MANAGEMENT DISCUSSION AND ANALYSIS





Overview of the Economy and Banking Industry

Thai Economy in 2020

The Thai economy contracted by 6.1 percent in 2020 as a result of the Coronavirus Disease 2019 (Covid-19) pandemic. Several countries introduced measures such as freezes on international travel, lockdowns and curfews, bringing many economic activities to a standstill. The most affected sectors in Thailand were international trade, private investment, and private consumption. Thai exports fell by 6.6 percent YoY, while imports declined by 13.5 percent YoY. Private investment fell by 8.4 percent YoY, in tandem with capacity utilization which plummeted to a near decade-low of 52.2 percent. Meanwhile, private consumption declined by 1.0 percent YoY. Furthermore, a freeze on international travel, as well as immigration restrictions and a 14-day quarantine for incoming travelers, caused the number of international tourists to fall to near zero between April and the year-end. Restrictive measures also forced many businesses to lay off employees to deal with a decline in business activities and a shortage in liquidity, adding around 2.5 million people to the job queues as the unemployment rate spiked to a decade high of 2.2 percent.

The government moved quickly to launch several measures to boost spending as well as to increase consumption and investment to support the economy through the recession. Such measures included Rao Mai Thing Gun (You Will Never Be Left Behind), Rao Tiew Duay Gun (We Travel Together), and Kon La Krung (Let's Go Halves). Public consumption rose by 0.8 percent YoY while public investment in infrastructure rose by 5.7 percent YoY.

Headline inflation dipped from 0.7 percent in the previous year into negative territory to minus 0.8 percent, lower than the Bank of Thailand's (BOT) inflation target of 1-3 percent, primarily due to lower private investment, weaker consumption and a decline in energy prices.

The BOT lowered the policy rate three times — in February, March and May — to a historic low of 0.5 percent to support the economy. Despite the Baht weakening at the beginning of the year as a result of capital flight to safe-haven assets, especially the US dollar and gold, the currency's appreciation became a major concern in the final two months of 2020 due to a current account surplus of USD 17 billon which accounted for about 3.3 percent of GDP. The Baht rose to a one-year high at 29.82 per US dollar. The BOT announced steps to manage the strengthening Baht, particularly encouraging outbound foreign investment, which would lay the groundwork for creating a proper foreign exchange ecosystem in the future.

In terms of global financial markets, after facing a downturn when pandemic control measures were implemented, equity markets around the world staged an uneven or "K-shaped" recovery over the past year, led by those with exposure to the technology sector. Yields in fixed-income markets remained low globally due to accommodative monetary policies. In spite of highly volatile financial markets, Thailand continued to maintain a high level of international reserves at 1.5 times total foreign-currency-denominated debt.



Economic Outlook for 2021

The Thai economy is forecast to expand by 1–2 percent YoY in 2021 as the success of vaccination programs is expected to support a recovery in trade and tourism worldwide. Major developed countries and economies, such as the US, UK, EU, and Japan, are expected to vaccinate large portions of their populations relatively quickly, while developing economies, including Thailand, may see a slower rollout due to limited global vaccine supply.

Thai merchandise exports should be supported by a recovery in consumer purchasing power and manufacturing in many countries, especially developed ones. Rising demand for electronics exports due to commercialization of 5G technology and the work-from-home trend will help boost Thailand's exports for this sector. Thailand's tourism industry is expected to gradually recover as vaccinated individuals in other countries start travelling abroad. However, the number of visitors to Thailand will remain well below pre-pandemic levels for the meantime due to the pandemic.

Private consumption in the first quarter will likely be low due to the reintroduction of pandemic control measures. Once the government brings the pandemic under control, private consumption is expected to rise due to the combined effects of easing restrictions, the government's cash handout scheme and an improvement in the export and tourism sectors. Government policy is expected to be a key factor in supporting economic recovery amid lingering uncertainties, with government spending playing a major role. Likewise, we expect monetary policy to continue to be accommodative for the rest of the year.

Thai Banking Industry in 2020

In 2020, the Thai banking system faced challenges due to the Covid-19 situation which affected its performance and asset quality. This is because almost all sectors of the Thai economy have been directly and indirectly affected. As a result, the BOT relaxed monetary policy and issued financial and loan relief measures to assist debtors, as well as easing regulations to increase the flexibility of commercial banks to help debtors and stabilize the financial system.

Amid the Covid-19 challenges, the combined net profit of the commercial banking system was Baht 146.2 billion, a 46.0 percent decrease from last year, due to high provisioning to cushion against the impact from the pandemic. At the end of

2020, loan growth increased by 5.1 percent. Total business loans (64.2 percent of all loans) expanded by 5.4 percent due to an increase in loans to large corporate customers, which were partly returning to borrowing instead of issuing debt securities. SME loans contracted at a lower rate as a result of soft loan measures. Consumer loans (35.8 percent of all loans) grew by 4.6 percent, decelerating from the previous year in line with the purchasing power of households which was affected by Covid-19. Meanwhile home loans continued to expand in response to demand in the low-rise housing market and the marketing campaigns of developers.

The liquidity of the commercial banking system remained high. Deposits grew by 9.6 percent from the end of 2020. The ratio of loans to deposits was 92.3 percent. The Liquidity Coverage Ratio (LCR) stood at 179.6 percent. For liquidity management, commercial banks placed great emphasis on deposit restructuring and cost management as well as reserve requirements to comply with LCR guidelines under Basel III. However, the BOT eased the liquidity threshold to allow commercial banks to temporarily maintain their LCR below 100 percent until December 31, 2021 to alleviate the burden on commercial banks during the pandemic.

In terms of loan quality, non-performing loans (NPL or Stage 3) stood at Baht 523.3 billion or a ratio of 3.12 percent of gross NPL to total loans, while the Significant Increase in Credit Risk (SICR or Stage 2) stood at 6.62 percent. However, the level of capital reserves and loan loss reserves remained high and adequate to cushion against NPL in the banking system. Total capital in the commercial banking system remained high at Baht 2,994.3 billion at the end of 2020 or a Capital Adequacy Ratio (CAR) of 20.1 percent. Reserves were at a high level at Baht 799.1 billion. The NPL Coverage Ratio was 149.2 percent, sufficient to cope with the economic volatility resulting from the Covid-19 situation as well as supporting the related economic recovery.

The adoption of Thai Financial Reporting Standards 9 (TFRS 9) "Financial Instruments" enhanced Thailand's financial reporting standard to be more in line with international benchmarks. The principles and methods of accounting for financial instruments have been revised to better reflect actual financial status and operating results, divided into three parts of classification and measurement, impairment or setting aside reserves, and hedge accounting.

As the spread of Covid-19 has impacted many debtors of commercial banks, banks have focused on alleviating their difficulties as directed by the BOT. Support measures included loan payment holidays for SME and financial support for debtors from financial institutions. Assistance measures for affected customers in the first phase were followed by proactively providing support tailored to the specific needs of each debtor in the second phase. Besides this, the BOT issued a notification to allow financial institutions to maintain the debt classification of non-NPL as performing provided that debt restructuring was implemented by the end of 2021.

Thai Banking Industry in 2021

The Covid-19 pandemic continues to represent the key VUCA challenge (volatility, uncertainty, complexity and ambiguity) that the Thai financial industry faces in 2021. Although Covid-19 vaccine development has already made visible progress, it will take time for vaccination programs to be implemented for those in need and to have a significant effect on combating the virus and reviving the economy. Even after the crisis abates, business conditions, industrial structures, people's lifestyles and working patterns are not expected to return entirely to pre-Covid-19 conditions. The economic system will remain dependent on government support for an extended period. Other factors that will affect the financial markets in 2021 include the election of Joe Biden as US president replacing Donald Trump; ongoing economic fragility, especially in countries with weak economic fundamentals; and the volatility of international money flows due to the monetary easing policies of central banks around the world. Meanwhile, the Thai economy will start to recover, driven by government spending and measures to help businesses and people, as well as vaccinations in accordance with the government's timeline. These will help to build confidence in all sectors of the economy and contribute to a recovery in the second half of 2021.

Given the aforementioned business environment, commercial banks must focus on customer care by providing financial assistance to businesses, helping to revitalize businesses, and providing assistance for long-term business growth, while keeping a close and continuous watch on asset quality. Thai commercial banks have increased their capital and reserves which are currently at a high level and must manage their liquidity to support the economic recovery and meet the challenges.

Commercial banks must also adjust their own operations in line with the New Normal during and after the Covid-19 pandemic. This covers economy, business, customer behavior, working patterns, the acceleration of digitalization, new hygiene rules and measures, and other big trends such as shifts in global supply chains, the transition from aging to aged societies and increasing social and debt problems both globally and domestically. Banks need to focus on developing products and services to meet customers' needs by leveraging insights and analysis. By collaborating with partners, they can create new revenue opportunities and effectively manage channels to control costs. Moreover, they are adopting sustainable banking principles, and using environmental, social, and governance (ESG) factors to determine policies and strategies for responsible lending, while managing risks and their impact on bank loans.

Factors Affecting Banking Industry Performance

Thai commercial banks may encounter challenges from rapid changes in government policies and in the business environment that can affect their operations over the next two to three years. The Covid-19 crisis has accelerated many of the world's major trends. This has led to challenges and opportunities for the Thai economy and business sector in many dimensions as follows.

