ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Monetary Policy Report

December

2020

Monetary Policy Report

The *Monetary Policy Report* is prepared quarterly by staff of the Bank of Thailand with the approval of the Monetary Policy Committee (MPC). It serves two purposes: (1) to communicate to the public the MPC's consideration and rationales for the conduct of monetary policy, and (2) to present the latest set of economic and inflation forecasts, based on which the monetary policy decisions were made.

The Monetary Policy Committee
December 2020

Mr. Sethaput Suthiwartnarueput	Chairman
Mr. Mathee Supapongse	Vice Chairman
Mr. Paiboon Kittisrikangwan	Member
Mr. Kanit Sangsubhan	Member
Mr. Rapee Sucharitakul	Member
Mr. Somchai Jitsuchon	Member
Mr. Subhak Siwaraksa	Member

Monetary Policy in Thailand

Monetary Policy Committee

Under the Bank of Thailand Act, the Monetary Policy Committee (MPC) comprises the governor and two deputy governors, as well as four distinguished external members representing various sectors of the economy, with the aim of ensuring that monetary policy decisions are effective and transparent.

Monetary Policy Objective

The MPC implements monetary policy under the flexible inflation targeting regime. While regarding medium–term price stability as its primary objective, the MPC also aims at supporting sustainable, full-potential economic growth and preserving financial stability, attributing to long-term price stability and economic sustainability

Monetary Policy Target

On December 24, 2019, the Cabinet approved the monetary policy target for 2020, which was mutually agreed between the MPC and the Minister of Finance to set the headline inflation within the range of 1–3 percent as the target for the medium-term horizon and for 2020.

In the event that average headline inflation in the past 12 months or a forecast of average headline inflation over 12 months ahead breaches the target range, the MPC shall send an open letter to the Minister of Finance to explain reasons for the breach of the target range, together with measures taken and estimated time to bring inflation back to the target. In addition, the MPC will write an additional open letter to the Minister of Finance every six months if average headline inflation based on the above criteria remains outside the target range.

Monetary Policy Instrument

The MPC utilizes the 1-day bilateral repurchase transaction rate as the policy interest rate to signal the monetary policy stance.

Evaluation of Economic Conditions and Forecasts

The Bank of Thailand takes into account information from all sources, the macroeconomic model, data from each economic sector, as well as surveys of large enterprises, together with small and medium-sized enterprises from all over the country, and various financial institutions to ensure that economic evaluations and forecasts are accurate and cover all aspects, both at the macro and micro levels.

Monetary Policy Communication

Recognizing the importance of monetary policy communication to the public, the MPC employs various channels of communication, both in Thai and English, such as (1) organizing a press statement at 14:00 on the day of the Committee meeting, (2) publishing edited minutes of the MPC meeting two weeks after the meeting, and (3) publishing the *Monetary Policy Report* every quarter

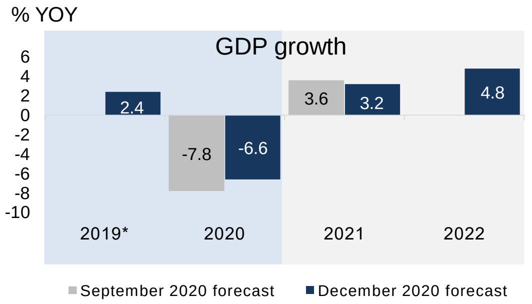
Content

Note: Data in this report is as of December 22, 2020 (one day before the Monetary Policy Committee meeting)

Key Highlights of the Monetary Policy Report, December 2020

The Thai economy continued to recover but uncertainties remained high and could underperform the baseline projection. The adverse risks to the baseline projection were uncertainty surrounding the COVID-19 situation in the near term as well as the recovery in foreign tourists in the period ahead.

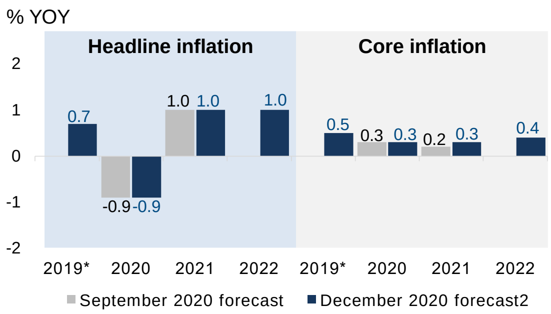
Economic growth projection



Note *Outturn
Source NESDB, estimated by Bank of Thailand

- **The Thai economy contract in 2020 by lesbetter-than-expected outturn in Q3/2020.**
- **In 2021, the economy would expand at a slower rate than previously assessed owing to the new waves of COVID-19 infections and a slower pace of recovery in the tourism sector. For 2022, the GDP growth s than the previous assessment due to would accelerate with a corresponding increase in number of foreign tourists.**

Inflation Projection

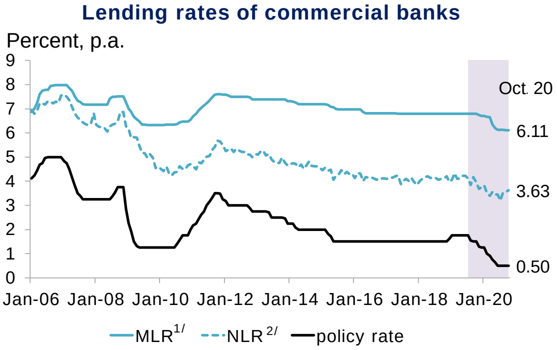


Note *Outturn
Source Ministry of Commerce, estimated by Bank of Thailand

- **Headline inflation would return to the target range around mid-2021, and would remain close to the lower bound of the target range throughout the forecast period.**

Financial conditions

Lending rates of commercial banks



Source Bank of Thailand (as of October 2020)
Note: [1/] Averages of 14 commercial banks' reference loan rates
[2/] New Loan Rate (NLR)

Overall financial conditions remained accommodative.

- **Government bond yields, the reference loan rates of commercial banks and the new loan rates remained at low levels.**
- **Credit guarantee to reduce credit risks schemes would help SMEs, that still have business potential, to reach liquidity-constrained businesses sufficiently.**

Financial stability

Stability of financial institutions, external sectors, and fiscal, remained robust.

Financial stability would be more vulnerable given the slow economic recovery outlook and the new waves of COVID-19 infections.

- **The financial positions of businesses and households become more fragile due to high debt levels and consequently deteriorated debt servicing capability.**
- **Provision of additional capital to high-potential businesses, appropriate debt restructuring, and adjustments to business structures and models would help mitigate the potential risk**

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Executive Summary

Monetary Policy Conduct in the Fourth Quarter of 2020

At the meetings on November 18 and December 23, 2020[1/], the Committee voted unanimously to maintain the policy rate at 0.50 percent. The Committee projected that the Thai economy would see a smaller contraction in 2020 than previously assessed and continue to recover in 2021 and 2022. However, there could be adverse risks to the baseline projection. In particular, uncertainty surrounding the COVID-19 situation in the near term, as well as uncertainty regarding vaccine efficacy and vaccination coverage which could be limited, consequently affecting the progress in the admission of foreign tourists in the period ahead. In addition, uneven recoveries across economic sectors and areas would affect sustainability of economic growth going forward. The Committee assessed that the economy still needed support from the continued low policy rate, and thus the limited policy space should be preserved for the appropriate and most effective timing. Under the monetary policy framework with objectives of maintaining price stability, supporting sustainable and full-potential economic growth, and preserving financial stability, the Committee continued to put emphasis on supporting economic recovery. The Committee would stand ready to use additional appropriate monetary policy tools if necessary.

Going forward, the Committee assessed that the economic recovery would remain highly uncertain, and the continuity of government measures and policy coordination among government agencies would therefore be critical in supporting economic recovery. Uneven recoveries resulted in limited access to credit for some businesses. Thus, financial institutions should expedite debt restructuring and credit extension under various measures, for example, credit guarantee schemes. The Committee also viewed that fiscal measures would continue to play a crucial role in sustaining the economy amid high uncertainties. Moreover, the Committee assessed that the COVID-19 pandemic would cause some scarring effects on Thailand's economic growth potential in the long term. Therefore, structural reforms would be needed and should be accelerated alongside demand-management stimulus measures to boost economic recovery in the short term.

Assessment of the Economic and Financial Outlook as the Basis for Policy Formulation

1. Global Economy

The global economy would contract in 2020 by less than the previous assessment due to the recovery in global economic activities since the third quarter after the relaxation of outbreak containment measures. Looking ahead, trading partner economies would pick up as the pandemic subsided. Effective COVID-19 vaccines coupled with extensive vaccination coverage, ongoing fiscal measures and accommodative monetary policy would support economic recovery in the period ahead. **The Committee assessed that Thailand's trading partner economies would contract by 3.8 percent in 2020, before expanding by 4.8 and 3.1 percent in 2021 and 2022, respectively.** Risks to trading partners' growth remained tilted to the downside, albeit less so than the previous assessment, thanks to the higher-than-expected vaccine

[1/] At the meeting on December 23, 2020, one MPC member was absent.

efficacy and vaccination coverage, and the positive outlook regarding the new U.S. president's international trade policy, that supported global trade sentiment.

Governments worldwide continued to implement fiscal measures, with some countries announcing economic recovery packages, to alleviate short-term and long-term economic impacts of the COVID-19 pandemic. At the same time, central banks in major advanced economies continued to maintain accommodative monetary policy, including both quantitative easing and low policy rates. The European Central Bank announced further expansions of asset purchases programs. Meanwhile, some regional central banks further cut their policy rates, such as the Bangko Sentral ng Pilipinas (BSP), and Bank Indonesia (BI).

2. Financial Conditions and Financial Stability

Overall financial conditions in Thailand remained accommodative. Short-term interest rates in financial markets remained at low levels consistent with the policy rate. Meanwhile, long-term government bond yields declined slightly as a result of higher demand in long-term government bonds. The new loan rates (NLR) edged up for some business sectors, owing partly to the slowdown in credit extension under the soft loan program. With regard to exchange rates, the baht against the U.S. dollar and the effective exchange rate appreciated in the fourth quarter, due to the clarity of the U.S. presidential election results and the news of the efficacy and distribution of COVID-19 vaccines. The Committee expressed concerns over the baht that could appreciate rapidly due to the risk-on sentiment in global financial markets and the weak outlook of the U.S. dollar. The Committee would closely monitor developments in foreign exchange markets, in order to assess the need for additional appropriate measures, as well as continue to expedite new foreign exchange ecosystem.

The Thai financial system remained highly vulnerable amid the slow economic recovery and new waves of the domestic COVID-19 cases. This led to more fragile balance sheets of households and businesses due to high debt levels and consequently deteriorated debt servicing capability. In the period ahead, the economic recovery would remain uncertain and uneven across business sectors, some of which would be unable to return to the pre-pandemic level. Therefore, provision of additional capital to high-potential businesses, appropriate debt restructuring, and adjustments to business structures and models would help mitigate these risks.

3. Economic and Inflation Outlook

Assumptions underlying the economic projection[2/] are summarized as follows. First, the government could contain new waves of COVID-19 infections in Thailand within a short period of time with strict measures imposed only in Samut Sakhon. Meanwhile, the number of cases in other areas could be brought under control by partial restrictions on some economic activities and without necessitating strict and extensive containment measures. As such, the services sector would only be partly affected while the impact on the manufacturing sector would not be significant. Second, COVID-19 vaccines would be widely available abroad by mid-2021. Vaccination in Thailand could commence in the second half of 2021, such that Thailand could re-open to foreign tourists without quarantine requirements, given that they

[2/] Forecasts released on December 23, 2020 took into consideration the effects of containment measures in Samut Sakhon. However, the projections did not incorporate the impacts of new waves of infections that spread over other provinces and those of more stringent measures which took effect on January 4, 2021.

could present vaccination certificates and negative COVID-19 test results. Then, by the end of 2022, Thailand would re-open for commercial flights and admit foreign tourists without quarantine or vaccination requirements. Third, disbursement of government budget under the post-COVID economic recovery plan would be expedited effectively.

The Thai economy was projected to contract in 2020 by 6.6 percent, which would be a smaller contraction than the previous assessment thanks to the faster-than-expected recovery in nearly all economic growth components in the third quarter. In particular, merchandise exports gradually improved in line with trading partner economies. Moreover, private consumption benefited from the relaxation of domestic containment measures as well as government measures that shored up household purchasing power. Nevertheless, tourism and private investment contracted sharply. **In 2021, the economy was projected to expand by 3.2 percent**, as merchandise exports would improve in tandem with trading partner economies' growth. Meanwhile, exports of services would contract more sharply and recover more slowly than previously assessed, as the admission of foreign tourists to Thailand would likely be limited by the prolonged and severe COVID-19 situation abroad. With regard to domestic demand, new waves of infections would remain a main drag on private consumption. Meanwhile, public expenditure would remain a key economic driver. However, the government support would wane somewhat due to downward revision in the fiscal year 2021 annual budget and the carryover budget, following disbursement acceleration in 2020. Furthermore, some state-owned enterprise (SOE) investment projects were postponed and their budgets were reduced. **In 2022, the economy was projected to expand by 4.8 percent**, given the recovery of foreign tourist figures on the back of a widespread coverage of COVID-19 vaccination in Thailand and abroad. In the second half of 2022, GDP would return to the pre-pandemic level.

The value of Thai merchandise exports would decline by 7.4 percent in 2020. Exports to China and Europe remained subdued, while those to the U.S. and Australia grew past the pre-pandemic level. Merchandise exports were projected to expand by 5.7 and 5.0 percent in 2021 and 2022, respectively. However, Thailand's exports would recover at a slower pace than those of its trading partners, since Thai exports consisted of a relatively small share of electronic products, which benefited the most from COVID-19, compared with other regional countries.

The tourism industry would recover at a slower pace than previously assessed. The prolonged COVID-19 situation abroad and in Thailand would result in limited admission of foreign tourists to Thailand and a need for strict public health measures. The number of foreign tourists was projected to record 6.7 million and 5.5 million in 2020 and 2021, respectively. Nevertheless, foreign tourist figures would grow in proportion to vaccination in Thailand and abroad, and would accelerate toward the latter half of 2022 when Thailand could start admitting tourists without vaccine screening. The Committee thus projected that the number of foreign tourists would surge to 23 million in 2022.

Private consumption would contract in 2020 by less than the previous forecast, owing partly to the government stimulus packages to support domestic tourism and private consumption, which underpinned a swift recovery in economic activities after the lifting of lockdown restrictions. Another underlying factor was the gradual recovery of the labor market as reflected by the decline in numbers of unemployed and underemployed workers. Nevertheless, new waves of domestic COVID-19 cases, the phase-out of government measures, and the fragile recovery of the labor market would weigh on private consumption in the period ahead. Private consumption was projected to expand by 2.8 and 3.0 percent in 2021 and 2022, respectively.

Private investment would significantly contract in 2020, given high levels of excess production capacity and uncertainties surrounding economic recovery in Thailand and abroad. Nonetheless, private investment was projected to grow by 4.9 and 5.0 percent in 2021 and 2022, respectively, on the back of recovery in merchandise exports and private consumption, as well as the progress of public-private partnership (PPP) investment projects, particularly in the EEC.

The current account balance was projected to register a surplus of 16.2 billion U.S. dollars in 2020, due to the larger-than-expected trade surplus in the third quarter of 2020. Meanwhile, the surplus was projected to decrease to 11.6 billion dollars in 2021, mainly attributable to the decline in tourism receipts. In 2022, the current account surplus was expected to rise to 29.1 billion dollars thanks to the increase in tourism receipts following the re-opening to foreign tourists without quarantine and vaccination requirements.

Going forward, the economic recovery would remain highly uncertain and could underperform the baseline projection due to the following factors. First, new waves of domestic COVID-19 infections could intensify and become more widespread, (**Box:** *The Thai Economy and the New Wave of COVID-19*) triggering another round of strict and extensive containment measures. Second, COVID-19 vaccines could be less effective than expected or vaccine distribution could take longer than expected due to certain limitations, delaying the re-opening of the country to foreign tourists. Third, fiscal stimulus could be lower than estimated in the baseline projection if budget approvals for projects under the Emergency Decree were delayed. Fourth, balance sheets of businesses could deteriorate and eventually resulting in permanent shutdowns. This could cause scarring effects whereby recovery of businesses would be hindered even after the pandemic subsided. Fifth, default rates of businesses and households could surge after the phase-out of the credit relief measures, with could in turn affect the overall financial system stability.

Headline inflation in 2020 was projected to be close to the previous assessment at negative 0.9 percent, while headline inflation in 2021 would be at 1.0 percent as previously forecasted. The higher oil price projection was offset by the lower fuel adjustment surcharge (Ft) and the high-base effect in 2020 from fresh food prices. Meanwhile, core inflation was projected to remain low at 0.3 percent in both 2020 and 2021, before edging up to 0.4 percent in 2022 in tandem with the gradual recovery in demand. The Committee assessed that headline inflation would return to the target range around mid-2021, and would remain close to the lower bound of the target range throughout the forecast period.

The Thai Economy and the New Wave of COVID-19

The December 2020 *Monetary Policy Report* released the economic projection approved by the Monetary Policy Committee at the meeting on December 23, 2020. The projection was based on data as of December 22, 2020 when the new wave of domestic infections occured only in limited areas and the stringent containment measures were imposed only in Samut Sakhon province as well as the nearby provinces of Samut Prakarn and Samut Songkhram. **The baseline economic projection** was based on assumptions as follows.

(1) **Infections would occur only in limited areas**, i.e., within Samut Sakhon and the nearby provinces.

(2) **No stringent and extensive containment measures would be implemented.** Restrictions on certain economic activities in some areas could contain the new wave of infections within one to two months.

(3) **The economy would be affected through different channels.** For example, some activities in the services sector would be affected. Tourism would be severely affected only in high-risk areas. Meanwhile, the manufacturing sector would not be significantly affected and private consumption would be somewhat affected. Nevertheless, the acceleration of government spending on public health could partly alleviate some adverse economic impacts.

At the start of January 2021, the spread of COVID-19 turn out more severe than previously assessed. This increased the possibilities that the economy would underperform the baseline projection for 2021 and 2022. As of January 4, 2021, 28 provinces were declared maximum control areas and more stringent containment measures were announced with no end-date specified. **The impact on the economy would increase through different channels.** For example, the extent to which private consumption would be affected would depend on the severity of the containment measures being implemented. The services sector and tourism would be affected by the low consumer confidence countrywide. Meanwhile, the impact on the manufacturing sector would be limited, but there could be some difficulties with logistics. **Nonetheless, Thailand made better progress with regard to the purchase of vaccines than previously assessed.** The government had recently secured a certain supply of vaccines, which would allow widespread vaccination coverage to occur earlier than expected. In addition, the government also planned to purchase additional vaccines to cover at least 50 percent of the total population by 2021.

As the new waves of COVID-19 in Thailand would be highly volatile and uncertain, the Committee would closely monitor developments of the situation and assess the economic outlook through public health information together with monthly, weekly, and daily economic indicators as well as information from the Business Liaison Program (BLP) survey in order to inform appropriate monetary policy decisions in the period ahead.

