ธนาคารแห่งประเทศไทย

BANK OF THAILAND

Monetary Policy Report

Q1/2023

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

Mr. Sethaput Suthiwartnarueput	Chairman
Mr. Mathee Supapongse	Vice Chairman
Mrs. Roong Mallikamas	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 27, 2022, the Cabinet approved the monetary policy target for 2023, 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 2023. 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. Furthermore, 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.

The MPC has adopted the managed float exchange rate regime to stabilize and limit the volatilities in the exchange rate, as to let the baht reflect economic fundamentals

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) publishing a press statement at 14:00 and holding a press conference regarding the results of the meeting at 14:30 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.

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Table of Contents

Data in this report is as of 28 March 2023 (1 day prior to the MPC Meeting)

Global economy

Trading partners are expected to grow 2.5% in 2023 and 2.9% in 2024. The outlook for US and euro area economies have improved on the back of growth momentum in the services sector. The Chinese economy posted strong gains since COVID containment measures have been lifted, resulting in a recovery in economic activities in both the manufacturing and services sectors. Overall, the improvement in global economic outlook and China's reopening are expected to support Asia's economic recovery in the period ahead. However, **the global economic outlook faces greater uncertainties** due to persistently high global inflation, and tighter financial conditions following banking stresses in advanced economies, which would have implications for monetary policy directions and the global economy going forward.

The Thai Economy

The Thai economy is expected to continue expanding, growing 3.6% in 2023 and 3.8% in 2024. Growth would be driven by (1) a strong recovery in tourism as reflected by an increase in foreign tourist arrivals across almost all nationalities, especially the Chinese. It is expected that foreign tourist arrivals would reach 28.0 and 35.0 million in 2023 and 2024, respectively (Box 1: Recovery outlook for foreign tourist arrivals); **(2) a continued recovery in private consumption** supported by the recovery in economic activities as well as more broad-based improvements in employment and labor income, especially for those in the services sectors and the self-employed; and **(3) a stronger recovery in merchandise exports expected for the second half of the year** in line with trading partners' growth. However, exports of some goods such as electronics and petrochemical products would recover more slowly than others due to idiosyncratic factors (Box 2: Outlook for Thai exports). **On the whole, there are possibilities that the Thai economy would register stronger growth than assessed** with the upside risks mainly attributed by a more-than-expected rebound in foreign tourist arrivals and tourism spending. Nevertheless, there remains the need to closely monitor downside risks stemming from the uncertainties in global economy and financial markets.

Inflation

Headline inflation is expected to fall within the target range in Q2/2023, averaging at 2.9% in 2023 and 2.4% in 2024. It is expected that supply-side pressures would gradually dissipate as domestic electricity costs and diesel prices decline. **Core inflation has declined slightly but would remain stable at high levels for some time,** averaging at 2.4% in 2023 and 2.0% in 2024. This is in line with recent declines in underlying inflation indicators, while prices in the core CPI mostly remain high or have increased. **Medium-term inflation expectations are still well-anchored within the target range.**

The inflation outlook is subject to upside risks from (1) potentially higher cost passthrough from producers as they continue to face high costs and have yet to pass on some of those costs to the consumers, and (2) higher demand-pull inflationary pressure from the stronger-than-expected recovery in tourism. As such, it is still necessary to closely monitor risks to inflation going forward.

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Financial Conditions and Financial Stability

Thailand's overall financial conditions remain accommodative. Financial conditions have tightened somewhat consistent with the gradual policy normalization. Commercial banks' interest rates and short-term bond yields have increased, in line with the higher policy rate. Long-term bond yields have declined slightly from the previous quarter, moving in tandem with US Treasury yields as the market expects a slower policy rate hike by the Fed following recent banking stresses. Nonetheless, the increased financing costs have not impeded private sector financing yet as reflected by a continued growth in private credit and bond issuance in Thailand. Moreover, it is also expected that private sector financing would continue to expand as the Thai economy recovers. **On exchange rates, the baht against the US dollar appreciated from the previous quarter.** The baht's appreciation during the early parts of the quarter was due to the reopening of the Chinese economy which benefits Thai tourism. This was followed by the baht's fluctuation against the US dollar, which was driven by market expectations about the Fed's monetary policy.

Financial stability remained sound overall. Recent banking stresses in some advanced economies have not had a significant impact on the Thai financial system, as Thai financial institutions and corporations have limited linkages with the troubled banks and risky assets. Moreover, financial institutions maintain high levels of capital. However, as the situation remains fluid and uncertain, there is a need to closely monitor the developments and continuously assess potential impacts on Thailand's financial stability.

As for households and businesses, the ongoing economic recovery has improved debt serviceability. Financial fragilities nonetheless remain for some SMEs and certain households exposed to rising living costs and higher debt burden. The MPC deems that debt restructuring should be continually implemented and should expand the scope to cover more vulnerable groups in order to address household debt problems in a well targeted and sustainable manner.

Monetary Policy Decision in the First Quarter of 2023

At the meetings on 25 January 2023 and 29 March 2023, the MPC voted unanimously to raise the policy rate by 0.25 percentage point from 1.25% to 1.50% and from 1.50% to 1.75%, respectively. The MPC views that monetary policy normalization is still appropriate given the current economic and inflation outlook. The MPC assesses that **the Thai economy would continue to expand** driven primarily by tourism and private consumption. Meanwhile, merchandise exports have started to recover from the contraction earlier and would see a stronger rebound in the second half of the year. **Headline inflation is expected to return to the target range within Q2/2023 albeit with upside risks** from potentially higher cost passthrough as businesses continue to face high input costs, and rising demand-pull inflationary pressure from the ongoing economic recovery. **Financial stability remains sound overall** but there is still the need to monitor global financial market developments including banking stresses in advanced economies, which could impact both the Thai financial system and the Thai economy. With regard to vulnerable SMEs and households, the MPC sees the need to continue implementing debt restructuring measures with an emphasis on rolling out measures that would address debt problems of the vulnerable groups in a well targeted and sustainable manner.

Under the monetary policy framework with objectives of maintaining price stability, supporting sustainable and full-potential economic growth, and preserving financial stability, the MPC assesses that the Thai economy would continue to recover but there are risks stemming from rising demand-pull inflationary pressure that must be monitored going forward. **Hence, the MPC judges that policy rate should be normalized in a gradual and measured manner to a level that is consistent with sustainable growth in the long term. The MPC also stands ready to adjust the size and timing of policy normalization should the growth and inflation outlook shifts from the current assessments.**

Global Economy: Key Issues

The global economy would continue to recover driven by the services sector, especially in the US, euro area, and China. Meanwhile, Asian economies would benefit from China's reopening and improvements in manufacturing activities globally in H2/2023.

Inflation in many economies would likely remain high for longer than expected, causing many central banks continuing to tighten monetary policy.

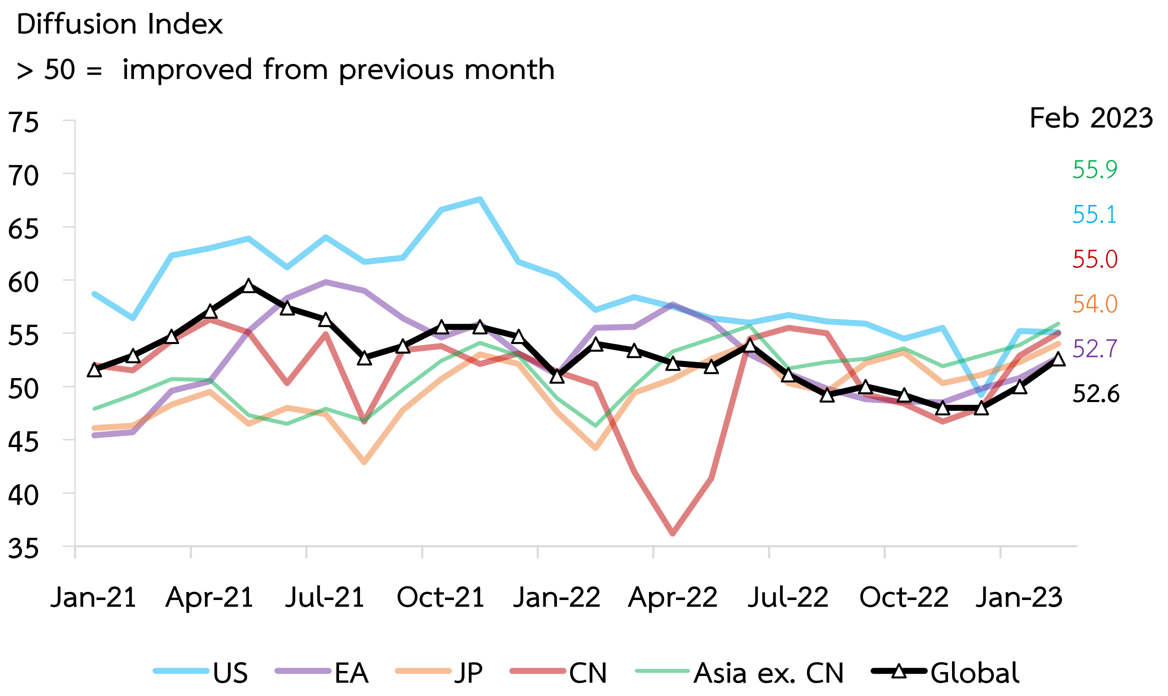
Trading partners' growth outlook faces downside risks from an elevated inflation outlook, banking stresses in advanced economies, and prolonged geopolitical tensions.

BANK OF THAINLAND

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

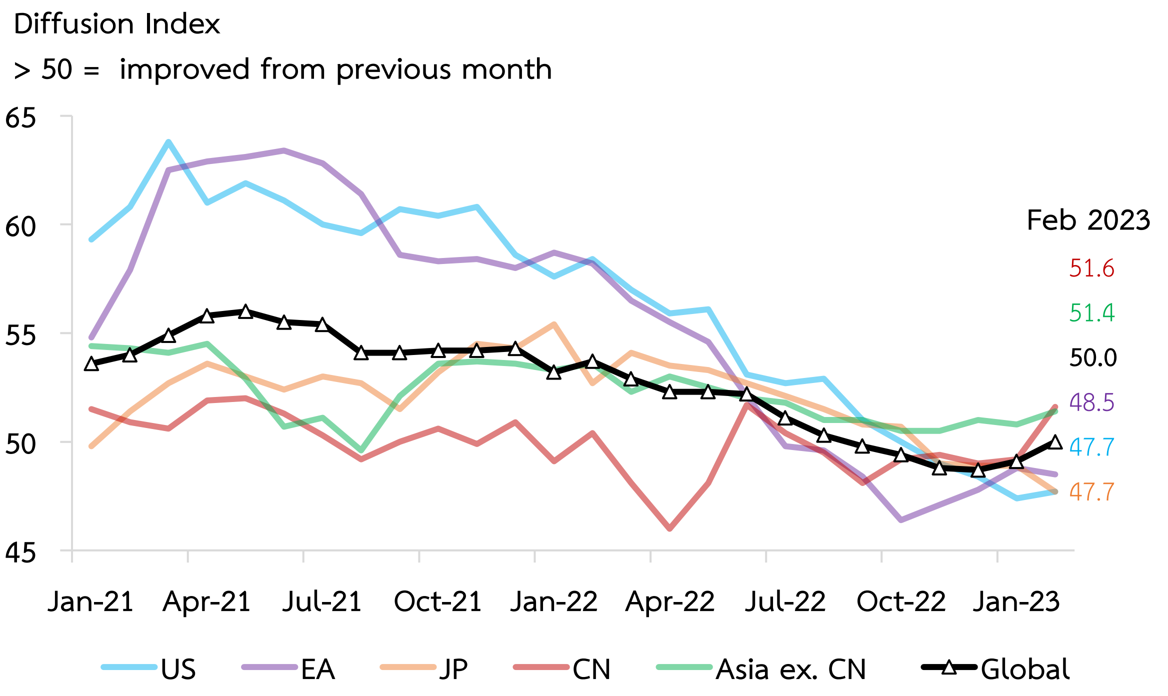
The global economy is expected to register stronger growth in 2023 on the back of growth momentum in the services sector and China's reopening. Meanwhile, the manufacturing activities in many countries have slowed down in tandem with the recent decline in demand for goods, but would likely to pickup in H2/2023.

PMI Service



Source: CEIC, IHS Markit

PMI Manufacturing



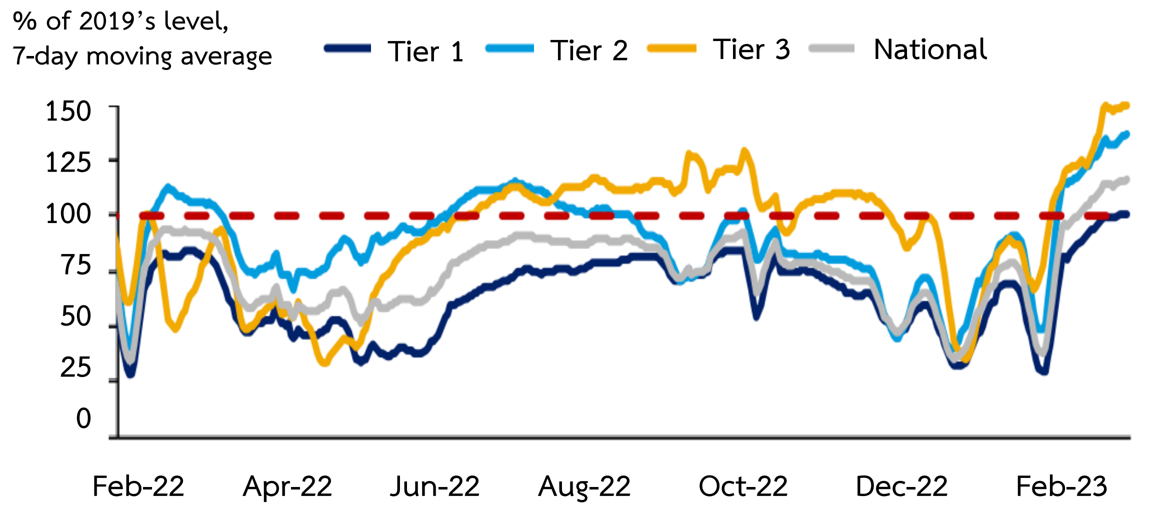
Source: CEIC, IHS Markit

The services sector is expected to see a strong recovery, especially in China following the economy's re-opening and the COVID-19 outbreak having subsided. Meanwhile, the manufacturing sector in many countries has slowed down in H2/2022 partly due to a slowdown in demand for durable and semi-durable goods that have accelerated the year prior. However, it is expected that **goods demand and manufacturing activities worldwide would gradually improve in H2/2023.** This is partly thanks to the reopening of the Chinese economy as reflected in PMI improvements for China and Asia.

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

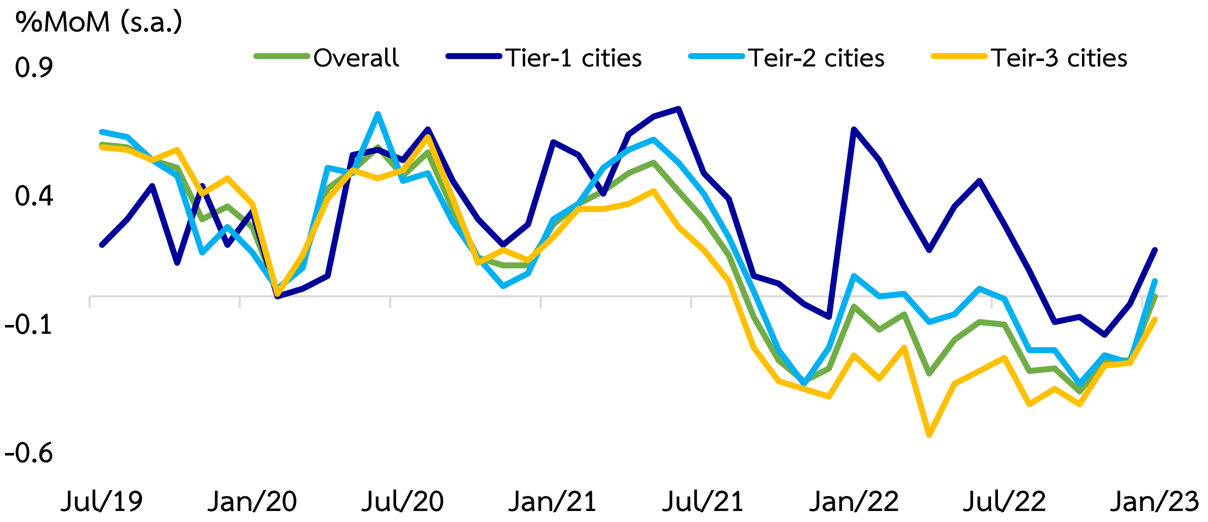
China's policy pivot has supported the recovery in domestic economic activities in both the manufacturing and services sector, and has also improved the situation in China's real estate sector.

Daily subway rides



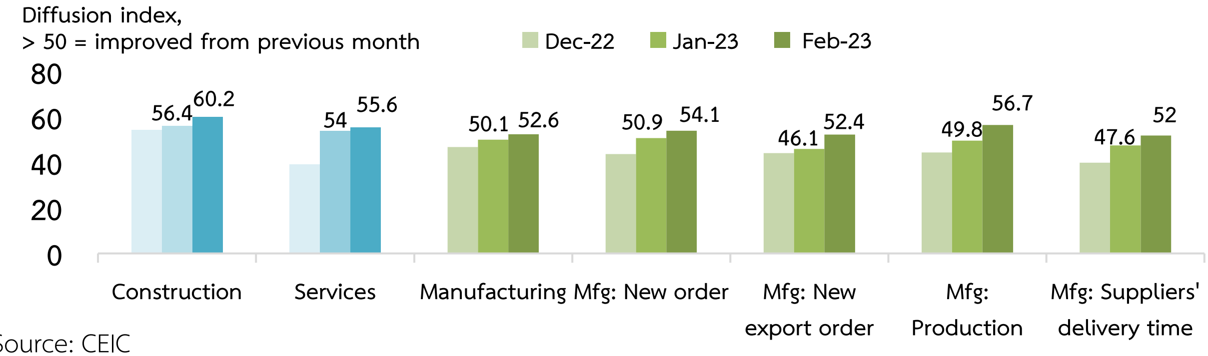
Note: 100=subway rides at 19 Dec Source: BofA, Wind (Data as of 28 Feb 2023)

Newly Built Residential Building Prices



Source: Bloomberg (Data as of Jan 2023)

NBS PMI Manufacturing and Non-manufacturing

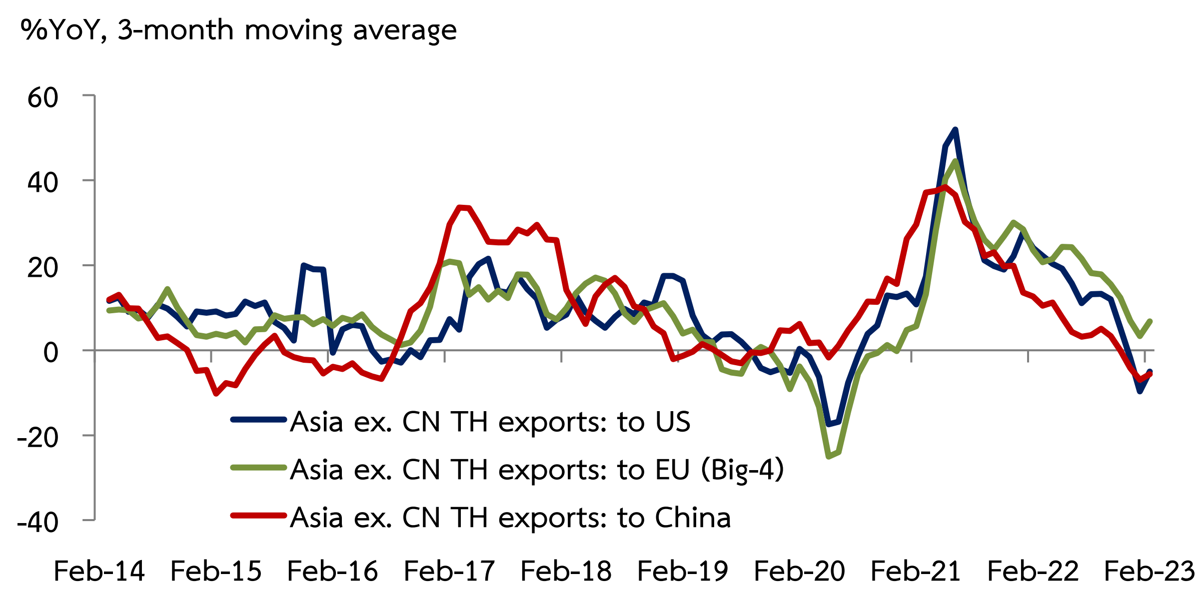


Source: CEIC

China's economic outlook has improved from China's policy pivot, especially the reversal of Zero-COVID policy. Since the COVID-19 outbreak has subsided, consumer confidence has improved and economic activities have continued to recover in both the manufacturing and services sectors. The situation in real estate sector has also improved, partly due to demand boost from government stimulus measures. House prices have gradually increased, especially in big cities.

Asian merchandise exports have declined over the recent period, both exports of electronics and non-electronics goods. However, Asian economies would benefit from the China's reopening and improvements in manufacturing activities globally this year.

