ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Monetary Policy Report
Q2/2023

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. 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.

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Data in this report is as of 30 May 2023 (1 day prior to the MPC Meeting)

Global Economy

Trading partners are expected to grow 2.6% in 2023 and 2.7% in 2024. The outlook for the US and euro area economies have continued to improve on the back of growth in the services sector. The Chinese economy saw robust growth following its reopening, resulting in improvements in domestic consumption and activities in the services sector. Meanwhile, China's manufacturing sector and imports are still recovering at a gradual pace due to high level of manufacturing inventories, limiting the reopening's spillover benefits to other Asian economies. Looking ahead, trading partner economies would continue to expand as global demand recovers. Nonetheless, **the global economic outlook is still subject to risks** stemming from the lagging effects of major central banks' monetary policy actions as well as lingering geopolitical risks, which would pose implications for monetary policy and global economic growth in the period ahead.

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 continued recovery in tourism as reflected by the increasing number of foreign tourist arrivals across almost all nationalities, especially the Malaysian and European. Foreign tourist arrivals are expected to reach 29.0 and 35.5 million in 2023 and 2024, respectively; and **(2) a continued expansion in private consumption** in line with the recovery in tourism which would result in more broad-based improvements in overall employment and labor income, notably in the services sector and among self-employed workers. Nonetheless, **merchandise exports, which had contracted since the end of 2022, are recovering gradually and should pick up pace in the second half of 2023** thanks to China's reopening and improvement in trading partners' growth. This would provide an impetus for growth through to 2024. **Upside risks to Thailand's growth outlook** include the higher-than-expected foreign tourist arrivals and a stronger stimulus from the new governments' economic policies.

Inflation

Headline inflation is expected to gradually decline towards the target range, averaging at 2.5% in 2023 and 2.4% in 2024 due to easing supply pressures from lower domestic electricity and diesel prices as well as government subsidies (Box 1: Thailand's disinflation process in the Asian context). However, **core inflation would remain elevated,** averaging at 2.0% in both 2023 and 2024. This is in line with underlying inflation indicators remaining high despite some slowdown. At the same time, core inflation is driven importantly by components which have been highly persistent namely food in core components, whose prices remain on an upward trajectory. Looking ahead, **the inflation outlook is still subject to upside risks** including (1) mounting demand pressures given the backdrop of expanding economic activities, particularly if tourism recovery or fiscal stimulus under the new government's economic policies proves stronger than expected; and (2) a higher and faster-than-expected cost pass-through given persistently high production costs that were partly absorbed by producers in the past. In this context, further supply pressures could also have implications for price-setting behavior. **Medium-term inflation expectations are still well-anchored within the target range.**

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Financial Conditions and Financial Stability

Overall financial conditions turned somewhat less accommodative. Private sector funding costs have increased as commercial banks' interest rates and Thai government bond yields rose in tandem with the policy rate (Box 2: Monetary policy transmission to commercial banks' interest rates). Long-term government bond yields increased slightly partly influenced by higher US Treasury yields due to monetary policy normalization and uncertainties pertaining to the US debt ceiling. Nonetheless, financing costs in the bond market remain largely unchanged with foreign investors' demand for Thai long-term bonds remaining intact and credit spreads remaining largely stable. In terms of financing volume, businesses are still able to mobilize funds with private credit growth remaining positive despite some slowdown due mainly to debt repayments. Meanwhile, some large corporates have issued more bonds with corporate bond issuances reaching a 3-year high. **On exchange rates, the baht against the US dollar depreciated slightly from the previous quarter.** The baht depreciation was driven by market expectations on the Fed's monetary policy, the renminbi depreciation, and domestic political uncertainties.

The overall financial system remains resilient with financial institutions maintaining high levels of capital and loan loss provision. Debt serviceability of businesses and households has also improved in line with the economic recovery. Nonetheless, financial fragilities remain for some SMEs and households that are exposed to rising living costs and higher debt burden. 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.

Monetary Policy Decisions in the Second Quarter of 2023

At the meeting on 31 May 2023, the MPC voted unanimously to raise the policy rate by 0.25 percentage point from 1.75% to 2.00%. The MPC deems a continuation of gradual policy normalization to be appropriate in light of the growth and inflation outlook. The MPC expects **the Thai economy to continue expanding,** driven mainly by tourism and private consumption. Merchandise exports are expected to recover gradually. **Headline inflation has returned to the target range, but there remains upside risks** stemming from mounting demand pressures amid expanding economic activities and higher cost pass-through from supply pressures, in part contingent on government economic policies looking ahead. **The overall financial system remains resilient** but there is still a need to closely monitor financial market developments and volatilities, as well as debt serviceability of SMEs and low-income households with large debt burden.

Under the prevailing monetary policy framework, the MPC seeks to maintain price stability, support sustainable growth in line with potential, and preserve financial stability. In the view of these objectives, the MPC expects a steady economic expansion but sees a need to monitor upside risks to inflation. **The MPC thus decided to increase the policy interest rate to normalize the monetary policy stance in a gradual and measured manner toward a level consistent with long-term sustainable growth. The MPC is prepared to adjust the size and timing of policy normalization should the evolving growth and inflation outlook differ from the current assessment.**

Global Economy: Key Issues

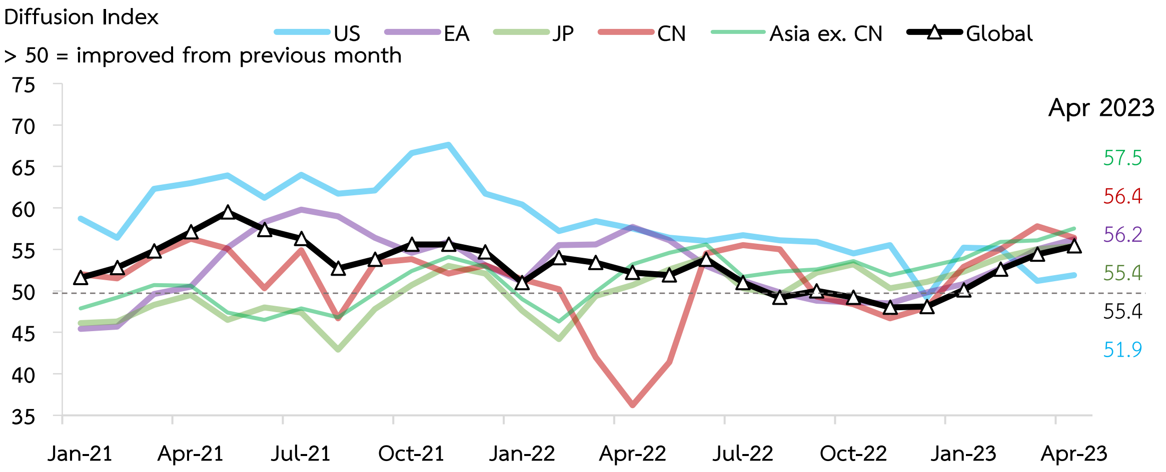
The global economy would continue to expand driven mainly by the services sector, especially in the US, euro area, and China. However, China's reopening would have a limited spillover benefits to other Asian economies.