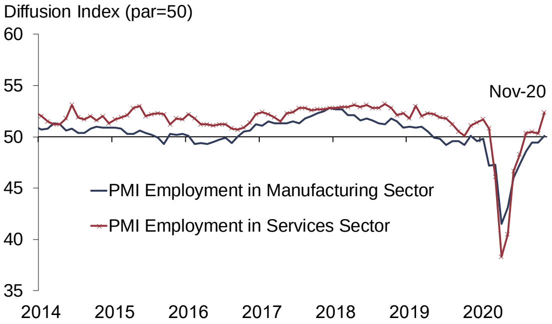
1. The Global Economy

Global economic activities started to recover after having severely contracted in the second quarter of 2020, following the relaxation of COVID-19 containment measures. Major advanced economies would contract at a slower pace in 2020 before expanding in 2021 thanks to the vaccine efficacy and vaccination coverage, as well as continued implementation of financial and fiscal measures.

In the third quarter of 2020, major advanced economies contracted less than expected following the relaxation of COVID-19 containment measures. Global economic activities started to recover due to improvement in consumption as well as supports from government measures. These measures included, for example, unemployment benefits in the U.S. and support schemes for short-time employment in the euro area. Likewise, exports and investment that contracted to a lesser extent in line with the recovery of global demand and gradual re-opening of the cities.

Chart 1.1 Global employment in the manufacturing and services sector has been gradually recovering but remains fragile

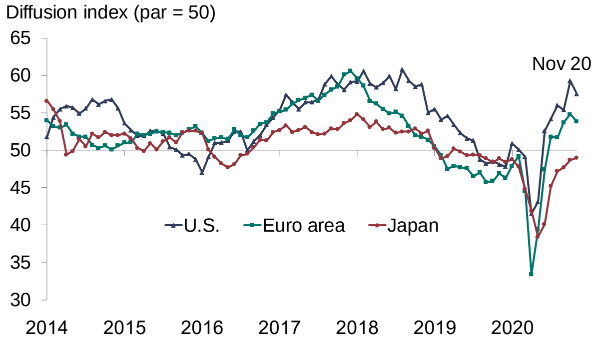
Global Purchasing Manager Index (PMI): Employment



Source: JP Morgan

Chart 1.2 G3's manufacturing sector has been gradually recovering

Manufacturing Purchasing Manager Index (PMI)



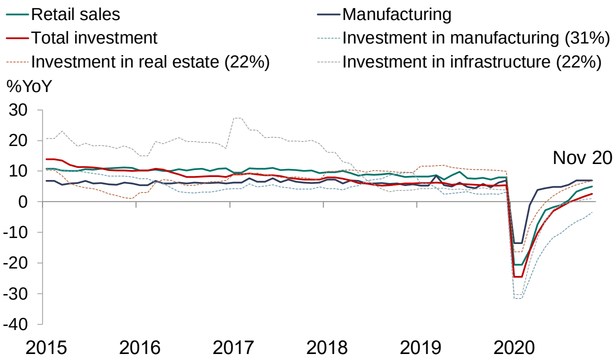
Sources: Bloomberg and Eurostat

Looking ahead, major advanced economies were expected to recover due to potential improvement in private consumption together with continued implementation of financial and fiscal measures. Economies would start to recover in the first half of 2021, where strong recovery would be gradually observed in the second half of 2021, in line with development in the vaccine efficacy and COVID-19 vaccination coverage. However, factors that would hinder the economic recovery in the period ahead would include (1) new waves of the outbreak in several countries, which would prompt governments to impose more stringent containment measures. (2) Fragile labor markets in both industrial and services sectors, particularly after government measures to support consumption gradually ended (Chart 1.1). (3) Postponement in the admission of foreign tourists under the travel bubble scheme, consequently affecting tourism-related businesses that had yet to sufficiently recover. The manufacturing sector was expected to gradually recover (Chart 1.2), driven by the improvement in domestic demand. Nevertheless, the capacity utilization rate would remain below pre-pandemic levels.

Looking ahead, Asian economies were expected to gradually recover due to the recovery in exports in line with global demand. A stronger recovery was expected in 2021 as the COVID-19 vaccination coverage would continue to expand.

In 2020, the Chinese economy was expected to continue to recover, but at a slower pace than expected, as the economic growth in the third quarter turned out below expectations. This was on account of a slowdown in investment and a slow recovery in private consumption. **However, economic indicators in November continued to improve** due to a gradual recovery of private consumption and the services sector (Chart 1.3). **Looking ahead, the Chinese economy would continue to expand** driven by improvement in private consumption and the services sector. Meanwhile, merchandise exports would grow in line with the outlook of external demand, especially for medical equipment and electronics. Overall investment would continue to expand, while continuously implemented government measures would help support the economic expansion in the period ahead.

Chart 1.3 China's Economic Indicator improved continuously due to private consumption



Note: ( ) denotes share to total investment

Source: CEIC

Asian economies (excluding Japan and China) contracted at a slower rate in the third quarter of 2020 following the relaxation of containment measures and gradual re-opening of the cities. Exports recovered in line with demand from trading partner economies, while consumption, investment, and production gradually recovered. Asian economies were expected to contract at slower pace in 2020 due to gradual and continued improvement in merchandise exports, in tandem with external demand recovery coupled with a series of financial and fiscal measures implemented. **In addition, the outlook of expanding coverage of COVID-19 vaccination for countries in Asia in late 2021 would help support the economic recovery in the period ahead.** However, the new waves of the outbreak in many countries like the Philippines, Indonesia, South Korea, and Malaysia would affect domestic economic recovery. Meanwhile, new waves of the outbreak in key trading partner countries like the U.S. and the euro area would hinder the recovery in merchandise exports and the services sector in the short term.

Governments worldwide continued to implement financial and fiscal measures to alleviate the economic impacts from the COVID-19 outbreak.

Governments in many countries continued to implement additional measures to alleviate the impacts of the COVID-19 pandemic and restore the economy. Such measures included the period extension to provide additional financial assistance for businesses and households affected by the COVID-19 in Japan and the euro area, the relaxation of regulations to facilitate foreign direct investment in Indonesia, and credit support for digital industries in Malaysia.

Central banks in major advanced economies continued to maintain accommodative monetary policy, including both quantitative easing and low policy interest rates. The Federal Reserve (Fed) signaled a continued accommodative monetary policy and maintained the large-scale asset purchase (LSAP) program by purchasing U.S. treasuries at least 80 billion U.S. dollars per month and mortgage-backed securities at least 40 billion U.S. dollars per month. Nevertheless, at the meeting on December 16, 2020, the Fed signaled that it would continue the purchases until employment and inflation targets could be achieved, implying that the period of the Fed's quantitative easing could be prolonged. Meanwhile, the European Central Bank (ECB) announced the expansion of the asset purchase program, including (1) an additional asset purchase of 500 billion euros under the pandemic emergency purchase program (PEPP), totaling to 1,850 billion euros, and the extension of the program until March 2022. (2) The extension of targeted longer-term refinancing operations (TLTROs) until June 2022, while raising credit limit for commercial banks from 50 to 55 percent of the eligible loan amount. (3) Maintain the pandemic emergency longer-term refinancing operations (PELTROs) through 2021 in order to curb liquidity shortages. However, the ECB would also continue its asset purchase under the asset purchase program (APP) at 20 billion euros per month.

Regional central banks continued to maintain an accommodative monetary policy. Most central banks maintained policy rates at low levels, while some central banks like the Bangko Sentral ng Pilipinas (BSP) and Bank Indonesia (BI) cut policy rates further. Moreover, the BI continuously conducted direct financing by purchasing government bonds in the primary market to support high fiscal deficits during the COVID-19 pandemic.

Thailand's trading partner economies were projected to contract less than expected in 2020. Major advanced economies would slow down to a lesser extent due to domestic demand recovery, while Asian economies would register a smaller contract on account of external demand recovery. For 2021, trading partner economies were projected to expand in tandem with the economic recovery in Asia. Nonetheless, risks to the baseline projection of trading partners' economic growth tilted to the downside. Meanwhile, vaccine efficacy and a fast and widespread distribution of COVID-19 vaccines would help support the continued economic recovery of trading partners in 2022.

Trading partner economies were projected to contract in 2021 less than previously assessed in the previous *Monetary Policy Report*. Major advanced and Asian economies were expected to slow down to a lesser extent thanks to the relaxation of containment measures, the recovery of Asian exports, and continued implementation of government measures to alleviate the economic impacts. For 2021, trading partners' economies were projected to expand on account of the economic recovery in Asia after the outbreak subsided. Moreover, the efficacy and a fast and widespread distribution of COVID-19 vaccines would help foster the economic recovery of trading partner economies in 2022. **The Committee thus revised up the economic growth projections for Thailand's trading partners to a contraction of 3.8 percent in 2020 before expanding by 4.8 percent in 2021. In 2022, the expansion is expected to be at 3.1 percent.** (Table 1.1)

Risks to the baseline projections of trading partners' economic growth still tilted to the downside, but at a slower pace than the previous projection. This was due to the higher-than-expected efficacy and vaccination coverage, where vaccination coverage in major advanced economies was expected in the first half of 2021. In addition, the

positive outlook of international trade policies of the new U.S. president would support the global trade sentiment. There could be other risks which included (1) new waves of the outbreak in many countries which could be more severe and prolonged than expected, and (2) rising vulnerabilities of global financial stability with greater possibilities of private and public defaults in some countries, or credit-rating downgrades. Nonetheless, the possibility that trading partners' economic growth could outperform the baseline projection could be from (1) a faster-than-expected distribution of COVID-19 vaccines, especially in emerging markets (EMs), and (2) larger-than-expected effects of financial and fiscal measures in many countries in stimulating the economy.

Table 1.1 Assumption on trading partner's growth

Annual change (%YoY)	Weight (%)	2019*	2020	2021	2022
United States	18.2	2.2	-3.6 (-5.4)	3.3 (3.4)	2.5
Euro area	9.9	1.3	-7.4 (-7.8)	4.3 (4.5)	1.9
Japan	14.3	0.3	-5.3 (-5.9)	2.4 (2.0)	1.7
China	17.0	6.1	2.0 (2.1)	8.3 (8.4)	4.7
Asia (excluding Japan and China)*	32.4	2.7	-4.7 (-5.6)	4.8 (4.2)	3.4
Total***	100	2.6	-3.8 (-4.5)	4.8 (4.4)	3.1

Note: *Outturn

**Weighted by 7 trading partners' shares in Thailand's exports in 2019, namely, Singapore (5.1%), Hong Kong (6.8%), Malaysia (6.1%), Taiwan (2.3%), Indonesia (5.3%), South Korea (2.7%), and Philippines (4.0%)

***Weighted by 13 trading partners' shares in Thailand's exports in 2019 (including the United Kingdom and Australia)

( ) as reported in Monetary Policy Report, September 2020

Capital flows returned to both equity and bond markets of emerging markets, after concerns among investors in the global financial markets declined significantly. This was due to a faster-than-expected recovering outlook of the global economy, the vaccine efficacy and COVID-19 vaccination coverage, and the positive outlook of the U.S. international trade policies.

Liquidity in the global financial system increased in line with monetary policy accommodation in major advanced economies. In October 2020, investors in the global financial markets remained cautious in investing in emerging markets and started to resume investment in the bond market (Chart 1.4), particularly government bonds of emerging market countries. This was due to the increase in supply of government bond issuance in response to the increase in government's financing needs to fund government spending to stimulate the economy, where government bond yields were relatively higher than those of advanced economies. Subsequently in November 2020, concerns among investors in the global financial markets subsided, as reflected in a decline in the VIX index[3/] (Chart 1.4), owing to the faster economic recovery of major advanced and Asian economies than the market expected. Nevertheless, the economic outturns in the third quarter of 2020 turned out better than expected on account of an improving outlook of merchandise exports and international tourism due to vaccine

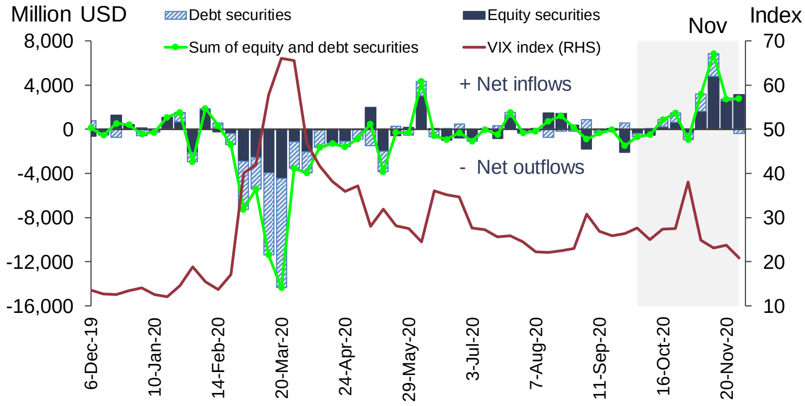
[3/] VIX Index is a measure of the stock market volatility implied by S&P 500 Index options.

efficacy, vaccination coverage, and clarity regarding the outcome of the U.S. presidential election. This led to risk-on sentiment among foreign investors. In particular, the equity market saw the highest inflows since 2014 in tandem with the rise in the MSCI Index. (Chart 1.5)

Looking ahead, capital inflows were expected in EMs with observed recovery and good economic fundamentals. However, capital flows would remain highly volatile and uncertain. This would be subject to (1) the global economic recovery outlook, (2) new waves of the COVID-19 outbreak as well as vaccine efficacy and vaccination coverage, (3) U.S. international trade policies, and (4) risks to global financial stability owing to default risks of the private sector and government in some EM countries, and the contagion effects to other countries.

Chart 1.4 Largest capital inflows into EMs equity securities in 6 years from the risk-on sentiment of investors

Net capital inflows to EMs* and VIX index (weekly)

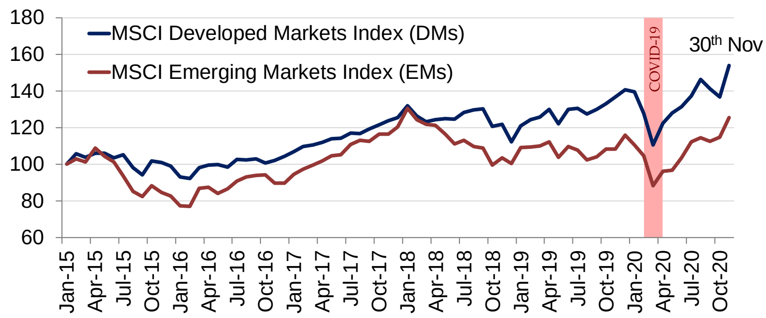


Note: *EMs include Thailand, Indonesia, India, South Africa, and Turkey

Sources: Bloomberg and the Institute of International Finance

Chart 1.5 Investors increased their investments in equity markets as reflected in the MSCI index

Cumulative Index Performance – Price (USD) in Developed and Emerging Markets (Monthly)



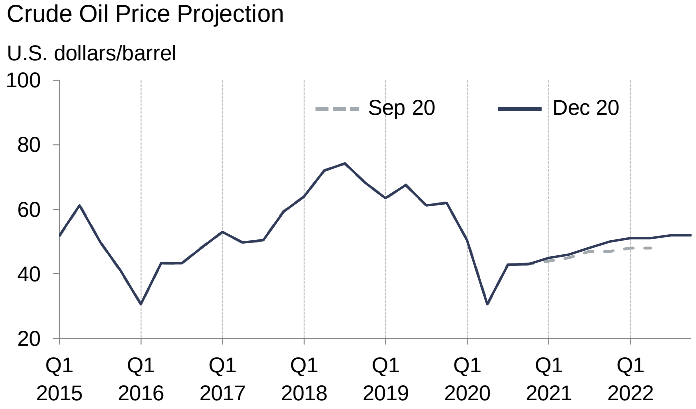
Note: MSCI Developed Markets Index represents large and mid-cap equity performance across 23 Developed Markets countries, e.g. USA and Japan. Whereas, MSCI Emerging Markets Index represents securities in 26 Emerging Markets countries, e.g. China, Korea, India, and Thailand.

Source: Morgan Stanley Capital International

Dubai crude oil prices in the fourth quarter of 2020 were largely unchanged from the previous quarter. Although the reduction in prices was observed in the first half of the quarter in response to the COVID-19 outbreak, prices increased in the latter half due to the vaccine efficacy and vaccination coverage, as well as the announcement to reduce crude oil production among major oil producers to slow down rises in oil supply.

Dubai crude oil prices in the fourth quarter of 2020 were largely unchanged from the previous quarter. In the first half of the quarter, crude oil prices declined due to (1) new waves of the COVID-19 outbreak in Europe and the U.S., causing a slower-than-expected recovery in demand, and (2) a larger and faster-than-expected rise in oil supply from Libya after domestic tensions subsided. **However, crude oil prices started to rise in the latter half of the quarter** owing to (1) a higher-than-expected vaccine efficacy and vaccination coverage, resulting in better-than-expected outlook of oil demand in the period ahead, and (2) the announcement on additional crude oil production cut by the OPEC and its allies in the first quarter of 2021 from 5.8 to 7.2 million barrels per day to offset lower demand pressured by the COVID-19 outbreak and increased supply from increased oil production in Libya.

Chart 1.6 Dubai crude oil prices in the fourth quarter of 2020 were unchanged from the previous quarter despite the price decreased in the first half of the quarter. However, prices increased in the latter half of the quarter due to the development in COVID-19 vaccines and the announcement from major producers to cut down on crude oil production.



The vaccine efficacy and COVID-19 vaccination coverage resulted in improvement in the projection of crude oil demand. **The Committee thus revised up the projection of Dubai crude oil prices in 2021 and 2022** from 41.5 and 45.8 U.S. dollars per barrel to 41.7 and 47.3 U.S. dollars per barrel, respectively. For 2022, the projection of Dubai crude oil prices was 51.5 U.S. dollars per barrel, where crude oil prices were expected to gradually rise in tandem with the gradual global economic recovery. However, crude oil supply would increase on account of the production of the OPEC and its allies after the period of an additional production cut ended. In addition, an increase in crude oil prices would incentivize shale-oil producers in the U.S. to resume production.

There were risks that crude oil prices could turn out lower than the assessment. This would be due to the new waves of the COVID-19 outbreak that worsen the demand for crude oil. The production and vaccination coverage could happen slowly, while vaccine efficacy could also be lower than expected. Moreover, trade tensions between the U.S. and China could re-intensify. In addition, the OPEC and its allies might fail to comply with the agreement until the end of the agreed period. However, crude oil prices could rise in response to geopolitical risks that could intensify more than expected, and the new U.S. president's policy to reduce fossil fuel subsidies that might increase the costs of the U.S. oil production. Nevertheless, crude oil prices could rise or decline more than the assessment under the current situation which remained highly uncertain

2. The Thai Economy

2.1 Recent Developments

The Thai economy recovered in the second half of 2020 in light of the relaxation of containment measures and the support from government measures. However, the overall economic activities remained lower than the pre-pandemic level.