1. Digital disruption The Covid-19 crisis has encouraged both individuals and businesses to adapt to the New Normal, whether in terms of work, education, leisure, travel and healthcare. Digital technologies play an important role in our daily lives and business activities and they provide commercial banks with enhanced opportunities to help consumers and businesses adapt to the New Normal while improving their own ability to meet the needs of customers.

The use of smartphones and tablets is growing rapidly and easy access to digital media is changing how consumers use financial services. This is in line with the country's move towards a cashless society. Technological innovations make it easier to make payments, transfer and raise funds, provide loans, and manage financial assets. Digital finance helps to enhance the quality of life of individual customers and the efficiency of businesses. Individual customers generally need services that are fast and seamless through non-branch channels on a 24/7 basis, while business enterprises need integrated financial service solutions. Banks will constantly leverage Big Data analytics and artificial intelligence (AI) capabilities to develop marketing strategies suited to each customer group along with more sophisticated products and end-to-end solutions to better meet customer needs.

2. The high level of household debt in Thailand Prior to the Covid-19 crisis, Thailand's household debt to GDP was already high, accounting for about 80 percent of GDP. The Covid-19 outbreak has amplified this problem. The burden of high debt accumulation is an obstacle to the expansion of household spending, because a proportion of income must be put towards debt repayments and there is an increased risk of defaults. Low interest rates also encourage people to save less and spend more. In addition, high levels of business closures and the related rise in unemployment have reduced available income that could be used to pay off debt. As a result, more people are relying on informal loans which have high interest rates as they lack access to formal financial sources. This will further aggravate the household debt problem and pose an obstacle to a recovery in household spending.

3. SME competitiveness Many Thai SME have problems with their ability to compete due to outdated production systems, poor labor quality and a lack of innovation and product development. Traditional SME are mostly family businesses that have difficulty in adapting to business disruption, both in terms of products and business models. In the past, physical location was the main survival factor for businesses. However, technological changes have affected consumer behavior and increased the focus on convenience and speed. Consequently, online purchases have significantly increased. Mobile access, e-Commerce and logistics are key factors for customers who are increasingly consuming news from social media and websites, and ordering products from e-Commerce or social commerce platforms.

SME located in secondary cities face further issues as their markets are smaller than big cities and they face additional challenges from labor quality, cost of products and transportation, and management practices. Large corporations have increasingly expanded into the secondary cities creating more intense competition for local SME.

The Covid-19 crisis has worsened the situation as most SME have low liquidity. When the pandemic became prolonged many businesses had to be closed down. Those that can control costs and manage to improve their working processes and thereby increase productivity through more automation while enhancing the staff capacity to be able to do higher value work will be able to survive this crisis. Banks will play an important role in supporting SME businesses to make such adaptations.

4. Global supply chain relocation US trade protection measures and retaliation from trading partners has led to some production bases moving out from China into ASEAN. The Covid-19 pandemic has also seen Chinese manufacturers accelerate the diversification of their supply chains to reduce the risk of production disruption similar to what happened during the lockdown in Wuhan. This presents an opportunity for attracting foreign investment into Thailand and ASEAN. Thailand is also likely to benefit from the shift in focus from global supply chains to regional ones.



- 5. Debt accumulation Many countries are facing high debt levels. According to the Institute of International Finance, global debt to global GDP was 355.9 percent at the end of 2020. This was mainly due to the easy monetary policies of major central banks around the world coupled with a low inflation environment. The Covid-19 pandemic has also worsened the economic situation, resulting in high unemployment. Governments need to incur more debt in order to use public spending to stimulate the economy. Business and household debt has increased. While many large businesses are able to access low-cost funding sources, SME and low-income households often have limited access to formal financing and may have to resort to costly informal funding sources as a result. Furthermore, the protracted pandemic and restrictive measures reduced the capacity of many businesses, especially those in more vulnerable sectors, to repay debt. Combined these developments could weaken long-term economic growth and potentially undermine the stability of the economy and the financial system.
- 6. Demographic shifts Thailand is expected to become an aged society in 2021 when 20 percent of the population will be at least 60 with 14 percent aged 65 or older. This demographic development will see the size of the workforce decline leading to slow long-term economic growth unless something is done to significantly improve productivity. People have also changed the value and nature of their consumption patterns. Products and services designed specifically for the elderly, such as wellness, food supplements, and health and beauty products, may become more popular. Older people in the future will have more influence in the consumer market creating opportunities for businesses that focus on their needs, such as anti-aging products and services, medical services, pharmaceuticals, pilgrimage tourism and spiritual development.

- 7. Eastern Economic Corridor (EEC) Thailand's EEC is being developed across three provinces, Chachoengsao, Chonburi, and Rayong, focusing on industries that will increase investment potential. The government has been investing in six key infrastructure projects in the designated promotional zones:
 - 1) U-Tapao International Airport and Aerotropolis
 - 2) High-speed railways to connect three international airports (Suvarnabhumi Don Mueang U-Tapao)
 - 3) Laem Chabang seaport Phase III
 - 4) Map Ta Phut seaport Phase III
 - 5) Sattahip commercial deep seaport
 - 6) Railway networks to seamlessly connect the three seaports

The government is developing integrated transport systems to strengthen Thailand's role as a major global economic hub and to support the development of regional supply chains. The US-China trade war has seen some supply chains shift from China to the ASEAN region. Thailand, which is competing with key regional economies such as Vietnam and Indonesia, is highly attractive to foreign direct investment due to its strategic location, the EEC project, ongoing investments in transport and logistics infrastructure, the promotion of 10 targeted industries, policies promoting advances in production capability and the domestic supply chain, technological and innovation development, and the upgrading of labor skills to support targeted industries.

- 8. Sustainable banking The Bank places importance on caring for and enhancing the quality of the environment and society. Apart from the traditional role of financial intermediaries to support economic growth and stability, the Bank has adopted the concept of sustainability in its business operations by establishing four sustainability guidelines:
 - 1) Caring for society and the environment
 - 2) Conducting business with ethics
 - 3) Building business security
 - 4) Caring for employees and creating customer satisfaction

These guidelines are integrated into the Bank's business strategies so that it can grow steadily and sustainably while creating value for all stakeholders and striving to achieve the UN Sustainable Development Goals (UN SDGs).

These factors will underpin the transformation of Thailand's economy through a combination of government policies, changes in business conduct within the private sector, as well as changes in consumer behavior. Therefore, Thai commercial banks must be ready to cope with these changes in order to move forward in a sustainable way.

Emerging Risks

We face many challenges in our business. Economic and political uncertainty, climate change and rapid technological advancements for coping with changes in the business environment and technology may have consequences which are difficult to anticipate. It is therefore prudent for the Bank to identify emerging risks that might affect the business in the long run so it can make preparations to efficiently mitigate the impact. The main emerging risks are:

1. Global economic issues One of the major threats to global economic growth is the Covid-19 pandemic and the global recession it caused. While several countries started inoculations at the end of 2020, the limited number of vaccinated people and emerging virus mutations, especially the UK and South African variants, have contributed to a continuous surge in cases globally. The uncontrolled pandemic will hinder the recovery of the global economy, particularly in countries that significantly rely on the tourism and service sectors. The loss of income in these two sectors, in tandem with low private sector confidence, will drag on global demand and likely weaken international trade.

Furthermore, the recovery of the global economy also faces threats from a "K-shaped" recovery, be it on a macroeconomic or industrial level, in developed or developing countries.

Another important threat is international trade uncertainties, particularly US-China trade policies. Despite the election of Joe Biden as US president, conflicts between the two countries remain with the US likely to focus on intellectual property and climate change issues. These factors, together with the Covid-19 pandemic, caused upheavals in the global supply chain, such as relocation and localization, and the increased use of technology to offset risks from a more complex and uncertain global economy.

The Bank realizes uncertain global economic conditions could affect its business and that of its customers and it is closely monitoring the situation and keeping in touch with clients. This includes taking several measures to manage the risks such as forecasting economic conditions to assess the impacts from such uncertainties, conducting Internal Capital Adequacy Assessment Process (ICAAP) activities, and setting up a recovery plan to systematically prepare for future difficulties. 2. Climate change The Bank has divided its climate change risks into two categories: Risk of natural disasters due to climate change or "physical risk", and risks associated with the transition to a low-carbon society or "transition risk". Physical risks constitute natural disasters such as storms, floods, drought, wildfires, or heat waves, which may adversely affect businesses, the food chain and the general population. In many countries, including Thailand, agriculture has been the most at-risk sector for many years, and has been affected by floods and drought many times. This has disrupted the income and costs of farmers and related businesses. The Bank therefore monitors natural disasters, assesses their impacts and manages associated risks, especially credit allocation.