Persistently high inflation started to abate in many countries, prompting most central banks to keep their policy rates on hold.

Trading partners' growth outlook faces downside risks from the lagging effects of monetary policy actions, banking stresses in advanced economies, and geopolitical tensions.

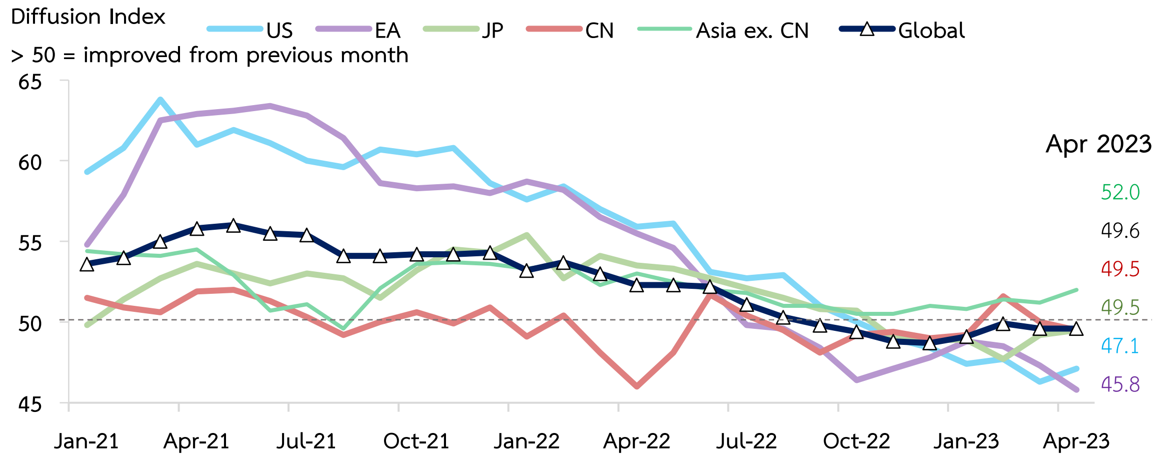
The global economy is expected to continue expanding in 2023 driven mainly by the services sector. Meanwhile, manufacturing activities are expected to slow in tandem with global demand.

Purchasing Managers' Index (Service)



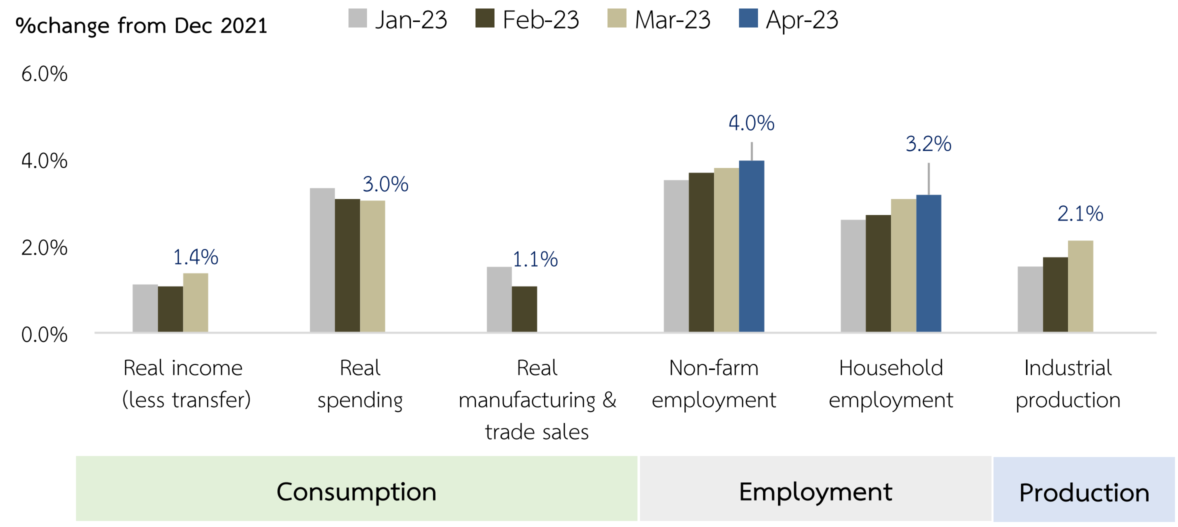
Source: CEIC, IHS Markit

Purchasing Managers' Index (Manufacturing)