In the third quarter of 2020, the Thai economy contracted by 6.4 percent from the same period last year after the sharp 12.1-percent contraction in the previous quarter. The improvement was due to the relaxation of COVID19 containment measures in Thailand and abroad, as well as the substantial support from government measures. Private consumption started to return to the pre-pandemic level on account of (1) the relaxation of domestic containment measures, (2) pent-up demand following lockdown, and (3) government stimulus measures that shored up purchasing power. Merchandise exports improved in line with the recovery of trading partners' economies, especially those of electronic goods which benefited from the shift toward working from home, as well as the relocation of production base and redirection of electrical appliance order to Thailand. The manufacturing production improved in tandem with private consumption and merchandise exports. Meanwhile, public spending remained an important growth driver, through both current and capital expenditure components. Private investment saw a slight improvement but on the whole continued to contract sharply given the subdued overall demand, weak business confidence, and high level of excess production capacity. Exports of services continued to fall markedly as a result of international travel restrictions.

In the fourth quarter of 2020, latest economic indicators suggested that the economy continued to recover, but the momentum would soften relative to the previous quarter. The support from government stimulus measures remained essential in sustaining the economy. Meanwhile, the new wave of COVID-19 infections had limited impact on the overall economy this quarter as it occurred toward the end of the year. Private consumption gradually recovered, owing partly to government stimulus measures that supported spending for households with weak purchasing power, whereas consumer confidence softened somewhat following the new wave of COVID-19 cases. Merchandise exports gradually recovered in line with trading partner economies. Government spending, especially public investment, remained a main growth driver. Meanwhile, private investment continued to fall as business confidence remained weak. Exports of services continued to contract markedly as the foreign tourist figures remained substantially lower than the pre-pandemic level, even though Thailand had started to admit foreign tourists. As such, tourism would recover more slowly than other economic sectors.

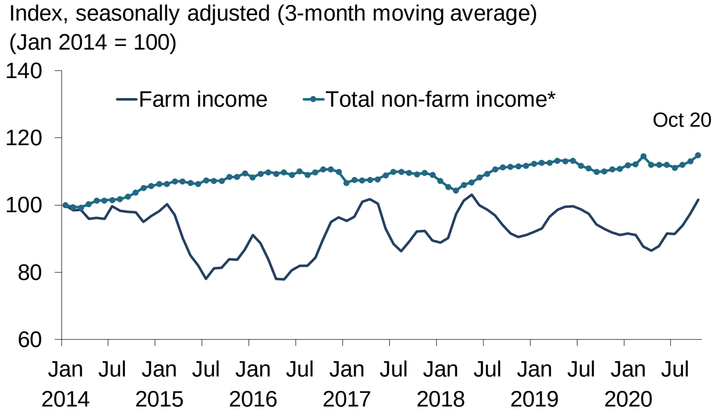
Household income gradually improved, but remained vulnerable.

Overall household income gradually improved, but remained vulnerable. Farm income gradually improved in the third quarter from the contraction in the second quarter due to the drought (Chart 2.1) on the back of higher prices of rubber and oil palm. Going forward, agricultural output during dry season of 2021 (November 2020 – April 2021) would remain at risk due to low water levels in major dams given the scarce rainfall into the catchment area during the rainy season. However, the likelihood of La Nina (floods) from the end of 2020 to the beginning of 2021 increased. Such climate pattern could alleviate the impact of the drought.

Improvement in non-farm income was limited to labor in the public sector and certain private sectors, such as manufacturing of air conditioners and wholesale trading. Meanwhile, **most households remained vulnerable from the lower income**, particularly those in tourism-related services sector and freelance workers.

Chart 2.1 Household income, both farm and non-farm improved

Household income indicators



Note: 1. All Indicators are calculated in real terms, excluding price effects.
2. The data from April – June 2020 are calculated from Q2 2020 data due to limitation of data collection during the COVID-19 outbreak and containment measures.
* Covered only employees

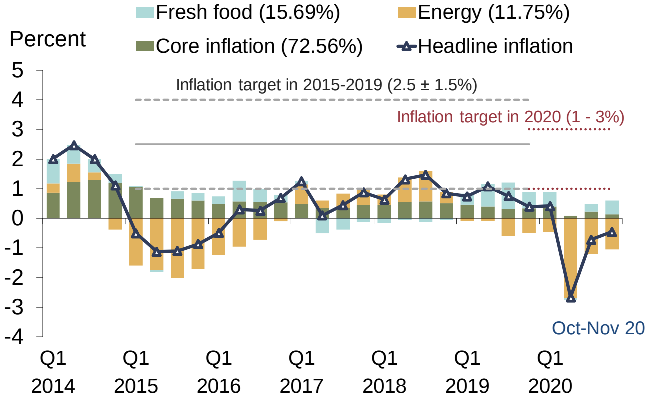
Sources: Bank of Thailand, Office of Agricultural Economics, National Statistical Office, Ministry of Commerce, calculated by Bank of Thailand

Headline inflation was less negative than the previous quarter owing mainly to higher fresh food and energy prices. Core inflation decreased due to promotional activities offered by entrepreneurs.

Headline inflation in the first two months of the fourth quarter of 2020 averaged at -0.46 percent, up from -0.72 percent in the previous quarter (Chart 2.2). The improvement was attributable to several factors. First, higher prices of fresh food, especially fruits and vegetables, as some crops were damaged by floods and also due to the low-base effect of vegetable prices in November 2019. At the same time, meat prices rose on the back of stronger domestic demand as well as increased external demand in light of disease outbreaks in neighboring countries. Second, the gradual increase in energy prices due to higher domestic retail oil prices in tandem with global crude oil prices.

Chart 2.2 Headline inflation was less negative than the previous quarter, owing mainly to higher fresh food and energy prices

Headline inflation and inflation target



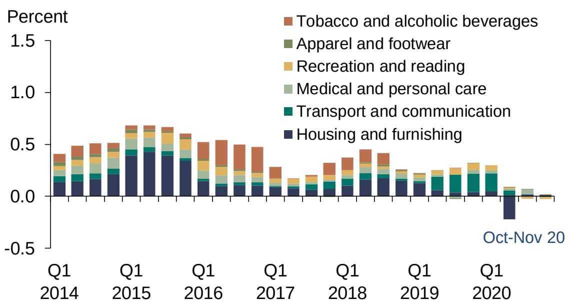
Note: ( ) denotes share in inflation baskets

Source: Ministry of Commerce, calculated by Bank of Thailand

Core inflation in the first two months of the fourth quarter of 2020 averaged at 0.19 percent, down from 0.31 percent in the previous quarter. Core inflation in the non-food category decreased in line with prices of personal care items in the medical and personal care component, which were reduced as a part of promotional campaigns (Chart 2.3). Meanwhile, core inflation in the food category declined in line with prices of non-alcoholic beverages and processed food, especially at-home processed food (Chart 2.4).

Chart 2.3 Core inflation in the non-food category (72% of core inflation) decreased in line with the lower prices of personal care items as businesses launched promotional activities

Contribution* to core inflation in the non-food category

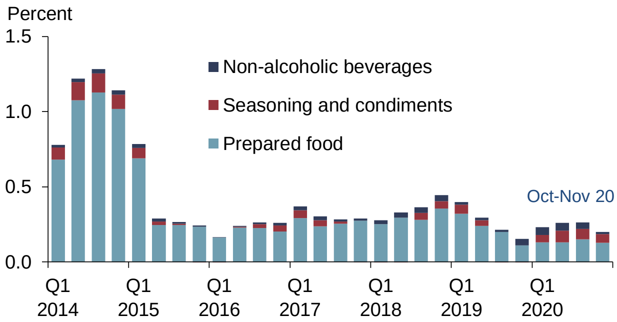


Note: *Contributions to core inflation decompose core inflation into inflation of each component within the basket, weighted by its corresponding share.

Source: Ministry of Commerce, calculated by Bank of Thailand

Chart 2.4 Core inflation in the food category (28% of core inflation) decreased mainly due to non-alcoholic beverages and prepared food prices

Contribution* to core inflation in the food category



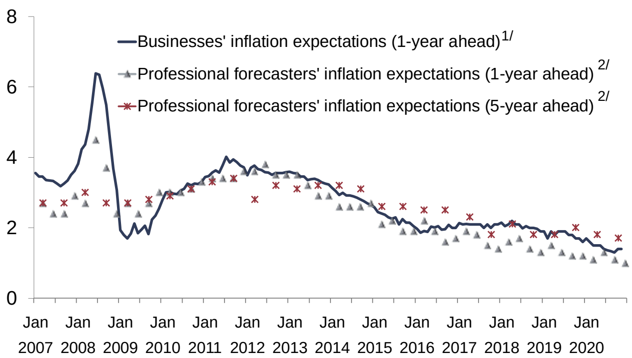
Note: *Contributions to core inflation decompose core inflation into inflation of each component within the basket, weighted by its corresponding share.

Source: Ministry of Commerce, calculated by Bank of Thailand

Both short-term and long-term inflation expectations remained within the target range. The short-term (one-year ahead) inflation expectations according to the survey of professional forecasters in December 2020 recorded 1.0 percent, while the expectations based on the survey of businesses in November 2020 recorded 1.4 percent. The long-term (five-year ahead) inflation expectations based on the survey of professional forecasters in October 2020 stood at 1.7 percent (Chart 2.5).

Chart 2.5 Short-term and long-term inflation expectation remained within the target range

Percent change from the same period last year



Source: 1/ Business Sentiment Survey (BSI) by the Bank of Thailand
2/ Asia Pacific Consensus Forecast

Table 2.1 Inflation

Annual percentage change	2018	2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Oct. - Nov.
Headline Consumer Price Index (Headline CP	1.07	0.74	1.08	0.61	0.40	0.42	-2.67	-0.72	-0.46
Core Consumer Price Index (Core CPI)	0.71	0.62	0.54	0.45	0.47	0.53	0.12	0.31	0.19
Fresh food	-0.63	2.51	4.98	5.79	3.58	3.13	-0.34	1.55	2.85
Energy	5.66	-0.78	-0.67	-4.95	-4.09	-3.88	-22.86	-10.46	-9.26

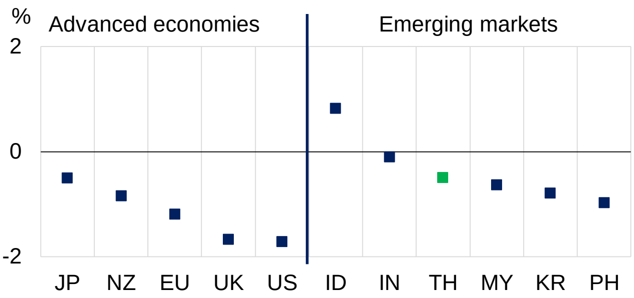
Source: Bureau of Trade and Economic Indices, Ministry of Commerce

The cost of financing through commercial banks and the bond market stabilized at low levels. Nevertheless, uncertainties surrounding economic recovery led to a slight increase in new loan rates among certain business sectors. Also, corporate credit spreads remained elevated in some rating groups.

During the fourth quarter of 2020, overall cost of financing remained accommodative, as indicated by the real policy interest rate that remained low compared to those in other emerging market economies (Chart 2.6). **Short-term interest rates in financial markets stabilized at low levels close to the policy rate. Meanwhile, the 3-month and 6-month short-term government bond yields fell substantially below policy rate** since the beginning of December (Chart 2.7). This was on account of higher demand for short-term bonds in order to fulfill liquidity management needs by some domestic investors, as well as the lower-than-expected supply of short-term government bonds. **The long-term government bond yields slightly decreased** in December (Chart 2.8), mainly due to domestic factors. The demand for long-term government bonds from mutual funds increased in light of the expectation that long-term yields may further decline amid the risk-on sentiment brought about by the clarity of the U.S. presidential election results, which would prompt inflows into the Thai government bond market.

Chart 2.6 Thailand's real policy rate* remained low consistent with other emerging market (EM) economies

Real policy rates*

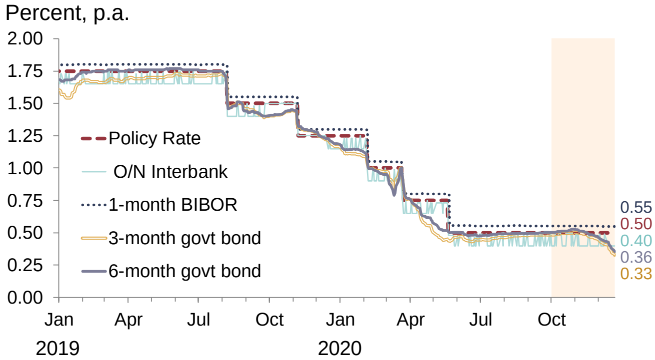


Note: * Calculated from policy rate as of December 22, 2020 subtracted by one-year-ahead inflation expectation according to the survey by Consensus Forecasts (data as of December 10, 2020)

Sources: Bloomberg and Consensus Forecasts, calculated by Bank of Thailand

Chart 2.7 Short-term money market rates remained at low levels close to the policy rate. 3-month and 6-month government bond yields fell in tandem with higher demand by domestic investors and lower-than-expected supply of short-term bonds.

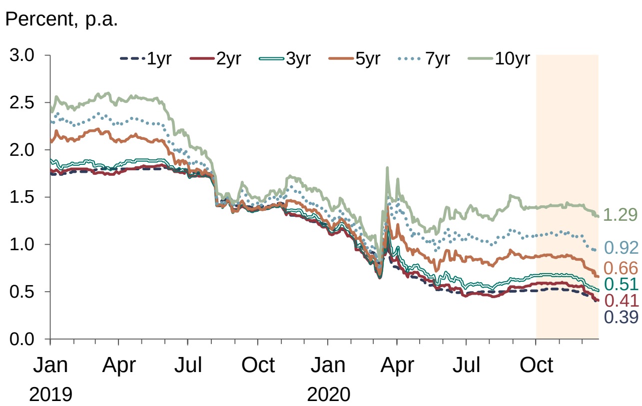
Short-term rates in financial markets



Sources: Bank of Thailand and Thai Bond Market Association (Thai BMA) (data as of December 22, 2020)

Chart 2.8 Long-term government bond yields declined slightly in December 2020 due to the risk-on sentiment

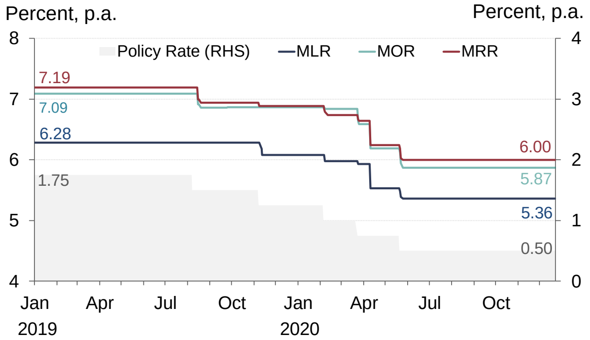
Government bond yields



Source: Thai Bond Market Association (Thai BMA) (data as of December 22, 2020)

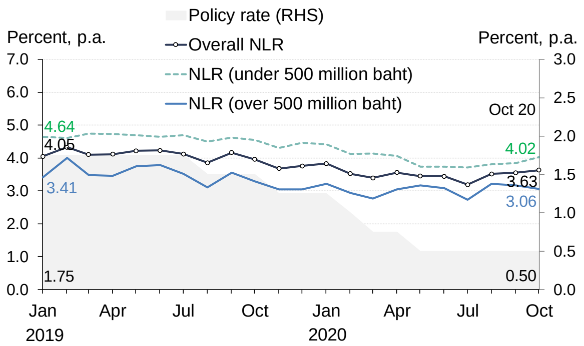
The private sectorfinancing cost through commercial banks stabilized at a low level, as reflected in the continued low reference loan rates of five largest commercial banks (Chart 2.9). Also, new loan rates (NLR)[4/] were low compared to the pre-pandemic average. However, NLR started to increase since the beginning of the third quarter to 3.63 percent in October, on the back of higher rates on new loans with contract amount under 500 million baht (Chart 2.10) as credit extension under the soft loan program slowed. Meanwhile, **deposit rates** remained stable at low levels (Chart 2.11).

Chart 2.9 MLR, MOR and MRR were unchanged from the previous quarter



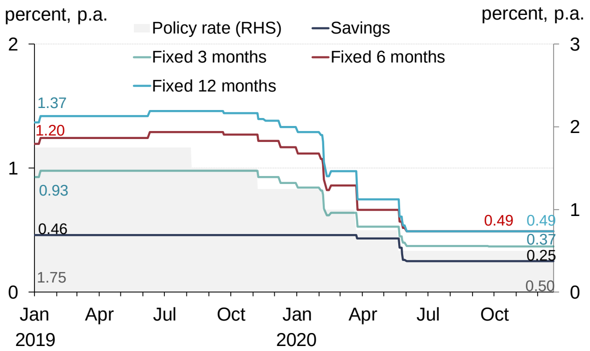
Note: Averages of 5 largest commercial banks' reference loan rates
Source: Bank of Thailand (data as of December 22, 2020)

Chart 2.10 New loan rates (NLR) of commercial banks edged up in Q3/2020, especially for loans with contract amount under 500 million baht



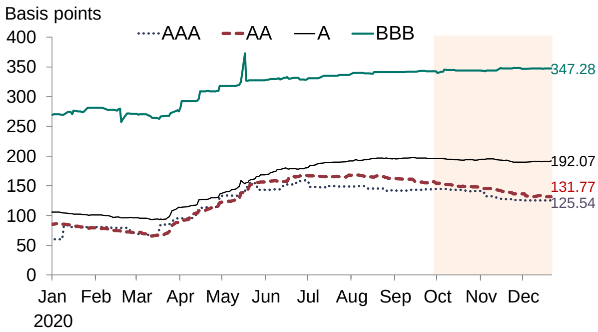
Source: Bank of Thailand (data as of December 22, 2020)

Chart 2.11 Commercial banks' deposit rates stabilized at low levels



Note: Averages of 5 largest commercial banks' deposit rates
Source: Bank of Thailand (data as of December 22, 2020)

Chart 2.12 The difference between corporate and government bond yields (maturity of 3-5 years) gradually declined for AAA and AA rating groups



Sources: Bank of Thailand and Thai Bond Market Association (Thai BMA) (data as of December 22, 2020)

Corporate credit spreads gradually declined for bonds with AAA and AA ratings (Chart 2.12). However, the spread of bonds with credit ratings below AA stayed elevated at the level close to that at the end of the third quarter, as investors remained cautious in investing in corporate bonds with higher risks.

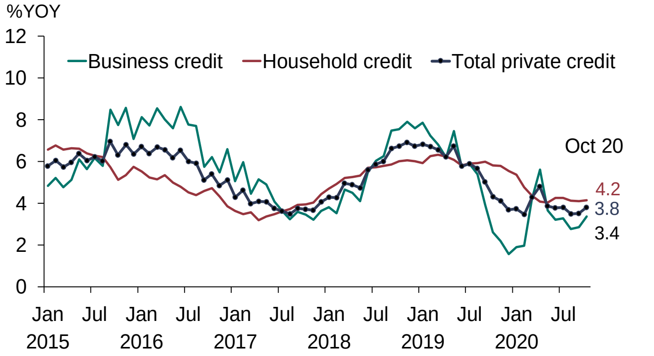
[4/] NLR is the weighted average of interest rates on new loan contracts extended by 14 Thai commercial banks. The data covers loans of all types, purposes and maturities, both secured and non-secured loans, but excludes overdraft loans, consumer loans, credit card loans, repurchase agreements, bank guarantees, as well as loans to financial intermediaries, the public sector and non-residents. Moreover, interest rates used in the calculation refer to the mid-rate between the lowest and the highest rates in each loan contract.