As for transition risk, the outcome of the US presidential election is likely to accelerate the transition process. Under President Biden's leadership, the US has rejoined the Paris Agreement. This will oblige the world's major economies, including China, the US, the EU, Japan and South Korea (with combined emissions accounting for more than 50 percent of the world's total greenhouse gas (GHG) emissions) to reduce their net GHG emissions to zero by 2050-60. Achieving this goal will require development of green technology and products, as well as policy tools to provide businesses with the true cost of their GHG emissions, such as a carbon tax or a carbon market. These factors would affect all businesses. Despite the long-term nature of a transition to a low-carbon society, the Bank needs to monitor the situation closely and assess its business risks and opportunities to prepare itself for future changes. To this end, the Bank is studying the impact of the transition to a low-carbon society on businesses and the Bank itself under various climate scenarios from international organizations and networks, such as the Intergovernmental Panel on Climate Change (IPCC) and Network for Greening the Financial System (NGFS).

3. Cybersecurity The proliferation of technology has significantly increased cyber risks, which are diverse in form and varied in the problems they can cause. Cyber attacks and data breaches have the potential to undermine the confidence of customers, service providers and stakeholders, while also resulting in costs for the Bank – both in financial and management terms.

Businesses today are increasingly adopting advanced digital technologies, such as blockchain, biometrics, Application Programming Interface (API) or AI, to improve their productivity, connectivity and competitiveness in an increasingly competitive environment involving non-traditional players. These technologies also enable the Bank to deliver service with high levels of customer satisfaction while providing the flexibility needed to adapt to dynamic and fast-evolving business and technological environments. This requires organizations to develop robust work processes. Specific cybersecurity measures are also in place to prevent unexpected consequences from the use of new technologies as well as protecting data and ensuring secure connectivity with its business partners and customers.

Furthermore, contemporary business operations are increasingly reliant on the collection, storage and analysis of data to formulate strategies and design services to satisfy customers' evolving needs. Data is becoming an increasingly important asset requiring greater safeguards. Many countries have added regulations and laws to protect customers' personal information. The Bank makes continuous efforts to maintain the security of personal information and protect it from manipulation, forgery, and irresponsible access and disclosure. The Bank has likewise stepped up measures to protect its customers' personal information as well as the Bank's own information.

Bangkok Bank Overview

Description

Bangkok Bank was founded on December 1, 1944 and in 1975 it became the first Thai bank to be listed on the Stock Exchange of Thailand.

As at December 31, 2020, we had Baht 3,822,960 million in total assets, Baht 2,368,238 million in total loans, Baht 2,810,863 million in total deposits and Baht 449,014 million in total shareholders' equity. In 2020, we received many awards, such as Bank of the Year 2020 from Money and Banking magazine; Best Bank in Thailand from Global Finance magazine; Best Corporate and Investment Bank in Thailand, Best Bank for SMEs, and Best Regional Bank for BRI (Southeast Asia) from Asiamoney magazine; Best Trade Finance Bank in Thailand and Best Cash Management Solution in Thailand 2020 from Alpha Southeast Asia magazine; and Best in Treasury and Working Capital SMEs in Thailand from The Asset Triple A.

For more than seven decades, our business has been guided by the philosophy of aspiring to be a trusted partner and reliable close friend. This emphasizes the value we place on partnership, developing long-term relationships with our customers that are sustained over decades and across generations, and committing to our ESG responsibilities.

Our large and loyal customer base has been one of the key drivers of our success, allowing us to expand our business alongside our customers' increasing financial needs. We have six business units: Corporate, Commercial, Business, Consumer, International, and Investment banking. Our key subsidiaries include our locally incorporated banks in Malaysia, China and Indonesia — Bangkok Bank Berhad, Bangkok Bank (China) and PT Bank Permata Tbk (PermataBank) — Bualuang Securities (BLS), BBL Asset Management (BBLAM), and Bualuang Ventures (BV). BLS provides brokerage, investment banking and fund management services; BBLAM offers mutual funds, private funds and provident fund products in Thailand; and BV is a venture capital company. We provide a wide range of financial services for both business and individual customers in Thailand and abroad. Our business lending products include long-term and short-term loans, trade finance, working capital, letters of guarantee and aval / acceptance. Other banking products and services include deposits, funds transfers, cash management, bancassurance, investment banking, foreign exchange and debt securities. These other banking products and services generate fee and service income for the Bank. Our banking facilities cater to both Thai and international customers.

Service channels

Our extensive distribution channel network covers branches, self-service machines, digital banking services and touchpoints. Digital banking services include mobile banking (Bangkok Bank Mobile Banking); internet banking (Bualuang iBanking); payments via QR Code for individual customers; online services such as BIZ iBanking, Corporate iCash and Bualuang iTrade for business customers; and Bualuang Phone banking service. Our domestic branch network consisted of 1,128 domestic branches across Thailand, as at December 31, 2020. To serve business customers, we have 117 business centers and 126 business desks nationwide, staffed by relationship managers and officers providing a full range of lending and banking services. We also have 92 trade-finance centers nationwide. Our international network is the largest of all Thai banks with more than 300 branches in 14 economies: Cambodia, China, Hong Kong, Indonesia, Japan, Laos, Malaysia, Myanmar, Philippines, Singapore, Taiwan, United Kingdom, United States and Vietnam.



Business and Operations of Bangkok Bank and its Subsidiaries

Corporate banking

The resilience and strong fundamentals of Thailand's corporate sector enabled most major companies to guickly adapt to new circumstances and multiple challenges from the Covid-19 pandemic, which disrupted businesses and economies around the world. As a relationship-based bank as well as a trusted partner and reliable close friend, we recognize the importance of supporting our customers with measures such as new loans to address liquidity shortages and changes to loan terms where needed. Our prudent approach to lending enabled us to continue to maintain a high-quality portfolio, strengthening our robustness and resilience in uncertain times. To create value together, we introduced innovative services, such as blockchain for trade finance, and continuously developed solutions that digitalize day-to-day processes so they can be integrated with corporate customers' ecosystems, as well as their customers and supply chains while also supporting their ongoing regional expansion. This will help enhance their productivity and generate more data-driven insights that enable us and our customers to develop better products and services. In line with our commitment to promoting responsible banking and caring for the environment, we are financing sustainability projects, including clean and renewable energy such as biomass production, wind farms and solar power schemes, as well as electric vehicle manufacturing, plastics recycling manufacturing and mass transit projects.

Key developments

- Given our longstanding experience in providing financial advice to business customers we have been entrusted to finance many infrastructure development projects across Thailand, such as mass transit in Bangkok, rail networks across the country including a high-speed rail link, development of the EEC, industrial estates, electricity generation and a Smart City project.
- We enhanced our transaction banking services to cover all processes for clients both domestically and internationally comprising cash management, trade finance, supply chain and securities services to better deliver solutions across all aspects of the financial value chain.
- Bangkok Bank won many awards throughout 2020, including: Best Corporate and Investment Bank in Thailand from Asiamoney magazine; Best Trade Finance Bank in Thailand from Alpha Southeast Asia magazine, The Asian Banker and Global Business Outlook; Best DLT Platform for Trade Finance from Global Finance magazine; and Best Cash Management Solution in Thailand 2020 from Alpha Southeast Asia magazine for the QR-on-Delivery payment option that can be used with any mobile banking application in Thailand.

Digital transformation

- To ensure we can respond rapidly to changing customer needs and improve the efficiency of our operations we have accelerated our digital transformation in various aspects such as working with other leading banks and global companies to launch Contour to provide trade finance services using enterprise blockchain technology. In 2019 and 2020, we successfully piloted Letter of Credit (L/C) transactions using enterprise blockchain between Indonesia and Thailand, and Vietnam and Thailand, respectively. In 2021, we will commercialize this service and offer it to other customers. This innovation, paired with our strong international network, will enable us to deliver an enhanced client experience in a highly secure environment, providing our customers with a seamless service for their international businesses while reducing operating time to less than an hour and cutting the use of paper by more than half.
- Customers in Thailand were provided with an e-Withholding tax service whereby Bangkok Bank sends withholding tax payments to the Thai Revenue Department and delivers an electronic withholding tax payment confirmation. With this service customers can automate their end-to-end payment process entirely and manage their businesses more conveniently.
- In 2021, we will continue our digital transformation with cash management and trade finance services being moved to new digital platforms. In addition to using the latest techniques in design thinking to deliver an intuitive user experience these services can support connections via API. This will enable the Bank to offer our clients easy access to a more comprehensive range of services as well as providing a gateway to a growing range of innovative products based on Distributed Ledger Technology (DLT). These plans emphasize our commitment to providing services to our customers that will enhance their competitiveness under the Digital First concept.

Commercial and business banking

Small and medium-sized enterprises (SME) are more vulnerable to sudden changes in economic conditions from Covid-19 than larger ones, which made it more important than ever for us to stand by their side as a trusted partner and reliable close friend. When the Covid-19 pandemic began we contacted business customers regularly to check if they required help and, where needed, provided them with debt relief such as soft loans, rescheduled payments and incremental new loans or working capital to help them maintain their business. We also stepped up our accounts review process to help provide early warnings of financial difficulties so that we could promptly provide additional advice and support for customers and take appropriate action as required.

During this time, businesses not only faced challenges with cash flow, but also had to adapt their operations in many ways such as reorganizing the working environment to meet new hygiene standards, selling products via online channels, or repurposing production lines to meet changes in market demand. We were able to support them by providing online seminars with a particular focus on helping them navigate the crisis and transition to the New Normal. Customers could promote their products and services via Bangkok Bank SME social media channels. We also provided new services to support cashless payments and online sales channels.