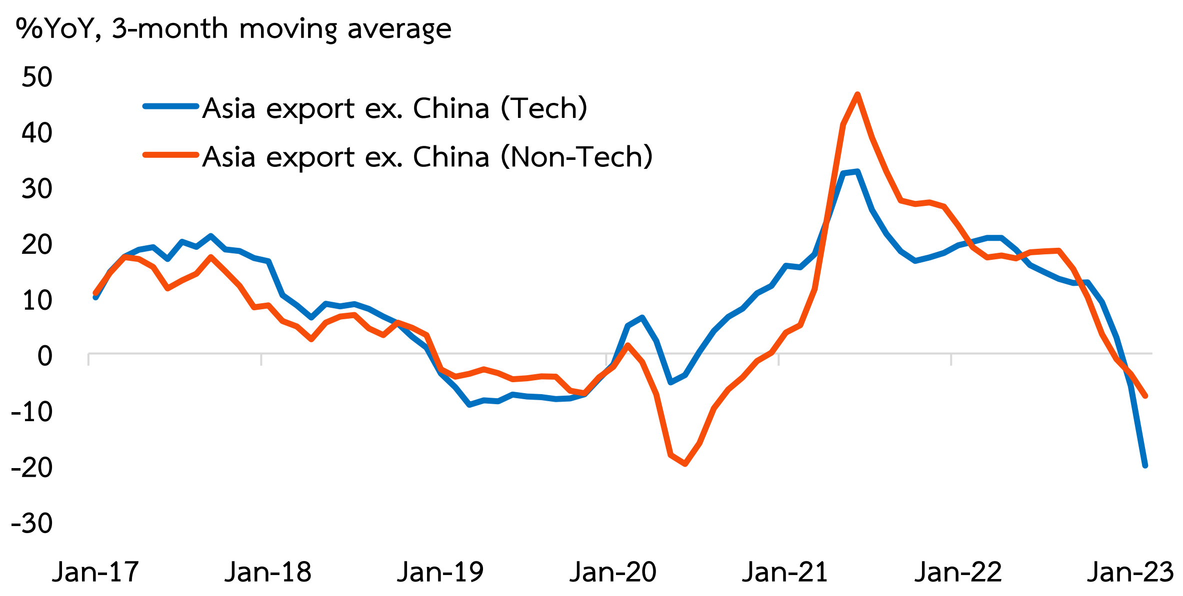
Asia's exports to the US, Eurozone and China



Note: Asia ex. China includes JP MY HK SG ID PH KR VN, Big-4 includes FRA GER ITA SPA

Source: CEIC, BOT calculation

Asia's exports in technological and non-technological sectors



Note: (1) Asia ex China includes JP MY SG ID PH KR TW (2) Tech includes electronics equipment, product and machinery (3) Only export data for SG, KR, TW, MY, ID (non-tech) and JP is as of Feb 2023

Source: CEIC, BOT calculation

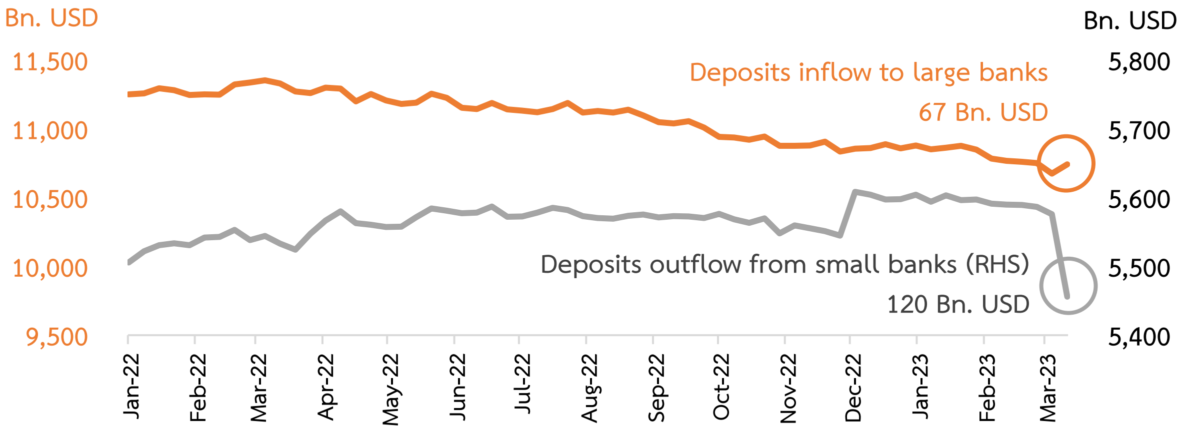
Exports of both electronics and non-electronics goods have declined in the second half of 2022. This was partly due to demand being weighed down by high inflation as well as China's economic slowdown from Zero-COVID policy and problems in the China's real estate sector prior to China's policy pivot. **However, Asian merchandise exports are expected to improve** after the reopening of the Chinese economy. It is expected that exports of electronics goods used in factories, personal computers, smartphones, and consumer products would pass their lowest points in 2023 before gradually recovering in tandem with global demand and inventory rundowns.

Banking stress in advanced economies impeded confidence among domestic depositors and investors but the situation has eased following responses from the regulators.

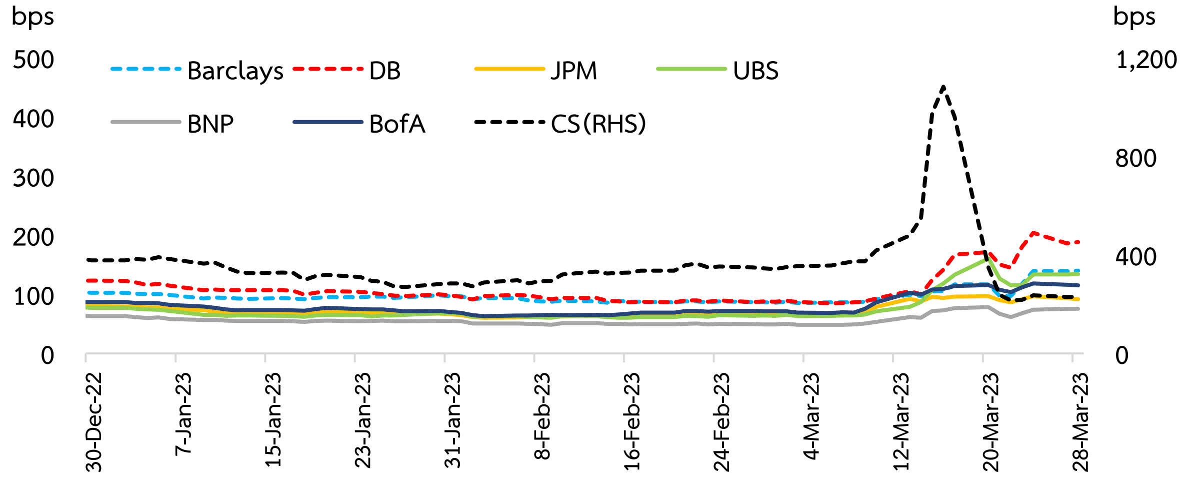
Banking stresses in the US and Europe impeded confidence among depositors. Many depositors withdrew money from problematic banks and either deposited them with larger banks or invested in money market funds. **Financial market vulnerability remains, especially among the banking sector** as reflected by high CDS spreads for banks abroad.

The situation has eased following a swift response from the regulators. US regulators seized control of 3 problematic banks and implemented the Bank Term Funding Program (BTFP) to provide liquidity to commercial banks. Swiss regulators also approved the merger of two large banks and provided additional liquidity to commercial banks. **Overall financial conditions have tightened but to a lesser extent compared to previous crises** as reflected in the National Financial Conditions Index (NFCI).

US commercial bank deposits

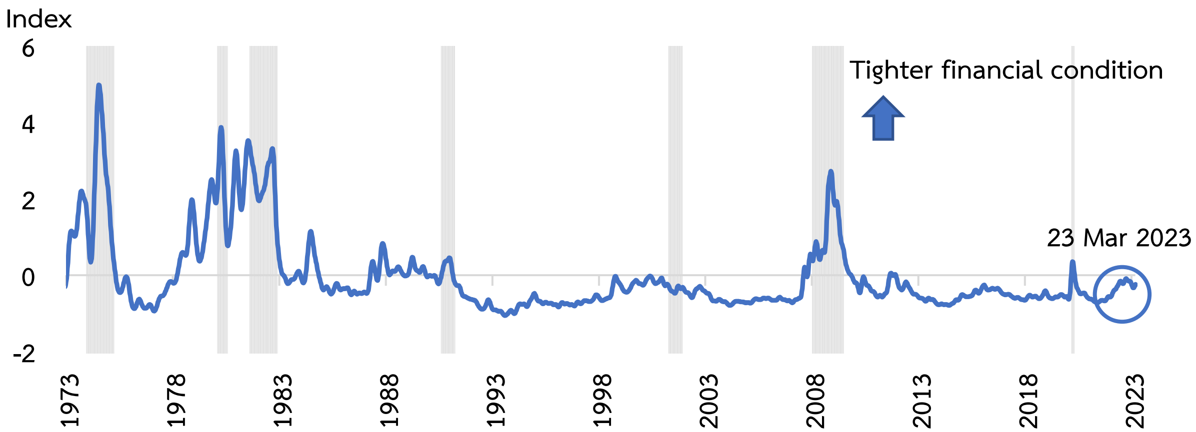


Global banks' CDS (Credit Default Swap)



Source: FRED, Bloomberg

National Financial Conditions Index (NFCI) by Chicago Fed

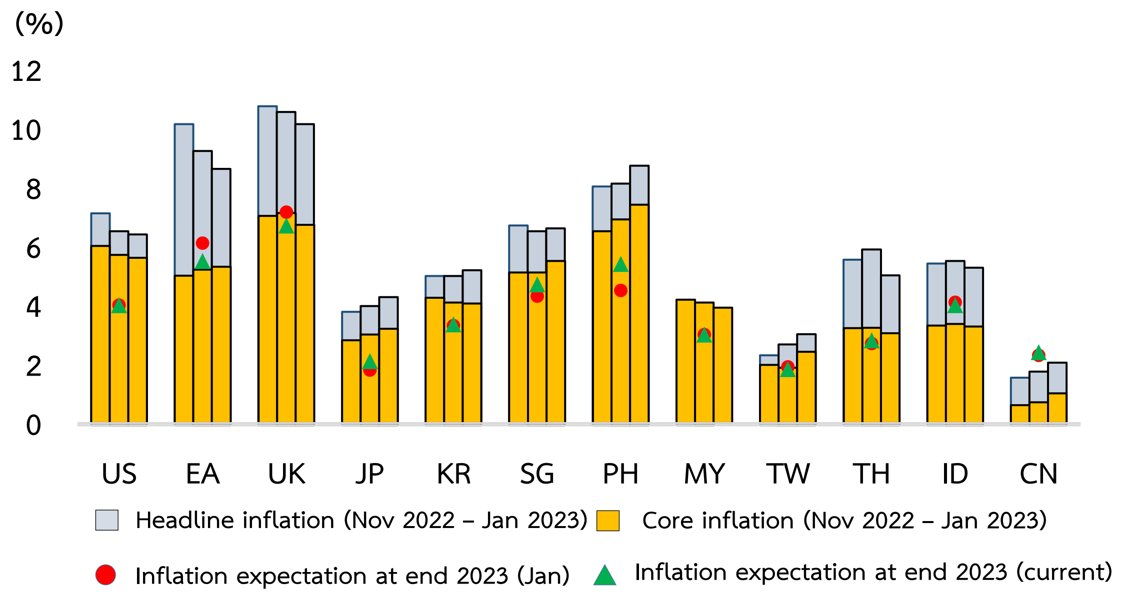


Note: NFCI provides a comprehensive weekly update on U.S. financial conditions in money markets, debt and equity markets and the traditional and "shadow" banking systems

Source: Federal Reserve Bank of Chicago

Most central banks are still pursuing monetary tightening given that inflation remains elevated and is likely to be above target at the end of 2023 for most countries.

Headline inflation Core inflation and Inflation expectation



Source: CEIC

Expectation of the Fed's monetary policy in 2022-2024

Rate	2022*	2023	2024
Fed Funds Rate assumption (% at year end)	4.25 - 4.50	5.25 – 5.50 (5.00 - 5.25)	4.00 - 4.25 (3.75 - 4.00)

Note: * Outturns, ( ) is previous forecast in Q4/2022 MPR

<u>The Federal Reserve (Fed)</u> raised its policy rate by 25 bps to 4.75-5.00% at the FOMC meeting on 22 March 2023. The decision was underpinned by strong labor market conditions and rising inflation. Looking ahead, the Fed still gives weight to inflation risks and stands ready to utilize other tools to support the US banking system so that it could effectively tighten monetary policy until inflation returns to the 2% target. In this regard, the BOT has revised up its federal funds rate projection by 25 bps throughout the forecast period.

<u>The European Central Bank (ECB)</u> raised its policy rate by 50 bps to 3.0% at the Governing Council Meeting on 16 March 2023. The decision was underpinned by elevated inflationary pressure. Looking ahead, the ECB is likely to continue raising the policy rate with a more data-dependent approach. The ECB also emphasized its readiness to deploy new tools to support commercial banks should liquidity problems arise in the European financial system.

<u>Most Asian central banks</u> continued to raise their policy rates as core inflation remained high for longer than expected. However, some central banks such as Bank Negara Malaysia, Bank Indonesia, and Bank of Korea have temporarily halted their policy rate hikes to evaluate the effectiveness of monetary policy transmission from the recent hikes.

Trading partners' growth in 2022 was largely in line the previous assessment, while the forecast for 2023 is revised up slightly on account of the gradual demand recovery in advanced economies and China. For 2024, trading partners' growth is projected to slow down slightly due to the impact of high inflation and monetary policy transmission.

Assumptions of Trading Partners' Growth

%YOY	Weight 2022[1/] (%)	2022[2/]	2023		2024	
			MPR[3/] Q4/2022	MPR Q1/2023	MPR Q4/2022	MPR Q1/2023
US	23.4	2.1	0.4	0.9	1.7	1.3
Euro Area	9.7	3.5	0.3	0.7	1.7	1.3
Japan	12.1	1.0	1.4	1.1	1.6	1.2
China	16.9	3.0	4.8	5.5	5.3	5.4
Asia[4/]	30.4	3.8	3.7	3.7	4.2	4.3
Total[5/]	100	2.9	2.4	2.5	3.1	2.9

Note: [1/] Data is adjusted according to new weights calculated by the share of Thai exporting values to major trading partners in 2022

[2/] Outturns and revision for some trading partners

[3/] Numbers may differ from the previous report due to data revision and new weight.

[4/] Asia (excluding Japan and China) includes Singapore (5.1%), Hong Kong (5.0%), Malaysia (6.2%), Taiwan (2.3%), Indonesia (5.1%), South Korea (3.1%), and Philippines (3.6%)

[5/] Trading partner GDP includes UK and Australia

Trading partners' growth forecast for 2023 is revised up slightly. The US and the euro area are projected to post a stronger economic recovery as reflected by Q4/2022 growth outturns as well as ongoing improvements seen in most recent economic indicators. China's economic growth also improved following the country's re-opening. Meanwhile, the Japanese economy has slowed down as exports outlook worsened.

Trading partners' growth forecast for 2024 is revised down on account of elevated inflation and tighter financial conditions.

Overall, risks of trading partners' growth outlook skewed to the downside: details are below

Downside risks: **(1) Slower-than-expected global economic recovery** due to high inflation, tighter financial conditions from monetary policy transmission, and sharper-than-expected decline in global trade; **(2) Impacts of financial stability risks on global economy** such as banking stresses in advanced economies; and **(3) Geopolitical tensions** especially between US-China that could escalate further due to the Tech War and China's invasion of US airspace, as well as the prolonged China-Taiwan and the Russia-Ukraine conflicts.

Upside risks: **Stronger-than-expected growth among Asian economies** due to (1) strong recovery in the services sector thanks to the resumption in international travel, especially tourist arrivals from China; and (2) stronger-than-expected economic growth in China boosting Asian exports.

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

The Thai Economy: Key Issues

The Thai economy would continue to expand driven mainly by tourism and private consumption. Merchandise exports have started to recover from the contractions earlier and would likely to see a stronger recovery in H2/2023.

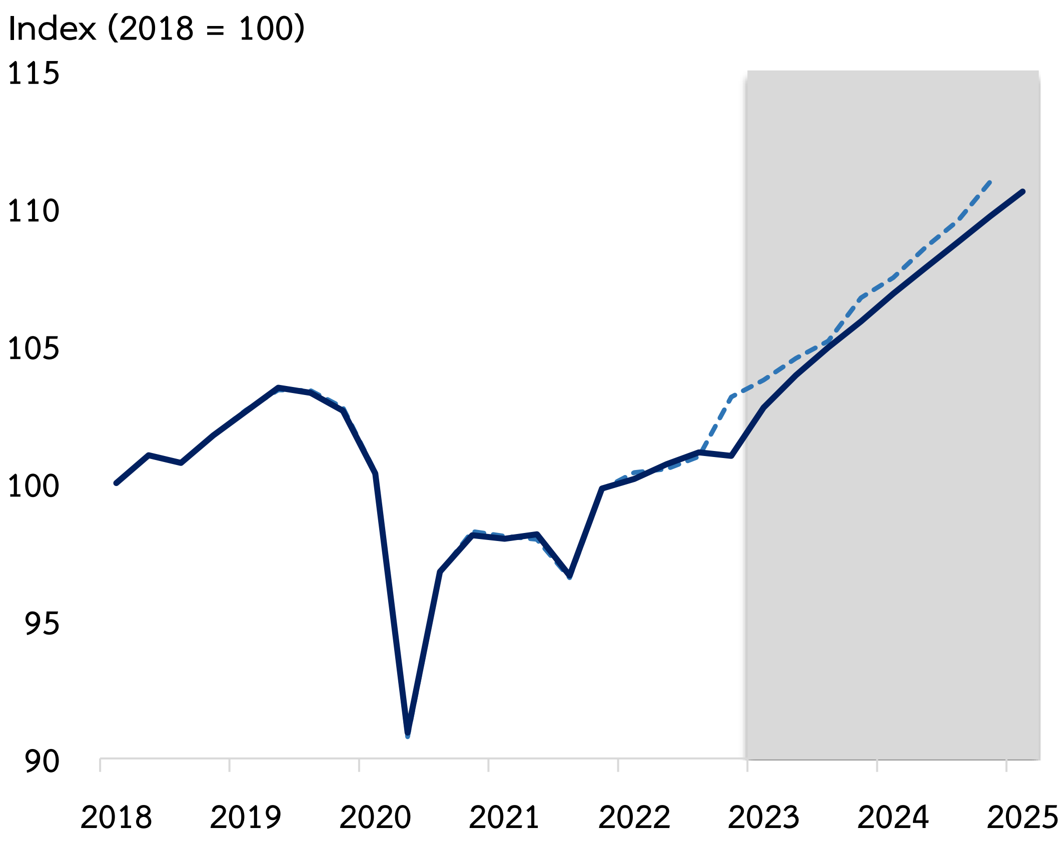
Labor market and household income continue to improve in line with the recovery in economic activities, especially services sector related to tourism.

Headline inflation is declining and would return to the target range in Q2/2023 as supply-side pressure dissipates. However, core inflation remains high and thus it is necessary to monitor cost-passthrough and demand-pull inflationary pressure.

BANK OF THAILAND

The Thai economy is projected to grow 3.6% in 2023 and 3.8% in 2024 driven mainly by tourism and private consumption. Meanwhile, merchandise exports would see a stronger rebound from earlier contractions in the second half of the year.

Real GDP



Growth (%YoY)	2022*	2023	2024
GDP growth	2.6	3.6 (3.7)	3.8 (3.9)
Domestic Demand	4.1	2.5 (2.4)	3.3 (3.2)
Private Consumption	6.3	4.0 (3.4)	3.1 (3.2)
Private Investment	5.1	2.1 (3.4)	4.8 (4.0)
Government Consumption	0.0	-2.2 (-1.4)	1.1 (0.8)
Government Investment	-4.9	3.7 (1.8)	7.8 (7.0)
Exports of goods and services	6.8	6.8 (7.0)	7.4 (6.6)
Imports of goods and services	4.1	1.4 (3.0)	5.5 (4.7)
Current account (billion U.S. dollars)	-17.2	4.0 (3.8)	12.5 (12.2)
Value of merchandise exports (%YoY)	5.5	-0.7 (1.0)	4.3 (2.6)
Value of merchandise imports (%YoY)	15.3	1.2 (0.4)	4.2 (3.3)
Number of foreign tourists (million persons)	11.2	28.0 (22.0)	35.0 (31.5)

Note: * Outturns, ( ) is previous forecast in Q4/2022 MPR

Source: NESDC, BOT forecast

Summary of economic forecasts

Foreign tourist arrivals	**Revised up** from 22 million to 28 million persons in 2023 on account of outturns reflecting a better-than-expected foreign tourist arrivals across almost all nationalities. The number of Chinese tourists has accelerated after COVID-19 outbreak in China subsided as well as the lifting of travel restrictions in China and India. **Foreign tourist arrivals would continue to recover in 2024** with projected number of foreign tourists being revised up from 31.5 million to 35.0 million persons mainly on account of Russian and Chinese tourists. (Box 1: Recovery outlook for foreign tourist arrivals)
Private consumption	**Revised up** on account of the recovery in tourism, which would also benefit employment and labor income, especially among low-income households. **Private consumption would continue to expand in 2024** as household purchasing power improves with the recovery in labor income and declining inflation.
Merchandise exports (value)	**Merchandise exports would register a slight contraction in 2023** mainly because of a decline in exports volume. It is expected that merchandise exports would recover in the latter half of the year. Exports of automobile and electronical appliances would recover in tandem with trading partners' growth and as shortage of electronics component is resolved. Exports of agricultural and agro-manufacturing goods would continue to expand in tandem with China's reopening and the economic recovery in Asia. Nevertheless, exports of hard disk drives (HDD) and petrochemical products would continue to decline due to industry-specific factors. **Merchandise exports would continue to expand in 2024.**
Private investment	**Revised down** on account of short-term factors such as the contraction in exports and some public private partnership (PPP) projects being delayed. **Private investment is expected to pick up and post strong growth rates in 2024** partly due to investments in new target industries such as EV and BCG seen by an increase in investment approvals by BOI for large corporates.