Source: CEIC, IHS Markit

US Economic Indicators



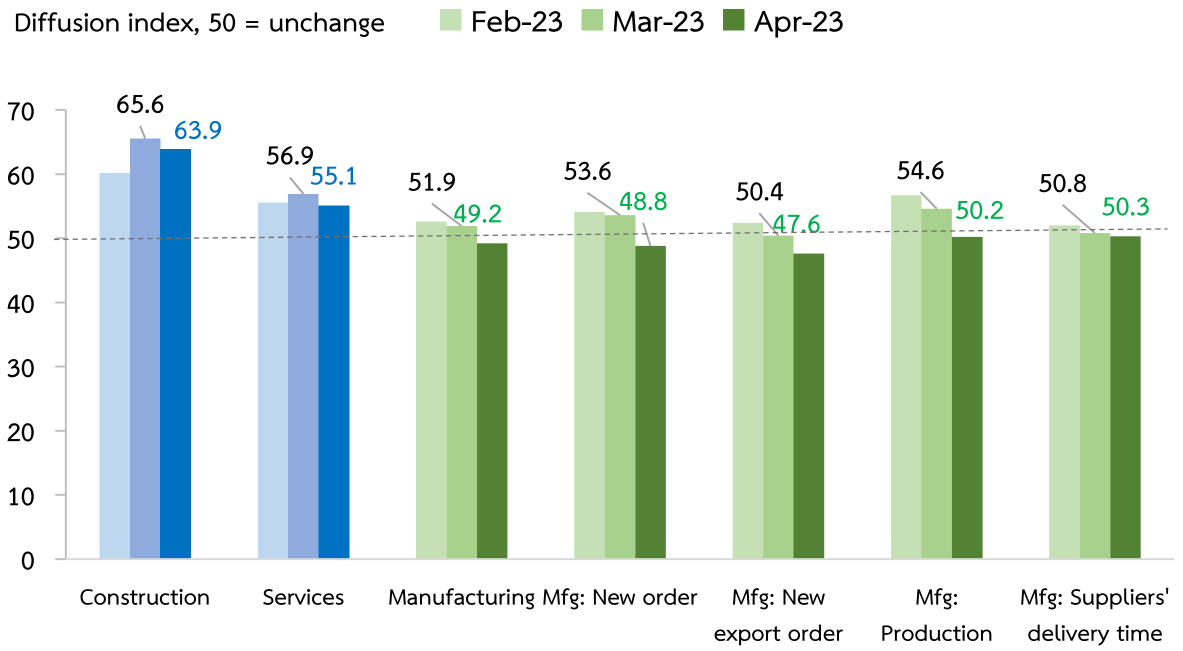
Source: FRED Economic data

The global economy would continue to expand mainly on the back of economic activities in the services sector and sound US economic fundamentals particularly consumption and labor market.

Meanwhile, manufacturing activities in many countries would slow in line with global demand amid concerns over persistently high inflation which could prompt a further monetary policy tightening.

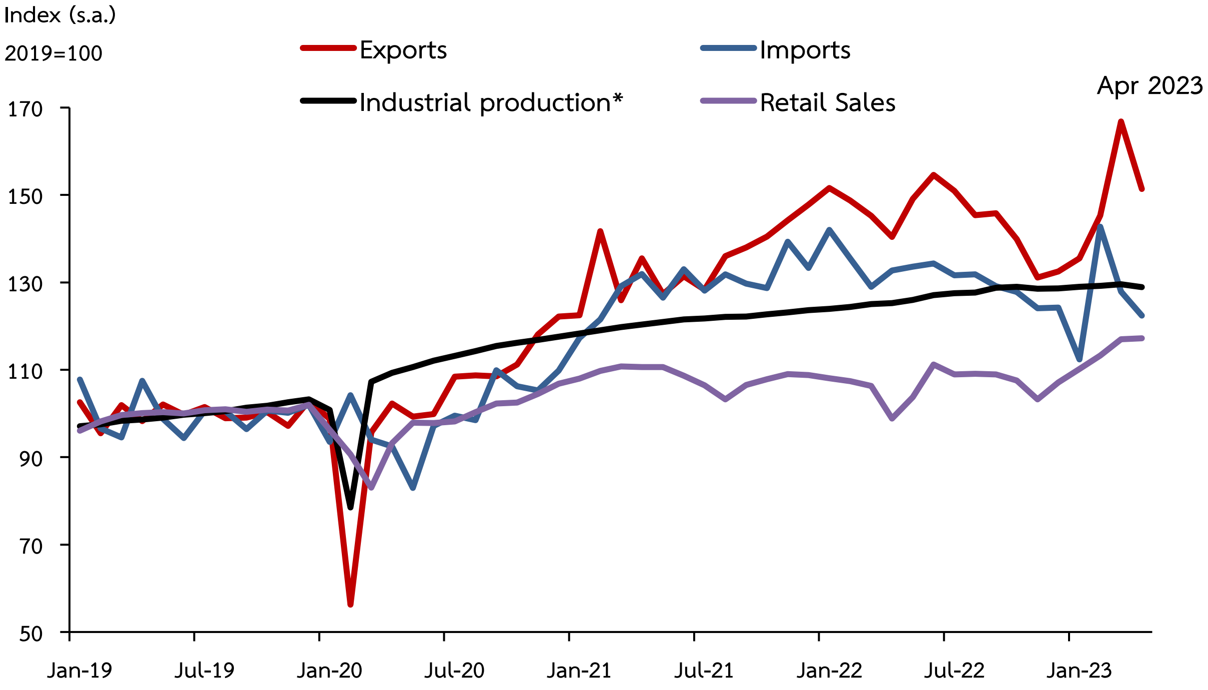
The Chinese economy would continue to gain traction supported by consumption and activities in the services sector. However, manufacturing activities and imports are still recovering gradually partly due to high level of inventories.

