	0.375	0.375	0.375	0.375	0.375	0.375
6-month Fixed	0.700	0.650	0.500	0.500	0.500	0.500	0.500	0.500	0.500
12-month Fixed	1.000	0.800	0.500	0.500	0.500	0.500	0.500	0.500	0.500
Bank of Thailand Policy Rate (%)	1.250	1.000	0.500	0.500	0.500	0.500	0.500	0.500	0.500

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Non-Interest Income

Non-interest income for the fourth quarter of 2022 amounted to Baht 6,431 million, a decrease of 37.0 percent from the previous quarter due to lower gains on financial instruments measured at FVTPL in line with the market environment. Net fees and service income was at a similar level to the previous quarter.

Compared with the fourth quarter of 2021, non-interest income decreased by 53.1 percent. For 2022, non-interest income amounted to Baht 36,672 million, a decrease of 30.0 percent from last year, mainly from a decline in gains on financial instruments measured at FVTPL and lower net fees and service income from securities business, bancassurance and mutual fund. Meanwhile, fees income from loan-related services rose from higher business volume and fees from trade finance services increased in line with the recovery of the Thai economy from last year.

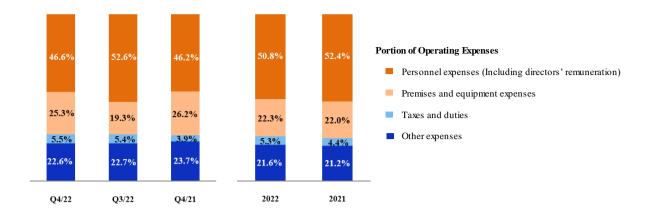
								Million Baht
Item	Q4/22	Q3/22	Q4/21	%QoQ	%YoY	Y'22	Y'21	%YoY
Fees and service income	10,783	10,294	10,441	4.8%	3.3%	41,132	39,127	5.1%
<u>Less</u> fees and service expenses	3,825	3,428	2,834	11.6%	35.0%	13,624	9,918	37.4%
Net fees and service income	6,958	6,866	7,607	1.3%	(8.5)%	27,508	29,209	(5.8)%
Gains (losses) on financial instruments measured at FVTPL	(1,955)	2,329	4,796	(183.9)%	(140.8)%	5,155	17,868	(71.1)%
Gains (losses) on investments	(646)	(55)	459	(1,074.5)%	(240.7)%	(1,454)	1,225	(218.7)%
Share of profit from investment using equity method	50	48	35	4.2%	42.9%	190	209	(9.1)%
Gains on disposal of assets	1,463	265	257	452.1%	469.3%	1,891	519	264.4%
Dividend income	297	489	280	(39.3)%	6.1%	2,307	2,252	2.4%
Other operating income	264	269	264	(1.9)%	-	1,075	1,103	(2.5)%
Total other operating income	(527)	3,345	6,091	(115.8)%	(108.7)%	9,164	23,176	(60.5)%
Total non-interest income	6,431	10,211	13,698	(37.0)%	(53.1)%	36,672	52,385	(30.0)%
Net fees and service income to operating income ratio	18.9%	18.7%	21.5%	0.2%	(2.6)%	19.8%	21.7%	(1.9)%

Operating Expenses

Operating expenses for the fourth quarter of 2022 amounted to Baht 19,071 million, increasing by 12.1 percent from the previous quarter due to seasonality of expenses. For 2022, operating expenses amounted to Baht 69,019 million, an increase of 2.6 percent, partly due to higher expenses for working stream development and improvement. The cost-to-income ratio for 2022 stood at 49.7 percent.

								Million Bant
Item	Q4/22	Q3/22	Q4/21	%QoQ	%YoY	Y'22	Y'21	%YoY
Personnel expenses	8,862	8,885	8,841	(0.3)%	0.2%	34,794	35,003	(0.6)%
Directors' remuneration	26	57	86	(54.4)%	(69.8)%	259	264	(1.9)%
Premises and equipment expenses	4,817	3,288	5,068	46.5%	(5.0)%	15,371	14,765	4.1%
Taxes and duties	1,060	917	759	15.6%	39.7%	3,643	2,949	23.5%
Other expenses	4,306	3,859	4,582	11.6%	(6.0)%	14,952	14,285	4.7%
Total operating expenses	19,071	17,006	19,336	12.1%	(1.4)%	69,019	67,266	2.6%
Cost to income ratio	51.7%	46.3%	54.6%	5.4%	(2.9)%	49.7%	50.0%	(0.3)%





Expected Credit Losses

In 2022, the Bank set aside Baht 32,647 million in expected credit losses. This is consistent with the Bank's prudent management approach by taking into account global economic volatility which may affect the recovery of the Thai economy going forward. Expected credit losses covered loans, interbank and money market items, and debt securities, which are not measured at FVTPL, as well as loan commitments and financial guarantee contracts.