Key developments

- To help our customers improve their business in terms of management, marketing and innovation we shared knowledge and provided connections through workshops, events, and online channels. Some of our customers won SME Excellence Awards from the Thailand Management Association (TMA), including two excellence awards in the category of services and trading, and a gold award in manufacturing.
- Biz iBanking introduced the Biz Super Save x3 package, offering special fees for fund transfers, payroll and cheque services, which reduced transactional costs for businesses as well as the need to visit branches.
- Our Bang Na and Sriracha business centers were remodeled as advisory centers and venues for events and workshops. We expect such facilities to play an important role in helping our customers adjust to the new business conditions as we emerge from the economic downturn.

Digital transformation

• We enhanced the customer experience by re-engineering our customer onboarding process and introducing new online services such as BeMerchant NextGen and Bualuang Smart Bill Payment. BeMerchant NextGen enables retail businesses to receive cashless payments via QR Code as well as to monitor and manage their transactions. Bualuang Smart Bill Payment provides digital payment solutions that help business customers save time and costs, and efficiently manage their bill collections from all channels and other Thai banks with easy reconciliation via electronic reports.



International banking

During this period of rapid change we maintain high confidence in the future of Southeast Asia's economies where regional connectivity, urbanization and infrastructural development is underpinning future growth. In line with our determination to be a leading regional bank we completed the landmark acquisition of PT Bank Permata Tbk (PermataBank) in Indonesia in May 2020. After conducting a mandatory tender offer in October, our stake in PermataBank rose to 98.71 percent. In December the integration of Bangkok Bank Indonesia's assets and liabilities saw PermataBank become one of Indonesia's 10 largest banking institutions. In January 2021, with total capital of more than IDR 30 trillion (Baht 63,332 million), PermataBank was approved by the Financial Services Authority (OJK) as a BUKU IV bank, the category of banks with the highest capital. This strategic investment for growth reflects our confidence in the high potential of ASEAN's largest economy. The move will diversify our revenue streams and give us greater access to high-growth markets while enabling us to provide more services to customers in Indonesia and across our network. Following the acquisition, international lending now accounts for 23 percent of our total portfolio, up from 17 percent.

We also helped many of our customers expand their businesses regionally and internationally, with a particular focus on Southeast Asia. The future growth of this region is underpinned by several trends such as the recently signed Regional Comprehensive Economic Partnership (RCEP), the need to diversify supply chains after the Covid-19 pandemic and growing regional connectivity between Thailand and other countries in ASEAN.

Key developments

- We are leveraging our industry expertise to support highpotential industries such as renewable energy projects across the region, including hydropower developments in Laos, biomass in Thailand, wind and solar power in Thailand and Vietnam, solar power in Japan, and geothermal power in Indonesia.
- Asia Trade Fast Track, our integrated suite of international trade finance products and services was rolled out to customers across the region. This solution can help importers and exporters with trade partners in any of the 12 countries in our Asian network to conduct business faster and more easily. With this program, inward and outward fund transfer services and advising letters of credit and bill services can be completed within the same day.

Country highlights

- Indonesia We expanded our customer base through the acquisition of PermataBank, a leading banking institution in Indonesia with more than 300 branches and almost 4 million customers, It is a pioneer of mobile banking and mobile payment technology which can be easily integrated with the applications and platforms of its partners. The synergies gained through the integration will benefit both Indonesian customers and those across our international network.
- China As the country's economic power continues to rise and the Belt and Road Initiative (BRI) rolls out, we are supporting our customers to tap into opportunities in this important market. In recognition of this support, Bangkok Bank won a prestigious award from Asiamoney magazine in 2020 – Best Regional Bank for BRI – while our customer, Sunrise Group in Cambodia, which received loans from our Xiamen and Cambodia branches, won the Best Individual BRI Project or Initiative in the Region from the same organization. Bangkok Bank (China) won the Best Non-US Currency Member from China's Foreign Exchange Trade System in 2020.
- Hong Kong As a major financial center and gateway to China, Hong Kong continues to be one of our most important markets. We have worked closely with investors and business partners to tap into opportunities in the Greater Bay Area. Bangkok Bank has formed a strategic partnership with the Hong Kong Trade Development Council to work together to increase trade and investment under the BRI.

• Vietnam We are helping our customers expand as they leverage Vietnam's strong economy which is driven by export-oriented manufacturing and robust domestic demand from a growing middle-income population. As a reflection of our commitment to sustainable banking, financing solar energy projects in various countries continued to be a major focus in 2020. Bangkok Bank participated in a syndicated loan for the development and operation of a 257 MW solar project in Hoa Hoi, Phu Yen Province, Vietnam. The syndicated loan was the first Green B loan in Asia-Pacific to be certified by the Climate Bonds Initiative, and one of the largest such loans yet mobilized in Vietnam.

Digital transformation

- To enhance our ability to provide a seamless service that is efficient, cost-effective and convenient for our international banking customers we are developing a digital infrastructure platform across our group including enhanced core banking, cash management, payment and anti-money laundering systems.
- We are the settlement bank in Thailand for cross-border QR Code payments between Thailand and Indonesia, as well as Thailand and Vietnam. We were also appointed as the Thai Settlement Bank of PromptPay International, a crossborder remittance service between Thailand and Singapore through which people can conveniently and cheaply make cross-border transfers and payments using their mobile banking services.



Consumer banking

Our first priority early in the year when Thailand was trying to reduce the spread of Covid-19 was to protect the health and well-being of our customers and staff. In addition to introducing a wide range of health and safety measures, we took part in helping communities by supplying food and necessities and provided financial relief to those facing financial hardship. As a trusted partner, we proactively contacted customers to offer friendly support and practical assistance including debt relief. Special hotlines to provide advice to affected customers were set up, and the processing of applications was fast-tracked to accelerate assistance to customers.

Our digital services were expanded, including the launch of a new mobile banking application, online account opening and cardless withdrawals at ATM. With most transactions now occurring online, our branch and front-line personnel are increasingly focusing on providing specialist services in areas such as financial planning, insurance, wealth management and home loans.

We are committed to building good relationships with customers and delivering the best possible customer experience. To improve our service, we conduct an annual customer satisfaction survey and in 2020 received a score of 94.48 percent for our branch services, 81.80 percent for mobile banking, 4.66/5 for our automated telephone service and 4.82/5 for our customer service center. We expanded outlets for customers to do their banking by appointing Tesco Lotus and Counter Service at 7-Eleven as banking agents. This will increase financial inclusion as it gives people more places where they can deposit or withdraw cash.

We will continue to strengthen our advisory services as a trusted partner and reliable close friend helping our customers to thrive and build wealth. This is supported by our investments in customer analytics and segmentation which enable us to gain richer insights into our customers so that we can provide them with a tailored and personalized service that suits their needs. Meanwhile we will continue to roll out new digital services so customers can manage their financial affairs when and where they like.

Key developments

• In keeping with our commitment as a trusted advisor, we provided guidance to customers about changes in the property market and economic conditions to assist them with planning for their new home or investment property. Our specialist Loan Plaza teams were expanded across the branch network to provide better focus and improve



turnaround times for customers across a wider geographical reach. We continue to build traction in the key prime developer segment by leveraging our branch, Loan Plaza, and mortgage direct sales teams, to be their partner of choice.

- We expanded dedicated teams in our branches to serve Bualuang Exclusive customers and kept in close touch with them to offer support. Initiatives included providing economic and financial insights through an easily accessible platform, Bualuang Exclusive's LINE Official Account, as well as conducting online seminars on swiftly changing market conditions and investment opportunities.
- Our new version of Bangkok Bank Mobile Banking was launched in June 2020 with a more modern user experience, that is fast and easy to use with convenient new features such as cardless withdrawal, e-Savings accounts, home loan

accounts and securities subscription. As a life management tool, it will help customers better manage their finances and budgets and achieve their savings and investment goals. Moreover, this version was designed to easily integrate with other platforms and services so it can be frequently and quickly updated with new services and features.

- We ran design thinking workshops with users to increase adoption and usage rates of our smart app for students including the TU GREATS App. This is a virtual card that can be used for many services including paying fees, communicating with teachers, marking attendance, managing timetables, and receiving in-app reminders. It seamlessly connects with Bangkok Bank Mobile Banking to make cashless payments using QR Code.
- In a first for Thailand, Bangkok Bank and prestigious gold trading companies offered investors the opportunity to invest in gold in US dollars in real-time. Investors can buy and sell gold on the Hua Seng Heng USD Gold Trade platform, accessing funds drawn directly from a Bangkok Bank Foreign Currency Deposit (FCD) account. This reduces risk from currency fluctuations, providing new investment options and increasing investors' opportunities to gain profits.

Digital transformation

- To ensure customers can conveniently do their banking anytime, anywhere, we are continually expanding the range of services available online including account opening using facial recognition and authentication via the National Digital ID (NDID).
- We continue to develop and update our systems to protect the integrity and confidential data and transactions of our customers who are increasingly accessing external sites and applications.
- We are using Robotic Process Automation (RPA), a technology that replicates and automatically executes human-like tasks, to boost the productivity of our services. This digital capability will improve our competitiveness in the banking industry.
- In partnership with Pand.ai, one of the startups from our Bangkok Bank InnoHub accelerator program, we developed a Thai-language chatbot for the financial sector. This chatbot will be used to boost the performance of our sales teams and will later be enhanced to provide service to our customers.