NBS PMI Manufacturing and Non-manufacturing



Source: CEIC

China's retail sales, industrial production, and trade balance



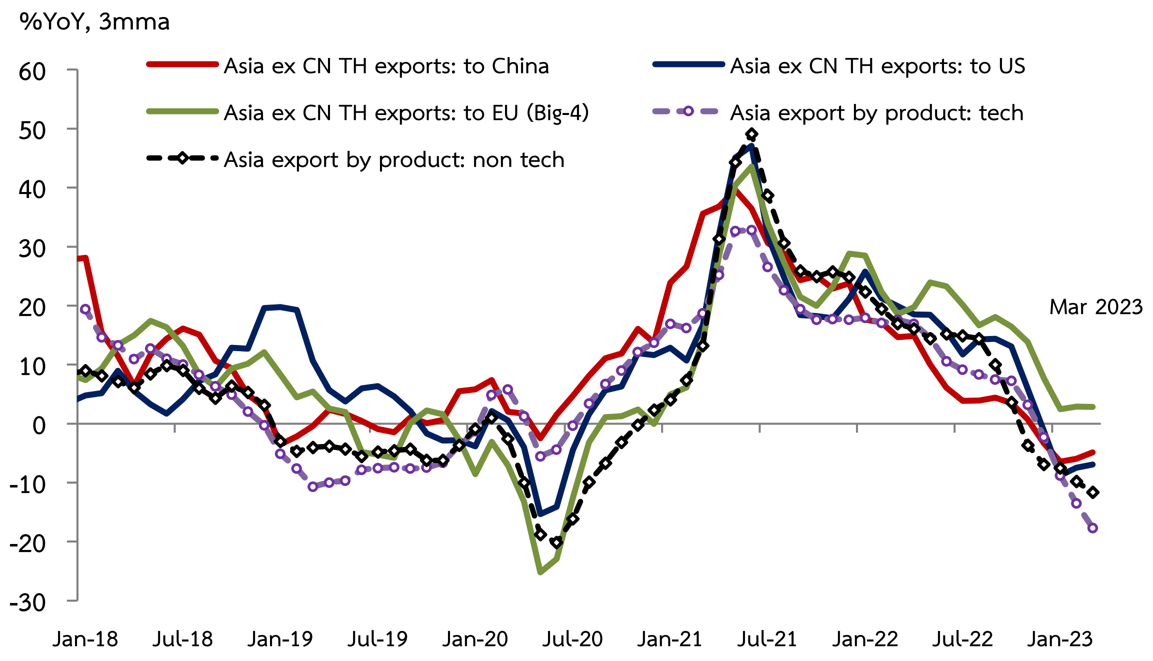
Source: CEIC

Note: *Industrial production in China is the seasonally adjusted %MoM change, using data from official sources.

Economic activities in China would continue to expand supported by consumption and activities in the services sector such as restaurants and tourism. The real estate sector is also gradually recovering with the construction sector expected to continue expanding looking ahead. China's exports growth remains strong despite some slowdown after having accelerated in the earlier period, especially exports to G3 and BRICS. However, manufacturing activities and imports are still recovering at a gradual pace, partly due to high level of manufacturing inventories.

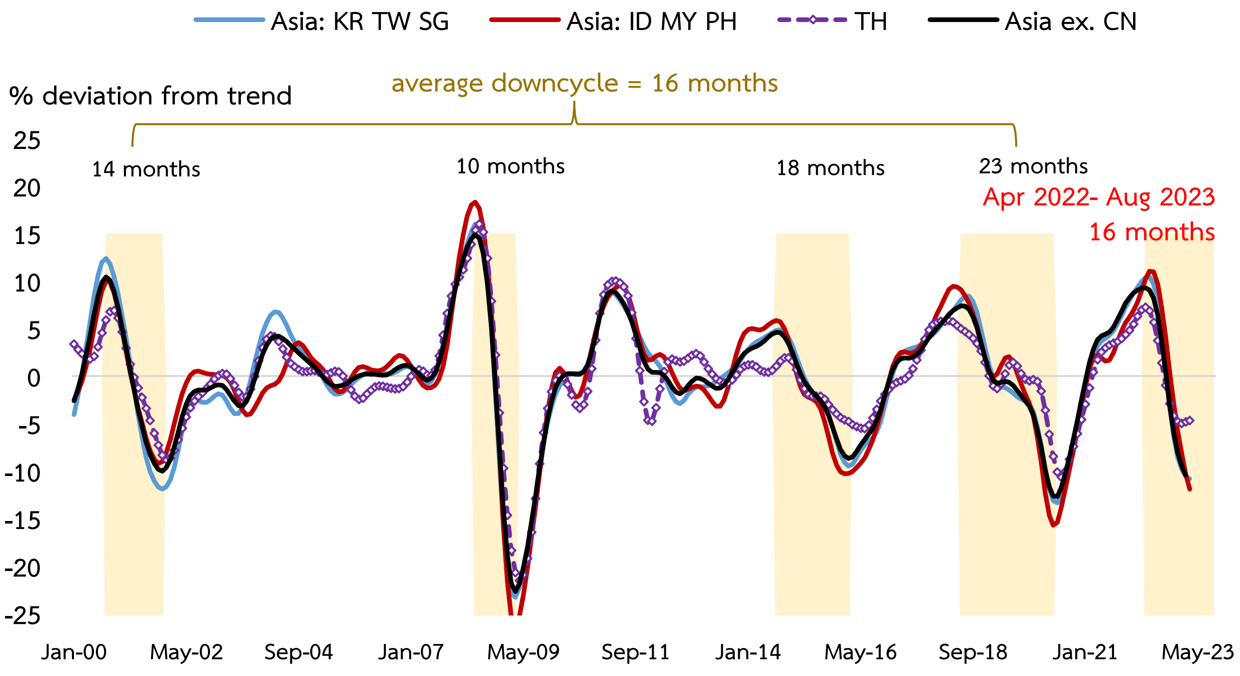
Asian merchandise exports have yet to see a firm recovery especially electronics due to muted global demand and high level of inventories. However, exports are expected to pick up pace in the second half of 2023.

Asian exports to US, EU, and China



Note: Asia ex China includes JP MY HK SG ID PH KR VN, with export data of ID and PH using data as of Feb 2023 1) Asia export by product includes JP MY SG ID PH KR TW (2) Tech includes electronic equipments, products and machinery and (3) Export data of SG, KR, TW, MY and JP is as of Mar 2023. Source: CEIC; BOT Calculation