Significant Items in the Financial Position

Assets

As of December 31, 2022, total assets amounted to Baht 4,421,752 million, the same level as the end of the previous quarter but increasing by 2.0 percent from the end of last year, mainly from an increase in loans.

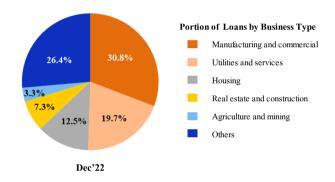
					Million Baht
Item	Dec'22	Sep'22	Dec'21	%QoQ	%YTD
Net interbank and money market items	766,074	606,432	801,212	26.3%	(4.4)%
Financial assets measured at FVTPL	75,036	90,095	84,341	(16.7)%	(11.0)%
Net investments	850,151	857,174	803,637	(0.8)%	5.8%
Net investments in associates	1,421	1,406	1,329	1.1%	6.9%
Loans	2,682,691	2,796,849	2,588,339	(4.1)%	3.6%
Net properties for sale	12,017	11,215	9,496	7.2%	26.5%
Total assets	4,421,752	4,437,759	4,333,281	(0.4)%	2.0%



Loans

As of December 31, 2022, loans amounted to Baht 2,682,691 million, decreasing by 4.1 percent from the end of the previous quarter. Compared with the end of last year, loans rose by 3.6 percent mainly from increases in loans to large corporate customers and loans made through the Bank's international network.

					Million Baht
Loans by Business Type	Dec'22	Sep'22	Dec'21	%QoQ	%YTD
Manufacturing and commercial	825,508	867,286	839,469	(4.8)%	(1.7)%
Utilities and services	527,351	551,838	574,485	(4.4)%	(8.2)%
Housing	336,256	339,650	324,546	(1.0)%	3.6%
Real estate and construction	196,482	207,263	211,647	(5.2)%	(7.2)%
Agriculture and mining	88,014	102,560	101,487	(14.2)%	(13.3)%
Others	709,080	728,252	536,705	(2.6)%	32.1%
Total loans	2,682,691	2,796,849	2,588,339	(4.1)%	3.6%



The Bank and its subsidiaries had loans distributed across business sectors, with 30.8 percent in the manufacturing and commercial sector, 19.7 percent in the utilities and services sector,12.5 percent in the housing sector, and 7.3 percent in the real estate and construction sector. The decrease in loans from the end of September 2022 was mainly driven by loans from the manufacturing and commercial sector. The increase in loans from December 2021 was mainly driven by the others sector.

Classified Loans and Allowance for Expected Credit Losses

Non-performing loan (Gross NPL) at the end of December 2022 was Baht 97,188 million, while the gross NPL to total loans ratio stood at 3.1 percent.

The allowance for expected credit losses was Baht 253,459 million. The allowance for expected credit losses to NPL ratio was 260.8 percent.

					Million Baht
Item	Dec'22	Sep'22	Dec'21	%QoQ	%YTD
Consolidated					
Non-performing loans (Gross NPL) /1	97,188	107,023	101,103	(9.2)%	(3.9)%
Gross NPL to total loans ratio /1	3.1%	3.5%	3.2%	(0.4)%	(0.1)%
Net NPL to net total loans ratio /1	0.9%	1.0%	1.0%	(0.1)%	(0.1)%
Allowance for expected credit losses to NPL ratio	260.8%	240.1%	225.8%	20.7%	35.0%
The Bank					
Non-performing loans (Gross NPL) /1	80,991	85,009	82,820	(4.7)%	(2.2)%
Gross NPL to total loans ratio /1	2.9%	3.2%	3.0%	(0.3)%	(0.1)%