Investment banking

As a trusted partner, we work closely with and provide financial advice to clients so that they can maintain their liquidity and access capital sources during times of uncertainty. We also create value by helping clients increase their competitiveness such as working with Bualuang Securities for Initial Public Offerings (IPO) and rights offerings for leading companies in Thailand.

During the pandemic crisis, we successfully helped issuers complete their fund-raising activities by moving events online and easing both issuers and investors into the New Normal with e-Roadshows.

Our treasury services continued to lead the market in foreign exchange, interest rate swaps and cross-currency swaps, as we helped our clients manage their foreign exchange and interest rate risk exposures in various sectors under different market conditions.

Key developments

• Despite difficult market conditions, we increased our market share for underwriting corporate bonds in Thailand, gaining many new clients and retaining our position as one of the top three active bond underwriters in Thailand.

- We offered ESG bonds to our clients with innovative and sustainable financing solutions, such as green bonds, sustainability bonds and social bonds, including green bonds that are certified by the Climate Bonds Initiative which have been gaining investors' interest. At the end of 2020, the total offerings of ESG bonds launched in the Thai debt capital market was more than Baht 129.4 billion. We were involved in the issuance of more than 90 percent of ESG bonds in Thailand in 2020.
- We supported the Ministry of Finance of Thailand (MOF) in its launch of Baht 30,000 million inaugural Sustainability Bonds. With overwhelming interest from investors, the MOF decided to tap the market for Sustainability Bonds and offer an additional Baht 20,000 million, bringing the total Sustainability Bonds outstanding to Baht 50,000 million. We also played a pivotal role in helping the MOF execute Baht 100,000 million in its bond switching transaction.
- The ESG bonds which we helped launch were recognized domestically and internationally and received many awards from the Asset magazine. The country awards were Best Sustainability Bond (Kingdom of Thailand Baht 30 billion sustainability bond), and Best Green Bond (Global Power Synergy's Baht 5 billion digital green debentures). The regional awards were Best Sustainability Bond (Kingdom of Thailand Baht 50 billion Sustainability Bond), and Best Currency Green Bond (RATCH Group Public Company Limited Baht 8 billion senior and unsecured green bonds).

Digital transformation

- We moved our fixed-income investor roadshows online and provided an e-Roadshow platform to connect with and provide bonds offering information to investors for more than 10 transactions. The e-Roadshows were well received by issuers and investors as they were able to maintain social distancing while still accessing the information they needed which was previously provided via physical roadshows.
- We cooperated with the Thai Bond Market Association (ThaiBMA) in the design and development of an electronic book building platform via web portals. The platform was successfully launched and used in many transactions.
- In collaboration with the Securities and Exchanges Commission (SEC), the Association of Securities Companies (ASCO), the Thai Bankers' Association (TBA), and the Stock Exchange of Thailand (SET) we are developing a digital infrastructure roadmap for Thai capital markets which will connect all stakeholders with an end-to-end process for products offered in the capital market. The digital infrastructure will streamline the offering process, enhance efficiency and increase the transparency of information disclosure of issuers. It will facilitate access to the capital market, reducing costs for both issuers and investors while increasing the efficiency of regulatory compliance.



Bualuang Securities Public Company Limited (BLS) was founded in 2001 and is one of Thailand's leading securities companies. It provides securities brokerage, investment banking, and equity research services. Bangkok Capital Asset Management Company Limited (BCAP), its wholly owned subsidiary, is the BLS investment management unit.

Apart from its comprehensive nationwide network of 29 offices in Bangkok and major cities, BLS has expanded its client base through account referrals from the Bank's nationwide branch network.

Thai equity market in 2020

2020 was a challenging year for Thai investors as Thai stock markets were impacted by the Covid-19 crisis which initially resulted in the panic selling of shares, not only in Thailand, but on a global scale. In early March, the SET index declined by nearly 1,000 points, hitting its lowest point for the year. However, the index bounced back in April due to a liquidity drive. Then, high hopes of an economic recovery due to potential vaccines against the Covid-19 virus lifted the SET index which ended the year at 1,449.35 points, down 8.3 percent from the previous year.



Trading volume soared by 29.0 percent to Baht 68.6 billion over the year in the combined average daily trading value for the SET and Market for Alternative Investment (MAI) due to high volatility, which led investors to massively increase their trading volume.

Thailand was once again the top performer in Southeast Asia for IPO, raising Baht 136.0 billion, equivalent to 60 percent of total IPO funds raised in the region. Among the IPO underwritten by BLS were the country's largest retail department store operator, Central Retail Corporation (CRC), which raised Baht 78.1 billion, and SCG Packaging, which raised Baht 45.4 billion. Regarding rights offerings, BLS advised Minor International in raising Baht 9.9 billion and Gulf Energy Development with Baht 32.0 billion.

Brokerage business accounts for about 55 percent of revenue for securities companies, with 15 percent, 9 percent, and 6 percent from fees, interest, and trading respectively.

Key developments

As retail investors significantly increased their trading activities amid the Covid-19 stock volatility, BLS' customer base grew by 17.2 percent to more than 400,000 accounts. Its market share also increased and its market ranking in equities improved to 6th place from 8th place the previous year.

The increasing interest in international investments attracted many investors to the BLS Global Investing service leading total investment funds via the service to grow by 10 times compared with the previous year. BLS clients using this facility can trade stocks listed in the US, Hong Kong and Vietnam via a mobile application or on the internet.

For the asset management service, BCAP has continued to introduce new funds to offer more options to investors. These enable clients to diversify their investments and create growth opportunities through global funds and ETFs. The company offered 28 funds, and one of the year's highlights was the launch of the BCAP China Technology Fund (BCAP-CTECH) in November 2020. This fund attracted the attention of investors due to its high growth potential and its investments in some of the world's top technology companies, such as Alibaba, Tencent, Baidu and ByteDance.

BLS continued to create value for customers by providing innovative services and technologies. In 2020, BLS started offering a private fund platform via Bualuang iProgramTrade and developed a new investment model AlgoWiser-Rising Stars 001 (AWS 001) for Bualuang iProgramTrade using the trend following technique with proper risk management.

BLS is committed to regularly educating investors via Bualuang Wealthcast. This free podcast has more than 100 episodes and provides useful news and information on investing for subscribers. Additionally, the BLS Stock Master program was organized for the 9th consecutive year. The online program helped inexperienced investors efficiently access investment knowledge from their homes with more than 3,000 participants attending.

Throughout 2020 BLS took part in several community service programs. These included supporting Phramongkutklao Hospital to make artificial breast pads for breast cancer patients, packing and distributing 500 survival bags for people in the Bangrak community during the lockdown period, and organizing activities to make face masks for underprivileged children.

BLS won Best Securities Company of the Year from Money & Banking magazine for the third time in five years, confirming the quality of its service and the trust of its customers. BLS has been recognized for its excellence in investment banking. In 2020 it received Best Investment Bank Awards from Alpha Southeast Asia magazine, Global Banking and Finance Review magazine, and World Finance Magazine; Best Capital Markets Thailand from International Business magazine; Equity Deal of the Year from ABF Corporate & Investment Banking magazine; and Best Equity House from Global Business Outlook magazine.

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As BBL Asset Management Company Limited (BBLAM) heads toward its 28th anniversary, it continues to win trust and confidence from investors. With its core values of Prudence, Integrity and Excellence, it envisages itself as a financial institution that places the interests of clients as the highest priority.

The company's mission is to strengthen the financial well-being of Thai families. Its house-branded mutual fund products are distributed through Bangkok Bank's nationwide branch network and its online banking services, as well as other sales agents such as Bangkok Life Assurance and BLS. BBLAM also manages provident funds, private funds, infrastructure funds, property funds, and real estate investment trusts (REIT).

BBLAM pursues an active investment philosophy supported by its in-house research and investment capabilities that have resulted in outstanding performance. The Bualuang Fund brand has gained a strong reputation and is well known among investors. The BF Knowledge Center, established in 2018, has continued to provide financial and investment knowledge to the Thai public.

The asset management industry

In 2020 the Covid-19 pandemic cast a dark shadow over the global and Thai economies due to the shutdown and other restrictive measures that stalled economic activities and damaged the financial and business sectors.

The asset management business in Thailand recorded an increase of 6.5 percent in total assets under management (AUM) from Baht 7.74 trillion in 2019 to Baht 8.28 trillion at the end of 2020. This performance comprises a decline in the mutual fund business of Baht 351,000 million, which was more than offset by an increase in the provident fund business of Baht 26,000 million and the private fund business of Baht 868,000 million. The private fund business witnessed a big jump after an insurance firm spun off its investment unit with a portfolio of Baht 847,000 million.

Overall, the asset management industry was hard hit by the pandemic. Investors cut back their holdings in equity funds as well as term funds and fixed income funds but shifted their investment instead to Foreign Investment Funds (FIF) and funds that offer tax privileges such as Retirement Mutual Funds (RMF) and Super Saving Funds (SSF), the latter of which was introduced in 2020. By doing so, the investors were aiming to seek higher returns for their investment and to diversify their investment portfolios.