Asian export cycles

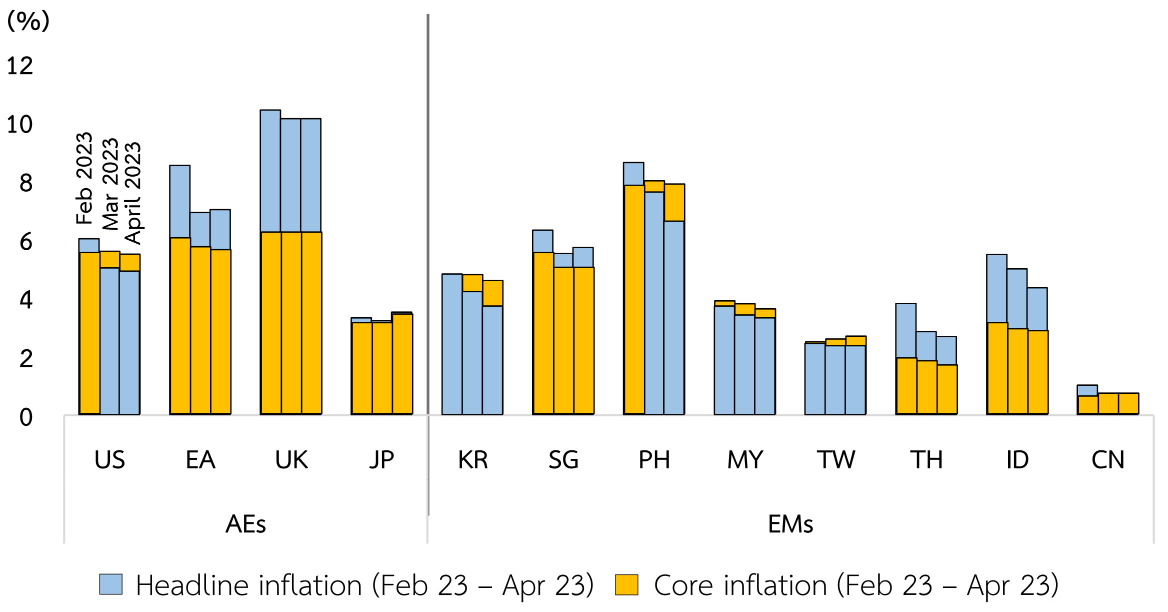


Note: (1) Asia ex. CN includes HK KR TW SG ID MY PH TH (2) Exports data in Mar-2023
Source: CEIC; BOT Calculation

Asian exports have yet to see a firm recovery due to limited spillover benefits from China's reopening. Overall, Asian exports are still declining, especially exports of electronics, as global demand is still weighed down by inflationary pressures. The decline is also partly due to high level of manufacturing inventories as inventory rundowns are still proceeding at a gradual pace. Nonetheless, merchandise exports to key trading partners saw slight improvements in the recent period. Asian exports are expected to bottom out in Q3/2023 and would gradually recover as electronics exports are likely to pick up as inventories decline.

Many central banks have kept their policy rate on hold as headline and core inflation gradually decline

Headline inflation and core inflation



Source: CEIC

Expectations of the Fed's monetarty policy in 2023 - 2024

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

Note: * Outturn, ( ) forecast in *Monetary Policy Report* Q4/2022

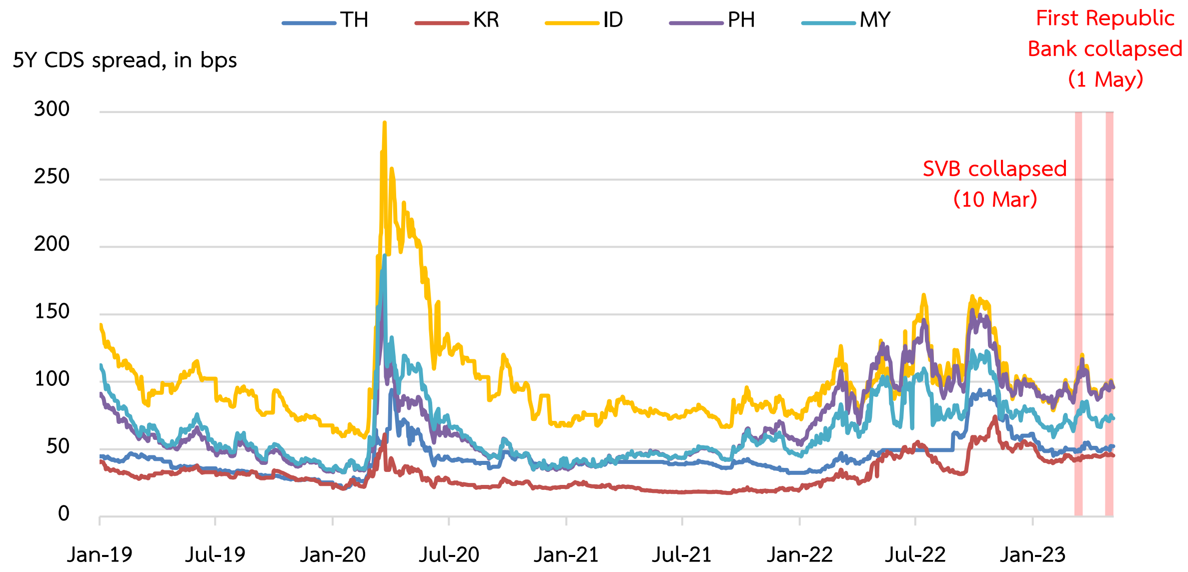
The Federal Reserve (Fed) raised its policy rate by 25 bps to 5.00-5.25% at the FOMC Meeting on 3 May 2023. The decision was underpinned by the continued economic expansion and strong labor market conditions. Meanwhile, inflation in the US is receding but remains high overall. Looking ahead, the Fed's decision would be dependent on inflation risks and employment. The Fed also stands ready to utilize other policy tools to support the US banking system so that it could effectively tighten monetary policy as warranted by overall economic conditions. In this regard, the BOT has revised down its forecast for the federal funds rate by 25 bps throughout the forecast period on account of tighter financial conditions in the US posing risks to economic activities in the period ahead.

The European Central Bank (ECB) raised its policy rate by 25 bps to 3.25% at the Governing Council Meeting on 4 May 2023 as inflationary pressures remain elevated. The ECB also signaled that it would end the reinvestments under the Asset Purchase Program (APP) in July 2023. Looking ahead, the ECB is likely to continue raising policy rate with a data-dependent approach. The ECB also stressed its readiness to deploy new tools to support commercial banks should liquidity problems arise in the European financial system.

Most Asian central banks have stopped raising policy rates such as Bank Negara Malaysia, Bank Indonesia, and the Bank of Korea as headline inflation in those countries have started to slow down. Nonetheless, persistently high core inflation remains a risk factor that central banks would continue to monitor going forward.