^{/1} Including interbank and money market lending



						Million Baht			
		Loans and		Allowance for					
Item	Interb	Interbank & Money Market			Expected Credit Losses /1				
	Dec'22	Sep'22	Dec'21	Dec'22	Sep'22	Dec'21			
Non-credit-impaired	3,351,508	3,296,489	3,289,055	179,648	175,710	153,342			
Credit-impaired	97,188	107,023	101,103	73,811	81,274	74,943			
Total	3,448,696	3,403,512	3,390,158	253,459	256,984	228,285			

^{/1} Including allowance for expected credit losses of loans, interbank and money market items, loan commitments and financial guarantee contracts

Investments

As of December 31, 2022, investments amounted to Baht 925,187 million, decreasing by 2.3 percent from the end of the previous quarter. Compared to the end of last year, investments increased by 4.2 percent mostly from investments in Thai government and state enterprise securities.

The Bank and its subsidiaries had Baht 518,587 million in investments in government securities and Thai state enterprises, accounting for 56.1 percent of total investments. Foreign debt securities amounted to Baht 217,537 million, private enterprise debt securities to Baht 19,892 million, and net investment in equity securities to Baht 103,791 million.

					Million Baht
Investments by Investment Holding	Dec'22	Sep'22	Dec'21	%QoQ	%YTD
Trading securities	5,141	12,713	13,104	(59.6)%	(60.8)%
Securities measured at FVTPL	69,895	77,382	71,237	(9.7)%	(1.9)%
Debt securities measured at amortized cost	88,212	90,230	46,053	(2.2)%	91.5%
Debt securities measured at FVOCI	672,065	674,092	667,473	(0.3)%	0.7%
Equity securities measured at FVOCI	89,874	92,852	90,111	(3.2)%	(0.3)%
Total investments	925,187	947,269	887,978	(2.3)%	4.2%

Liabilities and Shareholders' Equity

Total liabilities as of December 31, 2022, amounted to Baht 3,914,610 million, the same level as the end of the previous quarter. Compared with the end of last year, total liabilities rose by 2.0 percent due to an increase in deposits.

					Million Baht
Item	Dec'22	Sep'22	Dec'21	%QoQ	%YTD
Deposits	3,210,896	3,165,479	3,156,940	1.4%	1.7%
Interbank and money market items	262,522	231,826	288,709	13.2%	(9.1)%
Financial liabilities measured at FVTPL	17,960	20,443	20,833	(12.1)%	(13.8)%
Debt issued and borrowings	188,302	206,118	183,239	(8.6)%	2.8%
Total liabilities	3,914,610	3,925,825	3,838,688	(0.3)%	2.0%
Shareholders' equity /1	505,346	510,072	492,727	(0.9)%	2.6%

^{/1} Attributable to owners of the Bank

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Deposits

Total deposits as of December 31, 2022, amounted to Baht 3,210,896 million, increasing by 1.4 percent from the end of September 2022 and 1.7 percent from the end of last year due to increases in savings and current deposits.

								Million Baht
Deposits	Dec'	Dec'22		Sep'22		Dec'21		%YTD
Classified by Product Type	Amount	Portion	Amount	Portion	Amount	Portion		
Current	302,855	9.4%	284,824	9.0%	273,597	8.7%	6.3%	10.7%
Savings	1,708,362	53.2%	1,688,142	53.3%	1,613,777	51.1%	1.2%	5.9%
Fixed	1,199,679	37.4%	1,192,513	37.7%	1,269,566	40.2%	0.6%	(5.5)%
Total deposits	3,210,896	100.0%	3,165,479	100.0%	3,156,940	100.0%	1.4%	1.7%
Loan to deposit ratio		83.5%		88.4%		82.0%	(4.9)%	1.5%

Debt Issued and Borrowings

Total debt issued and borrowings as of December 31, 2022, amounted to Baht 188,302 million, decreasing by Baht 17,816 million from the end of September 2022 due to a decline in the value of foreign-denominated debentures following the appreciation of the baht.

Compared with the end of 2021, total debt issued and borrowings increased by Baht 5,063 million due to an increase in the value of foreign-denominated debentures following the depreciation of the baht, together with the issuance of 5-year senior unsecured debentures of USD 750 million in June 2022 net of the maturity of the senior unsecured debentures of USD 800 million in September 2022.