Key developments

BBLAM has introduced a full array of mutual fund products to provide a variety of investment options for investors. In 2020, it launched B-ENHANCED which focuses on seeking returns on fixed income and expanding investments overseas. Funds in the BMAPS family (Bualuang Multi Asset Portfolio Solutions) such as BMAPS25, BMAPS55 and BMAPS100 were designed to meet the asset allocation needs of investors in accordance with their risk profiles. In addition to the aforementioned funds we also launched Thai equity trigger funds to provide alternatives for investors as Thai equity markets recover. BBLAM also reinforced its leadership in tax saving funds. The company introduced both SSF and RMF products, such as BEQSSF, BM70SSF, B-INCOMESSF, B-FUTURESSF and B-CHINAARMF which invested in both the domestic and overseas markets to enhance returns.

For the provident fund business, BBLAM attached particular importance to savings retirement schemes for members. In 2020 it added four policies with equity investment in the domestic and overseas markets, as well as alternative assets for investment totaling 16 investment policies. This was designed to give more choice covering all asset classes in response to the needs of more than 180,000 members from 1,800 companies.

BBLAM is highly committed to its mission. Apart from providing knowledge in financial planning through articles, infographics, video clips and other social media, it organized online investment workshops and virtual events. It launched BF Podcasts, which has more than 80 episodes, to engage with a larger audience seeking investment advice.

BBLAM also held workshops on its online platform to respond to the changing needs of customers. This increased participation from investors in provincial areas. The Live Chat platform was also available to answer customers' queries. Bangkok Bank and BBLAM teamed up to organize more than 300 training programs to improve the knowledge and skills of the Bank's staff nationwide.

BBLAM expanded its distribution agents and plans to add more agents and distribution channels in the coming year. It will team up with business allies to expand its customer base and drive business.

BBLAM continued to bank on sustainable investment, as reflected in its 2020 theme Corporate Strength Creates Sustainability. It has upgraded its investment analysis platform by incorporating ESG considerations into its investment decisions, coupled with a financial analysis of the businesses in all the equity and fixed income categories in which it invests.

BBLAM continued to focus on developing and upgrading its operational and service systems in line with digital transformation and has a digital platform for buying and selling mutual funds via online accounts in the pipeline. Through the BF Wealth Plan, BBLAM's BF Mobile Application offers financial planning and comprehensive investment advice to investors. The company has also geared up its cyber security system. An automated report system has been developed to streamline operations, and at the same time data analytics are being used to increase the service efficiency and expand new business opportunities.

At the end of 2020, BBLAM recorded total AUM of Baht 872,970 million, down Baht 2,375 million or 0.3 percent from the previous year. Of this, the mutual fund business's AUM accounted for Baht 752,703 million, down by Baht 9,373 million or 1.2 percent. This represented a market share of 14.9 percent, which was in the top three mutual fund businesses in the industry.

BBLAM's provident fund business recorded total AUM of Baht 96,390 million, representing a market share of 7.7 percent, while its private fund business's AUM reached Baht 23,876 million, or a market share of 1.2 percent.

In addition, BBLAM also participated in the Care the Wild program under the guidance of the SET. Care the Wild collaborates closely with the Royal Forestry Department to initiate reforestation and in the process create jobs and incomes for rural communities. From its own budget, BBLAM donated Baht 120,000 to help the local community of Ban Nong Thit Son in Maha Sarakham province with a reforestation drive so that the local community could revive the environment and earn some income from their activities.

Bualuang Ventures

Bualuang Ventures Limited ("BV") is the Bank's corporate venture capital arm with registered capital of Baht 2 billion. It invests in high-potential startups and SME across Southeast Asia, with key investment sectors including FinTech, healthcare, AgriTech, and e-Commerce. By investing in venture capital it helps small companies build stronger, sustainable businesses while also supporting advanced economic development in Thailand and the region.

BV's current investment portfolio includes these companies:

- A leasing company that provides vehicle title loans, personal loans, and nano finance to retail customers in the north, central, and northeast regions of Thailand. It listed on the SET in December 2020.
- A Singapore-based chatbot developer and service provider with its own proprietary NLP engine and an alumni of Bangkok Bank InnoHub Season 2 global accelerator program. It has successfully co-developed a Thai language AI-powered chatbot.
- An AgriTech startup that focuses on data analytics for the agriculture sector that leverages satellite imagery, agronomic models, and weather data to give actionable insights for farmers and corporates. It helps farmers improve productivity and profitability by enabling them to implement best practices.
- A Clinical Research Organization that aims to provide a full range of services in clinical research and support Thailand's development towards becoming a medical hub in ASEAN.

Overall Picture of the Bank and its Subsidiaries

			Million Baht
	2020	2019	Change (%)
Net profit /1	17,181	35,816	(52.0)%
Earnings per share (Baht)	9.00	18.76	(52.0)%
Net interest margin	2.24%	2.35%	(0.11)%
Net fees and service income to operating income ratio	20.8%	21.3%	(0.5)%
Cost to income ratio	55.6%	41.1%	14.5%
Return on average assets /1	0.48%	1.13%	(0.65)%
Return on average equity /1	3.96%	8.45%	(4.49)%

^{/1} Attributable to owners of the Bank

¹ Attributable to owners of the Bank			Million Baht
	December 2020	December 2019	Change (%)
Loans	2,368,238	2,061,309	14.9%
Deposits	2,810,863	2,370,792	18.6%
Loan to deposit ratio	84.3%	86.9%	(2.6)%
Non-performing loan (Gross NPL) /1	104,401	79,149	31.9%
Gross NPL to total loans ratio /1	3.9%	3.4%	0.5%
Allowance for expected credit losses to NPL ratio $^{\prime \rm 1}$	186.8%	220.2%	(33.4)%
Total capital adequacy ratio	18.34%	20.04%	(1.70)%

^{/1} Including interbank and money market lending

In 2020, the Bank's net profit amounted to Baht 17,181 million. Net interest income rose by 8.4 percent from 2019 to Baht 77,046 million due to the consolidation of PermataBank's net interest income. The net interest margin stood at 2.24 percent. Net fees and service income and other operating income declined primarily due to lower fee income from loan related services and income from investments from the implementation of TFRS 9 since January 1, 2020. Operating expenses increased by 20.0 percent mainly due to the inclusion of PermataBank's operating expenses and expenses related to integration of Bangkok Bank's branches in Indonesia with PermataBank in December, resulting in the cost to income ratio of 55.6 percent.

The Bank set aside expected credit losses of Baht 31,196 million, driving the ratio of loan loss reserves to non-performing loans to 186.8 percent. This is in line with the Bank's prudent management to provide a cushion against uncertainty from the economic contraction caused by the Covid-19 pandemic.

At the end of December 2020, the Bank's loans amounted to Baht 2,368,238 million, an increase of 14.9 percent from the end of 2019. Excluding PermataBank, loans grew by 2.7 percent due mainly to increases in large corporate lending. The non-performing loan (NPL) ratio was 3.9 percent. The Bank continued to keep close control of credit underwriting and risk management while maintaining the allowance for doubtful accounts at a prudent level.

In terms of capital and liquidity, as of December 31, 2020, the Bank's deposits amounted to Baht 2,810,863 million, an increase of 18.6 percent from the end of December 2019. Excluding PermataBank, deposits increased by 7.3 percent mainly from savings accounts. The loan to deposit ratio was 84.3 percent, reflecting an adequate liquidity position to cushion against economic uncertainties. Furthermore, the Bank issued USD 750 million in Additional Tier 1 Subordinated Notes under Basel III regulations on September 23, 2020, to strengthen the Bank's capital structure. At the end of December 2020, the total capital adequacy ratio, Tier 1 capital adequacy ratio and Common Equity Tier 1 capital adequacy ratio of the Bank and its subsidiaries were 18.34 percent, 15.76 percent, and 14.89 percent respectively, comfortably above the BOT's minimum capital requirements.

Million Raht

Effects of Covid-19 on classification and provisioning for expected credit losses

In terms of loans classification, the Bank adheres to the BOT's guidelines on providing relief measures to debtors affected by adverse Thai economic conditions. In this regard, the Bank is allowed to provide pre-emptive assistance measures to non-NPL debtors who can be classified as Stage 1 having no significant increase in credit risk (Stage 1: Performing) if the Bank performs the review that they can comply with the new debt restructuring agreement. The Bank is also allowed to provide assistance measures to debtors affected by the economic conditions and those with credit impairment who can be classified under Stage 1 if they can repay their debts under the new restructuring agreement for three consecutive months or periods, whichever is longer.

In terms of provisioning, the Bank adheres to TFRS 9 principle, which requires financial institutions to calculate expected credit loss by considering economic conditions in the past, present, and future under various assumptions and circumstances to estimate the provision for credit loss. Meanwhile, the Bank has considered additional potential factors from the Covid-19 pandemic affecting the Thai and global economies. The Bank, therefore, takes into consideration the impact of Covid-19 both in the short and long term, as well as management discretion to increase additional provision (Management Overlay) above the amount calculated from the model. This will enable the Bank's provisioning to effectively cope with this uncertain situation.