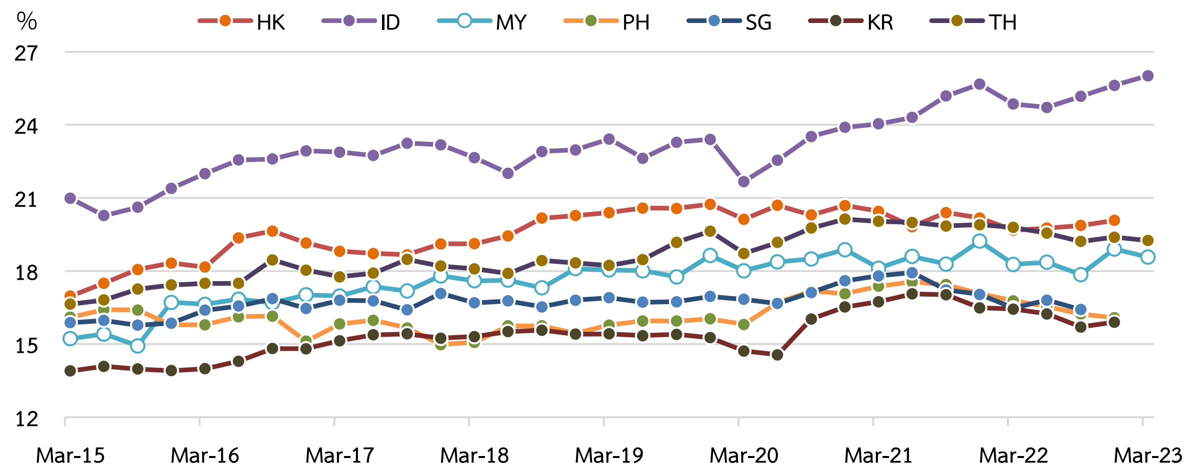
Banking stresses in advanced economies have had a limited impact on Asian financial markets and banking systems. Commercial banks in Asia remain sound with high levels of capital and liquidity buffers.

Credit default swap (CDS) spreads of 5-year government bonds



Source: Bloomberg (data as of 8 May 2023)

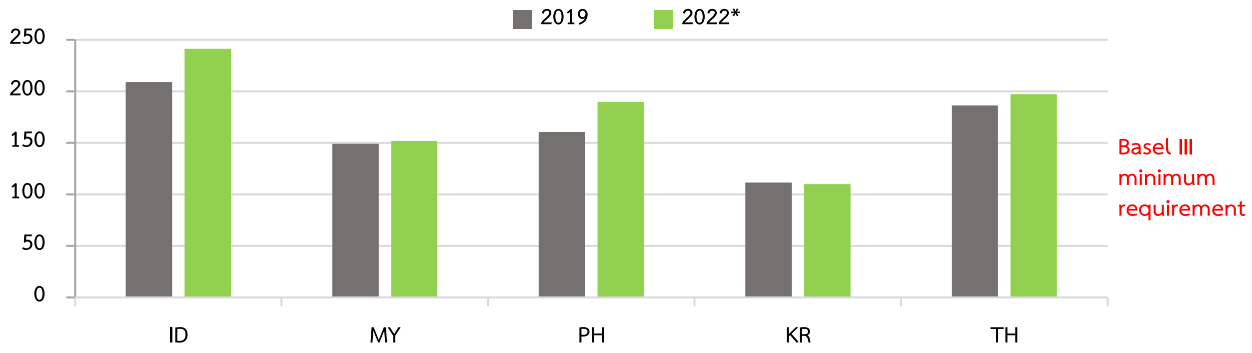
Capital Adequacy Ratio



Source: CEIC Note: HK PH KR MY (Q1/2023) ID TH (Feb 2023)

Banking stresses in the US and Europe have had limited impact on confidence among Asian market investors. Sovereign CDS spreads in Asia have not increased much, reflecting limited market concerns over default risks of Asian governments. Meanwhile, commercial banks in Asia remain sound with capital adequacy ratios and liquidity coverage ratios at levels that are sufficient to meet liquidity needs during liquidity stress period and are well above international standards.

Liquidity Coverage Ratio



Source: CEIC Note: ID KR TH (Q4/22) MY (Q3/22) PH (Q2/22)

Trading partners' growth forecast for 2023 is revised up slightly on account of a gradual demand recovery among advanced economies and China. For 2024, trading partners would continue to expand in line with the recovery in global demand.

Assumptions of Trading Partners' Growth

%YOY	Share of exports in 2022[1/] (%)	2022[2/]	2023		2024	
			MPR Q1/23	MPR Q2/23	MPR Q1/23	MPR Q2/23
US	16.6	2.1	0.9	1.2	1.3	1.1
Euro area	6.8	3.5	0.7	0.8	1.3	1.2
Japan	8.6	1.0	1.1	1.1	1.2	1.2
China	12.0	3.0	5.5	5.9	5.4	5.1
Asia[3/]	21.5	3.8	3.7	3.6	4.3	4.1
Total[4/]	70.8	2.9	2.5	2.6	2.9	2.7

Note: [1/] Share of total Thai exporting values to key trading partners in 2022
[2/] Outturns with backward revision for some countries
[3/] Asia (ex. Japan and China) includes Singapore (3.6%), Hong Kong (3.5%), Malaysia (4.4%), Taiwan (1.6%), Indonesia (3.6%), South Korea (2.2%), and the Philippines (2.6%).
[4/] Including UK and Australia

Trading partners' growth forecast for 2023 is revised up slightly. In particular, the US is projected to see a stronger economic recovery as reflected in better-than-expected Q1/2023 growth outturns and ongoing improvements seen in most recent economic indicators. The Chinese economy is also expected to gain further traction after the country's reopening with consumption and the services sector providing the main growth momentum this year. **For 2024, trading partners would continue to expand** in line with the recovery in global demand despite a slight downward revision to the growth forecast on account of elevated inflation and tighter financial conditions, which would affect economic activities.

Overall, risks to trading partners' growth outlook are skewed to the downside.