							Million Baht
Dec'22		Sep'22		Dec'21		%QoQ	%YTD
Amount	Portion	Amount	Portion	Amount	Portion		
85,045	45.2%	92,886	45.0%	83,594	45.6%	(8.4)%	1.7%
101,998	54.1%	111,891	54.3%	98,640	53.8%	(8.8)%	3.4%
413	0.2%	609	0.3%	516	0.3%	(32.2)%	(20.0)%
915	0.5%	812	0.4%	549	0.3%	12.7%	66.7%
188,371	100.0%	206,198	100.0%	183,299	100.0%	(8.6)%	2.8%
69		80		60		(13.8)%	15.0%
188,302		206,118		183,239		(8.6)%	2.8%
	Amount 85,045 101,998 413 915 188,371 69	Amount Portion 85,045 45.2% 101,998 54.1% 413 0.2% 915 0.5% 188,371 100.0% 69 100.0%	Amount Portion Amount 85,045 45.2% 92,886 101,998 54.1% 111,891 413 0.2% 609 915 0.5% 812 188,371 100.0% 206,198 69 80	Amount Portion Amount Portion 85,045 45.2% 92,886 45.0% 101,998 54.1% 111,891 54.3% 413 0.2% 609 0.3% 915 0.5% 812 0.4% 188,371 100.0% 206,198 100.0% 69 80	Amount Portion Amount Portion Amount 85,045 45.2% 92,886 45.0% 83,594 101,998 54.1% 111,891 54.3% 98,640 413 0.2% 609 0.3% 516 915 0.5% 812 0.4% 549 188,371 100.0% 206,198 100.0% 183,299 69 80 60	Amount Portion Amount Portion Amount Portion 85,045 45.2% 92,886 45.0% 83,594 45.6% 101,998 54.1% 111,891 54.3% 98,640 53.8% 413 0.2% 609 0.3% 516 0.3% 915 0.5% 812 0.4% 549 0.3% 188,371 100.0% 206,198 100.0% 183,299 100.0% 69 80 60 60	Amount Portion Amount Portion Amount Portion 85,045 45.2% 92,886 45.0% 83,594 45.6% (8.4)% 101,998 54.1% 111,891 54.3% 98,640 53.8% (8.8)% 413 0.2% 609 0.3% 516 0.3% (32.2)% 915 0.5% 812 0.4% 549 0.3% 12.7% 188,371 100.0% 206,198 100.0% 183,299 100.0% (8.6)% 69 80 60 (13.8)%

Shareholders' Equity

Shareholders' equity attributable to owners of the Bank as of December 31, 2022, amounted to Baht 505,346 million, an increase of Baht 12,619 million or 2.6 percent from the end of 2021. This was due to net profit attributable to owners of the Bank for 2022 of Baht 29,306 million, net of a dividend payment during 2022 of Baht 7,632 million which consisted of a final dividend payment for the operating performance in 2021 of Baht 4,769 million (2.50 baht per share) according to the resolution of the shareholders' meeting on April 12, 2022 and the interim dividend payment from net profit from operations in the first half of 2022 of Baht 2,863 million (1.50 baht per share), combined with a decrease in gains on translation of the financial statements of foreign operations.



Sources and Utilization of Funds

As of December 31, 2022, the Bank and its subsidiaries' primary sources of funds consisted of deposits amounted to Baht 3,210,896 million or 72.6 percent, equity attributable to owners of the Bank amounted to Baht 505,346 million or 11.4 percent, interbank and money market items on liabilities amounted to Baht 262,522 million or 5.9 percent and debt securities issued and borrowing including financial liabilities measured at FVTPL amounted to Baht 206,262 million or 4.7 percent.

The utilization of funds comprised of loans amounted to Baht 2,682,691 million or 60.7 percent, net investments including financial assets measured at FVTPL and net investments in associates amounted to Baht 926,608 million or 21.0 percent and net interbank and money market assets amounted to Baht 766,074 million or 17.3 percent.

Capital Reserves and Capital Adequacy Ratio

Under the principles of Basel III, the Bank of Thailand (BOT) currently requires commercial banks registered in Thailand and members of their financial groups to maintain minimum levels of capital adequacy as measured by three ratios: the Common Equity Tier 1 capital adequacy ratio at no less than 4.50 percent, the Tier 1 capital adequacy ratio at no less than 6.00 percent, and the Total Capital Adequacy ratio at no less than 8.50 percent – measured as a percentage of total risk-weighted assets. The BOT also requires a capital conservation buffer of more than 2.50 percent. For the Bank classified by BOT as a Domestic Systemically Important Bank (D-SIB), it must have additional Common Equity Tier 1 ratio at 1.00 percent for Higher Loss Absorbency (HLA). Consequently, the Bank is required to maintain the Common Equity Tier 1 capital adequacy ratio at more than 8.00 percent, the Tier 1 capital adequacy ratio at more than 9.50 percent, and the total capital adequacy ratio at more than 12.00 percent – measured as percentages of total risk-weighted assets.