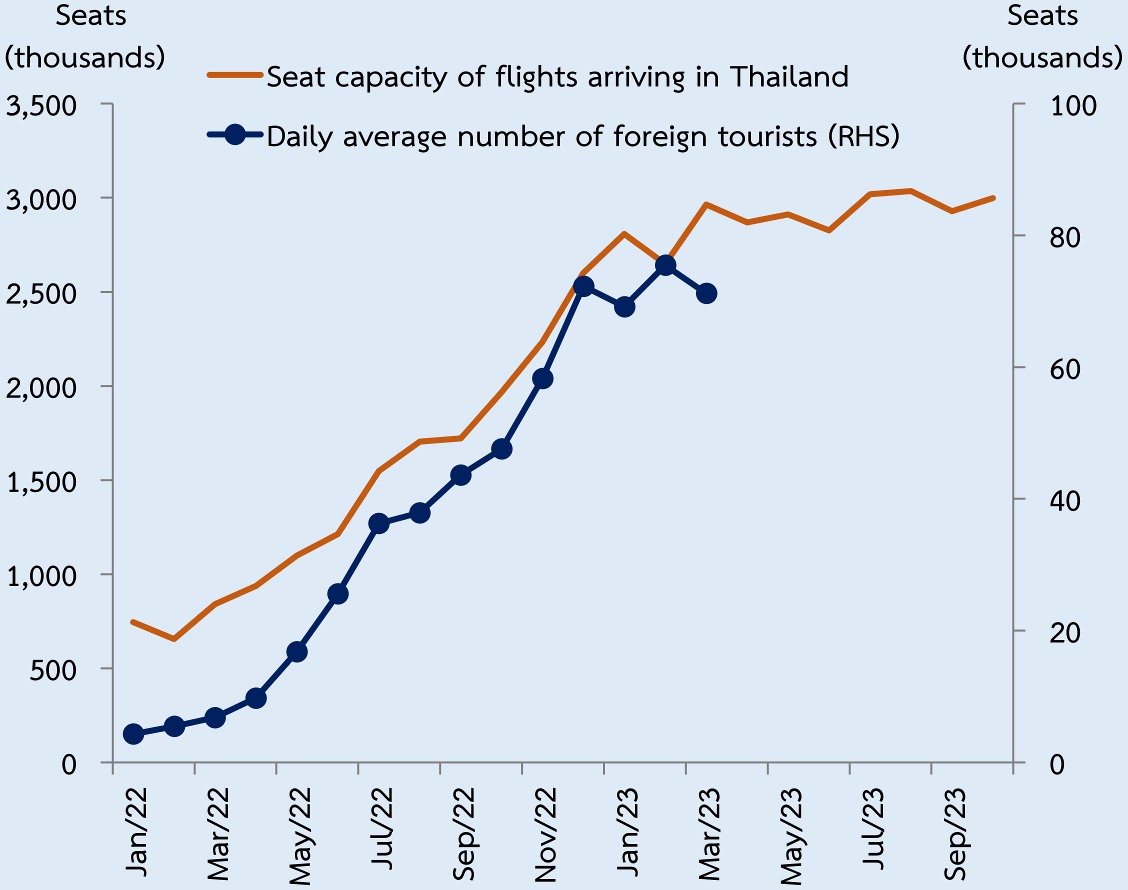
Box 1: Recovery outlook for foreign tourist arrivals

Tourism has resumed its role as a major growth driver for the Thai economy since H2/2022 when the COVID-19 outbreak subsided and various countries including Thailand gradually lifted international travel restrictions. It is now more evident that Thai tourism is heading towards pre-COVID levels of 40 million foreign tourists and tourism income of 1.9 trillion baht (11% of GDP). This is reflected in demand-side indicators such as foreign tourist arrivals in March 2023 of approximately 71,000 persons per day (63% of 2019) as well as supply-side indicators such as seat capacity of international flights to Thailand and hotel reservations which have continued to recover **(Chart 1)**.

Foreign tourist arrivals is estimated to reach 28 million persons in 2023 and 35 million persons in 2024. This is an upward revision to the previous forecast in the Monetary Policy Report Q4/2022 of 22 million persons in 2023 and 31.5 million persons in 2024 **(Chart 2)**. There are 2 major factors underpinning this revision:

(1) Sooner-than-expected reopening of the Chinese economy. The Chinese economy has re-opened since 8 January 2023 and allowed group tours to Thailand since 6 February 2023, both of which took place much sooner than previously expected at late 2023. As such, it is expected that the number of Chinese tourists traveling to Thailand would be 5.5 million in 2023 and 9.5 million in 2024, an upward revision from the previous Monetary Policy Report of 1.8 million in 2023 and 6.3 million in 2024. While there are signs of pent-up travel demand among Chinese tourists as reflected by a sharp spike in the number of search queries on international flights since the

Chart 1: Tourism leading indicators



Note: The number of foreign tourists in March 2023 is preliminary data

Source: Ministry of Tourism and Sports, PATAmPOWER

Box 1: Recovery outlook for foreign tourist arrivals

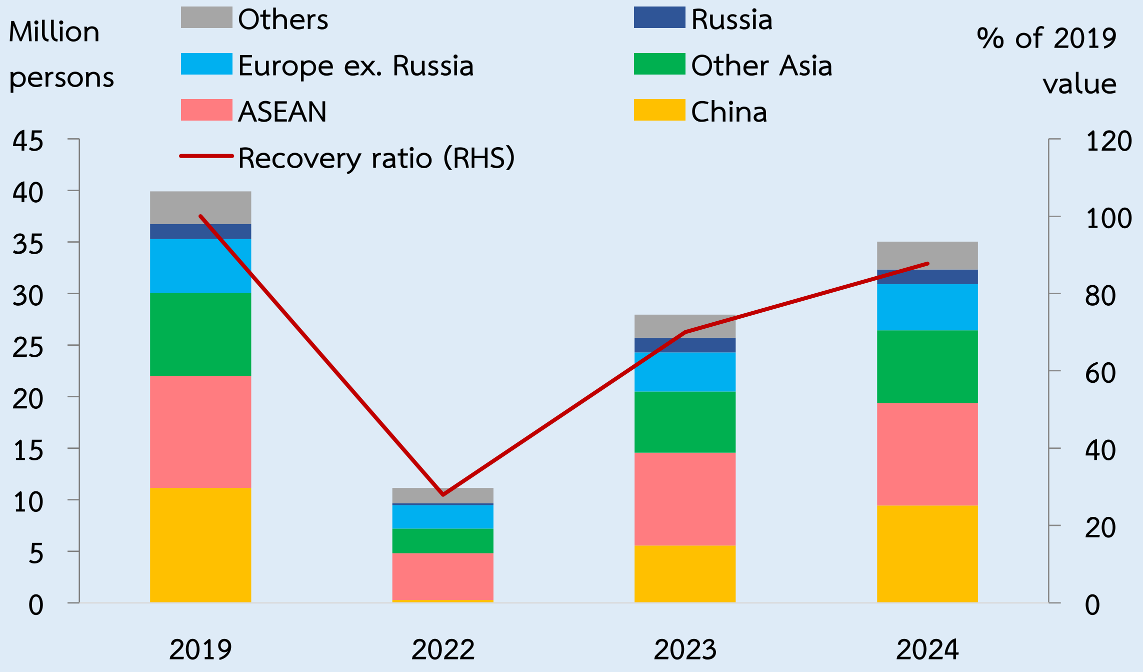
country reopened, the recovery so far has met with supply-side constraints namely the limited number of flights. However, it is expected that this problem would likely to be resolved by next year.

(2) Speed of recovery of foreign tourist arrivals has been faster than expected **(Chart 3).** Preliminary figures for foreign tourist arrivals in March 2023 (excluding those from China) indicate a recovery of 78% of the level seen in 2019. This recovery is higher than expected for almost all nationalities especially Russia, South Korea, Hong Kong, Taiwan, Malaysia, and also India which rebounded since the RT-PCR test requirement for those returning from Thailand has been lifted on 13 February 2023. **It is also expected that increased global tourism demand would support foreign tourist arrivals to Thailand to continuously increase and reach pre-COVID levels by 2025.**

However, the recovery outlook is subject to risks that could impair foreign tourist arrivals namely:

(1) Supply-side limitations on part of the airports and airlines. A key bottleneck is the lack of ground staffs in Thai airports, especially positions that are required to do manual labor which is not popular among Thai workers. At the same time, these positions cannot be filled by immigrant workers because airports must maintain high levels of security, which requires airport staffs to undergo prior training in accordance with international standards. This limitation presents a loss opportunity for Thailand in receiving more foreign travelers and an obstacle to airlines that wants to increase the number of flights if they do not have sufficient ground staffs, especially

Chart 2: Projected foreign tourist arrivals by nationality



	2022	2023		2024	
		Q4-2022	Q1-2023	Q4-2022	Q1-2023
Million persons	11.2	22.0	28.0↑	31.5	35.0↑
% of 2019 value	27.9%	55.0%	70.0%	79.0%	87.8%

Note: Other Asia includes Middle East
Source: BOT Forecast

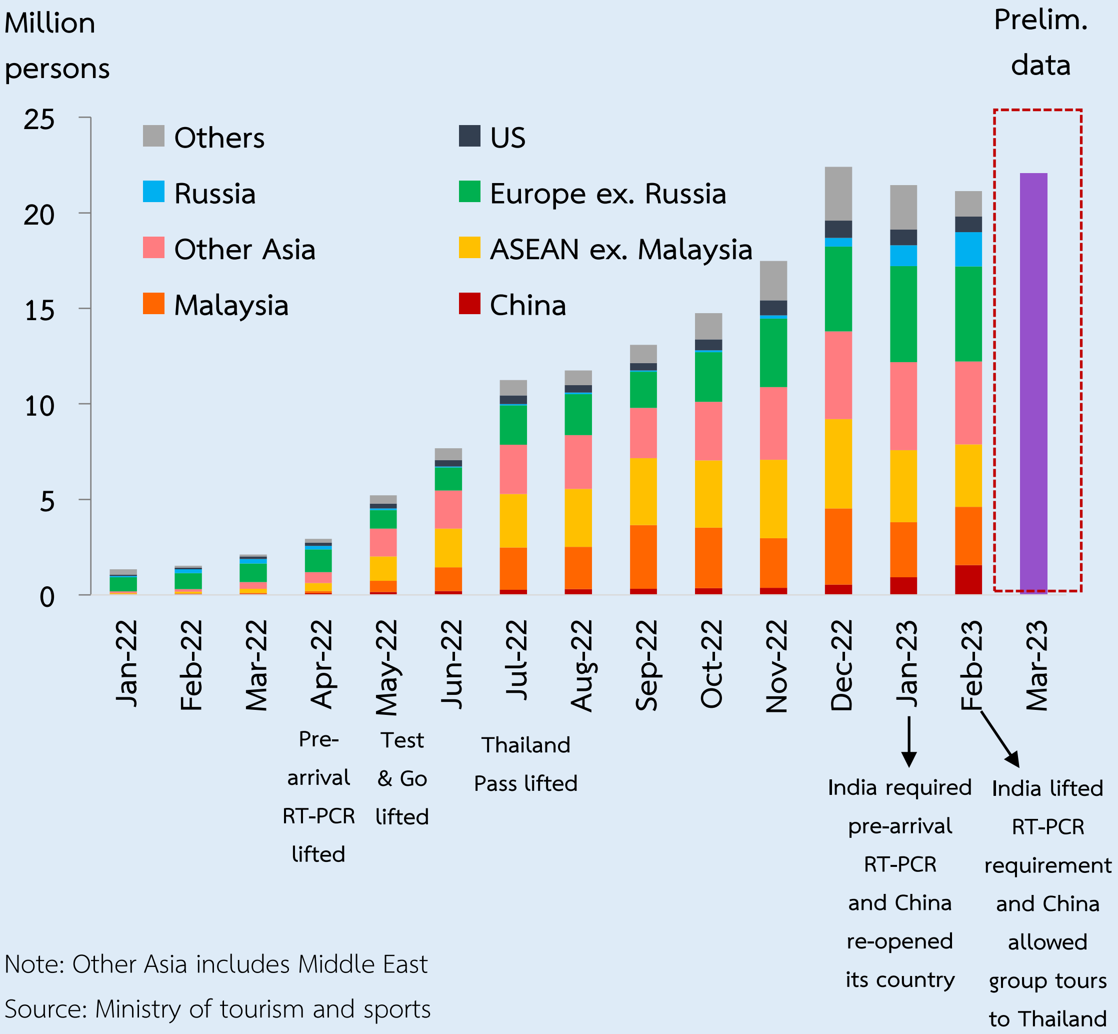
Box 1: Recovery outlook for foreign tourist arrivals

considering that China has just re-opened and likely to open up more flights. This problem would be more severe for Chinese airlines compared to other countries' airlines whose flight arrangements have already been scheduled.

(2) Supply-side constraints on part of tourism-related businesses especially hotels which faced widespread labor shortage after having reduced hiring during the COVID-19 pandemic. While labor shortage might not be a direct obstacle to the recovery in tourism because it could be addressed by hiring labor from other sectors or immigrant workers, such a solution could have indirect impacts through perception about Thai tourism as the quality of service might worsen. This is reflected in the Hotel business operator Sentiment Index (HSI) survey that most responses deemed that labor shortage would mainly impact the quality of services **(Chart 4)**.

Moreover, there remains the need to monitor the recovery pattern of foreign tourist arrivals in the period ahead which would have implications for uneven recovery in tourism income in some locations. The share of tourists will switch from long-haul group, such as those from Europe and the US with the tendency to stay longer, have higher spending and typically be the first group to recover, to short-haul group, such as those from Malaysia, Vietnam, South Korea, and also Chinese tourists going forward. Furthermore, these short-haul tourists usually stay in Thailand for a shorter period and spend less. Therefore, tourism income might not increase as much as the increase in the number of foreign tourists. However, tourism in provinces

Chart 3: Monthly foreign tourist arrivals



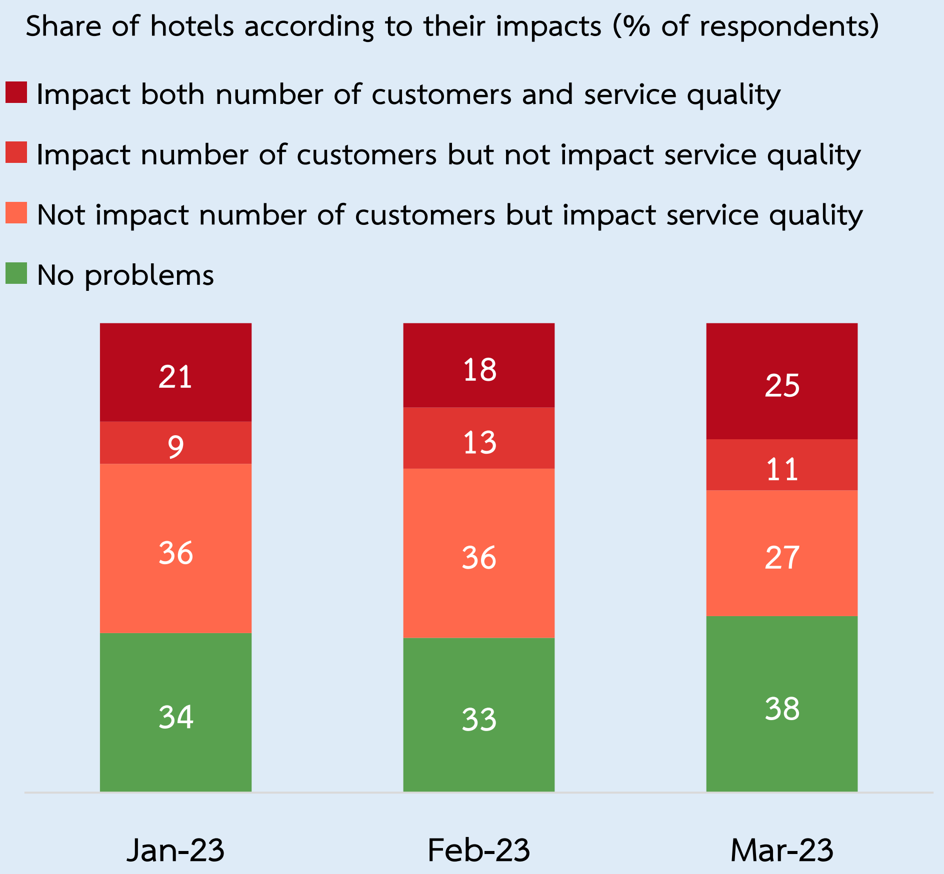
Note: Other Asia includes Middle East
Source: Ministry of tourism and sports

Box 1: Recovery outlook for foreign tourist arrivals

along the border would continue to benefit from short-haul tourists from neighboring countries, which would help disperse tourism income across different locations.

In summary, foreign tourists arrivals would continue to increase in tandem with global tourism demand and it is expected to return to pre-COVID levels by 2025. However, there remains the need to monitor factors that could impact the return of foreign tourists such as the shortage of ground staffs at Thai airports which could limit the increase in the number of flights to Thailand as well as labor shortages faced by hotels that could impact the quality of service. If these supply-side constraints could be overcome, tourism would be able to fully recover and realize its full potential as one of the key drivers of growth for the Thai economy.

Chart 4: Hotel business operator Sentiment Index (HSI) survey responses on impacts of labor shortage problem

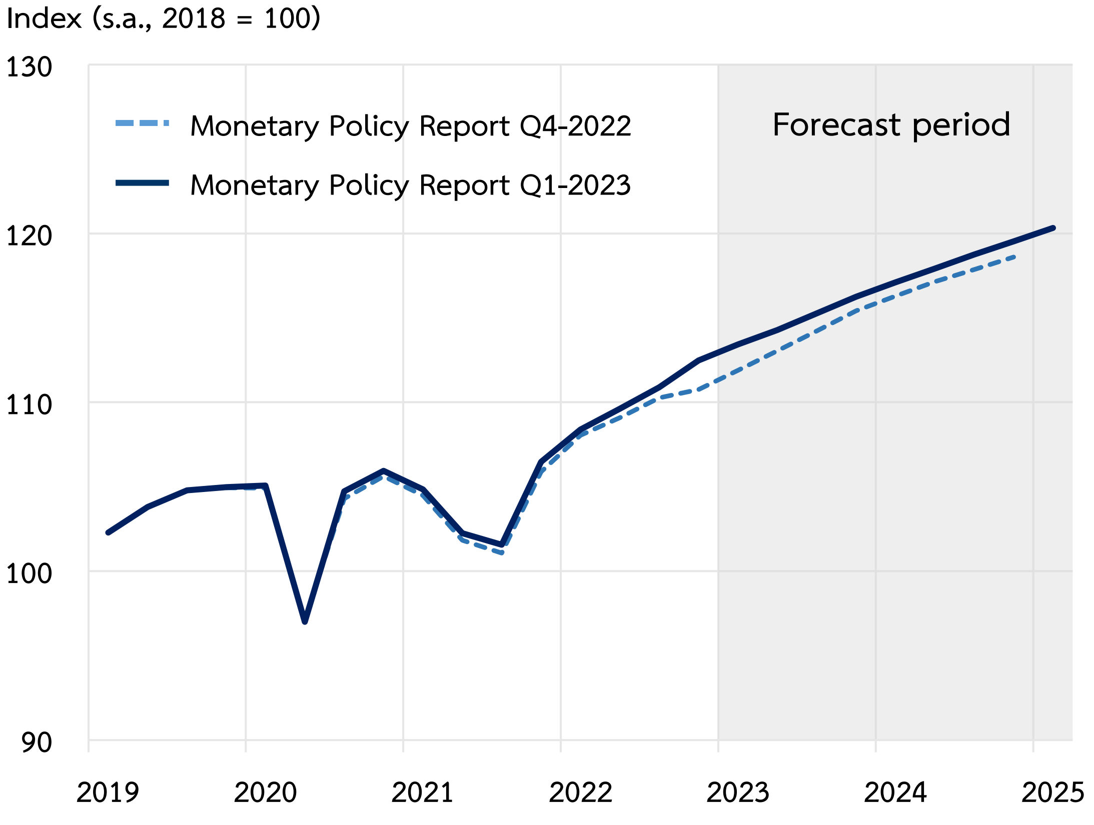


Source: Hotel business operator Sentiment Index (HSI) surveyed by Thai Hotels Association and BOT

Private consumption and labor income has improved in tandem with tourism.

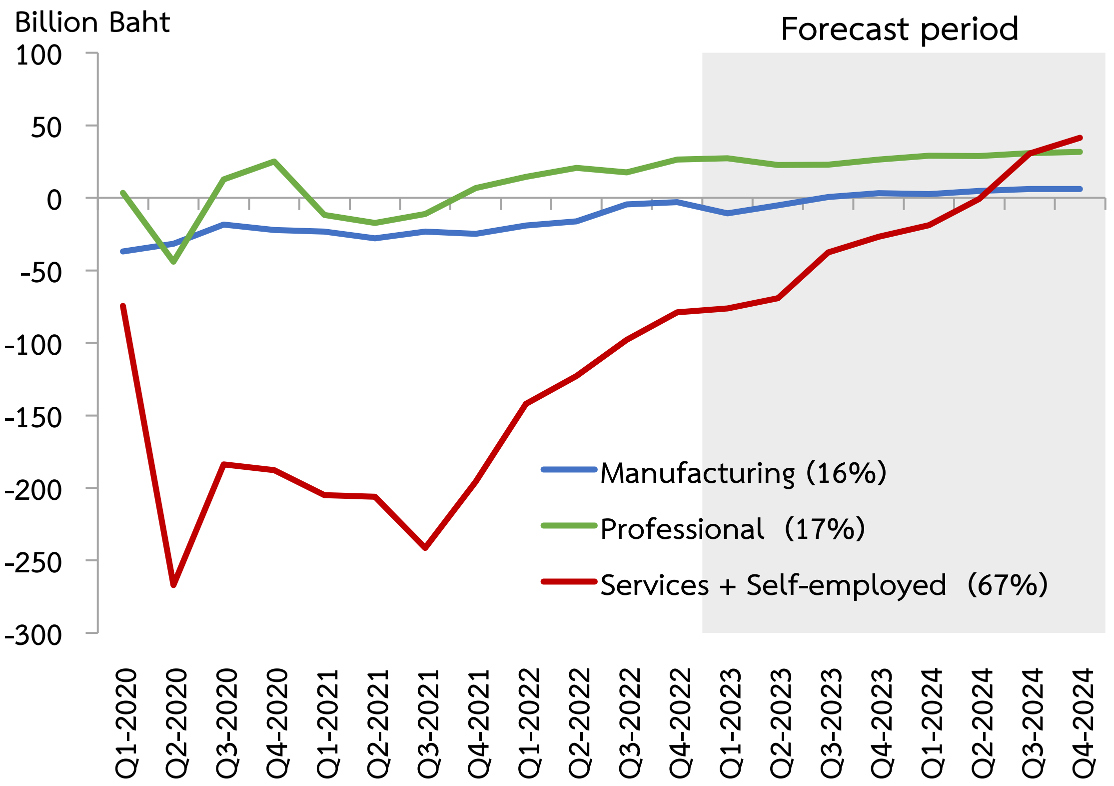
It is expected that private consumption would see strong growth, and labor income of workers in the services sectors and the self-employed would continue to recover. This is in line with improvements in economic activities in tourism-related services sectors.