Private sector financing slightly expanded on the back of business credit, while the growth of household credit decelerated due to the lower income after the pandemic.

Private sector loans[5/] and bond issuances (private credit) grew by 3.8 percent in October 2020 from the same period last year (Chart 2.13). Businesses continued to raise funds to meet their liquidity needs and mitigate the impact of COVID-19. Additional government credit relief measures helped increase SMEs' access to credit. **Business loans and corporate bond issuances expanded by 3.4 percent in October 2020** from the same period last year (Chart 2.14). Large businesses, in particular, resumed bond issuances in the third quarter of 2020, after a sharp deceleration at the start of the second quarter when liquidity tightened in the bond market. Meanwhile, business credits expanded slightly in October 2020, especially for tourism-related businesses such as those in services and transportation sectors, owing in part to government measures to boost domestic tourism. Nevertheless, credit growth continued to slow among businesses heavily impacted by COVID-19, especially those in trading and manufacturing sectors (Chart 2.15). From the same period last year, **household credit expanded by 4.2 percent** continuing to decelerate since the second quarter in tandem with the slowdown in hire purchase and other consumer loans, although housing loans were supported by sales promotion offered by developers. Meanwhile, demand for consumer loans declined due to the lower income after the pandemic.

Chart 2.13 Private credit (private sector loans and bond issuances) expanded slightly on the back of business credits, while the growth of household credits decelerated

Growth of private credit



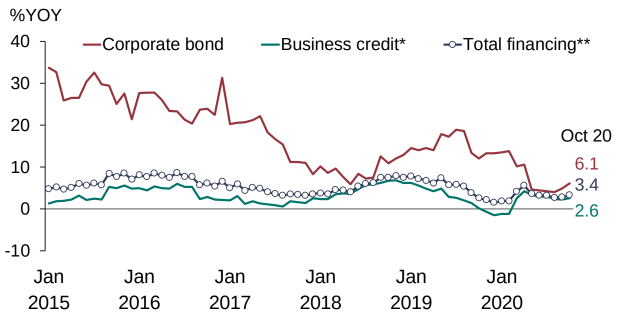
Notes: 1) Private sector loans include credit extended by (1) Other Depository Corporations (ODCs) namely commercial banks, specialized financial institutions, finance companies, saving cooperatives, and money market mutual funds, (2) Other Financial Corporations (OFCs), and (3) non-residents

2) The definition of private credit was redefined to cover broader types of lenders and financial instruments. The data was first published in the MPR in 2019Q4, where the data was available from January 2012.

Source: Bank of Thailand

Chart 2.14 Corporate financing expanded slightly

Growth of business credit and corporate bond outstanding



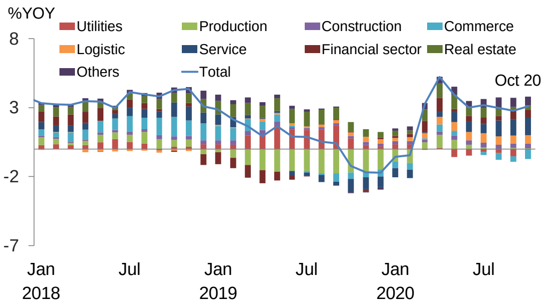
Note: * Business loans covers lending activities of Other Depository Corporation (ODCs), Other Financial Corporations (OFCs), and non-residents

** The definition of private credit was redefined to cover broader types of lenders and financial instruments. The data was first published in the MPR in 2019Q4, while the data was available from January 2012.

Sources: Thai Bond Market Association (Thai BMA) and Bank of Thailand

Chart 2.15 Financing through corporate loan expanded in October 2020, particularly for tourism-related businesses

Growth of commercial loan outstanding classified by business sector*



Note: *lending by commercial banks registered in Thailand (excluding their bank branches abroad) and foreign bank branches

Source: Bank of Thailand

5/ Loans extended to the private sector consist loans extended by (1) other depository corporations (ODCs) namely commercial banks, specialized financial institutions, finance companies, saving cooperatives and market mutual funds, (2) other financial institutions (OFCs), and (3) non-residents.

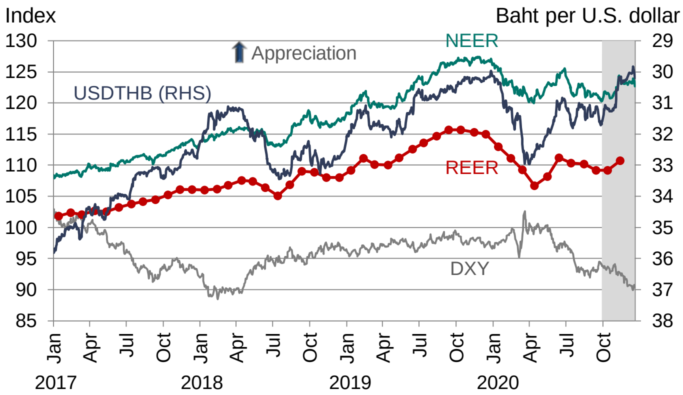
In the fourth quarter of 2020, demand for business and household credits continued to grow, whereas financial institutions remained cautious in extending loans. Corporate financing was expected to continue expanding, both through bank loans and bond markets. In particular, SMEs affected by COVID-19 would continue to raise more funds to replenish their liquidity, as well as to restructure and make adjustments to business models consistent with the new economic landscape. **Demand for household credits was also expected to increase**, particularly for hire purchase loans thanks to end-of-year promotional campaigns, such as launches of new car models or low-interest loans. Additionally, demand for credit card loans would rise in tandem with higher spending following the relaxation of containment measures and the support of government measures to stimulate domestic consumption. However, the September 2020 survey[6/] revealed that **financial institutions would remain cautious in extending private loans**-including corporate, SMEs, and hire purchase loans—throughout the fourth quarter of 2020, citing risks to businesses in light of the highly uncertain economic outlook. Nonetheless, government support measures helped lessen the strictness of credit extension to private sectors, especially SMEs.

The baht against the U.S. dollar and the nominal effective exchange rate (NEER) appreciated in the fourth quarter due to the risk-on sentiment in the global financial markets, thanks to the clarity of the U.S. presidential election results and positive developments regarding the efficacy and distribution of COVID-19 vaccines in major advanced economies.

The baht appreciated against the U.S. dollar in the fourth quarter of 2020 as compared to the third quarter (Chart 2.16). At the beginning of the quarter, the baht depreciated amid concerns over domestic political situation. The baht later strengthened due to the risk-on sentiment in the global financial markets brought on by the clarity of the U.S. presidential election results and positive developments regarding the efficacy and distribution of COVID-19 vaccines in major advanced economies. The appreciation of the baht was in line with other regional currencies, as it was accompanied by capital inflows into emerging markets, especially countries with relative success in containing the spread of COVID-19, such as China, Taiwan, and Thailand. However, the baht weakened slightly toward the end of the fourth quarter owing to concerns over the new wave of domestic COVID-19 infections. As of December 22, 2020, the December 2020 average of the baht was at 30.07 baht to U.S. dollar, which was a 4.3-percent appreciation from the September 2020 average.

Chart 2.16 The baht appreciated against the U.S. dollar due to the risk-on sentiment in global financial markets, thanks to the clarity of the U.S. presidential election results as well as the news of COVID-19 vaccine efficacy

USDTHB, NEER, DXY

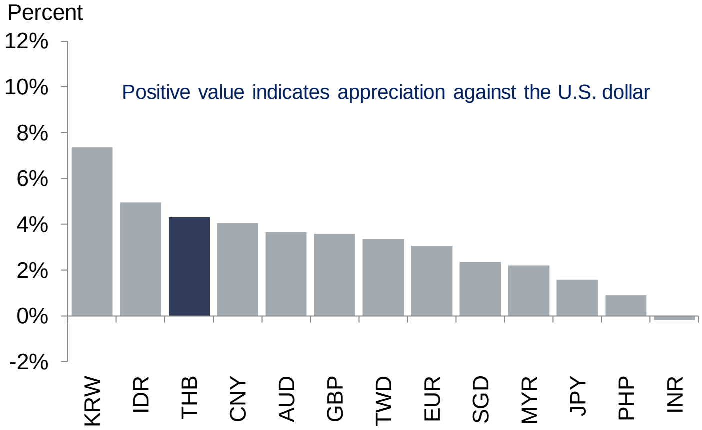


Sources: Bank of Thailand, Bloomberg, and Reuters (data as of December 22, 2020)

6/ Results of financial institutions' survey as published in the Report on Credit Conditions Q3//2020 and Outlook for Q4/2020.

The December 2020 average of the Nominal Effective Exchange Rate (NEER) index was at 123.29 as of December 22, 2020, appreciating by 1.8 percent from the September 2020 average as the baht appreciated by a larger degree than most trading partner currencies (Chart 2.17). Meanwhile, **the preliminary Real Effective Exchange Rate (REER)** appreciated by 1.3 percent in November 2020 from the September 2020 average. Going forward, the exchange rate would likely remain volatile amid risks from new waves of COVID-19 infections, economic policies in major advanced economies, and domestic political uncertainties.

Chart 2.17 The baht appreciated against the U.S. dollar at a larger degree than most trading partner currencies (average in Dec 2020 compared to average in Sep 2020)



Sources: Bank of Thailand and Reuters (data as of December 22, 2020)

Financial system stability was still subject to high risks, particularly to financial positions of households and businesses, given the slow economic recovery and the new wave of COVID-19 infections. Government measures going forward must be continuous, targeted, and timely in order to ensure a smooth economic recovery.

Financial system stability was still subject to high risks given the slow economic recovery and the new wave of COVID-19 infections. Nevertheless, the stability of financial institutions remained robust, as reflected by adequately high levels of commercial banks' capital buffers and reserves, which provide cushion against risks of deteriorating credit quality. The Bank of Thailand had placed an emphasis on pre-emptive measures to ensure that commercial banks maintain an adequate level of capital buffers and reserves to withstand future uncertainties, preserve lending capacity, and provide continuous support for economic activities. Risks to financial system stability that warranted close monitoring can be summarized as follows.

1. Household financial positions were fragile given the elevated debt level and the deterioration in debt servicing capability as employment and income were affected by COVID-19. The household debt to GDP ratio rose to 86.6 percent in the third quarter of 2020, up from 83.8 percent in the previous quarter due mainly to economic contraction.

Regarding household debt servicing capability, the NPL ratio of consumer loans stabilized at around 3 percent in the third quarter of 2020, thanks in part to the credit relief measures for retail borrowers, such as interest rate reduction, loan moratorium, reduction in loan repayments, and debt restructuring. In the period ahead, consumer loan quality would need to be monitored closely after the phase-out of relief measures. Moreover, **as the economic recovery remains slow and uneven across business sectors next year, income and debt servicing capability of certain groups of households would continue to be fragile.** These include freelance workers with uncertain income streams and labor in tourism that would recover more slowly than other economic sectors. Therefore, future government measures should be in the form of targeted and comprehensive support packages, such as income assistance through domestic tourism stimulus measures coupled with a debt restructuring program, as well as a campaign to promote financial discipline. This would ensure effective outcome both in the short and long terms.

2. Business financial positions improved somewhat, but vulnerabilities remained from the risks of defaults given the highly uncertain economic recovery. Business revenue and profits improved slightly in the third quarter as compared to the previous quarter, thanks to the resumption of economic activities after the relaxation of containment measures. As a result, operating profit margins (OPM) improved overall, especially for restaurant, real-estate, and construction businesses. Nevertheless, the hotel business continued to make losses despite some improvements from the previous quarter. Similarly, the airline industry saw a persistent decline in OPM. Interest coverage ratio (ICR) of businesses overall largely increased from the previous quarter, but remained below the 5-year average, especially for businesses in tourism-related services such as the hotel and airline businesses, which were severely affected by the pandemic would not be able to recover, as international travel restrictions had led to a sharp decline in demand from foreign tourists. Meanwhile, demand from local tourists was not sufficient to offset the loss, despite continued government measures to stimulate domestic tourism. Hence, debt servicing capability of these businesses would need to be monitored closely.

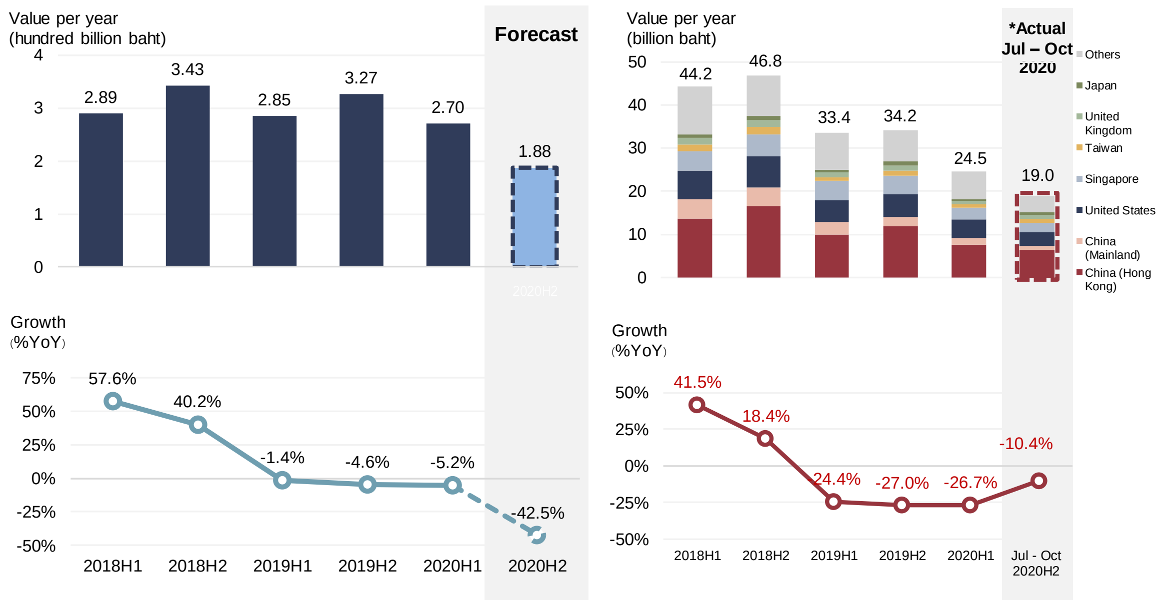
In the period ahead, the Thai economy would be subject to large degree of uncertainties from the new wave of COVID-19 cases and the uneven recovery across business sectors. Furthermore, some sectors may be unable to recover to the pre-pandemic level. Thus, businesses must restructure and make adjustments to business models consistent with the post-COVID environment. Many sectors faced structural problems, such as low competitiveness in the steel and fabricated metal sectors, obsolete manufacturing technology in the hard disk drive (HDD) sector due to replacement of HDD with solid state drive (SSD), or excess supply in the real estate sector. Moreover, the pandemic resulted in excess capacity in the services sector, especially tourism-related businesses. In addition, firms with liquidity shortages, especially SMEs, often lacked access to credit. Going forward, government relief measures must therefore be continuous, targeted, and timely. High-potential firms should receive the liquidity needed to support their businesses, as well as appropriate debt restructuring consistent with debt servicing capability. Such government support, along with adjustments on the firms' part, would be crucial for business survival in the future.

3. The real estate market remained fragile on account of the continued decline of domestic and foreign demands given the slowdown and uncertainties in the Thai and global economies, as well as international travel restrictions. The Real Estate Information Center (REIC) projected that the value of housing transfers in Bangkok and vicinities in the second half of 2020 would contract by 42.5 percent from the same period last year. Also, foreign demand continued to fall, as suggested by the value of funds transferred for Thai condominium purchases by non-residents that dropped by more than 10 percent in the second half of 2020 (July – October) from the same period last year (Chart 2.18) in light of the economic slowdown and international travel restrictions. Nevertheless, the real estate market conditions improved in the third quarter. The value and number of housing transfers increased from the second quarter thanks to sales promotion offered by developers. In the period ahead, there remained a need to monitor adjustments made by developers to address excess supply.

Chart 2.18 The real estate market remained fragile in the second half of 2020 as the economic slowdown in Thailand and abroad continued to dampen the domestic and foreign demand for housing

Value of housing transferred (Bangkok and vicinities)

Value of funds transferred for condominium purchases by non-residents



Sources: REIC, calculated by Bank of Thailand

Source: Bank of Thailand

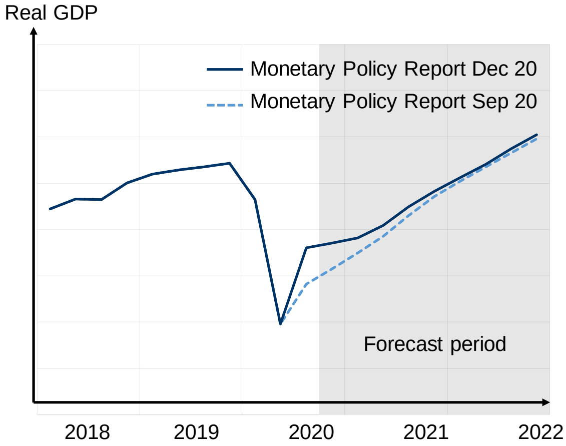
2.2 Outlook for the Thai Economy

The Thai economy contracted in 2020 less than previously assessed. However, the economic recovery in 2021 would be slower than expected on account of the new wave of COVID-19 infections and the weak tourism sector. Economic growth would pick up in 2022 in line with the assumption on foreign tourist figures. Meanwhile, headline inflation projection remained mostly unchanged.

The key assumptions underlying economic projections in this report are summarized as follows. First, the government could contain new waves of domestic COVID-19 infections within a short period of time, with strict containment measures imposed only in Samut Sakhon. Meanwhile, infections in other areas of the country could be brought under control by restrictions on certain economic activities without necessitating strict and extensive containment measures. As such, the service sector would only be partially affected, and the impact on the manufacturing sector would not be significant. Second, there would be a widespread coverage of COVID-19 vaccination abroad by mid-2021, such that Thailand could re-open to foreign tourists without quarantine requirements, providing they could present vaccination certificates and negative COVID-19 test results. Also, vaccination in Thailand could commence in the second half of 2021 and Thailand would re-open for commercial flights and admit foreign tourists without quarantine or vaccination requirements in the second half of 2022. This timeline was more delayed than the assumption in the previous *Monetary Policy Report*, which assumed normal admission of foreign tourists from the second half of 2021. Third, disbursement of government budget under the post-COVID economic recovery plan of the Emergency Decree Authorizing the Ministry of Finance to Raise Loans to Solve Problems, to Remedy and Restore the Economy and Society as Affected by the Coronavirus Disease Pandemic would be expedited effectively.

Chart 2.19 Economic recovery is projected to slow down in 2021 due to the tourism sector

Real GDP (seasonally adjusted, natural log)



At the meeting on December 23, 2020, the Monetary Policy Committee projected that the Thai economy would contract by 6.6 percent in 2020, which was less than the 7.8 percent contraction projected in the previous *Monetary Policy Report*. The improvement was thanks to faster-than-expected recovery in nearly all growth components in the third quarter. In particular, merchandise exports gradually improved in line with trading partner economies. Moreover, the relaxation of domestic containment measures allowed for a resumption of some economic activities, leading to a gradual recovery in labor income. In addition, continued government stimulus measures resulted in faster-than-expected recovery in domestic spending. **However, in the coming period, economic momentum would soften somewhat on account of the new wave of COVID-19 infections in the country.** In particular, containment measures weighed on domestic spending, while the actual implementation of protocols to admit foreign tourists saw fewer visitors than previously assessed. As such, Thailand's economic recovery in the period ahead would be slower than expected, despite some short-term improvement (Chart 2.19). **Thus, the economy was projected to expand by 3.2 percent in 2021, down from the previous forecast of 3.6 percent**.