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

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

The Thai Economy: Key Issues

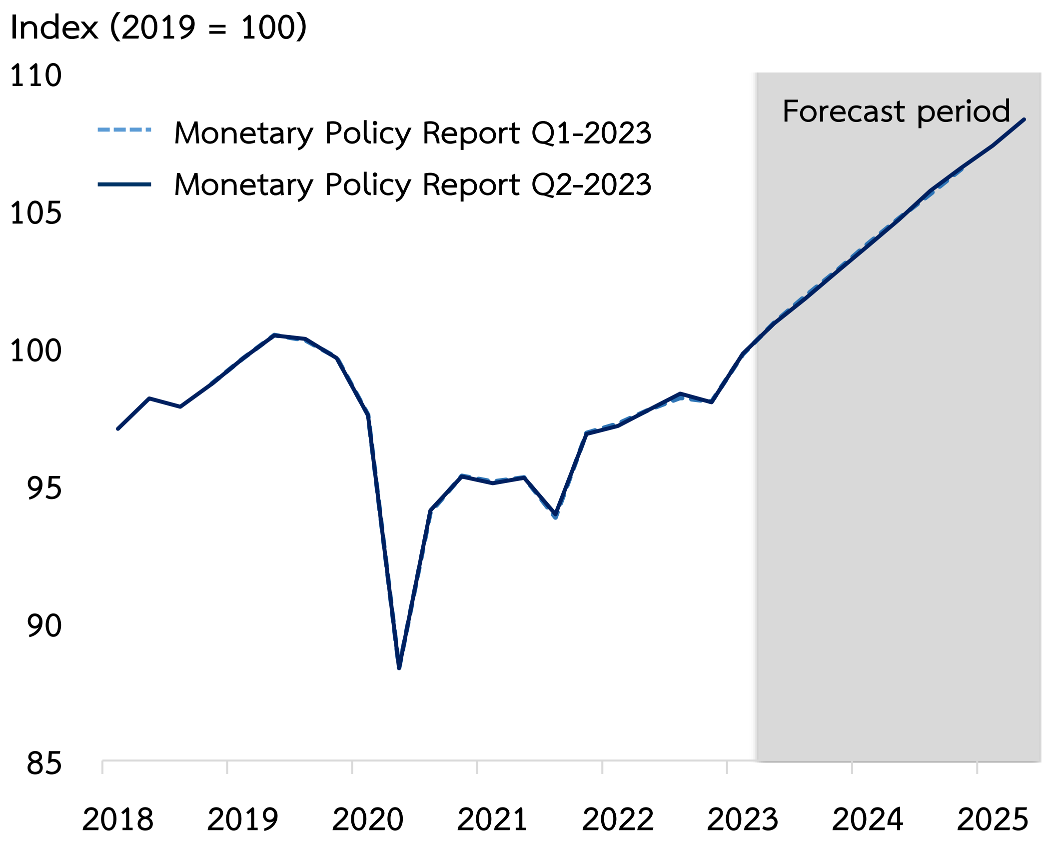
The Thai economy should continue to expand driven by tourism and private consumption, which would in turn benefit the labor market. However, merchandise exports would still recover at a gradual pace.

Labor market conditions and consumer confidence have improved in line with the recovery in economic activities, especially among workers in the services sector and the self-employed.

Headline inflation has returned to the target range but is subject to upside risks. This is in line with core inflation which has started to decline but remains elevated and is subject to upside risks from mounting demand pressures and potentially higher cost pass-through driven by supply-side pressures.

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 are expected to recover gradually.

Real GDP



Growth (%YoY)	2022*	2023	2024
GDP growth	2.6	3.6 (3.6)	3.8 (3.8)
Domestic Demand	4.1	2.5 (2.5)	3.2 (3.3)
Private Consumption	6.3	4.4 (4.0)	2.9 (3.1)
Private Investment	5.1	1.7 (2.1)	4.9 (4.8)
Government Consumption	0.2	-2.8 (-2.2)	1.1 (1.1)
Government Investment	-4.9	2.5 (3.7)	6.8 (7.8)
Export volume of goods and services	6.8	7.3 (6.8)	6.7 (7.4)
Import volume of goods and services	4.1	0.9 (1.4)	5.5 (5.5)
Current account (billion U.S. dollars)	-17.2	6.0 (4.0)	12.5 (12.5)
Value of merchandise exports (%YoY)	5.5	-0.1 (-0.7)	3.6 (4.3)
Value of merchandise imports (%YoY)	15.3	0.7 (1.2)	4.2 (4.2)
Number of foreign tourists (million persons)	11.2	29.0 (28.0)	35.5 (35.0)

Note: * = outturn; ( ) = previous forecast from Monetary Policy Report Q1-2023

Source: NESDC and BOT forecast

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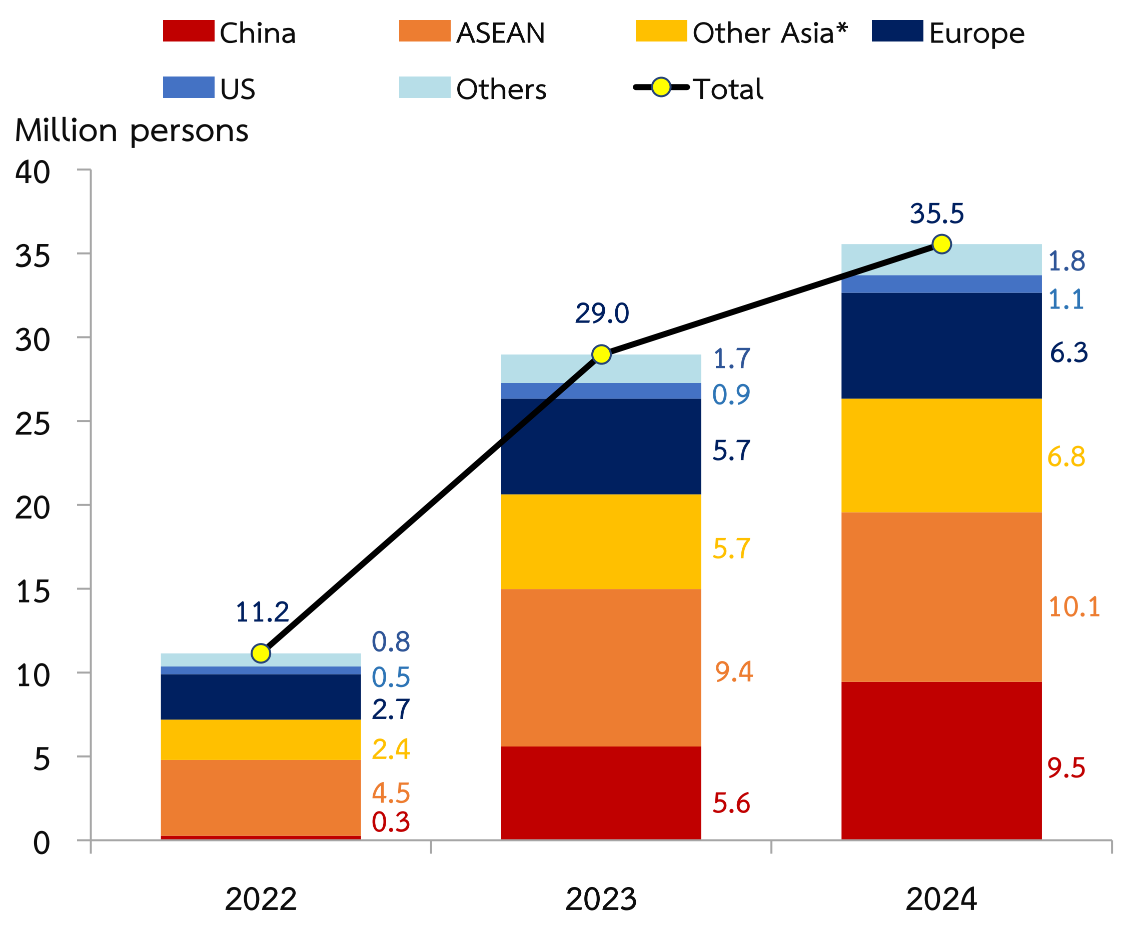
Summary of economic forecasts