Real private consumption



Source: BOT forecast

Projected total income recovery of labor in non-farm sectors



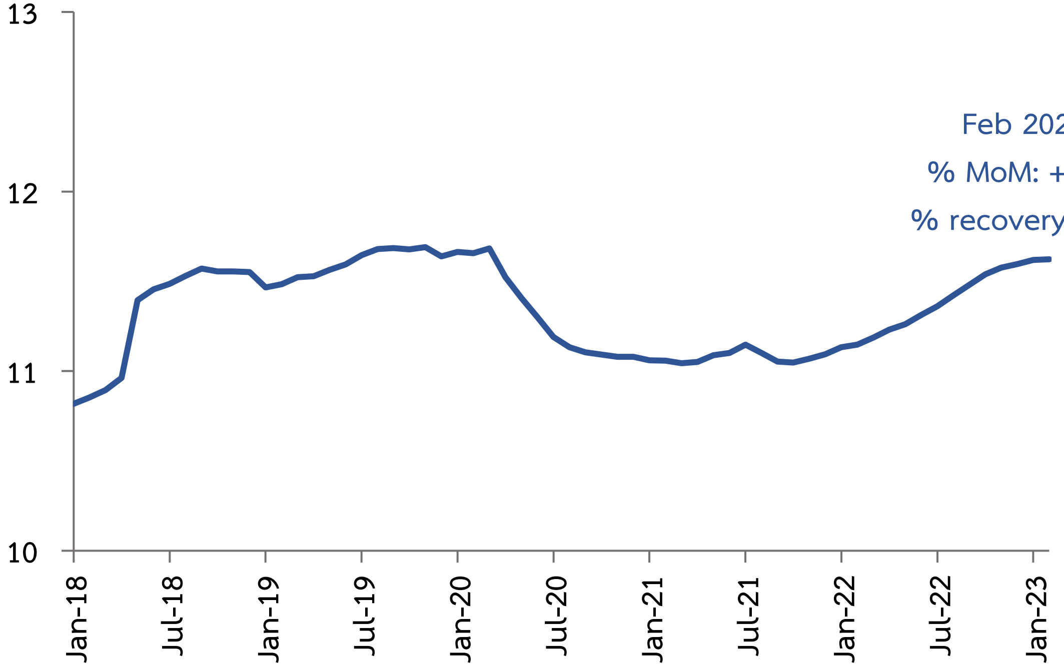
Note: [1/] Total labor income in non-farm sectors in 2019 was 4.5 trillion baht
[2/] ( ) denotes each sector's share to total labor income in non-farm sectors in 2022

Source: National Statistic's Office, BOT calculation and forecast

Labor market conditions has continued to improve as reflected in the employment numbers, especially those in the formal sectors which now reached pre-COVID levels.

The number of workers contributing to the Social Security Fund (Section 33 of the Social Security Act) in February 2023 has now reached pre-COVID levels. This is in line with the decline in unemployment numbers in Q4/2022 attributed by a decrease in the number of those who have never been employed before. However, underemployment numbers have increased, mainly driven by agricultural sector.

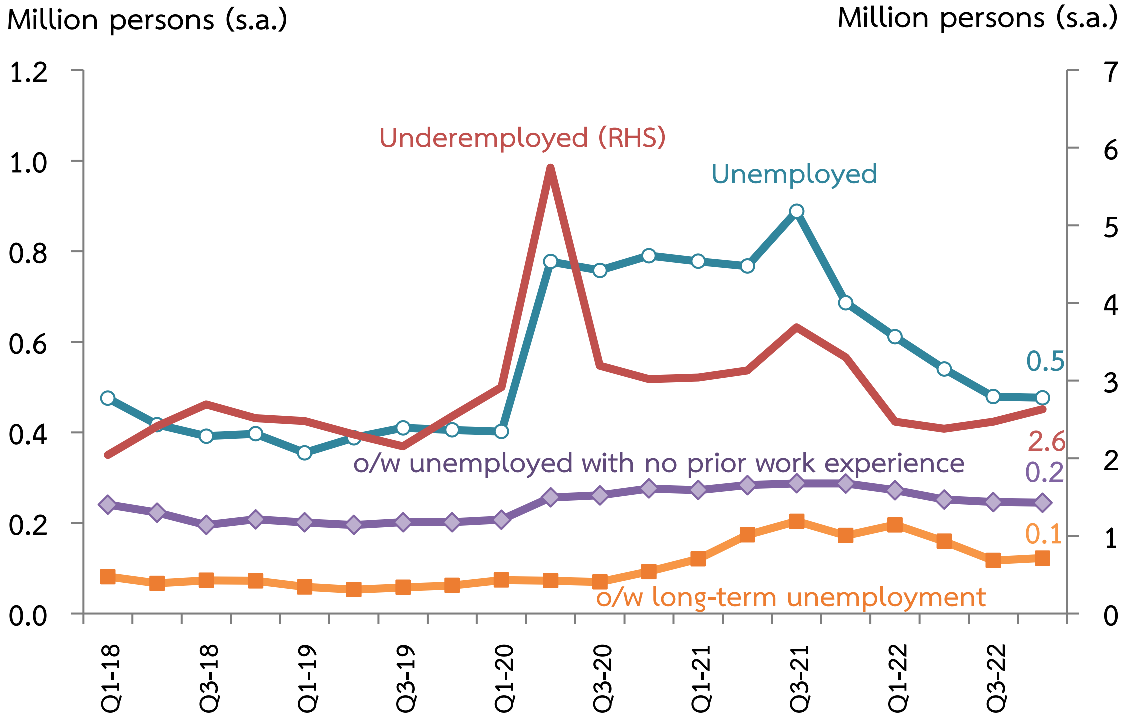
Number of workers contributing to the Social Security Fund (section 33)



Note: (1) Section 33 refers to employees who are not less than 15 years of age and not more than 60 years from the date the employee starts working for a company with one or more employees.
(2) % recovery is calculated compared to Dec 2019

Source: Social Security Office, calculated by Bank of Thailand

Number of unemployment and underemployment

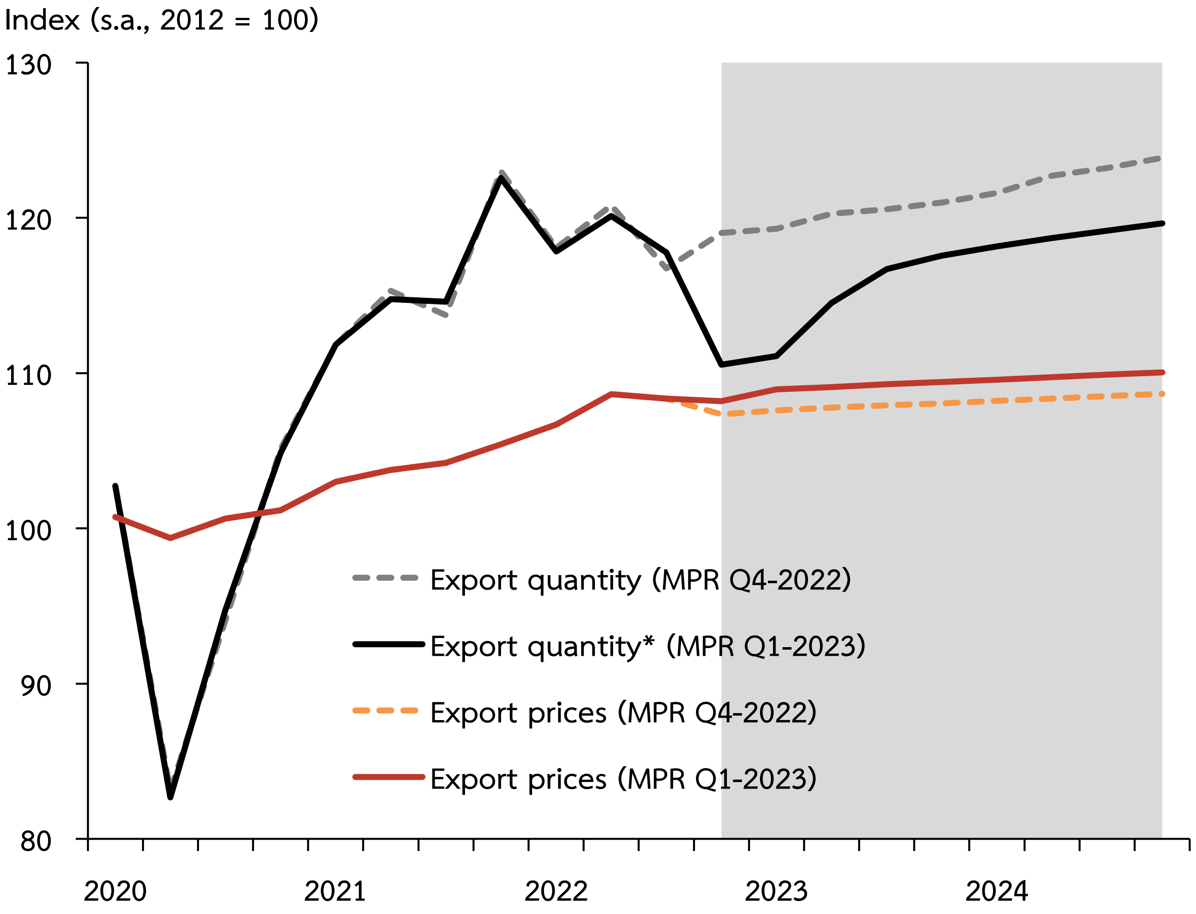


Note: Long-term unemployment is defined as being unemployed for longer than 1 year.
Underemployment is defined as those who work less than 4 hours per day.

Source: National Statistics Office's Labor Force Survey, BOT calculation

Merchandise exports are expected to recover in the period ahead but the global economic outlook remains uncertain and must be monitored.

Projected merchandise exports (excl. gold)



Note: * 2022 data is revised

- **Merchandise exports outturns in Q4/2022 was lower than expected.** This was mainly due to a slowdown in demand from trading partners resulting in broad-based decline in export quantity across many goods such as petroleum-related products, electrical appliances, electronics, metals, and processed agricultural products.
- **Looking ahead, export quantity is expected to recover in tandem with global demand,** passing its lowest point in H1/2023. However, the pickup in global demand might have limited benefits for Thai exports because growth among trading partners would be driven by the services sector and China would also shift away from importing goods to focus more on manufacturing for domestic consumption. (Box 2: Outlook for Thai exports)
- **Export prices would likely be higher than previously expected** due to elevated prices of energy and other goods.

Merchandise exports projection

Growth (%YoY)	2022	2023	2024
Export value	5.5	-0.7 (1.0)	4.3 (2.6)
Export prices	4.2	0.9 (0.0)	0.6 (0.5)
Export quantity	1.3	-1.6 (1.0)	3.7 (2.1)

Note: ( ) = previous projection in Monetary Policy Report Q4-2022

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Box 2: Outlook for Thai exports

Given the improved global economic outlook and China's re-opening, it is expected that Thai merchandise exports would pass its trough in H1/2023 and resume positive growth in 2024. However, it is also unlikely that the recovery would be V-shaped. This is because economic growth in most trading partners would be driven by services rather than merchandise trade and China's dual circulation policy that shifted its economy away from importing goods to focus more on manufacturing for domestic consumption. A product-level assessment using Constant Market Share Analysis[1/] (CMSA) indicated that **there are idiosyncratic shifts in the export structure of some product categories that could further weigh on Thai export performance going forward.**

(1) Exports of petrochemical products **would recover in tandem with trading partners' demand but the recovery would be limited by competitiveness issues and lower import demand from China**. The CMSA analysis showed that while the export structure of Thai petrochemical products has been determined by trading partners' demand or the **"market effect"**, however, for the past 5 years, **its market share growth have slowed as reflected by a negative "competitiveness effect" (Chart 1.1).** Thai petrochemical exports have lost its competitive edge to Europe and China, partly due to higher input costs. As such, it is expected that exports of petrochemical products would be weighed down by competitiveness issues even If businesses have adapted by focusing more on making specialized products and diversifying its exports to ASEAN markets as reflected by an increase in **"market adaptation effect".** A closer look at exports of petrochemical products to China, which is among Thailand's most important export markets, the aforementioned competitiveness effect is further compounded by slowing import demand from China as reflected by a negative **"product effect"**. This is a result of China's dual circulation policy whereby the Chinese government has encouraged increasing manufacturing capacity for domestic consumption, which is also likely to remain in effect for some time. The dual circulation policy would thus limit the spillover benefits from China's re-opening on Thai petrochemical exports.

[1/] **Constant Market Share Analysis (CMSA)** is a methodology used in analyzing changes in export structure of each product. Under this methodology, exports are affected by 5 factors: **(1) market effect** which reflects the change in geographical composition of exports; **(2) product effect** which reflects changes in commodities composition of exports; **(3) competitiveness effect** which reflects changes in market share during the assessment period; **(4) product adaptation effect;** and **(5) market adaptation effect** which reflect the ability to adjust compositions in both product and market, respectively. (Calculation used in this assessment is based on Bonanno (2016) in "Constant market share analysis: A note", EERI Research Paper Series, No.07/2016, Economics and Econometrics Research Institute)

Box 2: Outlook for Thai exports

Chart 1: Export Market Structures Decomposed by The CMSA Model, Selected Product Categories

Chart 1.1: Petrochemical Market Structure

(8.4 % of total exports in 2022)

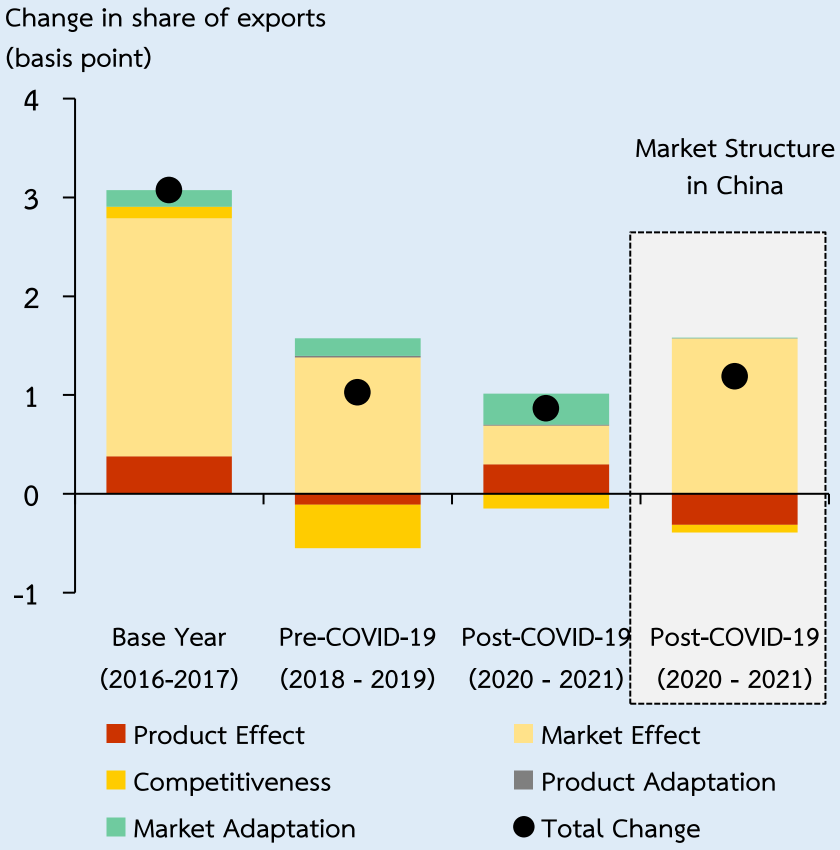


Chart 1.2: Hard Disk Drive Market Structure

(4.0 % of total exports in 2022)

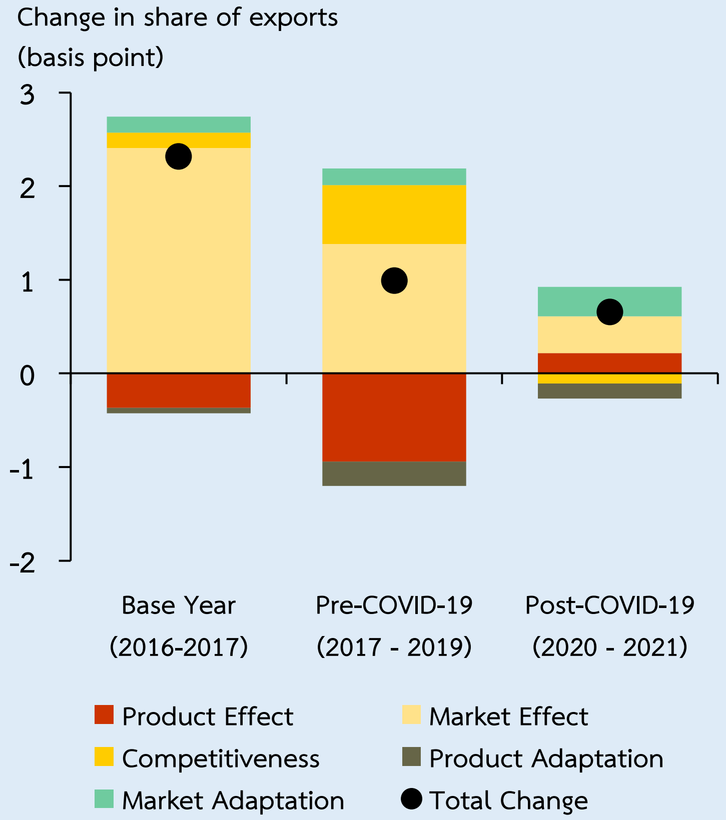
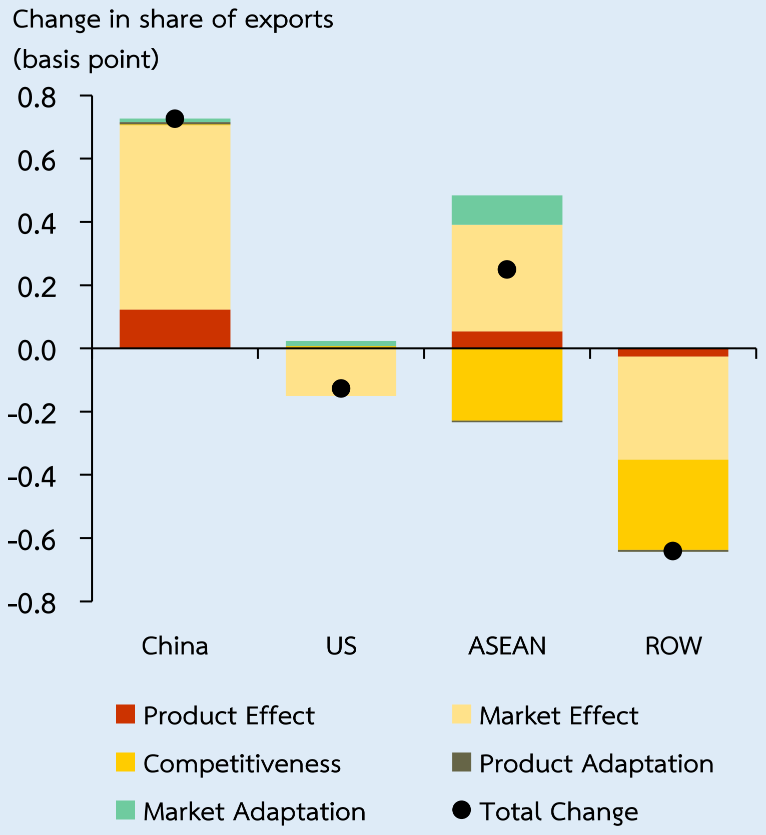


Chart 1.3: Agriculture and Agro-manufacturing Market Structure

(6.7 % and 13.9% of total exports in 2022, respectively)



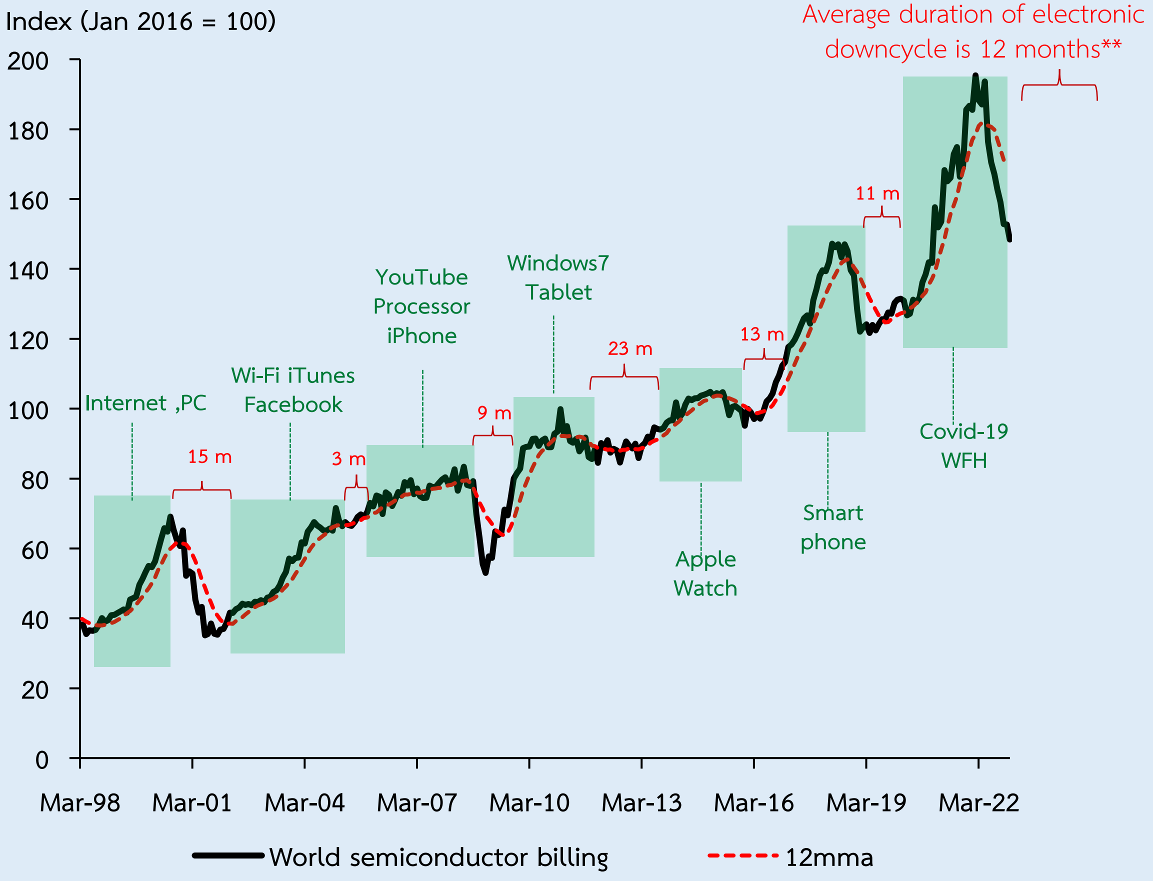
Source: International Trade Centre, BOT's calculations

Box 2: Outlook for Thai exports

(2) Exports of electronics **is expected to recover more slowly compared to other exports given that the global electronics cycle is still in the downcycle (lasts about 12 months on average)** after having benefited from accelerated purchases and inventory accumulation during the COVID-19 pandemic as a result of work from home arrangements **(Chart 2)**. It is expected that demand for electronics goods would decline in the first half of 2023 before picking up in the latter half of the year in tandem with the economic recovery of trading partners. **Exports of electronics would remain affected by structural factors related to hard disk drives (HDD).** CMSA results **(Chart 1.2)** showed that market share growth of HDD has slowed down significantly compared to 2016, especially in the US market. Technological advancements have resulted in a **significant decline in demand for consumer HDDs as they have been replaced by solid state drives (SSDs)** reflected from negative adaptation effect and competitiveness effect during the post-COVID outbreak period. However, **there are still demand for high capacity enterprise HDDs from cloud and data center businesses**. Hence, there still exist opportunities for Thailand to adapt and maintain its market share for HDD in the global market.