The Thai economy was expected to grow at a faster pace of 4.8 percent in 2022, given the recovery of foreign tourist figures on the back of widespread COVID-19 vaccination in Thailand and abroad. The Thai economy would return to the pre-pandemic level in the second half of 2022.

Headline inflation was projected at a negative 0.9 percent in 2020, and 1.0 percent in 2021, relatively unchanged from the previous assessment. Meanwhile, headline inflation also projected to be at 1.0 percent in 2022, in line with the upward revision of the oil price assumption. The Committee assessed that headline inflation would return to the target range around mid-2021, and would remain close to the lower bound of the target range throughout the forecast period.

Table 2.2 Forecast summary

Percent	2019*	2020	2021	2022
GDP growth	2.4	-6.6 (-7.8)	3.2 (3.6)	4.8
Headline inflation	0.7	-0.9 (-0.9)	1.0 (1.0)	1.0
Core inflation	0.5	0.3 (0.3)	0.3 (0.2)	0.4

Note: * Outturn
( ) Monetary Policy Report September 2020
Sources: NESDC, Ministry of Commerce, Bank of Thailand's estimates

Summary of key forecast assumptions

- Trading partner economies were projected to expand faster than in the previous forecast, given the faster-than-expected recovery of economic activities in many countries in the third quarter of 2020. The global economy would continue to recover gradually in the period ahead. The new waves of COVID-19 outbreaks in many countries would not have severe impacts on the economy as the new round of containment measures were less stringent and more contained compared to the first one.

- The Federal Funds Rate was projected to be maintained at a range of 0.00 – 0.25 percent throughout the forecast horizon, as with the previous forecast.

- Regional currencies (excluding the Chinese yuan) would appreciate more than previously assessed throughout the forecast horizon, on account of the steady recovery of Asian economies, which had seen relative success in containing the spread of the virus compared to major advanced economies. In addition, investors' positive outlook toward the progress of COVID-19 vaccine development would result in an increase in capital inflows into risky assets of EM countries.

- The Dubai crude oil price would increase throughout the forecast horizon on account of stronger demand, following global economic recovery and high efficacy of the COVID-19 vaccines. Nevertheless, there remained a risk that the crude oil price could decline if its earlier increase is large enough to prompt an increase in supply of shale oil by producers in the United States.

- Farm income (excluding government support measures) improved in 2020, recording a slight growth instead of a contraction earlier projected on the back of a significant increase in agricultural prices during periods of output shortage, especially for pork, oil palm, and rubber. Meanwhile, farm income growth was projected to slow in 2021 due to (1) the high-base effect from 2020, (2) low water levels in major dams that would impact off-season rice production, and (3) the intensified COVID-19 situation in neighboring countries that would prevent migrant workers from returning to rubber plantations. The labor shortage would improve in 2022.

- Public spending at current price was revised down due to (1) the smaller-than-expected and delayed disbursement of government budget under the COVID-19 emergency decree, (2) the shift in budget allocation under the emergency decree toward more transfers, (3) the downward revision in the fiscal year 2021 annual budget and the carryover budget, following disbursement acceleration in 2020, and (4) the postponement of investment projects and reduction in budgets of some state-owned enterprises (SOEs) as some projects were not operationally ready. For 2022, public spending was projected to slow down, in part because the emergency decree budget would have largely been exhausted.

Table: Summary of forecast assumptions

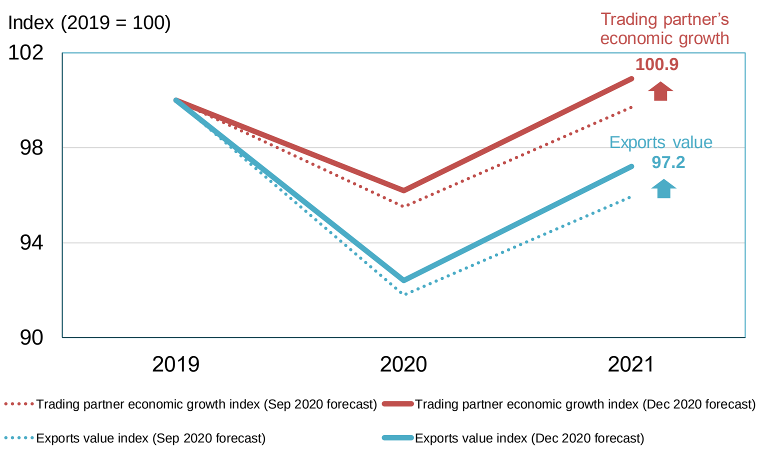
Annual percentage change	2019*	2020	2021	2022
Trading partners' GDP growth (% YoY)[2/]	2.6	-3.8 (-4.5)	4.8 (4.4)	3.1
Fed funds rate (% at year end)	1.50 - 1.75	0.00 - 0.25 (0.00 - 0.25)	0.00 - 0.25 (0.00 - 0.25)	0.00 - 0.25
Regional currencies (excl. China) vis-à-vis the U.S. dollar (index)3/	156.6	157.2 (158.2)	151.4 (156.6)	150.3
Dubai crude oil price (U.S. dollar per barrel)	63.5	41.7 (41.5)	47.3 (45.8)	51.5
Farm income (% YoY)	2.0	0.2 (-1.7)	0.6 (3.4)	4.8
Government consumption at current price (billion baht)[1/]	2,723	2,810 (2,833)	3,016 (3,038)	3,116
Public investment at current price (billion baht)[1/]	966	1,060 (1,051)	1,156 (1,182)	1,174

Notes: [1/] Assumption includes spending on infrastructure investment plans
[2/] Weighted by each trading partner's share in Thailand's total exports
[3/] Increasing index represents depreciation, decreasing index represents appreciation
* Outturns
( ) *Monetary Policy Report* September 2020

Merchandise exports would contract sharply, but would begin to pick up in the period ahead in tandem with recovery in trading partner economies.

The value of Thai merchandise exports would decline by 7.4 percent in 2020, a smaller contraction compared to the previous *Monetary Policy Report* thanks to better-than-expected exports volume outturn in the third quarter of 2020. Going forward, merchandise exports would improve on account of the expansion of trading partner economies. However, Thailand's exports would recover at a slower pace than those of its trading partners, since Thai exports consisted of a relatively small share of electronic products, which benefited from COVID-19, compared with other regional countries. **Thus, merchandise exports were projected to expand by 5.7 and 5.0 percent in 2021 and 2022, respectively.**

Chart 2.20 Projections of the value of exports and trading partner's economic growth were revised upward.



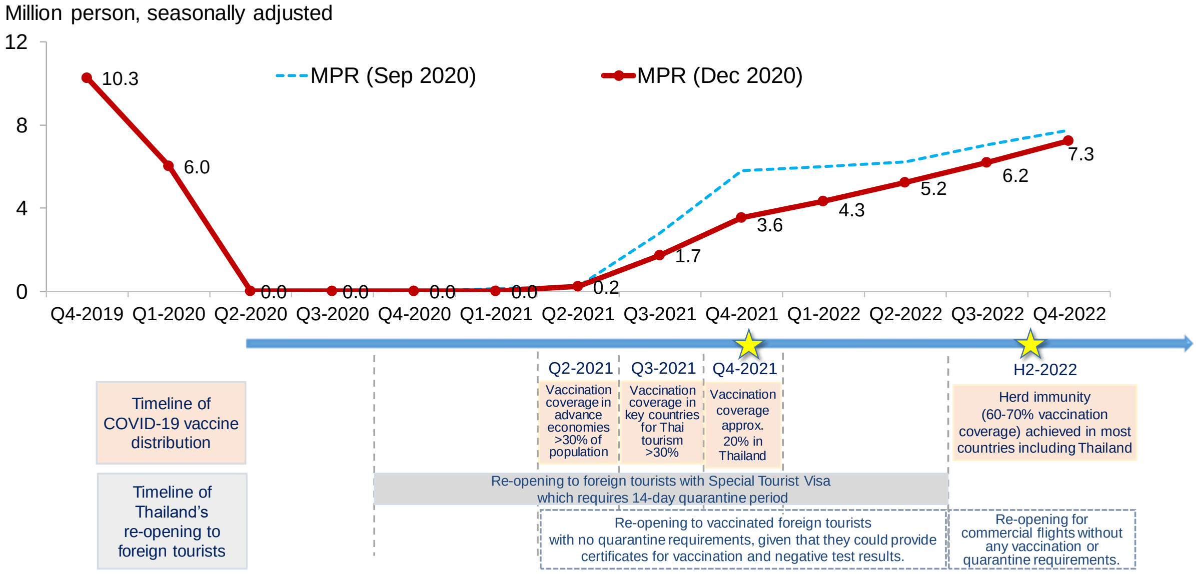
Sources: Bank of Thailand, Monetary Policy Report (September 2020)

Exports of services would contract severely and recover at a slow pace as the admission of foreign tourists to Thailand.

The tourism industry would recover at a slower pace than previously assessed, despite improvements in trading partner economies and progress in COVID-19 vaccine development. Since the COVID-19 situation abroad would likely be prolonged and severe, Thailand could admit fewer foreign tourists than expected. Looking ahead, widespread vaccination abroad was expected by mid-2021, but by that time the vaccination coverage among Thai population would still be relatively low. Thus, the country's capacity to admit foreign tourists would remain constrained. Only in the third quarter of 2021 would Thailand be able to re-open to foreign tourists who have been vaccinated without quarantine requirements, given that they could present vaccination certificates and pass the health screening upon arrival (Chart 2.21). **The Committee projected 5.5 million foreign tourists in 2021, lower than the assessment in the previous *Monetary Policy Report***. Nevertheless, foreign tourist figures would grow in proportion to vaccination coverage in Thailand and abroad, and would accelerate toward the latter half of 2022 when Thailand could re-open for commercial flights and admit foreign tourists without quarantine or vaccination requirements. **The Committee thus projected that the number of foreign tourists would surge to 23 million in 2022.**

Chart 2.21 Foreign tourist figures would gradually improve in the second half of 2021 in tandem with the progress of vaccination

Foreign tourist figures projection



Source: Bank of Thailand

The current account balance was projected to register a surplus of 16.2 billion U.S. dollars in 2020, which was higher than the previous assessment due to the larger-than-expected trade surplus in the third quarter of 2020. **Meanwhile, the surplus was projected to decrease to 11.6 billion dollars in 2021,** mainly attributable to the decline in tourism receipts and the increase in reinvested earnings payments in line with the higher profits of foreign firms in Thailand. **In 2022, the current account surplus was expected to rise to 29.1 billion dollars** thanks to the increase in tourism receipts following the re-opening to foreign tourists without quarantine and vaccination requirements.

Private consumption declined less than assessed, but downside risks and high uncertainties remained in the period ahead.

Private consumption would contract in 2020 by less than the previous forecast from the significantly higher-than-expected outturn in the third quarter, owing partly to government stimulus packages to support domestic tourism and private consumption, which underpinned a swift recovery in economic activities after the lifting of lockdown restrictions. Another underlying factor was the gradual recovery of the labor market as reflected by the decline in numbers of unemployed and underemployed workers[7]. The number of underemployed workers stood at 2.2 million in November 2020, down from the second quarter's peak of 5.4 million. Nevertheless, private consumption slowed somewhat toward the end of the year as the new wave of domestic COVID-19 cases dampened consumer confidence. **Private consumption was projected to expand by 2.8 and 3.0 percent in 2021 and 2022, respectively. However, downside risks and high uncertainties that remained.** New waves of infections in the country, the phase-out of government stimulus packages and credit relief measures, the lack of clarity regarding government spending projects, domestic political uncertainties, vulnerable household financial positions due to elevated household debt, and the fragile recovery in the labor market could weigh on the recovery of private consumption in the period ahead.

Private investment declined markedly but would gradually recover.

Private investment would contract in 2020 by less than the previous projection, thanks to higher-than-expected outturn in the third quarter consistent with smaller-than-expected contractions in domestic and external demand. In the period ahead, **private investment would gradually recover**, expanding by 4.9 and 5.0 percent in 2021 and 2022, respectively on the back of the recovery in merchandise exports and private consumption, as well as the progress of public-private partnership (PPP) investment projects, particularly in the EEC, which would improve the country's investment climate.

Headline inflation would be close to the previous assessment. Headline inflation would return to the target range around mid-2021, and remain close to the lower bound of the target range throughout the forecast period.

Headline inflation in 2020 was projected at negative 0.9 percent, close to the previous assessment, in line with the higher oil and fresh food prices in the second half of the year. **For 2021, headline inflation would be at 1.0 percent as previously forecasted.** The higher oil price projection was offset by the lower fuel adjustment surcharge (Ft) and the high-base effect in 2020 from fresh food prices. Meanwhile, core inflation was projected to remain low at 0.3 percent in both 2020 and 2021, as recovery in demand remained in an early stage**. The Committee assessed that headline inflation would return to the target range around mid-2021, and would remain close to the lower bound of the target range throughout the forecast period**.

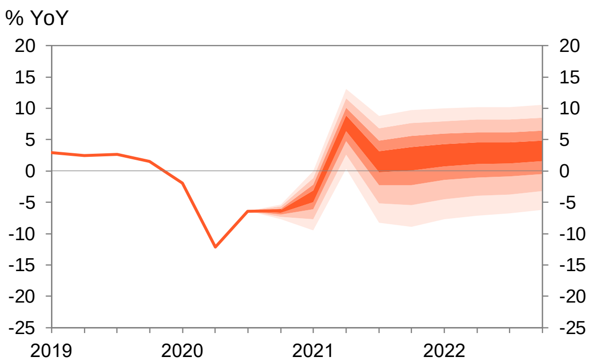
[7/] Underemployed workers are defined as those working fewer than 20 hours per week in the agricultural sector and fewer than 24 hours per week in non-agricultural sectors .

Economic and inflation projections would be subject to high uncertainties and downside risks, particularly from developments of the new wave of COVID-19 infections in the country, vaccine efficacy and vaccination coverage, and the timing of the admission of foreign tourists.

Going forward, the Thai economy would remain highly uncertain and could face downside risks, as reflected in a wide fan chart that tilted toward the downside (Chart 2.22). Despite some uncertainties being cleared up in the previous period, such as clear signs of economic recovery in the third quarter and satisfactory progress in the COVID-19 vaccine development and distribution, the new wave of domestic COVID-19 infections remained a major risk factor to economic growth. This projection incorporated some its impacts into the base case, such as the downward revision of foreign tourist figures in 2021. **Nevertheless, the Thai economy could underperform the baseline projection due to the following factors.** First, the new wave of domestic COVID-19 infections could intensify and become more widespread, triggering another round of strict and extensive containment measures with larger economic impact than anticipated. Second, COVID-19 vaccines could be less effective than expected or vaccine distribution could take longer than expected due to certain limitations, such as vaccine availability or the public's concerns about its safety. These could delay the re-opening of the country to foreign tourists. Third, fiscal stimulus could be lower than estimated in the baseline projection in case of delays in budget approvals for projects under the Emergency Decree, which was set to expire in the third quarter of 2021. Fourth, balance sheets of businesses could deteriorate and eventually resulting in permanent shutdowns. This could cause scarring effects whereby recovery of businesses would be hindered even after the pandemic subsided. Fifth, default rates of businesses and households could surge after the phase-out of the credit relief measures, which could in turn affect the overall financial system stability.

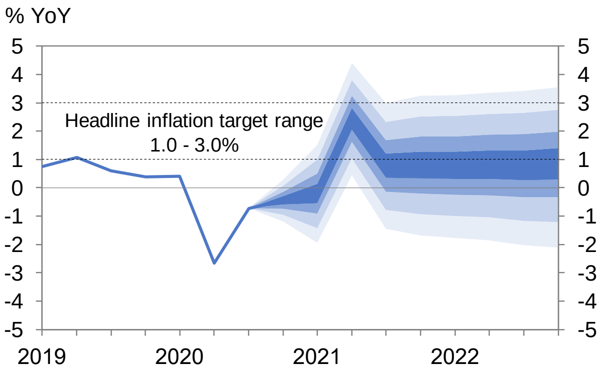
Nevertheless, **the Thai economy could still outperform baseline projection in the following scenarios.** First, herd immunity could be achieved earlier than assessed through effective vaccine distribution. Thus, the outbreak abroad would peter out sooner than expected, allowing Thailand to re-open for foreign tourists at an earlier date. Second, the government could introduce additional economic stimulus packages to support domestic consumption and investment, and credit relief measures could be more effective than expected. Third, domestic demand could expand faster than projected owing to the crowding-in effects from government infrastructure investment and PPP projects. And fourth, the country could benefit more than expected from the relocation of manufacturing bases and shifts in sales orders of multinational companies to Thailand**. As for inflation projections, headline and core inflation could underperform baseline projection** due to downside risks to crude oil prices and economic growth outlook.

Chart 2.22 Growth forecast



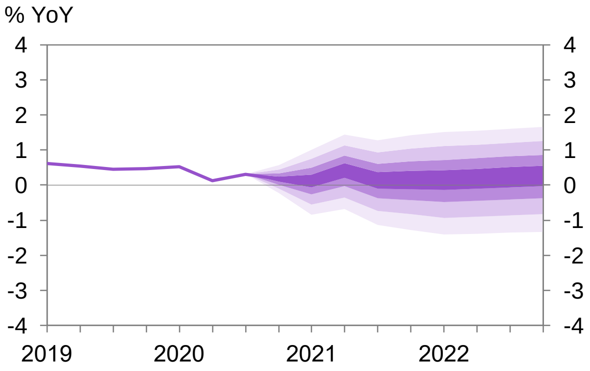
Note: Fan chart covers 90% of the probability distribution

Chart 2.23 Headline inflation forecast



Note: Fan chart covers 90% of the probability distribution

Chart 2.24 Core inflation forecast



Note: Fan chart covers 90% of the probability distribution

Table 2.3 Forecasts of GDP and components

Annual percentage change	2019*	2020	2021	2022
GDP growth	2.4	-6.6 (-7.8)	3.2 (3.6)	4.8
Domestic demand	3.3	-1.6 (-2.9)	4.0 (3.7)	2.8
Private consumption	4.5	-1.4 (-3.5)	2.8 (2.0)	3.0
Private investment	2.8	-9.9 (-11.4)	4.9 (4.2)	5.0
Government consumption	1.4	2.5 (3.4)	5.1 (5.1)	1.0
Public investment	0.2	10.0 (8.8)	7.9 (11.4)	0.2
Exports of goods and services	-2.6	-20.2 (-21.2)	3.6 (4.3)	12.3
imports of goods and services	-4.4	-14.3 (-16.6)	5.0 (4.4)	7.5
Current account (billion, U.S. dollars)	38.2	16.2 (14.0)	11.6 (14.6)	29.1
Value of merchandise exports	-3.3	-7.4 (-8.2)	5.7 (4.5)	5.0
Value of merchandise imports	-5.6	-14.1 (-13.7)	7.7 (4.4)	6.7
Number of foreign tourists (million person)	39.9	6.7 (6.7)	5.5 (9.0)	23.0

Note: *Outturns

( ) *Monetary Policy Report September* 2020

3. Monetary Policy Decision

The MPC maintained the policy rate at 0.50 percent and assessed that the economy still needed support from the continued low policy rate. Therefore, the limited policy space should be preserved for the appropriate and most effective timing, particularly amid high uncertainties surrounding the economy.