Operating Income and Expenses of the Bank and its Subsidiaries

			MILLION DAIL
	2020	2019	Change (%)
Net interest income	77,046	71,071	8.4%
Non-interest income	41,682	62,675	(33.5)%
Operating expenses	65,974	54,963	20.0%
Expected credit losses	31,196	-	N/A
Impairment loss of loans and debt securities	-	32,351	N/A
Operating profit before tax	21,558	46,432	(53.6)%
Income tax expenses	4,013	10,219	(60.7)%
Net profit	17,545	36,213	(51.6)%
Net profit ^{/1}	17,181	35,816	(52.0)%
Total comprehensive income /1	30,056	27,029	11.2%

^{/1} Attributable to owners of the Bank

In 2020, net profit attributable to owners of the Bank totaled Baht 17,181 million, decreasing from last year mainly due to a reduction in fees from loan-related services and lower income from investments owing to the adoption of TFRS 9. There was also an increase in operating expenses mainly from the consolidation of PermataBank's expenses and expenses related to the integration of the Bank's branches in Indonesia with PermataBank in December. Although the Bank has gradually cut its loan interest rates to support some customers affected by the Covid-19 situation, net interest income increased from last year due to the consolidation of PermataBank's net interest income since the second quarter of 2020 and partly from the change in recognition of interest income from loans according to TFRS 9.

Net Interest Income

Net interest income for 2020 amounted to Baht 77,046 million, rising by 8.4 percent due to the acquisition of PermataBank in

the second quarter of 2020 as well as the change in recognition of interest income from loans according to TFRS 9.

			Million Baht
	2020	2019	Change (%)
Interest income			
Loans	95,994	93,155	3.0%
Interbank and money market items	5,431	9,101	(40.3)%
Investments	11,098	10,309	7.7%
Total interest income	112,523	112,565	(0.0)%
Interest expenses			
Deposits	22,437	23,044	(2.6)%
Interbank and money market items	952	2,100	(54.7)%
Contributions to the Deposit Protection Agency and			
Financial Institutions Development Fund	5,846	9,953	(41.3)%
Debt issued and borrowings	6,242	6,397	(2.4)%
Total interest expenses	35,477	41,494	(14.5)%
Net interest income	77,046	71,071	8.4%
Yield on earning assets	3.28%	3.72%	(0.44)%
Cost of funds	1.19%	1.59%	(0.40)%
Net interest margin	2.24%	2.35%	(0.11)%

Bangkok Bank Interest Rate	Dec'20	Sep'20	May'20	Apr'20	Mar'20	Feb'20	Dec'19	Sep'19
Loans (%)								
MOR	5.875	5.875	5.875	6.100	6.500	6.750	6.875	6.875
MRR	5.750	5.750	5.750	6.100	6.500	6.625	6.875	6.875
MLR	5.250	5.250	5.250	5.475	5.875	6.000	6.000	6.250
Deposits (%)								
Savings	0.250	0.250	0.250	0.375	0.375	0.500	0.500-0.625	0.500-0.625
3-month Fixed	0.375	0.375	0.375	0.500	0.500	0.625	1.000	1.000
6-month Fixed	0.500	0.500	0.500	0.625	0.625	0.875	1.250	1.250
12-month Fixed	0.500	0.500	0.500	0.750	0.750	1.000	1.375-1.500	1.500
	Dec'20	Sej	p'20	May'20	Mar'20	Feb		9 Sep'19
Bank of Thailand Policy Rate (%)	0.500	0.	.500	0.500	0.750	1.	000 1.250	1.500

Non-Interest Income

In 2020, non-interest income was Baht 41,682 million, 33.5 percent less than last year due mainly to decreases in income from investments, and net fees and service income from the implementation of TFRS 9, while fees from securities services

increased. The major sources of fee income were mutual funds and bancassurance, electronic services and money transfers, as well as fees from securities services.

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Million Baht

Million Baht

	2020	2019	Change (%)
Fees and service income	34,168	39,280	(13.0)%
Less fees and service expenses	9,457	10,776	(12.2)%
Net fees and service income	24,711	28,504	(13.3)%
Gains on financial instruments measured at FVTPL	11,058	-	N/A
Gains on tradings and foreign exchange transactions	-	7,848	N/A
Gains on investments	2,512	19,765	(87.3)%
Share of profit (losses) from investment for using equity method	(14)	93	(115.1)%
Gains on disposal of assets	734	2,134	(65.6)%
Dividend income	2,039	3,769	(45.9)%
Other operating income	642	562	14.2%
Total other operating income	16,971	34,171	(50.3)%
Total non-interest income	41,682	62,675	(33.5)%
Net fees and service income to operating income ratio	20.8%	21.3%	(0.5)%

Operating Expenses

In 2020, total operating expenses amounted to Baht 65,974 million, up by 20.0 percent from last year due mainly to the consolidation of PermataBank's operating expenses

and expenses related to the integration of branches with PermataBank in December 2020.

	2020	2019	Change (%)
Personnel expenses	30,960	26,726	15.8%
Directors' remuneration	187	167	12.0%
Premises and equipment expenses	14,165	11,789	20.2%
Taxes and duties	2,929	3,364	(12.9)%
Other expenses	17,733	12,917	37.3%
Total operating expenses	65,974	54,963	20.0%
Cost to income ratio	55.6%	41.1%	14.5%





Expected Credit Losses

In 2020, the Bank set aside Baht 31,196 million in expected credit losses in accordance with its prudent approach to prepare for an economic contraction resulting from the Covid-19 pandemic. Expected credit losses cover loans, interbank and

money market items, debt securities, which are not measured at fair value through profit or loss, loan commitments, and financial guarantee contracts.

			Million Baht
	2020	2019	Change (%)
Expected credit losses	31,196	-	N/A
Impairment loss of loans and debt securities	-	32,351	N/A

Significant Items in the Financial Position

Assets

Total assets as of December 31, 2020 amounted to Baht 3,822,960 million, increasing by 18.8 percent from the end of

December 2019. Total assets increased considerably from the consolidation of PermataBank's assets.

			Million Baht
	December 2020	December 2019	Change (%)
Net interbank and money market items	519,036	472,349	9.9%
Financial assets measured at FVTPL	57,936	-	N/A
Net investments	758,482	647,697	17.1%
Net investments in associates	911	1,737	(47.6)%
Loans	2,368,238	2,061,309	14.9%
Net properties for sale	9,754	9,363	4.2%
Total assets	3,822,960	3,216,743	18.8%

Loans

As of December 31, 2020, loans were 2,368,238 million, up by 14.9 percent. Excluding PermataBank, loans rose by 2.7 percent due to an increase in loans to large corporate customers.

Loan by Business Type

The loans of Bank and its subsidiaries were distributed across business sectors, with 33.4 percent in the manufacturing and commercial sector, 22.8 percent in the utilities and services sector, 12.8 percent in the housing sector, and 8.9 percent in the real estate and construction sector. Loans increased from the end of December 2019 mainly driven by the categories of 'others' and 'utilities and services'.

Total loans	2,368,238	2,061,309	14.9%
Others	445,432	321,669	38.5%
Agriculture and mining	78,175	61,569	27.0%
Real estate and construction	211,510	200,736	5.4%
Housing	302,142	251,197	20.3%
Utilities and services	539,151	470,159	14.7%
Manufacturing and commercial	791,828	755,979	4.7%
	December 2020	December 2019	Change (%)
			Million Baht



Classified Loans and Allowance for Expected Credit Losses

Non-performing loan (Gross NPL) at the end of December 2020 was Baht 104,401 million. The gross NPL to total loans ratio was 3.9 percent.

The allowance for expected credit losses was Baht 194,973 million and the allowance for expected credit losses to NPL ratio was 186.8 percent.

	December 2020	December 2019	Million Baht Change (%)
<u>Consolidated</u>			
Non-performing loan (Gross NPL) /1	104,401	79,149	31.9%
Gross NPL to total loans ratio /1	3.9%	3.4%	0.5%
Net NPL to net total loans ratio /1	1.4%	1.2%	0.2%
Allowance for expected credit losses to NPL ratio /2	186.8%	220.2%	(33.4)%
The Bank			
Non-performing loan (Gross NPL) /1	91,978	78,093	17.8%
Gross NPL to total loans ratio /1	4.0%	3.4%	0.6%

 $^{\prime 1}$ Including interbank and money market lending

 $^{/2}$ Before the adoption of the TFRS 9, calculating from allowance for expected credit losses of loans

		Million Baht
	Loans and Interbank & Money Market	Allowance for Expected Credit Loss /1
	December 2020	December 2020
Non credit-impaired	2,781,073	121,083
Credit-impaired	104,401	73,890
Total	2,885,474	194,973

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

Million Baht	1	Мi	lli	on	Ba	ht
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	Loans & Accrued Interest Receivables	Allowance for Doubtful Accounts Classified to Bank of Thailand Criteria
	December 2019	December 2019
Normal	1,918,520	16,119
Special mentioned	67,596	848
Substandard	9,783	1,359
Doubtful	14,522	6,259
Doubtful of loss	54,901	30,087
Total	2,065,322	54,672
Add Excess allowance for doubtful accounts		113,094
Total allowance for doubtful accounts from loan classification		167,766
Add Revaluation allowance for debt restructuring		6,510
Total allowance for doubtful accounts		174,276

Investments

Investments as of December 31, 2020 amounted to Baht 816,412 million, increasing from the end of December 2019, due mainly to higher investment in Thai government and state enterprise securities.