Other export goods are expected to grow in line with the economic recovery of trading partners, especially exports of automobile and electrical appliances which are highly correlated with trading partners' growth and have seen improvements since the semi-conductor shortage subsided. Meanwhile, exports of agricultural and agro-manufacturing products are expected to become a major driver of exports growth in the period ahead.

Chart 2: Electronic Cycle



**Electronic downcycle can last between 3 to 23 months
Source: World Semiconductor Trade Statistics

Box 2: Outlook for Thai exports

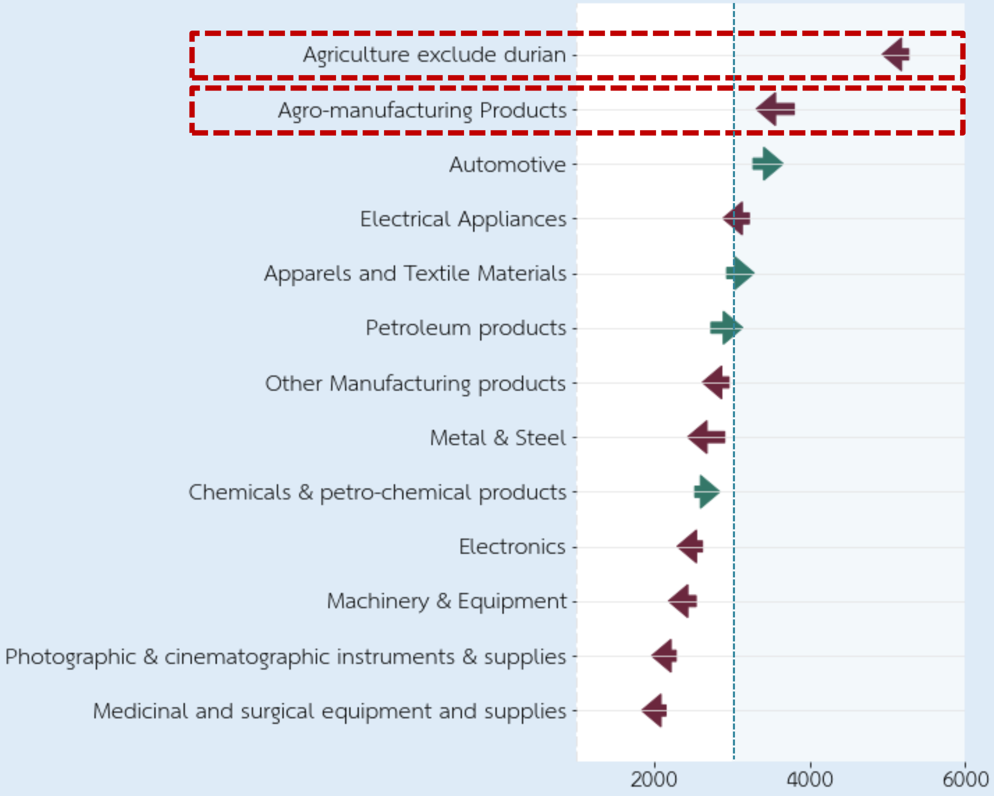
Exports of agricultural and agro-manufacturing products would continue to expand on the back of China's re-opening and Asia's economic recovery, especially in the tourism sectors.

Looking ahead, competitiveness of Thai exports has to be closely monitored. This is particularly the case for agricultural and agro-manufacturing products that are highly at risk of losing competitiveness in the ASEAN market as reflected by CMSA results indicating a negative competitiveness effect **(Chart 1.3).** A closer look at the exports market concentration[2/] among Thailand's trading partners showed that while other countries may rely heavily on agricultural and agro-manufacturing product from Thailand, the dependency has declined from levels seen in the past **(Chart 3)** due to Thailand's worsened productivity and cost competitiveness compared to its competitors.

In summary, Thai merchandise exports would likely increase with the global economic recovery but spillover benefits may be limited. Exports of petrochemicals and electronics are subjected to idiosyncratic factors weighing down the recovery. Going forward, there is also a need to monitor competitiveness of Thai exports, which could impact merchandise exports such as agricultural and agro-manufacturing products.

[2/] Market concentration for each product is the sum of Herfindahl-Hirschman Index (HHI) of that product in each trading partner weighted by Thailand's export share to that trading partner. HHI value higher than 3,000 indicates high market concentration. $HHI = s_1^2 + s_2^2 + s_3^2 + \cdots + s_j^2$

Chart 3: Herfindahl-Hirschman Index (HHI) by Export Product Categories (2018 & 2021)

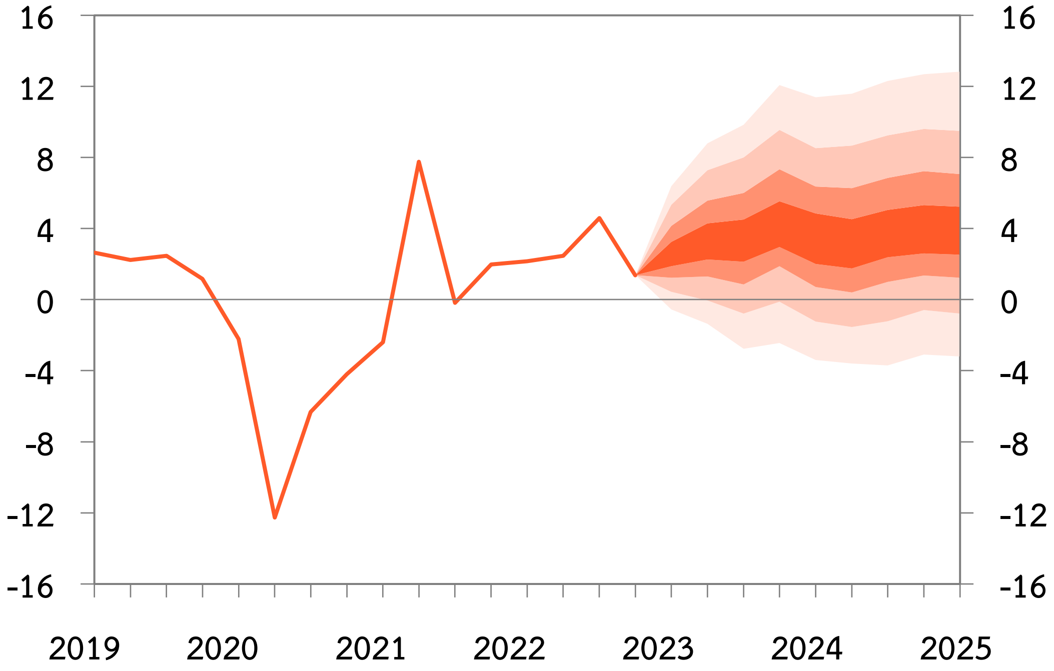


Source: UN Comtrade Database, BOT's Calculations

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

The Thai economy could outperform the baseline growth projection from the higher-than-expected foreign tourist arrivals and tourism spending.

GDP growth



Upside risks to growth

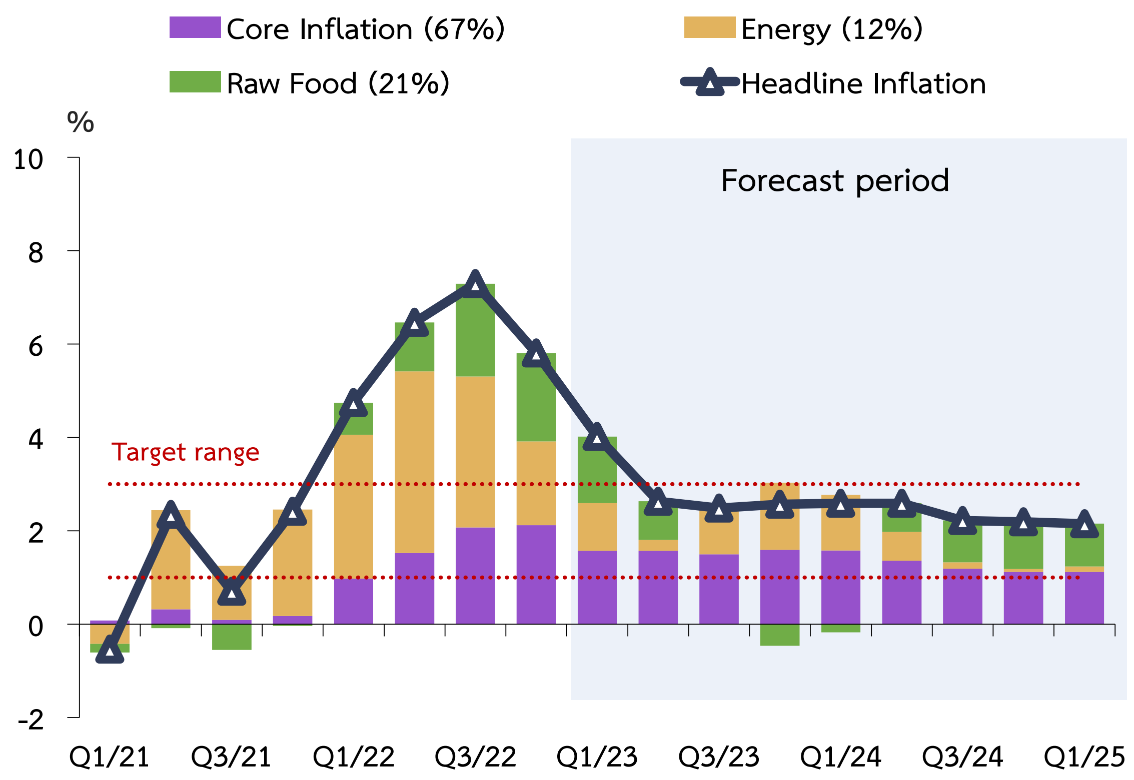
- **Foreign tourist arrivals and tourism spending turn out higher than expected** if tourism demand recovers faster and stronger than expected.
- **Budget disbursement is not as delayed as expected** if the FY2024 fiscal budget is approved in a timely manner or if government spending can still proceed by temporarily using the previous year's budget framework.

Downside risks to growth

- **Global economic recovery is slower than expected** due to elevated inflation and banking stresses in some advanced economies, thus impacting Thai exports going forward.
- **High living costs and household debts weigh down on private consumption more than expected.**

Headline inflation in 2023 is expected to average lower than previously assessed and would return to the target range in Q2/2023.

Contribution to Headline Inflation



Note: ( ) denotes weight in CPI basket

Source: Ministry of Commerce, calculations and forecasts by BOT as of Mar 23

Inflation forecast

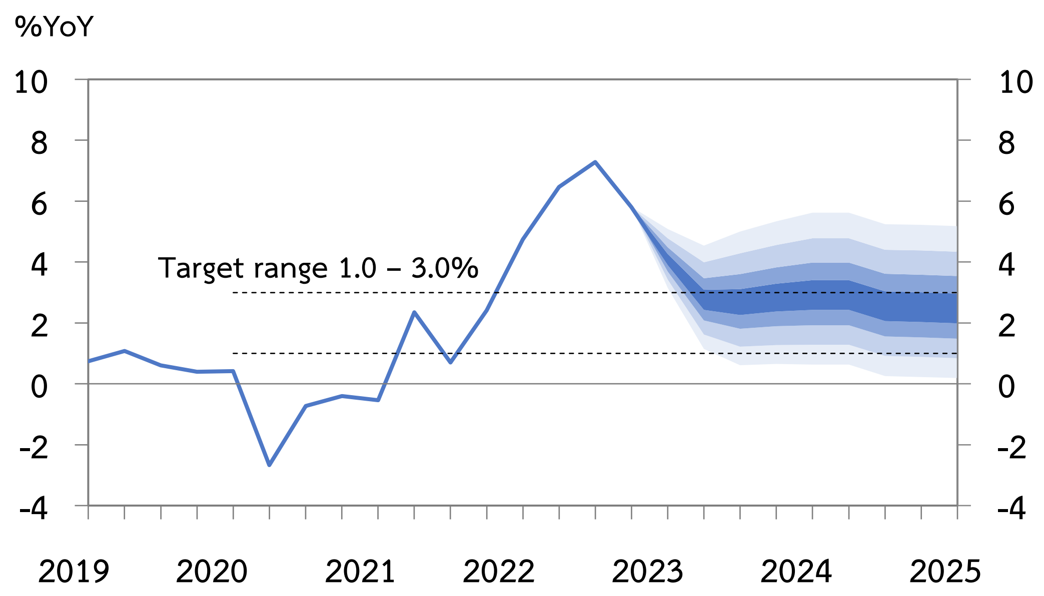
%YoY	2022	2023	2024
Headline inflation	6.1	**2.9** (3.0)	**2.4** (2.1)
Core inflation	2.5	**2.4** (2.5)	**2.0** (2.0)

Note: ( ) previous forecast from Monetary Policy Report Q4/2022

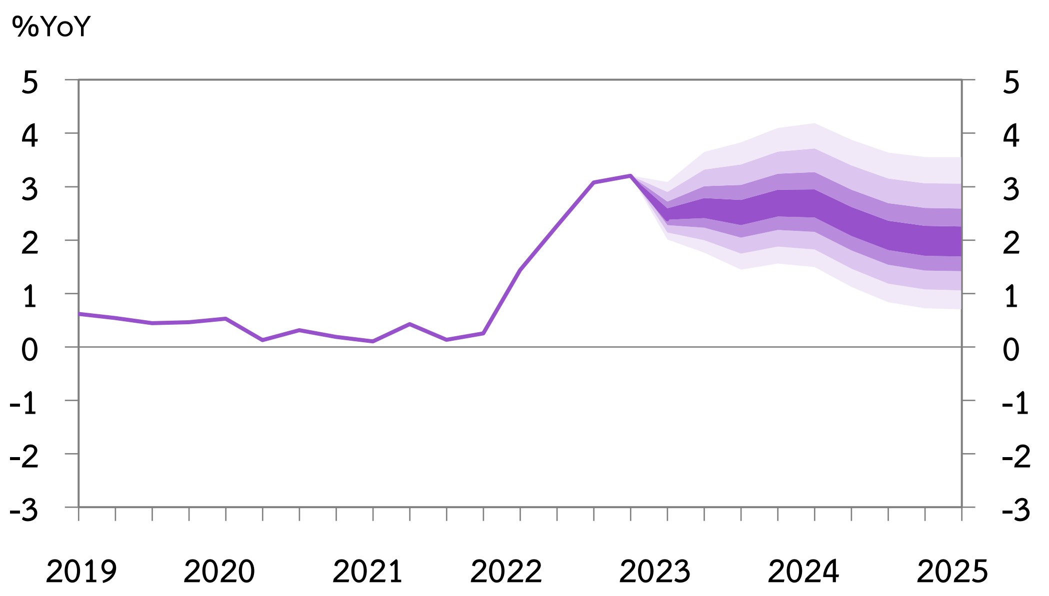
- **Headline inflation projection for 2023 is revised down slightly from the previous assessment.** This downward revision is on account of lower-than-expected outturns and softer supply-side inflationary pressure from the decline in electricity costs and domestic diesel prices. **Headline inflation projection for 2024 is revised up slightly** as fresh food prices are expected to be more volatile.
- **Core inflation projection for 2023 is revised down slightly from the previous assessment** from the lower-than-expected outturns. However, there still remains the need to monitor price increases in some good and services with an incomplete cost passthrough as well as demand-pull inflationary pressure in the period ahead. **Core inflation projection for 2024 is unchanged from the previous assessment, with core inflation likely to remain high compared to levels seen in the past.**

Inflation outlook is subject to upside risks.

Headline inflation forecast



Core inflation forecast



Upside risks to inflation

- Cost-passthrough from producers to consumers might be faster and higher than expected partly due to pent-up costs.
- Demand-pull inflationary pressure from a faster and stronger than expected recovery in tourism
- Global energy and commodity prices increase more than expected due to geopolitical tensions which remains highly uncertain.

Downside risks to inflation

- The government might extend assistance measures such as subsidies for electricity and other living costs.
- Electricity costs might be lower than expected as input costs for electricity generation are declining.

Summary of key forecast assumptions

Annual percentage change	2022*	2023	2024
Trading partners' growth (% YoY)[1/]	2.9	2.5 (2.4)[2/]	2.9 (3.1)
Fed funds rate (% at year-end)	4.25 – 4.50	5.25 – 5.50 (5.00 – 5.25)	4.00 - 4.25 (3.75 - 4.00)
Regional currencies (excl. China) vis-à-vis the U.S. dollar (index)[3/]	163.3	161.2 (168.2)	159.3 (168.0)
Dubai crude oil prices (U.S. dollar per barrel)	96.4	86.0 (95.0)	90.0 (90.0)
Farm income (% YoY)	12.6	-2.7 (-1.3)	-1.9 (-3.0)
Government consumption at current price (billion baht)	3,072	3,019 (3,026)	3,066 (3,064)
Public investment at current price (billion baht)	1,041	1,093 (1,106)	1,194 (1,192)

Note: [1/] Weighted by each trading partner's share in Thailand's total exports

[2/] Due to the 2022 index reweight and data revisions, figures may appear different from the previous reports.

[3/] Increasing index represents depreciation, decreasing index represents appreciation

* Outturns

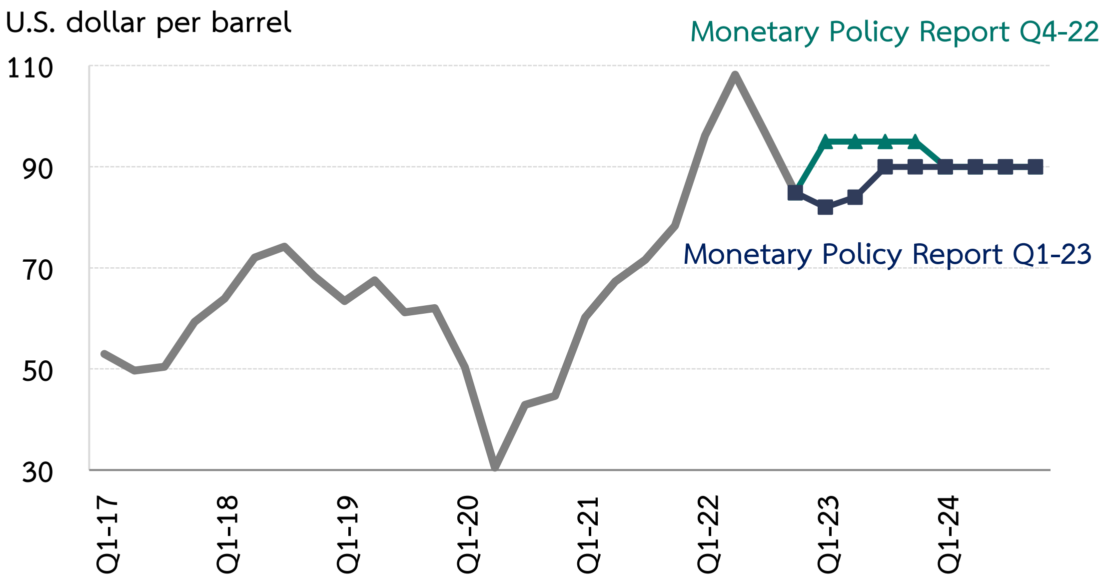
( ) previous forecast in the Monetary Policy Report Q4/22

- **Trading partner economies' growth** for 2023 is revised up slightly on account of a gradual recovery in global demand driven by advanced economies and China's re-opening. The forecast for 2024 is revised down on account of inflation remaining above target and tighter financial conditions.
- **The Federal Funds Rate** is revised up in line with the economic outlook as well as inflation remaining high for longer than expected.
- **Regional currencies (excluding the Chinese yuan)** would appreciate due to the recovery in the services sector and tourism, and further policy rate hikes by central banks in the region.
- **Dubai crude oil prices** for 2023 is revised down on account of price outturns and the limited impact of sanctions against Russia on supply of crude oil. The forecast for 2024 is unchanged given that oil demand would recover in line with the global economy and supply from non-OPEC oil producers would continue to increase.
- **Farm income (excluding government support measures)** in 2023 would contract due to a lower in-season rice output as a result of less rainfall and a lower tapioca output as a result of previous floods. Farm income in 2024 would see a smaller contraction as swine output problems have subsided.
- **Public spending at current prices** for 2023 is revised down on account of accelerated budget disbursements for government consumption spending around end-2022 and potentially lower-than-expected budget disbursements for public investment spending by the central government and state-owned enterprises. The forecast for 2024 is largely unchanged.

Assumptions for Dubai crude oil prices

for 2023 is revised down on account of lower-than-expected price outturns and limited impact of sanctions against Russia on the supply of crude oil.