At the meetings on November 18 and December 23, 2020[8/], the Committee voted unanimously to maintain the policy rate at 0.50 percent. The Committee projected that the Thai economy would see a smaller contraction in 2020 than previously assessed and continue to recover in 2021 and 2022. However, there could be adverse risks to the baseline projection. In particular, uncertainty surrounding the COVID-19 situation in the near term, as well as the vaccine efficacy and vaccination coverage which could be limited, can affect the progress in the admission of foreign tourists in the period ahead. In addition, uneven recoveries across economic sectors and areas would affect the sustainability of economic growth going forward. The Thai financial system remained stable, but households and SMEs were still vulnerable. Headline inflation would return to the target range around mid-2021 and would remain close to the lower bound of the target range throughout the forecast period. Meanwhile, medium-term inflation expectations remained anchored within the target range. The Committee therefore assessed that the economy still needed support from the continued low policy rate, and the limited policy space should be preserved for the appropriate and most effective timing.

In determining the appropriate course of monetary policy, details on the key assessment are as follows.

Going forward, the economic recovery would remain highly uncertain, particularly due to the impacts of the new wave of domestic COVID-19 infections and the continuity of government measures. Policy coordination among government agencies would therefore be critical in supporting economic recovery.

The Thai economy continued to recover, but would face high uncertainties from the impacts of prolonged COVID-19 situation abroad and new waves of domestic COVID-19 infections that could become more widespread. Moreover, households and SMEs would become vulnerable after the phase-out of government measures. Given such uncertainties, the government should therefore closely monitor the economic recovery, and accelerate the financial and fiscal measures previously introduced in order to have a broader and sustained impact on the economy. Moreover, the government should prepare additional measures in order to respond to unexpected events. **Going forward, the continuity of government measures and policy coordination among government agencies would be critical in supporting economic recovery** (**Box**: *The Thai economic headwinds and tailwinds, what else must be prepared*?)

[8/] At the meeting on 23 December 2020, one member was absent.

Uneven recoveries resulted in limited access to credit for some businesses. Thus, financial institutions should expedite debt restructuring and credit extension under various measures, for example, the credit guarantee schemes.

The economic recovery remained uneven across business sectors and areas, resulting in tighter access to credit for some businesses due to higher credit risks. The Committee, therefore, encouraged financial institutions to expedite debt restructuring for both retail and corporate borrowers in order to have a broader impact. Moreover, credit extension under various programs such as credit guarantee schemes should be accelerated in order to address liquidity problems in a targeted and timely manner (**Box**: *Liquidity in the Thai Financial System: sufficient amount but insufficient distribution*). Although such financial measures would incur fiscal costs in the short term, they should help sustain employment and increase liquidity for SMEs, as well as reduce scarring effects and long-term costs to the economy.

Rapid appreciation of the baht weighed on the fragile economic recovery. Thus, the Committee would closely monitor such development in order to assess the need for additional appropriate measures, as well as continue to expedite new foreign exchange ecosystem.

The Committee expressed concerns over the rapid appreciation of the baht that affected the fragile economic recovery. Thus, the Committee would closely monitor developments in foreign exchange markets and capital flows, as well as assess the need for additional appropriate measures to prevent exchange rate appreciation from hindering economic recovery. This was to lessen short-term pressure on the baht and address structural problems in the Thai foreign exchange markets by continuing to expedite new foreign exchange ecosystem. This should help balance the capital flows, facilitate outward investment of domestic investors, make foreign exchange hedging more flexible for businesses, and encourage competitions among service providers (**Box:** *The BOT and the development of the new foreign exchange ecosystem*).

Fiscal measures continued to play a crucial role in sustaining the economy amid high uncertainties surrounding the economic recovery.

The Committee considered fiscal measures to be very crucial in sustaining the economy during the period of high uncertainties. Meanwhile, rising public debt in the medium term would not pose a significant fiscal risk, due to the following reasons. (This was due to (1) the low level of pre-pandemic public debt, (2) the long maturity of debt as reflected in the remaining average time to maturity of approximately 10 years, (3) debt mostly denominated in local currency, and (4) nominal GDP growth expected to be higher than interest rates at which the government pays its debt. Moreover, Thailand was rated BBB+ with a stable outlook. The Committee viewed that if public debt accumulation was intended to support the economic recovery and finance key infrastructure projects, this would help sustain economic growth and public debt to GDP. When the economy gets back on track, the government should strengthen fiscal capacity through revenue and expenditure reforms to promote long-term fiscal sustainability.

The Thai economy needed structural reforms that should be accelerated alongside demand-management stimulus measures to boost economic recovery in the short term and to ensure full-potential, inclusive, and sustainable growth in the long term.

The Committee expressed concerns over a continued decline in Thailand's economic growth. In particular, the COVID-19 pandemic would cause some scarring effects on Thailand's economic growth potential in the long term, even after the pandemic subsided. This therefore warranted the need to expedite structural reforms alongside demand-management stimulus measures to boost economic recovery in the short term in order to achieve all three economic objectives, namely (1) growth, (2) income distribution, and (3) sustainability and resiliency. Such supply-side structural reforms would require reforms of key economic institutions, namely households, businesses, and the government. For example, reforming the labor market, uplifting infrastructure for digital economy, and reducing regulations that hindered coordination among government agencies (**Box***: Moving towards the Thai economic goals through accelerating structural reforms*).

The Committee continued to put emphasis on supporting economic recovery, and stand ready to use additional appropriate monetary policy tools if necessary.

Under the monetary policy framework with objectives of maintaining price stability, supporting sustainable and full-potential economic growth, and preserving financial stability, the Committee continued to put emphasis on supporting economic recovery as well as monitor the adequacy of fiscal measures and the fragility in the labor markets. Going forward, the Committee would closely monitor key risk factors, such as domestic political uncertainty, the progress in the admission of foreign tourists, and financial positions of businesses and households, and would stand ready to use additional appropriate monetary policy tools if necessary.

The monetary policy target for the medium-term horizon and for the year 2021 was set to be the headline inflation within the range of 1-3 percent.

On December 22, 2020, the Cabinet approved the monetary policy target, which was mutually agreed between the MPC and the Minister of Finance to set the headline inflation within the range of 1–3 percent as the target for the medium-term horizon and for the year 2021. This range target was deemed appropriate in addressing the changing inflation dynamics from technological advancements and the transition into an aging society, as well as being conducive to the full-potential economic growth. Moreover, the range inflation target enhanced the flexibility in monetary policy formulation amid highly volatile and uncertain global economic circumstances after the COVID-19 outbreak, while allowing the MPC to fulfill economic growth and financial stability objectives more effectively.

The Thai economic headwinds and tailwinds, what else must be prepared?

The Thai economy continued to recover but would still face high uncertainties especially regarding the new waves of COVID-19 infections in Thailand. Looking ahead, tailwinds supporting the economic recovery would include fiscal policy and coverage of COVID-19 vaccination in Thailand and abroad, which would be essential to the recovery of economic activities, particularly tourism. On the other hand, key headwinds hindering the economic recovery would come from a prolonged COVID-19 outbreak abroad and new wave of infections in Thailand, as well as fragilities of businesses and SMEs as public assistance measures gradually ended. **Uncertainties of aforementioned factors prompted the public sector to monitor developments on the economic recovery closely, expedite financial and fiscal measures previously implemented to have a broader impact, and prepare additional measures in case of unexpected situations**.

Chart 1 Headwinds and key risks to the Thai economy in the period ahead would come from the impacts from the new wave of domestic infections.

	H1-2021	H2-2021	2022
Tailwinds	- Gradual government disbursement under the Emergency Decree to fund the economic recovery plan - Lessened trade protectionism under the new U.S president	- Widespread COVID 19 vaccination coverage abroad and approx. 20% in Thailand, allowing for the gradual admission of foreign tourists - Return of foreign tourists without quarantine requirements but vaccination and infection test certificates are required.	- Herd immunity achieved in Thailand and abroad given sufficient vaccination coverage Thailand can re-opening for commercial flights for foreign tourists with no vaccination and quarantine requirements
		- Greater clarity regarding public-private partnership (PPP) projects especially in the EEC area, fostering domestic investment environment	
Headwinds	- New wave of domestic infections affecting confidence and economic activities - Phasing out of case-by-case debt payment holiday potentially affecting financial positions of businesses	- Credit assistance measures to support borrowers and other financial measures ending in late 2021 e.g. including temporarily relaxed rules on classification of borrowers and LCR, and FIDF fee cut, prompting public sector to closely monitor the situations	- Gradually fading fiscal stimulus under the Emergency Decree - Deadline of BOT's soft loan measure approaching in 2 years

	H1-2021	H2-2021	2022
Risks	- Intensifying COVID-19 situation in the old or new areas, triggering more stringent containment measures - The new wave of the infection would cause financial institutions to be more cautious in extending loans, resulting in less liquidity distribution to businesses than expected	- Uncertainties surrounding vaccine efficacy and vaccination coverage including carrier prevention, side effects, limitations on public health service unit, and vaccination consents among Thai people	- Potential changes in tourism businesses after the outbreak subsided, resulting a smaller return of foreign tourists

During the first half of 2021, key tailwinds would be from fiscal measures amid uncertainties the new wave of domestic infections.

During the first half of 2021, key tailwinds to the economy would come from (1) fiscal measures which focused on fostering the continued recovery of domestic demand, especially additional spending under the economic and social recovery plan under the Emergency Decree following the phasing out of government measures to support consumption including "shop and payback" campaign, co-payment scheme, and "we travel together" campaign, and **(2) potential easing of trade protectionism** due to policies of the new US president, potentially benefiting Thai merchandise exports and shoring up the economy during when admitting large number of foreign tourists was still unable. On the other hand, **key headwinds** to the recovery included **(1) the new wave of domestic COVID-19 outbreak which triggered more stringent containment measures,** despite varying degree among areas, directly affecting consumer confidence and spending, and **(2) the phase-out of case-by-case debt payment holiday**. Should cooperation on debt restructuring among financial institutions and borrowers happen slower than expected, this could affect financial positions of businesses. BOT thus continued to expedite debt restructuring by establishing Debt Restructuring Supervisory Committee, including representatives from both public and private sectors, to support an efficient debt restructuring consistent with the situation. Nonetheless, **risks that could arise during the first half of 2021 included (1) a more severe COVID-19 outbreak situation both domestically and internationally** in the old or same areas, triggering a more stringent containment measures, which could result in **(2) cautious credit extension of financial institutions** as a result higher credit risks of some businesses. Thus, credit guarantee scheme could be less effective and liquidity distribution to businesses could be less than expected.

During the second half of 2021, key tailwinds would come from the recovery of foreign tourist figures amid uncertainties surrounding vaccine efficacy and COVID-19 vaccination coverage.

During the second half of 2021, key tailwinds included (1) COVID-19 vaccination coverage both domestically and internationally, leading to the recovery of tourism once again. During that period, Thailand would gradually admit more and more foreign tourists under the assumption that foreign tourists would not be subject to quarantine requirements if they were to be vaccinated. **(2) Greater clarity of infrastructure investments under the Public-Private Partnership (PPP) projects, particularly in the EEC area since the second half of 2021 and through 2022,** would foster an investment-friendly environment in Thailand. On the contrary, **key headwinds included deadline of financial measures previously implemented approaching in 2021.** These included measures to assist borrowers, relaxation of regulations regarding classification of non-performing loan borrowers, liquidity coverage ratio (LCR), and net stable funding ratio (NSFR), as well as FIDF[9/] fee cut. **BOT and related agencies would closely monitor the situations and would stand ready to implement additional appropriate measures if necessary, where risks in this period would come from the less-than-assessed efficacy of COVID-19 vaccines or vaccination coverage.**

In 2022, key tailwinds would include the re-opening of the country for commercial flights despite fiscal impulse started to slow down. Meanwhile, key risks would come from the progress in Thailand's economic restructuring to be consistent with the post-COVID environment.

Economic activities were expected to return to the pre-pandemic level in the second half of 2022 mainly in line with the recovery of tourism. Key tailwinds would come from the re-opening of the country for commercial flights admitting foreign tourists with no quarantine or vaccination requirements when Thai and foreign citizens would achieve herd immunity following widespread vaccination coverage. On the contrary, **key headwinds during the same period would come from (1) decreasing role of government regarding the economic and social restoration as expenditure under the Emergency Decree would be gradually subside, and (2) the deadline of BOT's soft loan program approaching in two years.** However, borrowers under soft loan program could contact financial institutions for debt restructuring and duration extension to over two years. Nonetheless, **risk after having successfully contained the outbreak would be due to potentially changing behavior of tourists around the world**, such as, avoiding crowded tourist locations and placing importance to public health safety. Thus, this could take a long time until the number of tourists would return to the pre-pandemic level.

The Thai economic recovery would remain highly uncertain, the continuity of government measures and policy coordination among government agencies would thus be critical.

In the next two years, the Thai economic recovery would face high uncertainties both from headwinds and various risks at different times. Therefore, **the continuity of government measures and policy coordination among government agencies would be critical to the economic recovery.** Apart from the **monetary policy** that must remain accommodative, BOT and related agencies should closely monitor the situations in order to review if **financial and credit measures** that would gradually end were still needed to support the economic recovery in order to mitigate risks to financial stability in the period ahead as well as expedite additional measures to ensure widespread and targeted liquidity distribution, including credit guarantee scheme to reduce credit risks. **Fiscal measures** would still play an important role in continually sustaining the economic recovery, particularly in 2021 where recovery of tourism had yet to sufficiently recover and remained highly uncertain. Government should thus accelerate disbursement under the economic and social restoration plan within

[9/] Contribution to Financial Institutions Development Fund (FIDF) the period for earmarking the funds available under the Emergency Decree, in conjunction with the implementation of **supply-side policies** to support changing business structures and labor upskilling. Moreover, the COVID-19 outbreak was the root cause of both headwinds and risks. **Therefore, proactive spending to upgrade public health capacity including testing, monitoring, and screening, together with sufficient investment in COVID-19 vaccines, would be most worthwhile and essential to support the Thai economic recovery. Such investment would reduce the likelihood and severity of recurring outbreaks and allow for a faster re-opening of the country.**

Liquidity in the Thai Financial System: sufficient amount but insufficient distribution

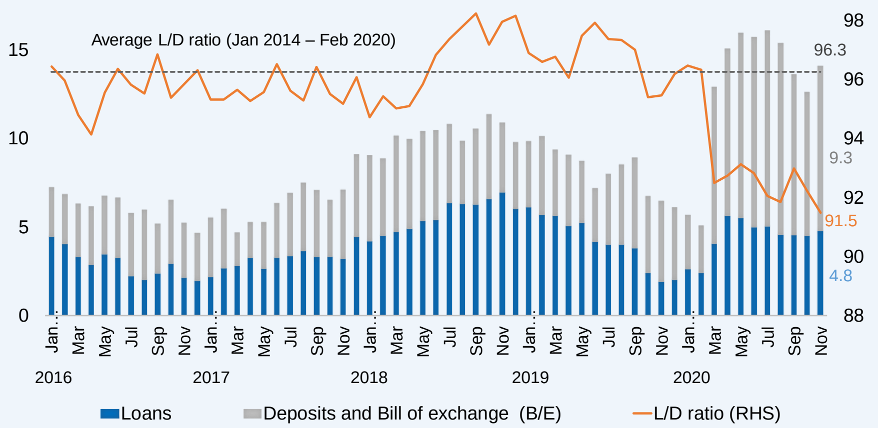
Expediting liquidity distribution to businesses and households affected by the COVID-19 outbreak was among the key issues that the Monetary Policy Committee (MPC) expressed concerns and discussed extensively in the previous meetings. Liquidity in the Thai financial system remained ample, lending rates and government bond yields were at a historical low, and overall business credits continued to grow. However, financing and credit extension were still concentrated in certain business, especially large businesses, while liquidity was not distributed sufficiently to some other businesses highly affected by the COVID-19 and SMEs. Thus, the key challenge is to find a mechanism that would help ensure a more widespread and targeted liquidity distribution rather than increasing the liquidity in the financial system overall.

Liquidity in the Thai financial system remained ample and increased during the outbreak.

Overall liquidity, that remained ample, was reflected by the growth in deposits[10/] and bill of exchange (B/E) that averaged at 9.8 percent following the COVID-19 outbreak, compared to a pre-pandemic average of 4.2 percent (Chart 1). Deposits at commercial banks rose when the economy exhibited uncertainty, resulting in lower loan to deposits & B/E ratio (L/D ratio) at 91.5 percent, down from the pre-pandemic ratio at 96.3 percent (Chart 1). This reflected that although deposits expanded, loans[11/] did not grow as much, partly due to concerns of commercial banks over heightened credit risks of borrowers in some businesses caused by the COVID-19 outbreak.

Chart 1 Growth in deposits, bill of exchange, loans, and L/D ratio

(%yoy)	Average (Jan 2014 – Feb 2020)	Average (Mar – Nov 2020)
Loans	4.6	4.8
Deposits and Bill of exchange (B/E)	4.2	9.8



Note: Deposits and Loans excluding interbank
L/D ratio means Loan to Deposits & B/E ratio
Source: Bank of Thailand (data as of 22 November 2020)

10/ Excluding transactions in the interbank and money markets
11/ Excluding transactions in the interbank and money markets

In addition, increased liquidity was reflected by the high level of liquid assets of commercial banks, where high-quality liquid asset (HQLA) of banks recorded 4.48 trillion baht in October 2020, up around 20 percent from end of 2019. This led to higher liquidity coverage ratio (LCR) at 190 percent, the highest since the LCR regulation became effective in 2016.

Ample liquidity was also reflected by historical low financing costs.

Costs of borrowing through commercial banks and the bond market declined to historical low levels, partly due to 3 policy rate cuts since early 2020, from 1.25 to 0.50 percent. This resulted in low interest rates in the money market, low lending rates of commercial banks, and low government bond yields which became lower than the historical average (Chart 2). For instance, minimum loan rate (MRR), new loan rate (NLR), and 5-year government bond yield were now at 6.11, 3.63, and 0.66 percent, respectively.