Most investments were in Thai government and state enterprise securities. As of December 31, 2020, these amounted to Baht 486,889 million, accounting for 59.6 percent of total investments. The remaining investments were foreign debt securities of Baht 157,995 million, private enterprise debt securities of Baht 31,925 million, and net investment in equity securities of Baht 93,205 million.

	Million Baht
Investments by Investment Holding	December 2020
Trading securities	7,833
Securities measured at FVTPL	50,097
Debt securities measured at amortized cost	38,884
Debt securities measured at FVOCI	639,438
Equity securities measured at FVOCI	80,160
Total investments	816,412

	Million Baht
Investments by Investment Holding	December 2019
Trading securities	13,613
Available-for-sale securities	574,720
Held-to-maturity debt securities	23,257
General investments	36,107
Total investments	647,697

Liabilities and Shareholders' Equity

Total liabilities as of December 31, 2020 amounted to Baht 3,372,713 million, up by 20.9 percent from the end of December 2019, from the acquisition of PermataBank. Excluding

PermataBank, total liabilities rose mainly due to increases of 7.3 percent in deposits and 25.8 percent in interbank and money market items.

			Million Dani
	December 2020	December 2019	Change (%)
Deposits	2,810,863	2,370,792	18.6%
Interbank and money market items	219,149	134,346	63.1%
Financial liabilities measured at FVTPL	19,257	-	N/A
Debt issued and borrowings	136,177	144,681	(5.9)%
Total liabilities	3,372,713	2,788,627	20.9%
Shareholders' equity /1	449,014	427,751	5.0%

^{/1} Attributable to owners of the Bank

Deposits

Total deposits at the end of December 2020 amounted to Baht 2,810,863 million. Excluding PermataBank, deposits rose by 7.3

percent from the end of December 2019, owing to increases in savings deposits.

Million Baht

Million Baht

	Decembe	er 2020	December 2019			
Deposits Classified by Product Type	Amount	Portion	Amount	Portion	Change (%)	
Current	165,912	5.9%	113,067	4.8%	46.7%	
Savings	1,435,331	51.1%	1,145,106	48.3%	25.3%	
Fixed	1,209,620	43.0%	1,112,619	46.9%	8.7%	
Total deposits	2,810,863	100.0%	2,370,792	100.0%	18.6%	
Loan to deposit ratio		84.3%		86.9%	(2.6)%	

Debt Issued and Borrowings

Total debt issued and borrowings as of December 31, 2020 amounted to Baht 136,177 million. In September 2020, the Bank issued USD 750 million worth of Additional Tier 1 Subordinated Notes under Basel III, while there was a maturity of USD 800 million worth of Senior Unsecured Notes in October 2020.

ion	Baht
	ion

Debt Issued and Borrowings	Decembe	er 2020	December 2019			
Classified by Type of Instruments	Amount	Portion	Amount	Portion	Change (%)	
Senior unsecured notes	75,100	55.1%	99,530	66.3%	(24.5)%	
Subordinated notes	59,835	43.9%	49,757	33.1%	20.3%	
Bills of exchange	814	0.6%	8	0.1%	10,075.0%	
Others	507	0.4%	838	0.5%	(39.5)%	
Total (before less discount on borrowings)	136,256	100.0%	150,133	100.0%	(9.2)%	
Less Discount on borrowings	79		5,452		(98.6)%	
Total debt issued and borrowings	136,177		144,681		(5.9)%	

Shareholders' Equity

Shareholders' equity attributable to owners of the Bank as of December 31, 2020 amounted to Baht 449,014 million, an increase of Baht 21,263 million or 5.0 percent from the end of 2019. This is due to net profit attributable to owners of the Bank of Baht 17,181 million for 2020, net of an interim dividend payment of Baht 9,544 million (Baht 5.00 per share) for the second half of 2019's operating performance (between July to December 2019) according to a resolution from the Board of Directors' meeting on April 1, 2020. There was also a surplus from the revaluation of land and buildings of Baht 10,612 million, while gains on investments measured at FVOCI declined by Baht 1,100 million.

Sources and Utilization of Funds

The primary sources of funds as of December 31, 2020 were Baht 2,810,863 million or 73.5 percent in deposits, Baht 449,014 million or 11.7 percent in shareholders' equity attributable to owners of the Bank, Baht 219,149 million or 5.7 percent in interbank and money market liabilities, and Baht 155,434 million or 4.1 percent in debt issued and borrowings including financial liabilities measured at FVTPL.

The utilization of funds comprised Baht 2,368,238 million or 61.9 percent in loans, Baht 817,329 million or 21.4 percent in net investments including financial assets measured at FVTPL and net investments in associates, and Baht 519,036 million or 13.6 percent in net interbank and money market assets.

Capital Reserves and Capital Adequacy Ratio

Under the principles of Basel III, the Bank of Thailand (BOT) 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. It requires the Bank, which is identified as a Domestic Systemically Important Bank (D-SIB), to have additional capital to meet the Higher Loss Absorbency (HLA) requirement, which gradually raised the Common Equity Tier 1 ratio by 1.00 percent, beginning with a 0.50 percent increase from January 1, 2019, rising to 1.00 percent from January 1, 2020 onwards. To satisfy the BOT's minimum levels and capital buffer requirements, the Bank in 2020 was 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, 2020, the regulatory capital position of the Bank's financial group according to the consolidated financial statements was Baht 502,067 million. The Common Equity Tier 1 capital adequacy ratio was 14.89 percent, the Tier 1 capital adequacy ratio was 15.76 percent and the total capital adequacy ratio was 18.34 percent.

Million Baht

December 202			0 December 2019			
Consolidated	Capital	Capital Adequacy Ratio	BOT's requirements for 2020	Capital	Capital Adequacy Ratio	BOT's requirements for 2019
Common Equity Tier 1 capital	407,621	14.89%	> 8.00%	406,463	17.01%	> 7.50%
Tier 1 capital	431,381	15.76%	> 9.50%	406,529	17.01%	> 9.00%
Tier 2 capital	70,686	2.58%		72,211	3.03%	
Total capital	502,067	18.34%	> 12.00%	478,740	20.04%	> 11.50%

Million Baht

	ſ	December 2020			December 2019		
The Bank	Capital	Capital Adequacy Ratio	BOT's requirements for 2020	Capital	Capital Adequacy Ratio	BOT's requirements for 2019	
Common Equity Tier 1 capital	404,418	16.33%	> 8.00%	399,842	17.14%	> 7.50%	
Tier 1 capital	428,010	17.28%	> 9.50%	399,842	17.14%	> 9.00%	
Tier 2 capital	69,839	2.82%		71,420	3.06%		
Total capital	497,849	20.10%	> 12.00%	471,262	20.20%	> 11.50%	

Liquid Assets

Liquid assets consisted of cash, net interbank and money market items, debt securities, and marketable equity securities. As of December 31, 2020, the ratio of liquid assets to total assets and liquid assets to deposits was 35.3 percent and 48.1 percent respectively.

	December 2020	December 2019
Liquid assets/Total assets (%)	35.3	35.5
Liquid assets/Deposits (%)	48.1	48.2

Credit Ratings

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

Credit Rating Agency	December 2020	December 2019
Moody's Investors Service		
Long-term Deposit	Baa1	Baa1
Short-term Deposit	P-2	P-2
Senior Unsecured Debt Instrument	Baa1	Baa1
Subordinated Debt Instrument	Baa2	Baa2
Subordinated Debt (Basel III-compliant Tier 2 securities)	Baa3	Baa3
Subordinated Debt (Basel III-compliant Tier 1 securities)	Ba1	-
Financial Strength (BCA)	baa1	baa1
Outlook	Stable ^{/1}	Positive
S&P Global Ratings		
Long-term Issuer Credit Rating	BBB+	BBB+
Short-term Issuer Credit Rating	A-2	A-2
Senior Unsecured Debt Instrument	BBB+	BBB+
Subordinated Debt Instrument	BBB	BBB
Financial Strength (SACP)	bbb	bbb
Outlook	Stable/1	Positive
Fitch Ratings		
International Rating		
Long-term Issuer Default Rating	BBB ^{/2}	BBB+
Short-term Issuer Default Rating	F2	F2
Senior Unsecured Debt Instrument	BBB	BBB+
Subordinated Debt Instrument	BB+	BBB
Subordinated Debt (Basel III-compliant Tier 2 securities)	BB+	BBB
Financial Strength (VR)	bbb	bbb+
Outlook	Stable	Stable
National Rating		
Long-term	AA+(tha)	AA+(tha)
Short-term	F1+(tha)	F1+(tha)
Outlook	Stable	Stable

 $^{\prime 1}$ Changed the outlook to stable from positive following sovereign outlook in April 2020.

^{/2} Revised ratings due to large-scale economic disruptions from the Covid-19 pandemic in April 2020.