As of December 31, 2022, the Bank's Common Equity Tier 1 capital adequacy ratio was 14.88 percent, the Tier 1 capital adequacy ratio was 15.67 percent, and the total capital adequacy ratio was 19.13 percent, which were above the Bank of Thailand's minimum capital requirements.

Consolidated

Million Baht

	De	c'22	Sep	22	Dec'21		
Item	Capital	Capital Adequacy Ratio	Capital	Capital Adequacy Ratio	Capital	Capital Adequacy Ratio	BOT's requirements
Common Equity Tier 1 capital	447,590	14.88%	453,170	14.41%	433,699	15.15%	> 8.00%
Tier 1 capital	471,366	15.67%	476,940	15.16%	457,469	15.98%	> 9.50%
Tier 2 capital	104,108	3.46%	104,112	3.31%	102,957	3.59%	
Total capital	575,474	19.13%	581,052	18.47%	560,426	19.57%	> 12.00%

The Bank

Million Baht

	De	c'22	Sep	22	Dec'21			
Item	Capital	Capital Adequacy Ratio	Capital	Capital Adequacy Ratio	Capital	Capital Adequacy Ratio	BOT's requirements	
Common Equity Tier 1 capital	444,882	16.51%	436,339	15.59%	425,758	16.47%	> 8.00%	
Tier 1 capital	468,474	17.38%	459,931	16.43%	449,350	17.38%	> 9.50%	
Tier 2 capital	100,807	3.74%	101,464	3.63%	101,989	3.95%		
Total capital	569,281	21.12%	561,395	20.06%	551,339	21.33%	> 12.00%	



Liquid Assets

Liquid assets consisted of cash, net interbank and money market items, debt securities, and marketable equity securities. As of December 31, 2022, the ratio of liquid assets to total assets and liquid assets to deposits was 37.7 percent and 51.9 percent, respectively.

Item	Dec'22	Sep'22	Dec'21
Liquid assets/Total assets (%)	37.7	34.1	38.6
Liquid assets/Deposits (%)	51.9	47.8	53.0

Credit Ratings

Details of the Bank's credit ratings are as follows:

Credit Rating Agency	Dec'22	Sep'22	Dec'21
Moody's Investors Service			
Long-term Deposit	Baa1	Baa1	Baa1
Short-term Deposit	P-2	P-2	P-2
Senior Unsecured Debt Instrument	Baa1	Baa1	Baa1
Subordinated Debt Instrument	Baa2	Baa2	Baa2
Subordinated Debt (Basel III-compliant Tier 2 securities)	Baa3	Baa3	Baa3
Subordinated Debt (Basel III-compliant Tier 1 securities)	Ba1	Ba1	Ba1
Financial Strength (BCA)	baa1	baa1	baa1
Outlook	Stable	Stable	Stable
S&P Global Ratings			
Long-term Issuer Credit Rating	BBB+	BBB+	BBB+
Short-term Issuer Credit Rating	A-2	A-2	A-2
Senior Unsecured Debt Instrument	BBB+	BBB+	BBB+
Subordinated Debt Instrument	BBB	BBB	BBB
Financial Strength (SACP)	bbb-	bbb-	bbb
Outlook	Stable	Stable	Stable
itch Ratings			
International Rating			
Long-term Issuer Default Rating	BBB	BBB	BBB
Short-term Issuer Default Rating	F2	F2	F2
Senior Unsecured Debt Instrument	BBB	BBB	BBB
Subordinated Debt Instrument	BB+	BB+	BB+
Subordinated Debt (Basel III-compliant Tier 2 securities)	BB+	BB+	BB+
Financial Strength (VR)	bbb	bbb	bbb
Outlook	Stable	Stable	Stable
National Rating			
Long-term	AA+(tha)	AA+(tha)	AA+(tha)
Short-term	F1+(tha)	F1+(tha)	F1+(tha)
Outlook	Stable	Stable	Stable