Projected Dubai crude oil prices



U.S. dollar per barrel	2022*	2023	2024
Dubai crude oil prices (annual average)	96.4	86 (95)	90 (90)

* Outturns
( ) previous forecast in the Monetary Policy Report Q4/22

Source: BOT forecast

Dubai crude oil prices forecast for 2023 is revised down from 95 U.S. dollar to 86 U.S. dollar per barrel on account of:

- Lower-than-expected price outturns due to concerns about policy rate hikes by various central banks and the global economic slowdown
- Limited impact of sanctions against Russia on the supply of crude oil. The ceiling on crude oil prices and bans on import of petroleum products from Russia implemented earlier have not significantly impacted crude oil output from Russia. Russia is still able to export oil to China and India to compensate for lower imports by Europe.

Dubai crude oil prices forecast for 2024 is unchanged with prices expected to rise further on the back of the global economic recovery and continued increase in crude oil supply from non-OPEC producers.

Risk to the outlook for Dubai crude oil prices is tilted to the upside.

- Upside risks: The Russia-Ukraine conflict could escalate, broaden, and become more protracted; and the gradual accumulation of crude oil to build up the US strategic petroleum reserve.
- Downside risks: Iran's oil production could increase should a nuclear agreement with the US is reached.

Financial Conditions: Key Issues

Financial conditions remain accommodative and supportive of fund mobilization by the private sector despite having tightened somewhat as borrowing costs have increased in line with the policy rate.

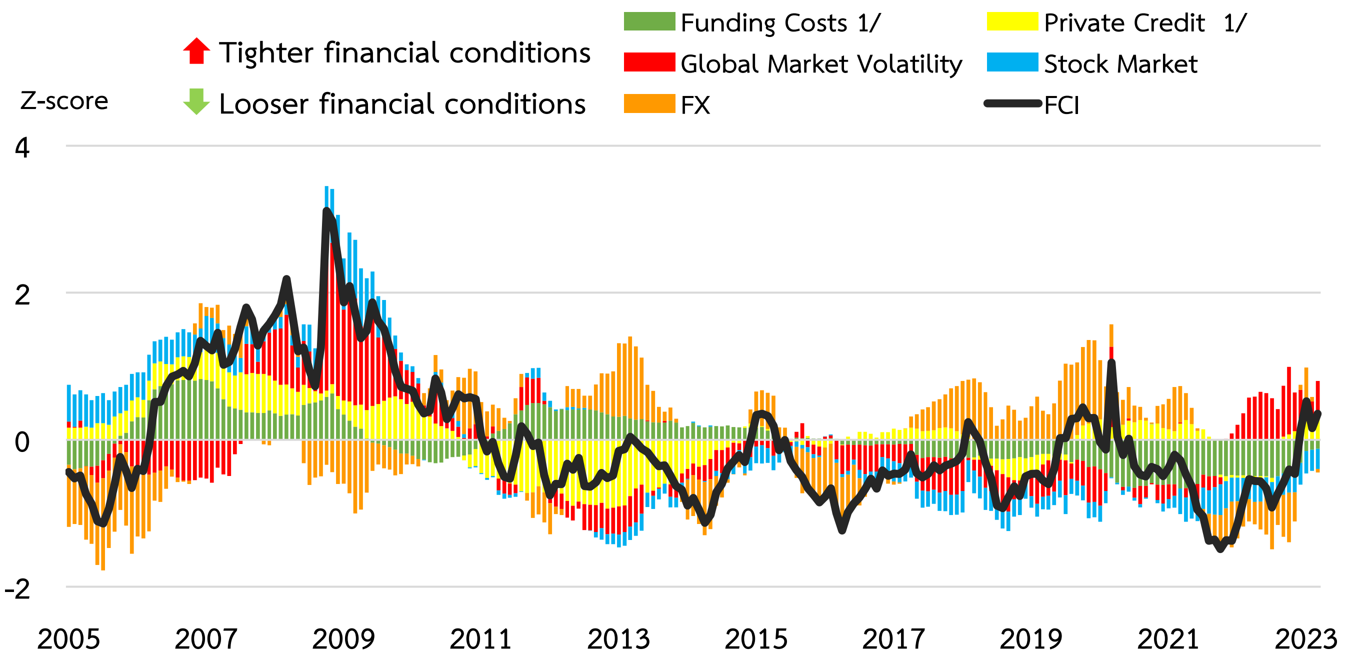
Private credit and bond issuance have continued to expand and would grow further as the economy recovers.

The baht's movement have been volatile due to the recovery in Thai tourism, the Fed's monetary policy direction, and concerns pertaining to banking stresses abroad.

BANK OF THAILAND

Thailand's overall financial conditions remain accommodative. Financial conditions have tightened somewhat but remain supportive of the ongoing economic recovery.

Financial Conditions Index: FCI



<u>Financial conditions tightened somewhat in line with the higher policy rate but remain accommodative</u>

- **Funding costs** increased in line with the policy rate, but commercial banks' lending rates and bond yields are still below levels seen in the past.
- **Private credit** expanded but at a slower pace because (1) large corporates have previously accelerated their borrowings to lock in costs; (2) business credit extended to the manufacturing sector slowed down in tandem with recent exports performance; and (3) SMEs credit contracted mainly due to repayments on maturing soft loans. Commercial banks remain cautious in lending to certain groups of SMEs, but overall credit demand from both large corporates and SMEs would continue to increase with the economic recovery.

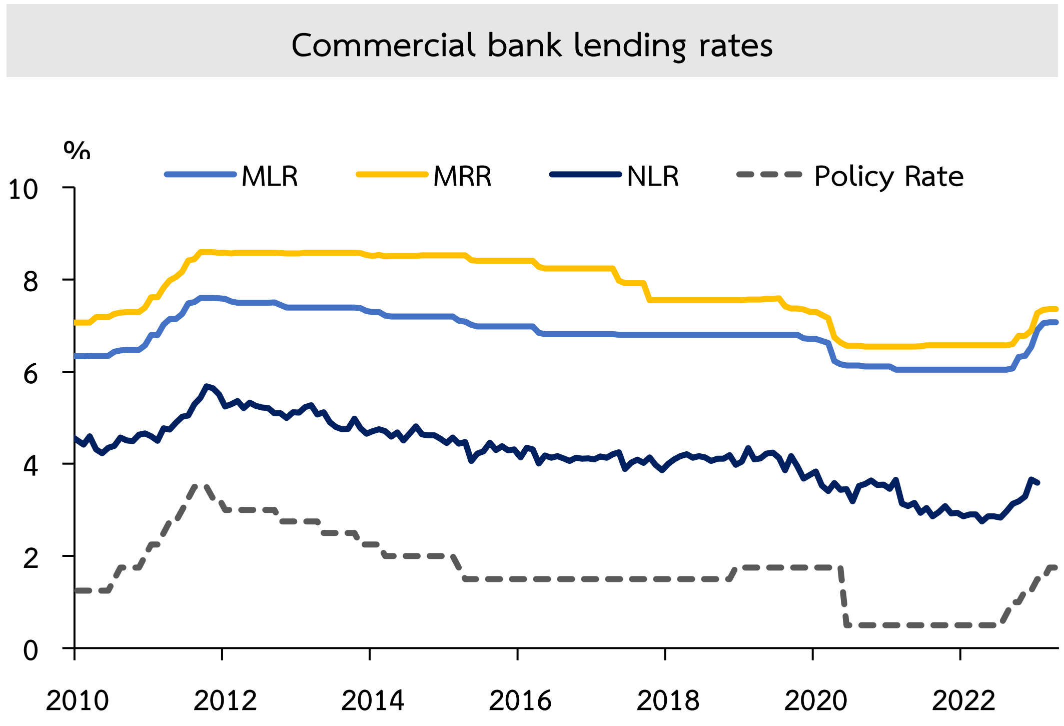
<u>Tighter financial conditions were also partly attributed to short-term volatility in the global financial market,</u> which is driven by external factors and can shift abruptly. Global market volatility reflecting risk aversion in the market has impacted Thailand's financial conditions mainly through the **baht's movement.** Nonetheless, financial conditions are still considered accommodative at current baht's level.

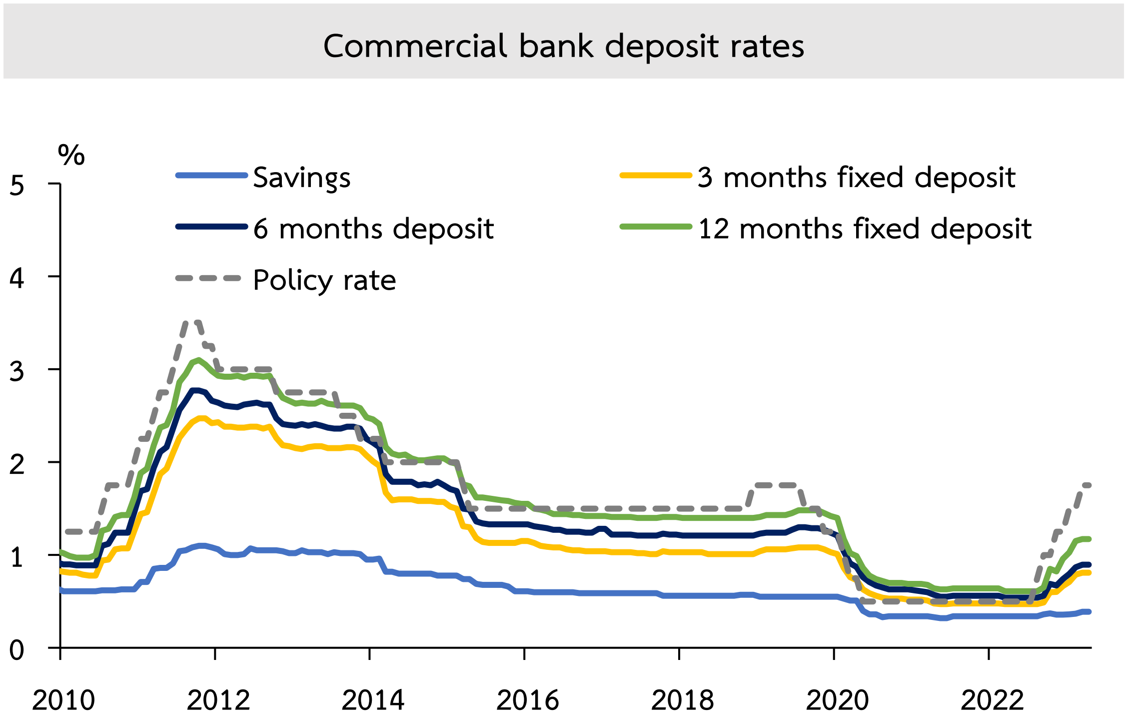
Notes: FCI is calculated using first principal components of both FX and non-FX financial condition indicators which are weighted by their respective sizes of accumulated impulse response on real GDP (%yoy) over 8 quarters using VAR(2) model. Non-FX indicators include (1) funding costs, (2) private credit, (3) global market volatility, and (4) stock market. For funding costs and private credit categories, weights of each variable are adjusted according to its proportion in total private funding structure.

[1/] New loan rate (NLR), average of 6 banks' floating mortgage rates, and the net new loan amounts extended to businesses and households in the most recent month are assumed to be equal to the previous month's data. [2/] Lastest data point is averaged until 14 Mar 2023.

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Commercial banks' lending rates have increased in line with the policy rate, but are still below levels seen in the past.



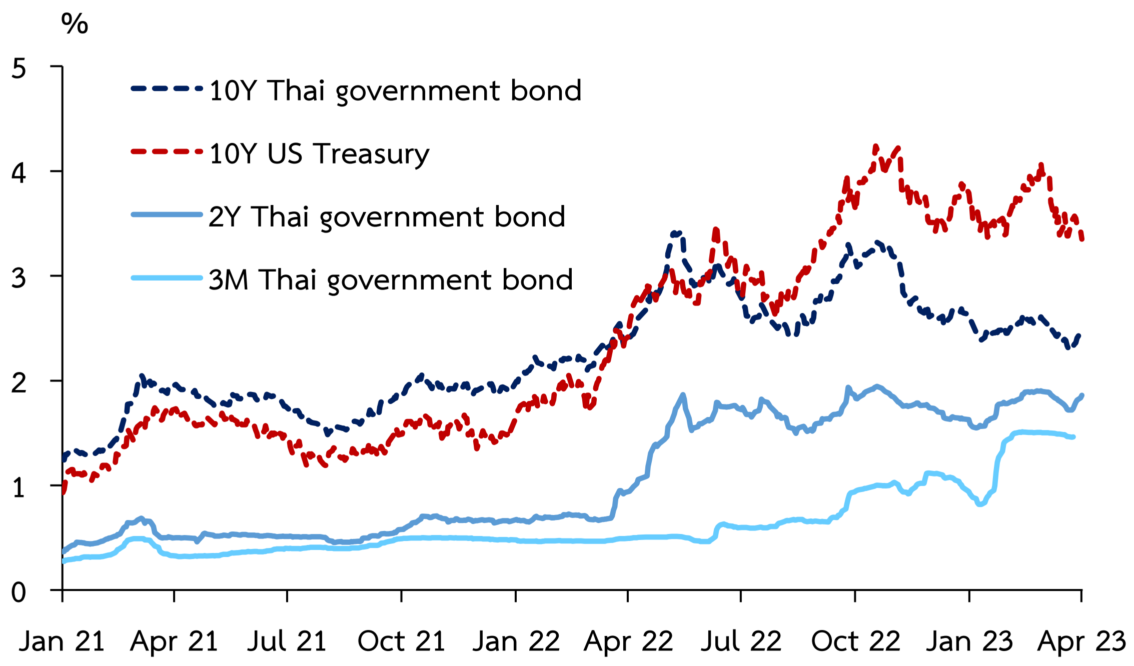


Note: (1) Monthly average of 13 commercial banks (data as of 4 Apr 2023)
(2) New loan rate: NLR (as of Jan 2023)
Source: BOT

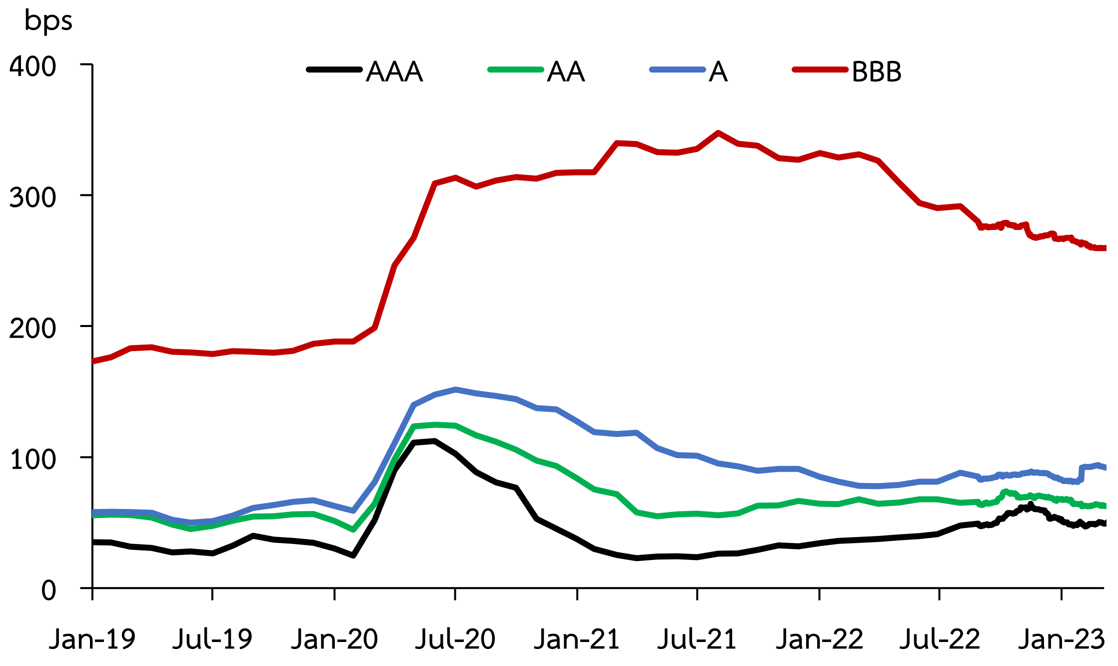
Lending rates and deposit rates offered by commercial banks have gradually increased, but are still below levels seen in the past. Since the MPC's decision to raise the policy rate to 1.75% and the end of the FIDF fee reduction measure at end-2022, commercial banks have gradually transmitted the higher financing costs to the minimum retail rate (MRR) less than the minimum loan rate (MLR) to soften the impact on vulnerable borrowers, most of whom are subject to the MRR. **The New Loan Rate (NLR) as of January 2023** declined slightly overall, especially for loan contracts larger than 500 million baht. Meanwhile, the NLR for loan contracts smaller or equal to 500 million baht has increased.

Short-term government bond yields increased in line with the policy rate. Long-term government bond yields decreased slightly in line with US Treasury yields. Private sector financing costs through the bond market remain largely unchanged.

Thai government bond and US Treasury yields



Corporate and government bond credit spread, by credit rating

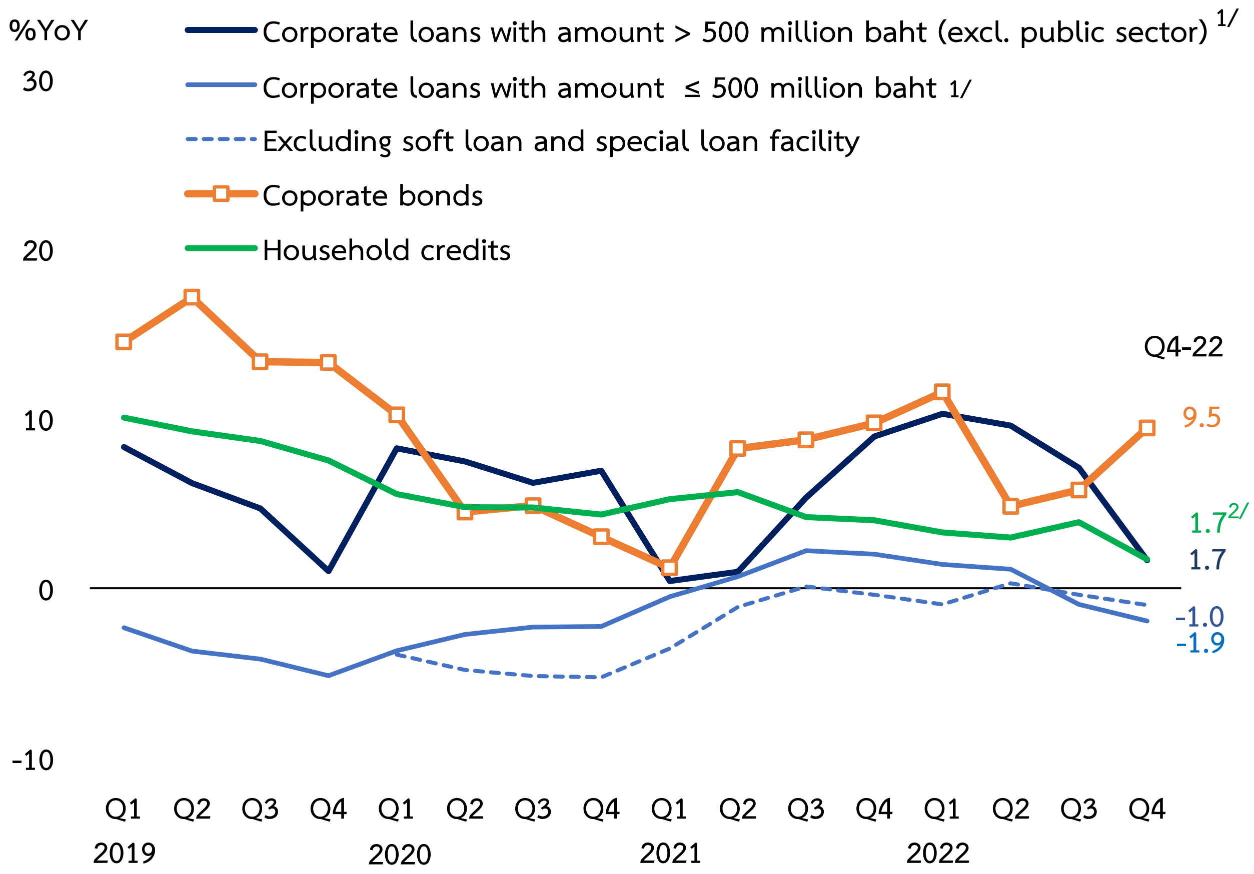


Source: Thai BMA and Bloomberg (data as of 4 Apr 2023)

Short-term bond yields increased from the previous quarter in line with the higher policy rate. **Meanwhile, long-term bond yields decreased slightly in line with US Treasury yields.** The market expects the Fed to slow down the pace of its policy rate hikes after the recent banking stresses. The Thai financial market is largely unaffected by the recent banking stresses and therefore Thai bond yields did not see a significant decline. Meanwhile, private sector financing costs through the bond market remain largely unchanged as reflected by relatively stable credit spread.

Private credit in Q4/2022 continued to expand driven by increased bond issuance by large corporates.

Private credit



Note: [1/] Credit limit at each commercial bank (financial services businesses are excluded)
[2/] Household credits would have grown at 3.9% if the credit card and personal loan portfolio of one bank had not transferred to its subsidiary (excluded from private credit growth calculation).

In Q4/2022, large corporate loans (credit limit > 500 million baht) slowed down from the previous quarter mainly due to debt repayment. The slowdown was mostly observed in the manufacturing sector, which was in line with manufacturing for exports, which slowed down in tandem with trading partners' demand and front-loaded production in the earlier period. **Large corporates have also accelerated bond issuance** to lock in costs during the interest rate upcycle.

SME loans (credit limit ≤ 500 million baht) contracted from the same period last year. This was in part due to repayment on maturing soft loans.