Chart 2 Financial cost indicators

Financial cost indicator (%)	Max	Min	Avg.	Pre - COVID 19	Latest
	(Jan 10 – Dec 20)			(Feb 20)	(22 Dec 20)
Policy rate	3.50	1.25	1.98	1.00	0.50
Government bond yield 5Y	3.93	1.25	2.62	0.88	0.66
Minimum loan rate (MLR) (Avg 14 commercial banks)	7.60	6.34	7.01	6.67	6.11
New loan rate (NLR) (Avg 14 commercial banks)	5.68	3.68	4.51	3.52	3.63*
< 500 MB.	6.20	4.30	5.09	4.13	4.03*
≥ 500 MB.	5.11	2.97	3.75	2.94	3.06*
12M fixed deposit rate (Avg 14 commercial banks)	3.10	0.97	1.88	1.17	0.69
Savings deposit rate (Avg 14 commercial banks)	1.10	0.55	0.74	0.53	0.34

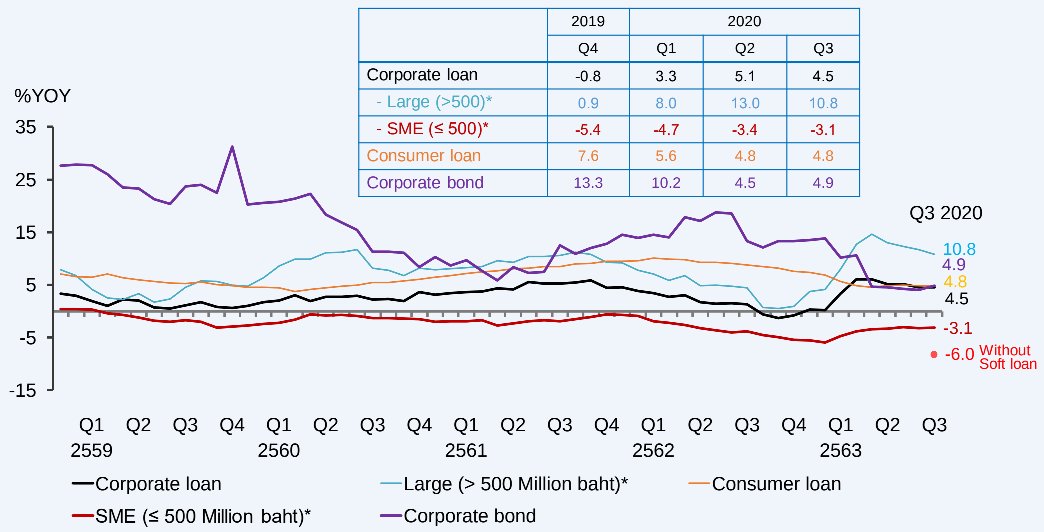
Note: *Latest NLR data as of October 2020

Sources: Bank of Thailand and Thai Bond Market Association (Thai BMA)

Business financing could still expand overall, but liquidity had yet to be sufficiently distributed.

Overall business financing continues expanding in the previous periods, through credit, bond, and equity markets. However, financing and loan extension were still concentrated in certain businesses, especially large businesses. This could be seen from growth of commercial bank's loans for large businesses with credit limit over 500 million baht at over 10 percent in the first half of 2020, which continued to expand in the third quarter. This was as businesses accelerated borrowings to build liquidity buffer during the outbreak, and partly as some businesses switched funding sources to credit market instead of issuing corporate bonds when financial market conditions were highly volatile. Meanwhile, commercial bank's loans extended to SMEs with credit limit fewer than 500 million baht continued to contract from the previous year, despite supports from the soft loan program. (Chart 3). This reflected that although costs of financing remained low, it did not provide much incentive for financial institutions to extend loans to SMEs as these businesses still faced risks that could heighten in line with uncertain economic recovery.

Chart 3 Commercial bank's loan growth classified by portfolios and corporate bond issuance



	2019	2020		
	Q4	Q1	Q2	Q3
Corporate loan	-0.8	3.3	5.1	4.5
- Large (>500)*	0.9	8.0	13.0	10.8
- SME (≤ 500)*	-5.4	-4.7	-3.4	-3.1
Consumer loan	7.6	5.6	4.8	4.8
Corporate bond	13.3	10.2	4.5	4.9

Source: Bank of Thailand (data as of 16 November 16 2020)

The key challenge is to find a mechanism to ensure a more widespread and targeted liquidity distribution.

In the current context with ample liquidity and low financing costs, introducing measures to inject additional liquidity into the financial system would not directly address the problem. The Committee noted that apart from the monetary policy that must remain accommodative to support the economic growth, **a key challenge is to expedite liquidity distribution to those who were affected the most. Having a mechanism to mitigate risks of borrowers amid highly uncertain situations would thus be of great importance.** The Committee supported the government and related agencies to implement measures to reduce credit risks of borrowers, especially SMEs which were drivers and key employment sources of the Thai economic system. Such measures included, for example, **credit guarantee schemes by the Thai Credit Guarantee Corporation to reduce credit costs of borrowers** by increasing guarantee amount and guarantee ratio to appropriate levels, together with expanding lists of entrepreneurs qualified for the credit guarantee schemes. This would ensure a more widespread liquidity distribution to SMEs with growth potential but were affected by the impacts of COVID-19.

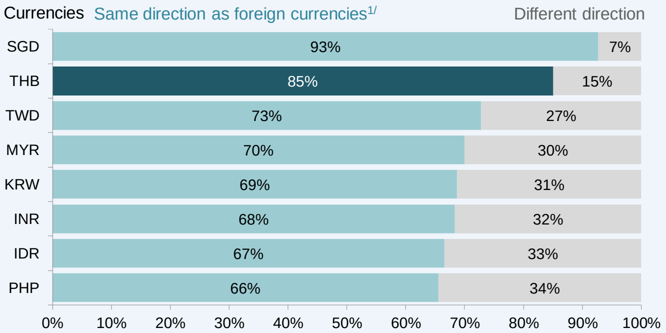
The BOT and the development of the new foreign exchange (FX) ecosystem

The Bank of Thailand (BOT) is committed to developing the Thai financial market and the FX market to be continuously effective by accelerating the development of the new FX ecosystem, in which capital movement is more balanced, the baht is stable and flexible in both directions driven by market forces, and businesses have greater access to FX-hedging instruments with lower costs from greater competition among providers. These factors would help address the structural problems of the FX market, which would prepare the Thai economy to cope with financial markets' volatility in the future.

In the past, the baht and regional currencies' movement was mainly determined by external factors. Data from the past 5 years indicates that the baht moved in line with foreign currencies as high as 85 percent of daily changes, a rate close to other regional currencies (Chart 1). **Meanwhile, domestic factors played a secondary role in influencing the currency movement**. Nevertheless**, there remained a number of important structural issues in the Thai FX market,** which led to the baht's recent appreciation and made Thai businesses more vulnerable to currency movement than their peers in other countries. These structural problems include:

Chart 1 The baht movements were primarily driven by external factors

Movements of THB and regional currencies



Note: [1/] refers to fluctuations that move in the same direction as the U.S. Dollar Index (DXY) or the Asian Dollar Index (ADXY). "Different direction" refers to fluctuations that do not move in the same direction as the U.S. Dollar Index (DXY) and the Asian Dollar Index (ADXY). The data is the daily average from 2015-2020.

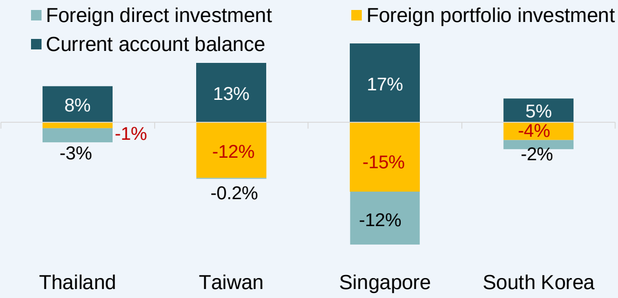
Source: Bloomberg

1. **Foreign capital movement is unbalanced**. During the past 5 years, Thailand attracted high capital inflows from continuously high current account surplus at 8 percent of GDP per year on average, while capital outflows for direct investment and foreign portfolio investment stood at merely 4 percent per year on average. This is in part because Thai investors acquired fewer foreign assets compared with other countries, and are more likely to invest in domestic assets (high home bias) (Chart 2).

Chart 2 Thailand experienced larger capital inflows than outflows

Foreign investment compared to current account balance (avg. from 2015-2019)

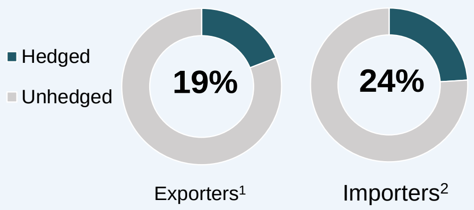
(Percentage of GDP)



Sources: IMF and Bloomberg

Chart 3 Businesses barely coped with exchange rate fluctuations as both exporters' and importers' hedging were in the lesser proportion

Proportions of businesses that hedged against FX (average from 2016-2020)



Note: Five-year average from 2016-2020, calculated as follows:
(1) Calculated from the outstanding sale for FX Forward relative to the total export value of the previous three months
(2) Calculated from the proportions of FX hedging transactions of importers, calculated from the outstanding purchase for FX Forward, relative to the total import value for the next three months

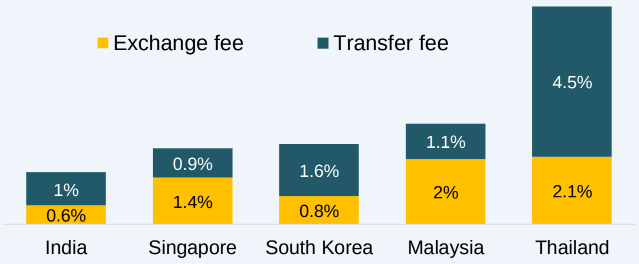
Source: Bank of Thailand

2. **The Thai corporate sector insufficiently manages FX risks**. Businesses can manage FX risk through various methods such as the purchase and sale of forward and option contracts. However, Thai businesses engaged in FX hedging at merely 19 percent of export values and 24 percent of import values (Chart 3), the rates of which should be higher.

3. **FX transactions remain costly.** This is one of the obstacles preventing Thai investors from diversifying their portfolio to include foreign assets, which leads to limited FX hedging among Thai businesses. 99percent of FX transactions remain concentrated among commercial banks and FX transaction fees in Thailand are higher than regional peers, as reflected by the fees in currency exchange and international transfer at 6.6 percent per transaction (Chart 4).

Chart 4 Thailand's costly FX transactions were reflected in the higher FX transfer fee relative to other countries in the region

FX transfer fee (percentage of total transaction fees)



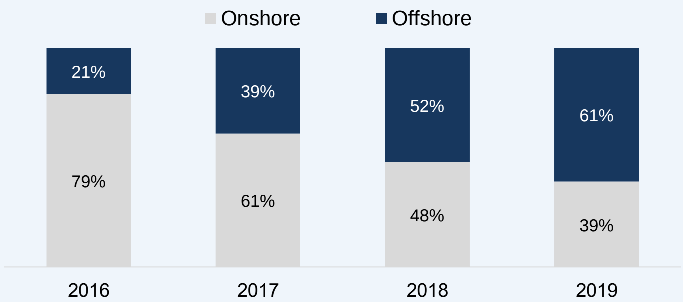
Note: The calculation is based on the average cost of transferring 500 U.S. Dollars, separated into the exchange fee and transfer fee, charged by both banks and non-banks from Q1-Q3 of 2020

Source: World Bank

4. **Baht transactions in offshore markets highly influence exchange rate**. The volume of baht transactions in offshore markets has continued to grow, currently accounting for 61 percent of all baht transactions. The sizable offshore markets increasingly allow the global financial markets' volatility to affect the baht and undermine the central bank's currency management ability (Chart 5).

Chart 5 The growing baht transactions in the offshore market which were larger than the onshore market exposed the baht to the global financial market's volatility

Proportions of baht transactions in each market

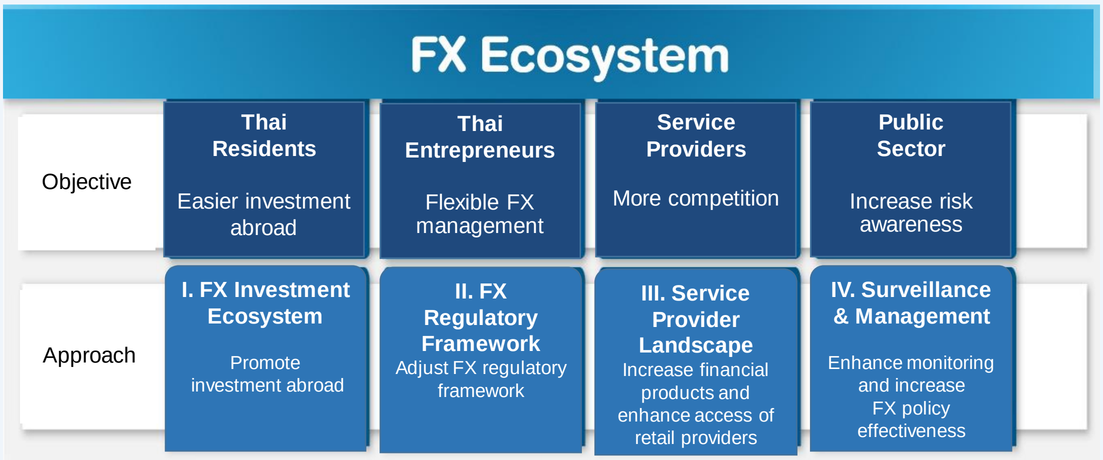


Note: Offshore transactions were calculated from the FX-THB transactions between non-residents, while onshore transactions were calculated from the FX-THB transactions of non-residents and residents against the domestic commercial banks

Source: Bank for International Settlements

Given the factors mentioned above, the BOT has therefore accelerated measures to advance the development of the new FX ecosystem for Thailand to address structural issues of the FX market in a sustainable manner. This would require collaboration from various stakeholders including both the government and the private sector to jointly advance well-integrated measures striving for tangible results. The BOT devises the plan into four aspects (Chart 6) as follows.

Chart 6 The BOT expedited the new FX ecosystem to promote the balanced capital flows



The first aspect: **shaping the FX investment ecosystem** to bring about balanced capital movement through direct investment and investment in foreign assets. The BOT has implemented changes to the procedures and regulations seen as obstacles to make foreign-asset investment easier, more flexible, and close to investing in domestic assets by

1. **Liberalizing foreign currency deposit (FCD) accounts** to make it easier for Thai people to use FCD accounts domestically, including deposit, withdrawal, and transfer between Thai citizens within Thailand;
2. **Simplifying rules and procedures**, such as (1) increasing the investment limit for retail investors to 5 million U.S. dollars per year, (2) abolishing the total investment limit that the BOT allocated to investors regulated under the Securities and Exchange Commission (SEC), and (3) expanding the class of foreign-currency-denominated products that can be offered in Thailand to be more diverse, for example, trade in gold, exchange traded fund, and U.S. dollar deposit receipt;
3. **Promoting the private sector's investment abroad**, including both entrepreneurs' direct investment and institutional investors' security investment, such as insurance companies and provident funds.

The second aspect: **adjusting FX regulatory framework** to be in line with the changing economic and financial-market contexts. The framework would also be conducive for Thai businesses to manage FX risks more freely and for the economy to better withstand currency volatility. Three measures would be executed simultaneously, including (1) adjusting regulation for capital inflows and outflows to be more balanced, (2) reducing barriers to the private sector's FX risk management, and (3) reducing administrative burden when businesses declare FX transactions.

The third aspect: changing FX service provider landscape to reduce transaction costs, increase financial products to meet the demand, and enhance access of retail providers through promoting competition among providers. Examples include, (1) expanding the scope of FX transactions offered by existing providers and supporting new providers, particularly non-banks whose services remain limited in scope, and (2) changing regulation to suit new types of financial services such as online transactions and digital platforms in line with the changing behavior of users.

The fourth aspect: improving monitoring and effectiveness of FX surveillance and management policy to timely alert the government of risks and to prepare policies to cope if crises arise. These improvements include, for example, (1) increasing bath transactions in onshore markets by supporting non-residents who perform trade and investment activities in Thailand to transact with banks operating in Thailand with greater convenience. (2) Improving the monitoring system on investors' behavior which might affect the stability of the baht, for example, by requiring bond pre-trade registration. (3) Preparing plans and measures in FX management that can be implemented readily and are well-targeted.

The aim to accelerate the development of the new FX ecosystem is an important policy agenda that the BOT and other related agencies would continue to implement starting from the measures announced on 20 November 2020[12/] which entail (1) allowing Thai citizens to freely deposit foreign currencies, (2) adjusting regulation and procedures for foreign-asset investment, and (3) requiring registration for identifying individuals for bond transactions. Following this, the BOT and other agencies would continue to announce additional measures covering the four aspects to advance the Thai FX market towards the new ecosystem, which would allow more balanced capital movement, greater convenience and higher volume of Thais' investment in foreign assets, more flexibility for businesses' FX risk management, and greater vigilance and timely implementation for the government. If all players in the FX market successfully adjust themselves towards the new ecosystem, this would bring sustainable solutions to the existing structural impediments in the market.

[12/] BOT Press Release No. 81/2020: BOT accelerates measures to advance the development of the new Thai FX Ecosystem (20 November 2020)

Moving towards the Thai economic goals through accelerating structural reforms

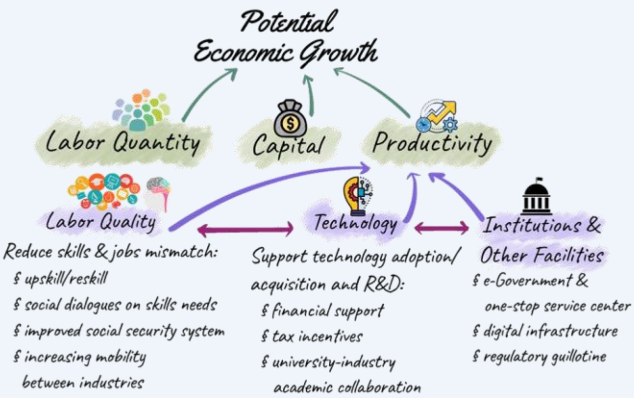
Recently, the Thai economy has confronted structural problems. Therefore, the growth potential of the Thai economy has continued to fall which posed challenges to attaining economic objectives, including (1) growth, (2) income distribution, and (3) sustainability and resiliency to negative factors. The spread of COVID-19 in 2020 not only led to short-term economic contraction but left economic scars with long-term consequences on the Thai economy, such as severe repercussion on employment and SMEs. If the unemployed are unable to reenter the labor markets and firms cannot resume operation for a prolonged period, productivity growth would fall, and inequality and economic vulnerability would rise. Thus, necessary structural reforms must be accelerated now along the short-term economic stimulus to help Thailand attain the three economic goals.

Thailand should increase long-term growth potential through labor, capital accumulation and productivity.

Based on supply-side perspectives, growth potential consists of 3 factors, namely (1) quantity and quality of labor, (2) capital accumulation, and (3) productivity. Nevertheless, all these 3 factors have confronted structural limitations recently, culminating in a fall in the growth potential (Chart 1). Regarding the **quantity of labor**, Thailand entering an aging society has led to the declines in labor participation rate and the number of working hours. Meanwhile, considering **labor's quality**, the Thai labor market has met with greater skill mismatch problems, particularly during the time in which businesses are more prone to use labor-replacing technology, causing slower growth in labor productivity and affecting income distribution. As with **capital accumulation**, the private sector lacks incentives to expand investment and develop technologies, partly due to (1) the concern over the uncertain global economic conditions, (2) the low number of countries with which Thailand has signed free trade agreement (FTA) relative to Thailand's competitors, and (3) the unfavorable investment ecosystem as the Thai private sector remains highly concentrated and market power of large businesses tends to increase. Meanwhile, SMEs have limited access to capital and information in the digital economic system. Furthermore, a fundamental factor **to uplifting productivity** over the long term is government regulation, which at the present remains an obstacle to businesses' decision making. Therefore, streamlining regulation and facilitating business operation would help to increase the country's competitiveness through reducing opportunity costs and expenses as well as creating the climate attracting foreign investment and transfer of technological know-how.