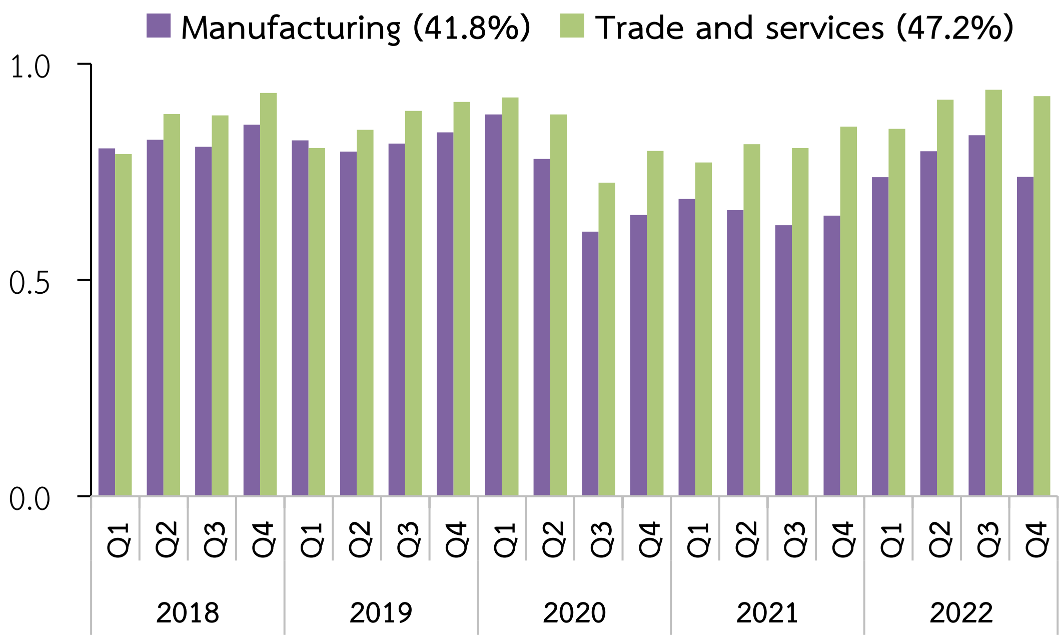
Household credits slowed down from the previous quarter mainly from personal loans. This was partly due to the transfer of one bank's credit card and personal loan portfolio to its subsidiary in December 2022. Auto loans grew slightly in line with domestic car sales. Meanwhile, mortgage loans continued to expand in the period leading up to the end of some housing market support measures in 2022.

For Q1/2023[1/], demand for credit would continue to increase, especially from SMEs that utilizes the loan for working capital purposes as well as building up its goods inventory in preparation for the economic recovery. Meanwhile, there is also increasing credit demand from large corporates for mergers and acquisitions. Household credit would expand in line with increasing consumption spending needs, and continuing improvements in consumer confidence.

Note: [1/] Report on Credit Conditions Q4/2022 and Outlook for Q1/2023

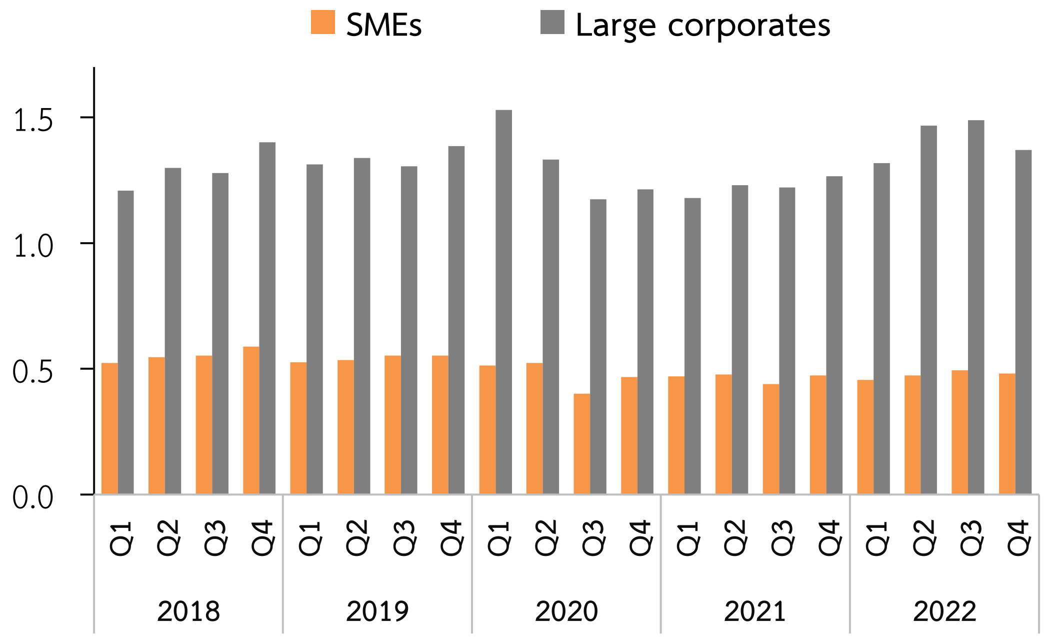
New loans are increasing among the services sector and SMEs.

New loans by business sector



Note: ( ) = share of total new loans. Other business sectors include agriculture (0.7%) and others (10.3%) such as utilities.

New loans by business size



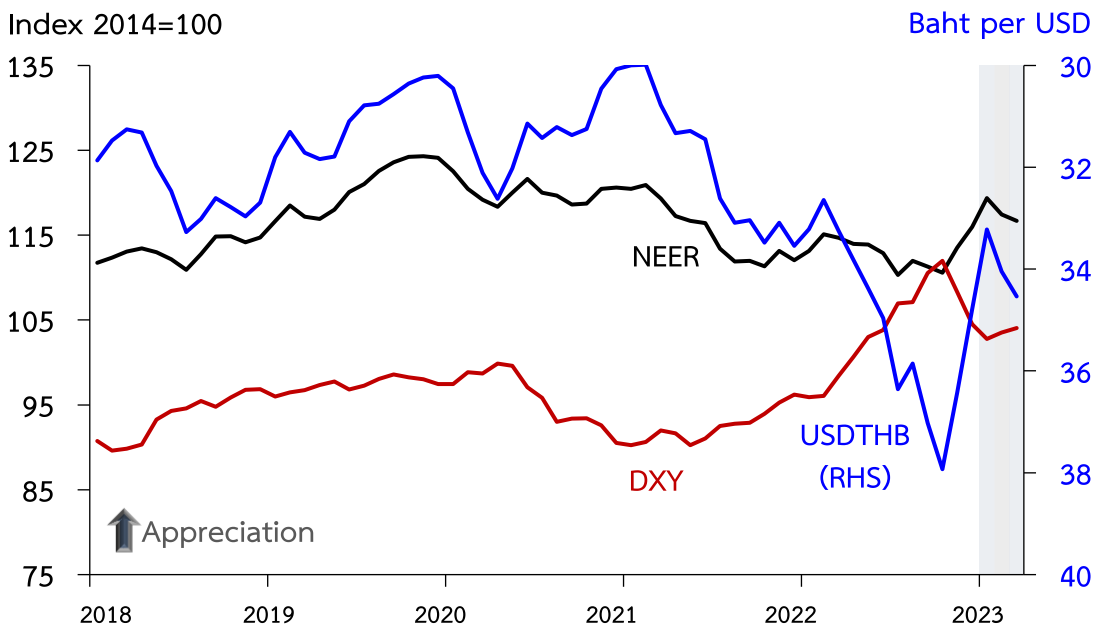
Note: Large corporates: businesses with total outstanding loan amounts with commercial banks > 500 million baht. SMEs: businesses with total outstanding loan amounts with commercial banks ≤500 million baht.

Businesses have continued to acquire new loans. Businesses in the services sector were able to acquire new loans for working capital and investment purposes, especially tourism-related services. New loans to manufacturing businesses slowed down after having accelerated in the earlier period. New loans to SMEs have continued to increase even though banks have been more cautious in extending loans to SMEs because credit quality has not yet significantly improved[1/]. New loans to large corporates slowed down after having accelerated in the earlier period, partly because some businesses opted to issue more bonds to lock in costs.

Note: [1/] Report on Credit Conditions Q4/2022 and Outlook for Q1/2023

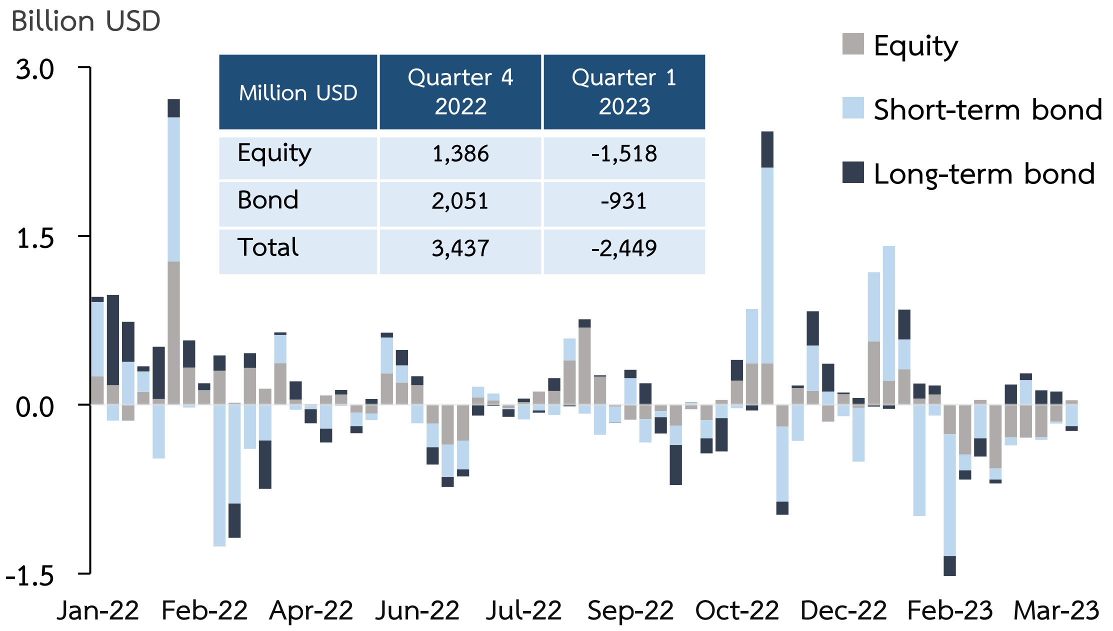
The baht appreciated from the previous quarter. The baht's movements have been volatile due to both external and Thailand-specific factors.

Baht per U.S. dollar (USDTHB) and exchange rate indices



Source: BOT, Bloomberg, and Refinitiv (as of 28 Mar 2023)

Capital flows into Thai securities (weekly)



Million USD	Quarter 4 2022	Quarter 1 2023
Equity	1,386	-1,518
Bond	2,051	-931
Total	3,437	-2,449

Note: Average weekly data, debt flow is converted to USD using the exchange rate after 5 p.m.
Source: ThaiBMA and Bloomberg (as of 28 Mar 2023)

In Q1/2023, the baht averaged 33.93 per U.S. dollar, appreciating by 7.2% from the average value in the previous quarter. The baht's appreciation during the earlier parts of the quarter was initially due to China's reopening announcement and expectations about the recovery in Thai tourism, but was later driven by uncertainties pertaining to the monetary policy of major central banks following high inflation outturns in both the US and Europe, and banking stresses in advanced economies. **The nominal effective exchange rate (NEER) averaged 117.82, appreciating from the previous quarter.** This was because the baht appreciated more than trading partners' and competitors' currencies, especially the US and China. **There has been net capital outflow from both bond and equity markets** during the first quarter. In particular, outflows from the equity market were due to lower-than-expected GDP and current account balance outturns in Thailand.

Monetary Policy Decision: Summary of Key Considerations

Economic growth

The Thai economy would continue to expand and might post stronger growth rates than previously assessed.

Inflation outlook

Headline inflation would return to the target range during Q2/2023 although the outlook is still subject to upside risks.

Financial stability

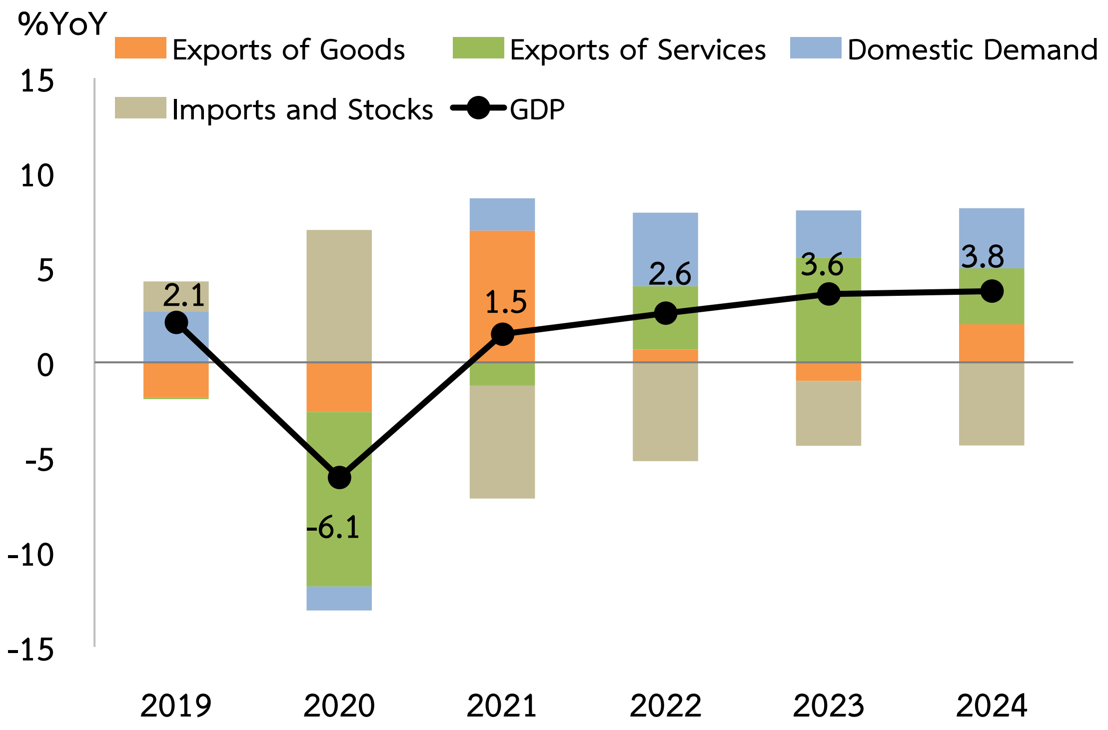
remains sound overall but banking stresses in advanced economies and the recovery of the vulnerable groups must be monitored.

Monetary Policy Decision

The MPC judges that gradual and measured policy normalization remains appropriate for the economic and inflation outlook, and stands ready to adjust size and timing should the outlook shifts from the current assessment.

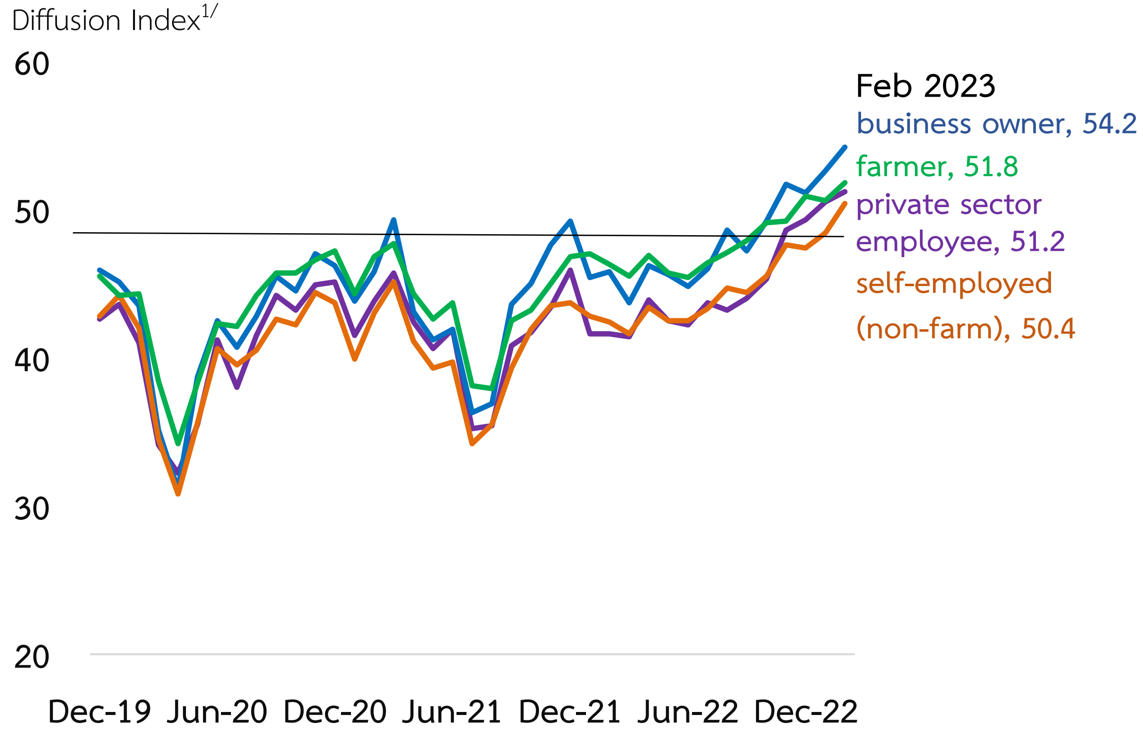
The Thai economy would continue to expand and has already returned to pre-COVID levels. Tourism and private consumption are the key drivers of growth, while exports would see a stronger recovery in H2/2023 before resuming growth next year.

Contribution to GDP growth



Consumer Confidence Index sees broad-based improvements.

Consumer Confidence Index, by occupation



Note : [1/] Level above 50 indicates that consumers are confidence about future economic conditions. CCI was surveyed from 7,621 individuals in all 884 districts nationwide.

Source : Economic and Trade Indices Database, Trade Policy and Strategy Office, Ministry of Commerce. BOT's calculation

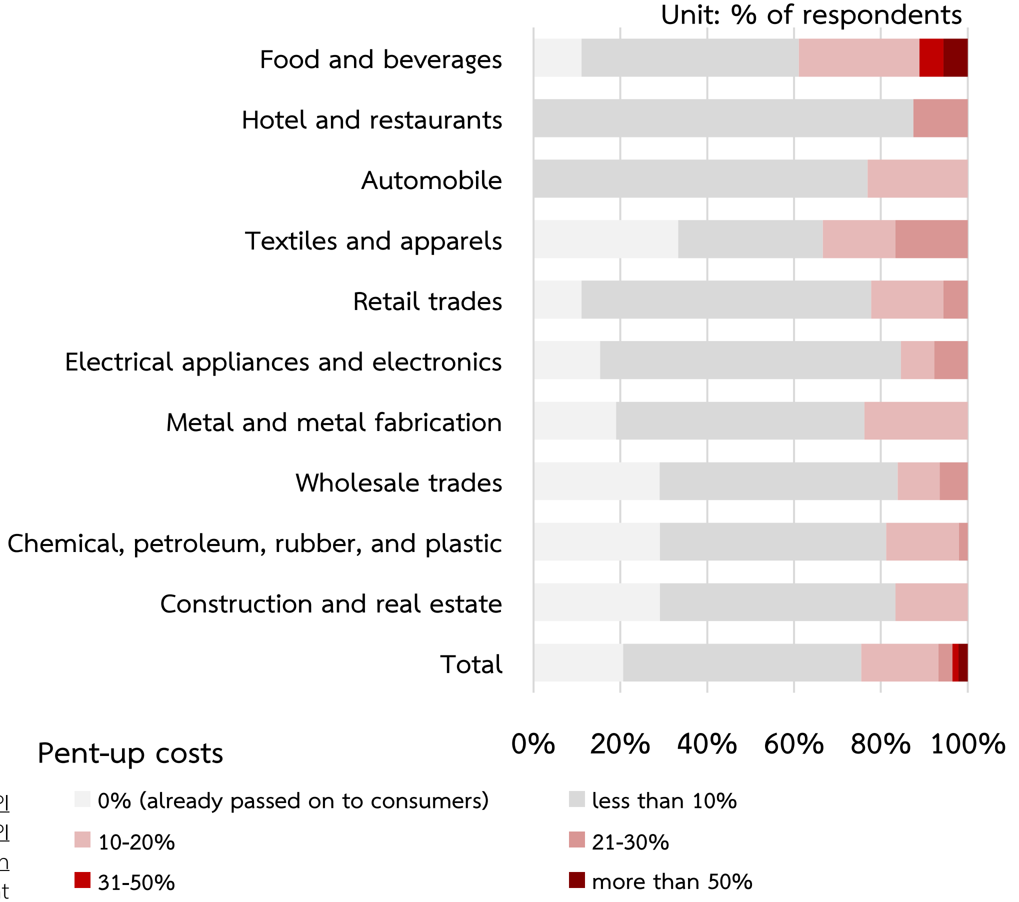
Headline inflation is expected to return to the target band in Q2/2023. Core inflation remains at high levels. The inflation outlook is subject to upside risks stemming from cost-passthrough by businesses and rising demand-pull inflationary pressure from the economic recovery.

Underlying inflation indicators have decreased but still remain at high levels.