Chart 1 The supply-side constraints in labor, capital accumulation, and productivity for Thailand need to be addressed

Compotents and approaches to enhance potential economic growth



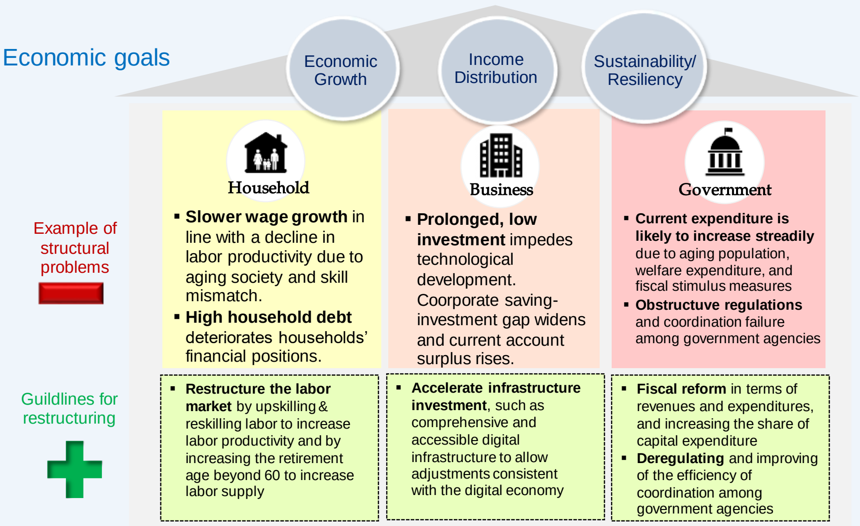
Supply-side reforms would help augment effectiveness and reduce limitations to macroeconomic policy

In the short term when the Thai economy contracts from the COVID-19 effects, it is necessary for the government to implement demand management policies by conducting policy mix between fiscal policy that helps sustain economic momentum as well as provides targeted support to the vulnerable groups, and monetary policy that is accommodative and facilitates continuously low financing costs. In addition, financial and credit measures help to accelerate the distribution of liquidity targeted to those in need, along with debt restructuring appropriate to businesses' income flows under the post-COVID19 new normal.

Nevertheless, supply-side reforms aimed at uplifting production potential need to be urgently executed alongside the demand stimulus measures. This is because demand management policies alone might not be effective if the institutional frameworks of the economy are not fully developed[13/]. Examples include, such as, restructuring **the labor market** particularly labor upskilling and reskilling to prepare workers for employment in targeted industries and to facilitate economic transition towards the post-pandemic new normal. Others include having a mechanism that manages **excess capacity of certain business sectors** particularly those related to tourism, encouraging business operations in line with the post-pandemic normal. In addition, improving basic infrastructure for **the digital economy** to be comprehensive and inclusive would help reduce inequality in income distribution. In addition, there is a need for creating a sustainable **welfare system** for the aging society, as well as **effective coordination among government agencies**. The absence of structural reforms to cope with changes under the post-pandemic new normal would pose limitations to macroeconomic policy in the future (Chart 2).

Chart 2 Supply-side structural reforms need to reform and improve key economic institutions namely households, businesses, and the government, for instance, restructuring the labor market, uplifting infrastructure for digital economy, and reducing regulations that hindered coordination among government agents

Examples of structural problems and guildlines for economic restructuring



[13/] D. Acemoglu and J.A. Robinson (2012), Why Nations Fail: The Origins of Power, Prosperity and Poverty, Crown Business

Short-term demand management policies coupled with long-term structural forms would help achieve the three economic goals

Focusing solely on high growth rate is not sufficient for achieving all three economic goals. Growth needs to be inclusive to reduce pockets of economic vulnerability and needs to be sustainable and stable. Uplifting growth potential along with promoting equitable income distribution in a sustainable manner is therefore critical since the realized benefits would not only manifest in the present, but also in the long term to the next generations. **Structural reforms coupled with demand-stimulating policies to attain all three economic goals warrant an urgent and sustained implementation,** requiring clearly identifying priorities, introducing implementation guidelines, creating incentives and appropriate integration. Therefore, coordination among government agencies and collaboration with the private sector will be the heart for an inclusive and sustainable economic growth in the periods ahead

Thai Economy Dashboard

Percent	2018	2019	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3
GDP growth	4.2	2.4	2.9	2.4	2.6	1.5	-2.0	-12.2	-6.4
Production									
Agriculture	5.5	-0.2	1.7	-1.4	2.7	-2.5	-9.8	-3.2	-0.9
Non-agriculture	4.0	2.6	3.0	2.8	2.5	2.0	-1.3	-12.9	-6.8
Manufacturing	3.2	-0.7	0.2	0.1	-0.8	-2.2	-2.6	-14.4	-5.3
Construction	2.4	1.9	3.0	3.4	2.7	-2.1	-9.9	7.4	10.5
Wholesales and retail trade	6.6	5.7	6.7	5.5	5.3	5.2	4.8	-9.8	-5.5
Transport and storage	4.4	3.4	3.7	3.0	3.1	3.9	-6.0	-38.9	-23.6
Accommodation and Food Service	7.6	5.5	5.0	3.6	6.7	6.8	-23.3	-50.2	-39.6
Information and Communication	7.6	8.8	7.1	8.8	8.2	10.6	3.2	1.7	3.1
Financial intermediation	3.4	2.7	2.0	1.8	3.8	3.4	4.5	1.7	1.6
Real estate and renting	5.7	3.3	5.0	3.3	2.2	2.7	1.7	0.4	1.5
Expenditure									
Domestic demand	4.0	3.3	4.1	3.4	3.4	2.3	-0.7	-5.7	-0.3
Private consumption	4.6	4.5	4.8	4.7	4.3	4.1	2.7	-6.8	-0.6
Private investment	4.1	2.8	4.3	2.1	2.3	2.6	-5.4	-15.0	-10.7
Government consumption	2.6	1.4	3.5	1.5	1.7	-0.9	-2.8	1.3	3.4
Public investment	2.9	0.2	0.0	1.5	3.7	-5.1	-9.3	12.5	18.5
Imports of goods and services	8.3	-4.4	0.1	-3.4	-5.9	-7.9	-3.1	-23.2	-20.3
imports of goods	7.9	-5.5	-2.8	-3.7	-6.8	-8.6	-0.3	-19.3	-17.0
imports of services	9.9	0.5	13.0	-2.1	-2.1	-5.3	-13.0	-37.4	-32.8
Exports of goods and services	3.3	-2.6	-3.5	-4.0	0.6	-3.4	-7.3	-27.8	-23.5
exports of goods	3.8	-3.6	-4.4	-4.6	-0.1	-5.1	2.0	-15.9	-7.7
exports of services	2.0	0.5	-1.1	-1.7	3.2	1.7	-32.2	-68.0	-73.3
Trade balance (billion, U.S. dollars)	22.4	26.7	6.7	6.0	8.1	6.0	9.1	8.9	13.6
Current account (billion, U.S. dollars)	28.4	38.2	11.5	4.3	10.8	11.6	9.8	1.3	6.6
Financial account (billion, U.S. dollars)	-13.2	-15.7	-6.2	-2.4	-1.6	-5.5	-8.4	9.8	-4.9
International reserves (billion, U.S. dollars)	205.6	224.3	212.2	215.8	220.5	224.3	226.5	241.6	251.1
Unemployment rate (%)	1.1	1.0	0.9	1.0	1.0	1.0	1.0	2.0	1.9
Unemployment rate, seasonally-adjusted (%)	n.a.	n.a.	0.9	0.9	1.0	1.1	1.1	1.8	1.8

Source: Office of the National Economic and Social Development Board National Statistical Office and Bank of Thailand

Financial Stability Dashboard

Indicators	2018	2019	2019				2020				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Oct	Nov
1. Financial market sector											
Bond market											
Bond spread (10 years - 2 years)	0.7	0.3	0.7	0.4	0.1	0.3	0.6	0.8	0.8	0.8	0.9
Equity market											
SET index (end of period)	1,563.9	1,590.6	1,638.7	1,730.3	1,637.2	1,579.8	1,125.9	1,339.0			
Actual volatility of SET index[1/]	12.1	10.0	8.4	7.8	8.3	10.1	47.4	25.2			
Price to Earnings ratio (P/E ratio) (times)	14.8	19.4	17.1	18.6	18.7	19.4	13.1	18.9			
Exchange rate market											
Actual volatility of Thai baht (%annualized)	4.6	4.1	4.6	4.5	4.6	2.7	5.5	5.5	5.3	5.1	5.6
Nominal Effective Exchange Rate (NEER)	115.6	123.2	119.9	120.8	125.0	126.8	123.3	122.5	122.0	121.2	109.2
Real Effective Exchange Rate (REER)	107.2	112.8	110.1	111.3	114.6	115.3	114.4	113.0	111.1	109.2	110.7
2. Financial institution sector[3/]											
Minimum Lending Rate (MLR)[4/]	6.28	6.08	6.28	6.28	6.28	6.08	5.93	5.36	5.36	5.36	5.36
12-month fixed deposit rate[4/]	1.37	1.33	1.42	1.46	1.45	1.33	0.75	0.49	0.49	0.49	0.49
Capital adequacy											
Capital funds / Risk-weighted asset (%)	18.3	19.3	18.2	18.0	18.9	19.3	18.4	19.2			
Earning and profitability											
Net profit (billion, Thai baht)	207.2	270.8	57.1	60.8	96.5	56.4	52.9	31.0			
Return on assets (ROA) (times)	1.1	1.4	1.2	1.3	2.0	1.4	1.0	0.6			
Liquidity											
Loan to Deposit and B/E (%)	98.2	95.5	96.8	97.9	97.1	95.5	92.5	92.8			
3. Household sector											
Household debt to GDP (%)	78.4	79.5	78.4	78.4	78.9	79.9	80.1	83.8			
Financial assets to debt (times)	2.7	2.9	2.7	2.8	2.9	2.9	2.7	n.a.			
Non-Performing Loans (NPLs) of commercial banks (%)											
Consumer loans	2.7	2.9	2.8	2.7	2.8	2.9	3.4	3.3			
Housing loans	3.2	3.7	3.4	3.3	3.5	3.7	4.1	4.1			
Auto leasing	1.7	1.9	1.7	1.8	1.9	1.9	2.1	1.9			
Credit cards	2.3	2.4	2.7	2.5	2.7	2.4	3.9	3.3			
Other personal loans	2.5	2.3	2.6	2.4	2.4	2.3	2.8	2.6			
4. Non-financial corporate sector[5/]											
Operating profit margin (OPM) (%)	7.5	6.8	7.5	5.7	7.4	6.6	6.3	4.6			
Debt to Equity ratio (D/E ratio) (times)	0.7	0.7	0.7	0.8	0.8	0.7	0.8	0.9			
Interest coverage ratio (ICR) (times)	6.2	4.4	5.1	3.6	4.9	4.0	3.9	2.8			
Current ratio (times)	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5			
Non-Performing Loans (NPLs) of commercial banks (%)											
Large businesses	1.8	1.7	1.6	1.8	1.8	1.7	1.5	1.7			
SMEs	4.8	5.0	4.7	4.8	5.1	5.0	5.2	6.5			

Note:

[1/] Calculated by 'annualized standard deviation of return' method

[2/] Daily volatility (using exponentially weighted moving average method)

[3/] Based on data of all commercial banks

[4/] Average value of 5 largest Thai commercial banks

[5/] Only listed companies on Stock Exchange of Thailand (median value); with data revisions

Financial Stability Dashboard (continue)

Indicators	2018	2019	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Oct	2020 Nov
5. Real estate sector											
Number of approved mortgages from commercial banks (Bangkok and Vicinity) (units)											
Total	73,361	70,876	19,710	15,983	17,141	18,042	14,882	17,531	18,977	5,502	5,921
Single-detached and semi-detached houses	15,912	16,167	4,446	3,460	4,136	4,125	3,553	4,408	4,790	1,310	1,364
Townhouses and commercial buildings	25,042	24,763	7,290	5,719	6,129	5,625	5,314	5,559	6,128	1,721	1,839
Condominiums	32,407	1,718	7,974	6,804	6,876	8,292	6,015	7,564	8,059	2,471	2,718
Number of new housing units launched for sale (Bangkok and Vicinity) (units)											
Total	124,977	116,933	29,498	25,999	27,182	34,254	18,557	11,471	22,258	6,899	9,835
Single-detached and semi-detached houses	18,311	19,423	4,458	4,213	5,014	5,738	3,659	3,439	5,364	1,166	2,955
Townhouses and commercial buildings	32,349	31,423	5,236	7,940	9,322	8,925	8,100	6,038	8,926	2,485	1,498
Condominiums	74,317	66,087	19,804	13,846	12,846	19,591	6,798	1,994	7,968	3,248	5,382
Housing price index (2009 = 100)											
Single-detached houses (including land)	138.6	144.0	141.9	142.9	145.0	146.3	149.1	151.3	150.51	149.88	151.0
Townhouses (including land)	149.5	156.4	156.6	154.7	154.6	159.8	164.0	164.7	162.40	163.15	163.1
Condominiums	180.9	182.3	181.6	177.0	179.0	191.6	190.0	190.2	179.24	176.56	176.7
Land	173.6	172.8	175.5	168.1	167.1	180.6	181.6	185.1	188.52	186.53	187.4
6. Fiscal sector											
Public debt to GDP (%)	41.8	41.2	41.8	41.3	41.1	41.2	41.7				
7. External sector											
Current account balance to GDP (%)[6/]	5.6	7.0	8.6	3.2	7.9	8.1	7.3	1.2	5.3	n.a.	n.a.
External debt to GDP (%)[7/]	35.5	34.2	35.1	34.8	34.2	34.2	32.4	33.6	33.5	n.a.	n.a.
External debt (billion, U.S. dollars)	163.1	171.9	164.8	167.2	167.7	171.9	165.3	171.7	172.0	n.a.	n.a.
Short-term (%)	38.9	34.8	38.2	37.2	35.1	34.8	35.9	36.0	36.0	n.a.	n.a.
Long-term (%)	61.1	65.2	61.8	62.8	64.9	65.2	64.1	64.0	64.0	n.a.	n.a.
International reserves / Short-term external debt (times)	3.2	3.8	3.4	3.5	3.7	3.8	3.8	3.9	4.1	4.1	4.1

Note:

[6/] Current account / Nominal GDP at the same quarter

[7/] External debt / 3-year average nominal GDP

Labor Market Indicators

Status	Labor market structure in 2019: Persons (Million persons)	Persons (% ratio)	Real total earning (Trillion baht)	Real total earning (% ratio)	Change in labor market structure in 2020: Persons (% QoQ sa) Q1	Persons Q2	Persons Q3	Real total earning (% QoQ sa) Q1	Real total earning Q2	Real total earning Q3
Agriculture	11.9	31.2	1.5	24.6	-1.6	1.3	0.3			
Non-Agriculture										
Employee in manufacturing	4.8	12.6	0.8	13.6	0.8	-2.4	-0.1	2.9	-5.0	0.8
Employee in services sector (incl. trade and construction)	12.0	31.3	2.3	38.6	1.0	-2.8	3.2	2.4	-0.5	1.9
Freelancers	8.0	21.1	0.9	15.0	0.3	-0.3	2.5			
Employer	0.8	2.1	0.5	8.2	0.4	-9.7	3.5			
Seasonal Inactive Labor Force	0.2	0.6								
Unemployed Persons	0.4	1.0	0.0	0.0	0.7	73.8	0.8			
Labor force	38.2	100.0	5.9	100.0	0.2	-0.1	0.8			
Persons not in labor force	18.4				-0.4	0.2	-1.8			

Note: 1. Real Total Earning is total earning adjusted by consumer price index.

2. % QoQ sa refers to rate of growth from the previous quarter after seasonal adjustment.

Source: Labor Force Survey, Socio-Economic Survey, National Statistical Office, Ministry of Commerce, and calculated by BOT

Table: Probability distribution of GDP growth forecast

Percent	2020	2021				2022			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
> 14.0	0	0	3	0	0	0	0	0	1
12.0-14.0	0	0	8	1	1	1	1	1	2
10.0-12.0	0	0	16	2	3	3	4	4	4
8.0-10.0	0	0	20	5	7	8	8	8	9
6.0-8.0	0	0	19	10	11	12	13	13	13
4.0-6.0	0	0	15	14	14	15	15	15	16
2.0-4.0	0	0	10	15	14	14	15	15	15
0.0-2.0	0	4	6	14	13	13	13	13	13
(-2.0)-0.0	0	18	3	12	11	11	11	11	10
(-4.0)-(-2.0)	0	27	1	10	9	8	8	8	7
(-6.0)-(-4.0)	26	24	0	7	6	6	5	5	5
(-8.0)-(-6.0)	72	15	0	4	4	4	3	3	3
(-10.0)-(-8.0)	2	7	0	3	3	2	2	2	1
< -10.0	0	4	0	3	4	2	2	2	1

Table: Probability distribution of headline inflation forecast

Percent	2020	2021				2022			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
> 5.25	0	0	1	0	0	0	0	0	0
4.5-5.25	0	0	3	0	1	1	1	1	1
3.75-4.5	0	0	9	1	2	2	2	2	3
3.0-3.75	0	0	18	4	5	5	5	5	6
2.25-3.0	0	1	24	9	10	10	10	10	11
1.5-2.25	0	4	22	16	15	15	15	15	15
0.75-1.5	0	13	14	21	19	19	19	18	17
0.0-0.75	16	24	6	21	19	18	18	17	16
(-0.75)-0.0	59	28	2	15	14	14	14	14	13
(-1.5)-(-0.75)	24	19	0	8	9	9	9	9	9
(-2.25)-(-1.5)	1	8	0	3	4	4	5	5	5
(-3.0)-(-2.25)	0	2	0	1	2	2	2	2	3
(-3.75)-(-3.0)	0	0	0	0	0	1	1	1	1
< -3.75	0	0	0	0	0	0	0	0	1

Table: Probability distribution of core inflation forecast

Percent	2020	2021				2022			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
> 3.0	0	0	0	0	0	0	0	0	0
2.5-3.0	0	0	0	0	0	0	0	0	0
2.0-2.5	0	0	0	0	1	1	1	1	2
1.5-2.0	0	1	4	2	3	4	4	5	5
1.0-1.5	0	5	14	8	10	10	11	12	13
0.5-1.0	9	19	27	20	19	19	19	20	20
0.0-0.5	68	34	29	27	24	22	22	22	21
(-0.5)-0.0	23	28	18	23	21	19	19	18	18
(-1.0)-(-0.5)	0	12	7	13	13	13	13	12	11
(-1.5)-(-1.0)	0	2	1	5	6	7	7	6	6
(-2.0)-(-1.5)	0	0	0	1	2	3	3	3	2
(-2.5)-(-2.0)	0	0	0	0	1	1	1	1	1
(-3.0)-(-2.5)	0	0	0	0	0	0	0	0	0
< -3.0	0	0	0	0	0	0	0	0	0

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