Underlying inflation indicator	2022												2023	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Core CPI	0.5	1.8	2.0	2.0	2.3	2.5	3.0	3.2	3.1	3.2	3.2	3.2	3.0	1.9
Core CPI (ex rent & measures)	0.7	2.2	2.4	2.6	2.8	3.0	3.6	3.7	3.8	3.9	4.0	4.0	3.8	2.3
Symmetric trimmed mean CPI	1.2	2.1	2.4	2.4	3.2	3.7	4.0	4.2	4.2	4.2	4.1	4.2	3.7	2.9
Sticky price CPI	0.5	2.4	2.8	2.7	3.2	3.5	4.2	4.7	4.6	4.7	4.9	4.9	4.6	3.1
Common CPI	0.9	1.7	1.8	2.2	2.5	2.8	3.2	3.6	3.7	3.8	4.1	4.3	4.3	3.8
MUCSVO Trend	2.9			3.4			3.8			3.2				

lower than 1.50% | 1.50% - 1.75% | 1.75% - 2.25% | 2.25% - 2.50% | higher than 2.50%

Share of higher costs being borne by producers (pent-up costs)



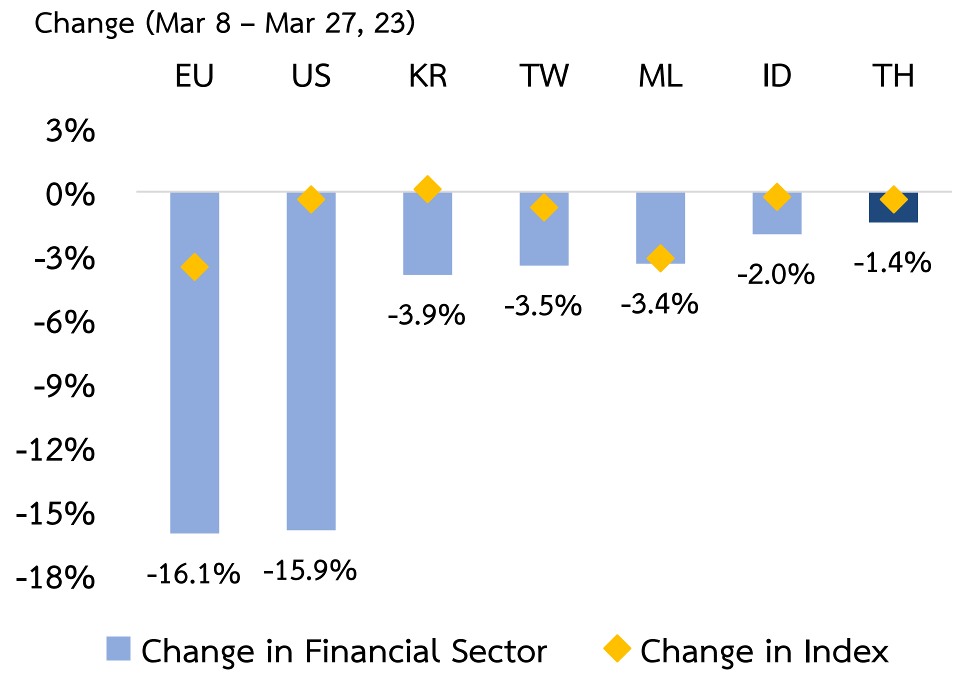
Source: BOT Business Survey on Selected Issues, responses from round 1 (340 respondents)

Note: These monthly indicators are %YoY except MUCSVO trend is %QoQ annualized of 10 categories of goods and services. Symmetric trimmed mean CPI excludes goods and services whose expenditure weights fall above the 90th percentile and below the 10th percentile of price changes. Sticky price CPI (following Bryan and Meyer, 2010) is calculated from goods and services whose prices take longer time to adjust than the average of 4.8 months. Common CPI is calculated from common underlying factors underpinning the change in price of goods and services across 66 categories using principle component model. MUCSVO trend is constructed following Stock and Watson (2015).

Sources: Ministry of Commerce, calculated by BOT

Financial stability remains sound overall. Banking stresses in advanced economies had limited impact on the Thai financial system. However, the situation going forward is still highly uncertain and thus warrants close monitoring.

Global stock indices, especially financial sector stock prices, have declined while impact on Thai markets has been limited.



Note: EU, US, and Thai financial sector equities exclude insurance businesses.
Source: Bloomberg. Data as of Mar 28, 2023 (for EU & US as of Mar 27, 2023)

Thai commercial banks remain strong. Thai banks and businesses have limited exposure to troubled banks and risky assets.

Banks

Thai banks[1/] remain strong

- Capital buffer (BIS ratio) is at 19.4%, well above regulatory requirement of 8.5% and is mostly comprised of capital equity tier-1.
- Liquidity Coverage Ratio (LCR) 197.3%, well above 100%
- NPL provision 171.9%, well-above 100%

Share of foreign assets is Low

- Share of transactions and assets related to troubled banks[2/] is very low

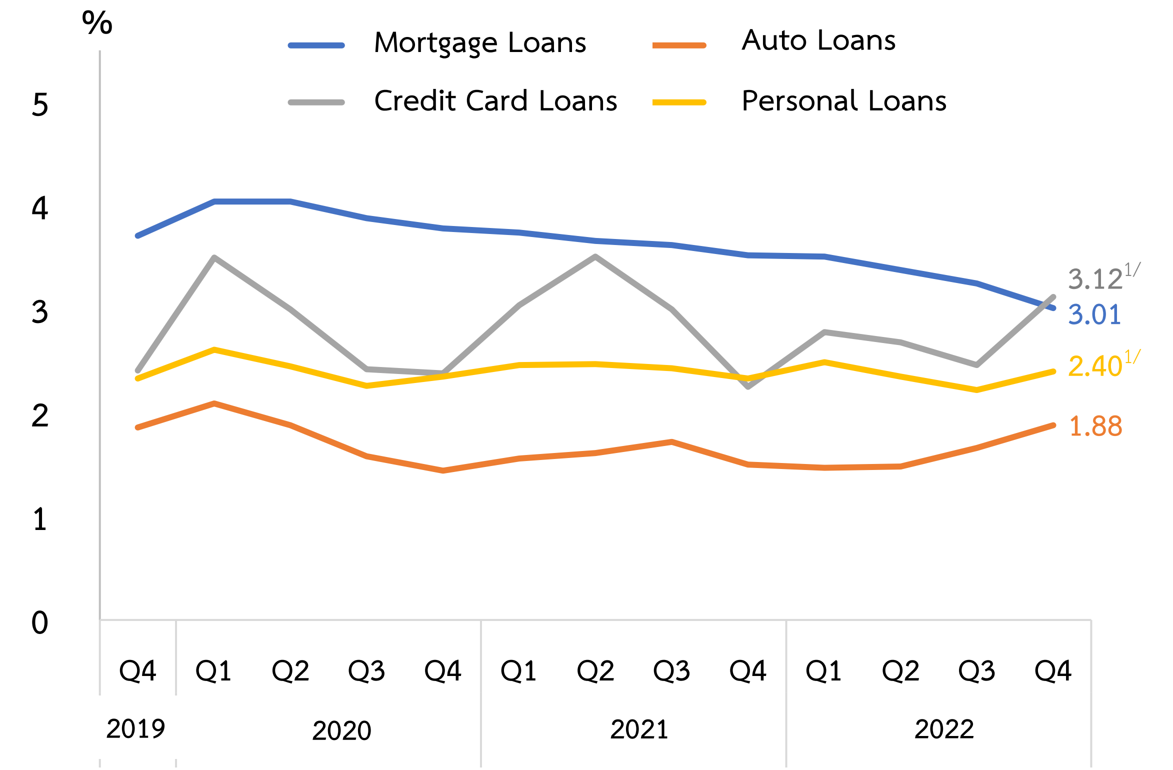
Capital market

- Share of investments in troubled assets[2/] of total investments abroad of all investor groups is very low

Note: [1/] Data is for the whole banking system as of end-2022
[2/] Silvergate Bank, SVB, Signature Bank, Credit Suisse

Financial stability remains sound overall but there remains the need to monitor balance sheets of vulnerable SMEs and households, and to continue implementing debt restructuring measures.

Shares of stage 3 loans (NPL) have slightly increased in some consumer loan portfolios.



[1/] %Stage 3 for credit card loans and personal loans would have been 2.59% and 2.37%, respectively, if the credit card and personal loan portfolio of one bank had not transferred to its subsidiary (excluded from stage 3 calculation).

Source: Bank of Thailand

BOT and SFIs still have in place debt assistance measures to support vulnerable groups

BOT's targeted measures

- Long-term debt relief measures (Dec 2023)
- Extension of soft loans and transformation loans (Apr 2024)
- Reduction in minimum repayment for credit card loans (Dec 2024)

SFIs' support measure for vulnerable borrowers

BAAC | GSB | GH Bank

- Debtor with account status "21": Debt restructuring and extended repayment periods
- Other debtors: Sustainably debt restructuring

Approach to addressing household debts[2/]

1) Debt Exit Fastlane, Debtor account status "21", long-term debt relief
2) Responsible lending
3) Lay necessary foundation for sustainably addressing household debts such as integrated household debt databases

Note: [1/] Debtors with account status of "21" under the National Credit Bureau's classification are debtors who became NPL due to the COVID-19 pandemic

[2/] See more details in Directional Paper on Sustainable Solutions to Thailand's Structural Debt Overhang Problems

Pursuing a gradual and measured policy normalization, whilst standing ready to adjust the size and timing should the growth and inflation shifts still remains the appropriate course of monetary policy action.

MPC Meeting
No. 1/2023
(25 Jan 2023)

MPC voted unanimously to raise the policy rate by 0.25 percentage point

MPC Meeting
No. 2/2023
(29 Mar 2023)

MPC voted unanimously to raise the policy rate by 0.25 percentage point

Current policy rate:

1.75%

The Thai economy would continue to expand mainly driven by tourism and private consumption, and might post stronger growth than expected. Headline inflation would return to the target range in Q2/2023 but the outlook is still subject to upside risks stemming from higher cost-passthrough and rising demand-pull inflationary pressure from the ongoing economic recovery.

Financial stability remains sound overall but there remains the need to monitor the impact of banking stresses in advanced economies on the Thai financial system as well as to monitor recovery of the vulnerable groups, and to continue implementing debt restructuring measures.

The MPC judges that a gradual and measures policy normalization, whilst standing ready to adjust the size and timing of rate hikes should the economic and inflation outlook shifts from current assessment remains the appropriate course of monetary policy action to maintain price stability and support the economic recovery while there are still pockets of vulnerabilities.

Percent	2021	2022	2021				2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GDP growth	1.6	2.6	-2.4	7.8	-0.2	2.0	2.2	2.5	4.6	1.4
Production										
Agriculture	2.3	2.5	-0.6	3.1	5.2	2.1	3.4	4.0	-2.2	3.6
Non-agriculture	1.5	2.6	-2.5	8.2	-0.5	1.9	2.0	2.3	5.1	1.1
Manufacturing	4.9	0.4	1.7	17.0	-0.9	3.5	2.0	-0.8	6.0	-4.9
Construction	2.2	-2.7	12.7	2.3	-4.5	-0.6	-5.1	-4.4	-2.6	2.6
Wholesales and retail trade	1.6	3.1	-1.9	4.1	2.1	3.1	2.7	3.2	3.5	3.1
Transport and storage	-2.7	7.1	-18.0	10.8	-1.3	4.8	3.5	5.0	10.1	9.8
Accommodation and Food Service	-14.2	39.3	-37.4	17.8	-18.8	-4.7	32.2	44.7	53.2	30.6
Information and Communication	6.1	5.1	5.2	6.2	7.4	5.8	5.7	6.3	4.7	4.1
Financial intermediation	5.5	0.9	6.5	6.3	6.1	3.1	1.0	1.4	1.0	0.2
Real estate and renting	1.7	2.1	2.1	2.5	0.6	1.5	1.3	2.4	3.1	1.9

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

Percent	2021	2022	2021				2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GDP growth	1.6	2.6	-2.4	7.8	-0.2	2.0	2.2	2.5	4.6	1.4
Expenditure										
Domestic demand	1.8	4.1	1.9	4.8	-1.5	2.2	3.6	4.3	6.0	2.5
Private consumption	0.6	6.3	-0.1	5.3	-3.2	0.6	3.5	7.1	9.1	5.7
Private investment	3.0	5.1	2.9	8.8	2.3	-1.1	2.9	2.3	11.2	4.5
Government consumption	3.7	0.0	1.0	0.7	2.5	10.4	8.2	2.7	-1.5	-8.0
Public investment	3.4	-4.9	18.8	3.1	-6.7	1.8	-3.8	-8.8	-6.8	1.5
Imports of goods and services	17.8	4.1	2.1	29.9	27.4	15.6	4.4	7.3	9.5	-4.6
imports of goods	18.2	5.4	5.0	29.9	26.5	14.5	6.6	9.9	11.2	-5.9
imports of services	16.0	-0.5	-9.4	30.3	32.6	21.0	-3.3	-1.9	3.7	-0.4
Exports of goods and services	11.1	6.8	-9.8	28.8	13.0	18.7	11.9	7.8	8.7	-0.7
exports of goods	15.3	1.3	3.0	30.9	12.4	17.5	9.7	4.3	2.3	-10.5
exports of services	-19.9	65.7	-61.0	9.0	19.4	31.2	35.5	47.7	79.2	94.6
Trade balance (billion, U.S. dollars)	32.4	10.8	7.4	9.3	7.5	8.1	7.2	2.5	-1.9	3.0
Current account (billion, U.S. dollars)	-10.6	-17.2	-1.8	-2.7	-4.5	-1.7	-2.4	-8.0	-7.7	0.9
Financial account (billion, U.S. dollars)	-6.0	2.2	-6.7	-2.7	2.6	0.8	3.7	-0.2	-3.5	2.1
International reserves (billion, U.S. dollars)	246.0	216.6	245.5	246.5	244.7	246.0	242.4	222.3	199.4	216.6
Unemployment rate (%)	2.0	1.3	2.0	1.9	2.3	1.7	1.5	1.4	1.2	1.2
Unemployment rate, seasonally-adjusted (%)	n.a.	n.a.	2.0	1.9	2.2	1.7	1.5	1.4	1.2	1.2

Note: *Data may be subject to change in line with periodic revisions or changes to data collection methodologies

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

Indicators	2021	2022	2021				2022			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Financial market sector										
Bond market										
Bond spread (10 years - 2 years)	1.2	1.0	1.5	1.3	1.3	1.2	1.4	1.2	1.3	1.0
Equity market										
SET index (end of period)	1,657.6	1668.7	1,587.2	1,587.8	1,605.7	1,657.6	1,648.8	1,568.3	1,589.5	1668.7
Actual volatility of SET index[1/]	12.0	11.0	13.6	12.4	11.8	10.4	12.0	12.6	9.9	9.4
Price to Earnings ratio (P/E ratio) (times)	20.8	18.2	41.4	30.2	20.5	20.8	19.6	18.5	17.5	18.2
Exchange rate market										
Actual volatility of Thai baht (%annualized)[2/]	5.4	8.7	4.4	4.4	5.5	7.3	6.6	6.4	9.3	11.9
Nominal Effective Exchange Rate (NEER)	117.8	115.6	122.7	119.3	114.8	114.6	116.8	116.4	113.6	115.8
Real Effective Exchange Rate (REER)	104.7	103.4	109.0	106.0	101.7	102.3	104.4	103.8	101.9	103.4
2. Financial institution sector[3/]										
Minimum Lending Rate (MLR)[4/]	5.49	6.00	5.36	5.36	5.49	5.49	5.49	5.49	5.55	6.00
12-month fixed deposit rate[4/]	0.45	0.98	0.44	0.42	0.45	0.45	0.45	0.45	0.50	0.98
Capital adequacy										
Capital funds / Risk-weighted asset (%)	19.9	19.4	20.0	20.0	19.9	19.9	19.8	19.6	19.2	19.4
Earning and profitability										
Net profit (billion, Thai baht)	181.1	236.0	44.2	60.4	38.5	37.9	49.0	65.0	60.0	62.0
Return on assets (ROA) (times)	0.8	1.0	0.8	1.1	0.7	0.8	0.9	1.1	1.0	1.1
Liquidity										
Loan to Deposit and B/E (%)	94.2	92.0	92.2	92.8	93.8	94.2	92.8	93.8	94.5	92.0

Notes:
[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 6 largest Thai commercial banks (since july 2021)

ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Indicators	2021	2022	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
3. Household sector										
Household debt to GDP (%)	90.1	86.9	90.8	89.6	89.7	90.2	89.3	88.3	87.0	86.9
Financial assets to debt (times)	3.0	n.a.	2.7	2.8	2.8	3.0	3.2	3.4	3.6	n.a.
Non-Performing Loans (NPLs) of commercial banks (%)										
Consumer loans	2.7	2.6	2.9	2.9	2.9	2.7	2.8	2.7	2.6	2.6
Housing loans	3.5	3.0	3.7	3.7	3.6	3.5	3.5	3.4	3.3	3.0
Auto leasing	1.5	1.9	1.6	1.6	1.7	1.5	1.5	1.5	1.7	1.9
Credit cards	2.3	3.1	3.0	3.5	3.0	2.3	2.8	2.7	2.5	3.1
Other personal loans	2.3	2.4	2.5	2.5	2.4	2.3	2.5	2.4	2.2	2.4
4. Non-financial corporate sector [5/]										
Operating profit margin (OPM) (%)	8.3	7.7	9.2	8.2	7.9	8.4	7.7	8.3	7.3	6.6
Debt to Equity ratio (D/E ratio) (times)	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
Interest coverage ratio (ICR) (times)	6.6	5.6	6.5	6.3	5.9	6.9	6.7	6.6	4.9	4.4
Current ratio (times)	1.7	1.8	1.6	1.6	1.7	1.7	1.8	1.8	1.7	1.8
Non-Performing Loans (NPLs) of commercial banks (%)										
Large businesses	2.6	2.3	3.0	3.0	2.8	2.6	2.6	2.5	2.3	2.3
SMEs	7.2	7.0	7.2	7.3	7.3	7.2	7.2	7.2	6.9	7.0

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

Indicators	2021	2022	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
5. Real estate sector										
Number of approved mortgages from commercial banks (Bangkok and Vicinity) (units)										
Total	63,207	64,636	15,958	17,238	14,413	15,598	13,611	16,136	17,113	17,776
Single-detached and semi-detached houses	18,310	19,471	4,445	4,954	4,169	4,742	4,661	4,949	4,805	5,056
Townhouses and commercial buildings	21,372	19,752	5,709	6,133	4,775	4,755	4,367	4,943	5,226	5,216
Condominiums	23,525	25,413	5,804	6,151	5,469	6,101	4,583	6,244	7,082	7,504
Number of new housing units launched for sale (Bangkok and Vicinity) (units)										
Total	60,394	107,051	9,996	16,028	11,085	23,285	23,923	30,250	24,966	27,912
Single-detached and semi-detached houses	13,240	24,748	2,275	3,222	2,963	4,780	3,559	5,323	8,678	7,188
Townhouses and commercial buildings	23,709	28,525	2,765	7,492	5,597	7,855	4,655	9,015	6,957	7,898
Condominiums	23,445	53,778	4,956	5,314	2,525	10,650	15,709	15,912	9,331	12,826
Housing price index (2009 = 100)										
Single-detached houses (including land)	135.84	141.54	134.10	135.04	136.50	137.72	138.63	141.35	140.85	145.32
Townhouses (including land)	160.60	167.36	158.78	159.59	161.55	162.48	164.44	167.37	168.44	169.20
Condominiums	180.37	184.43	177.18	178.79	185.40	180.10	181.99	185.26	181.57	188.92
Land	177.73	180.17	171.03	172.21	179.22	188.43	178.80	179.57	177.99	184.33
6. Fiscal sector										
Public debt to GDP (%)	59.7	61.0	54.5	55.4	58.4	59.7	60.6	61.0	60.5	61.0
7. External sector										
Current account balance to GDP (%)	-2.1	-3.5	-1.3	-2.2	-3.8	-1.3	-1.9	-6.6	-6.4	0.7
External debt to GDP (%)[6/]	38.0	39.9	35.6	35.7	36.4	38.0	38.4	37.8	37.1	39.9
External debt (billion, U.S. dollars)	196.3	199.8	184.5	185.2	188.5	196.3	198.0	194.1	187.9	199.8
Short-term (%)	38.1	40.1	39.0	38.6	38.2	38.1	38.1	39.5	40.7	40.1
Long-term (%)	61.9	59.9	61.0	61.4	61.8	61.9	61.9	60.5	59.3	59.9
International reserves / Short-term external debt (times)[7/]	2.7	2.3	2.8	2.9	2.8	2.7	2.7	2.4	2.2	2.3

Notes: [6/] External debt / 3-year average nominal GDP

[7/] Short-term external debt used in calculation is short-term external debt less than 1 year remaining maturity

Probability distribution of GDP growth forecast

%	2023				2024				2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
> 16	0	0	0	0	1	1	1	2	2
14.0-16.0	0	0	0	0	0	1	1	1	1
12.0-14.0	0	0	0	1	1	1	1	1	1
10.0-12.0	0	0	0	2	2	2	2	3	2
8.0-10.0	0	1	2	6	3	4	4	7	6
6.0-8.0	0	5	8	14	8	9	11	14	13
4.0-6.0	3	21	22	27	24	19	24	20	21
2.0-4.0	71	50	38	32	30	24	26	22	21
0.0-2.0	24	19	18	10	18	19	16	15	15
(-2.0)-0.0	1	4	7	4	6	10	8	8	9
(-4.0)-(-2.0)	0	1	2	1	2	4	3	4	4
(-6.0)-(-4.0)	0	0	1	1	1	1	1	2	2
(-8.0)-(-6.0)	0	0	0	1	1	1	1	1	1
< -8	0	0	0	1	2	3	2	2	2

Probability distribution of headline inflation forecast

%	2023				2024				2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
> 10	0	0	0	0	0	0	0	0	0
9.0-10.0	0	0	0	0	0	0	0	0	0
8.0-9.0	0	0	0	0	0	0	0	0	0
7.0-8.0	0	0	0	0	0	0	0	0	0
6.0-7.0	0	0	1	1	2	2	1	1	1
5.0-6.0	6	2	4	5	6	6	4	4	4
4.0-5.0	48	10	11	13	14	14	11	10	10
3.0-4.0	43	28	23	23	23	23	20	20	19
2.0-3.0	3	37	30	28	26	26	26	26	26
1.0-2.0	0	20	21	20	19	19	23	23	23
0.0-1.0	0	4	8	8	8	8	11	12	12
(-1.0)-0.0	0	0	2	2	2	2	3	3	4
(-2.0)-(-1.0)	0	0	0	0	0	0	1	1	1
< -2	0	0	0	0	0	0	0	0	0

Probability distribution of core inflation forecast

%	2023				2024				2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
> 5.5	0	0	0	0	0	0	0	0	0
5.0-5.5	0	0	0	0	1	0	0	0	0
4.5-5.0	0	0	1	1	2	1	0	0	0
4.0-4.5	0	1	3	4	5	3	2	1	1
3.5-4.0	0	6	7	10	10	7	4	4	4
3.0-3.5	8	18	16	18	18	13	9	8	8
2.5-3.0	40	31	24	25	23	19	16	15	14
2.0-2.5	47	31	27	24	23	23	22	21	20
1.5-2.0	5	11	17	13	13	20	23	23	23
1.0-1.5	0	1	5	4	4	10	16	18	18
0.5-1.0	0	0	1	1	1	3	6	8	8
0.0-0.5	0	0	0	0	0	0	1	2	2
(-0.5)-0.0	0	0	0	0	0	0	0	0	0
< -0.5	0	0	0	0	0	0	0	0	0

Pursuing Sustainable Economic Well-Being

Bank of Thailand

273 Samsen Road, Watsamsenphraya, Phra Nakhon District, Bangkok 10200

Tel. +66 2283-5353