Foreign tourist arrivals	Revised up from 28 million to 29 million persons in 2023 on account of better-than-expected outturns in foreign tourist arrivals and tourism indicators. Meanwhile, recovery in tourist arrivals from China was largely in line with expectation and the shortage of ground staff at airports is likely to be resolved. Foreign tourist arrivals would continue to recover in 2024 with projected number of foreign tourists being revised up from 35 million to 35.5 million persons on account of improved tourism confidence.
Private consumption	Revised up on account of better-than-expected outturns driven by growth momentum in the services sector, which would in turn benefit employment and labor income, especially self-employed workers and workers in tourism-related sectors. Private consumption would continue to expand in 2024 as household purchasing power improves in line with labor income.
Merchandise exports (Value)	Merchandise exports would register a smaller contraction than the previous forecast partly due to better-than-expected gold exports. Merchandise exports (excluding gold) would recover at a gradual pace due to limited benefits from trading partners' growth being driven by the services sector, and China's greater reliance on its domestic production capabilities. Nonetheless, exports of electrical appliances are expected to pick up due to warmer weather in many countries. Exports of agricultural and agro-manufacturing products would also continue to grow on the back of demand from China. Exports of electronics are expected to see a stronger recovery in the second half of 2023 and become a growth driver for exports in 2024.
Private investment	Revised down in 2023 on account of some public private partnership (PPP) projects being delayed due to contractual issues that will have to be reviewed by the new government. Nonetheless, private investment is expected to pick up and post a strong growth in 2024 as many infrastructure projects would commence along with investments in new target industries such as EV and BCG, which have seen increased approvals by BOI for large corporates. Private investment would also be supported by resumption in export growth.

Foreign tourist arrivals forecasts are revised up on account of higher-than-expected outturns in Q1/2023 especially European and Malaysian tourists as well as improved tourism confidence

Projection of foreign tourist arrivals



Note: * includes Middle East

Source: Ministry of Tourism and Sports and BOT forecast

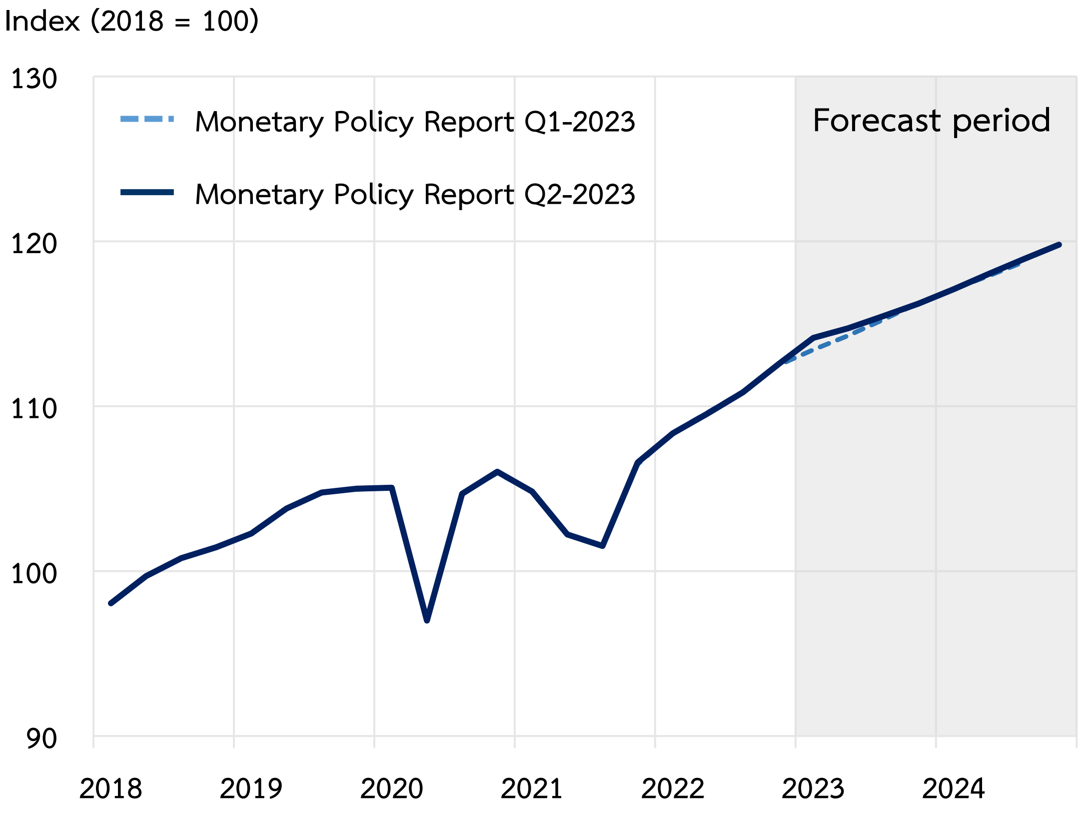
	2022	2023		2024	
		MPR Q1/23	MPR Q2/23	MPR Q1/23	MPR Q2/23
Million persons	11.2	28.0	29.0	35.0	35.5
% of 2019 value	28%	70%	73%	88%	89%

- Revised up foreign tourist arrivals forecast for 2023 to 29.0 million persons on account of better-than-expected outturns across almost all nationalities, especially Malaysian and European tourists, and tourism indicators. The upward revision is also underpinned by the increasing number of flights to Thailand partly as the shortage of ground staff at airports has resolved, which would support the recovery in foreign tourist arrivals in the period ahead.

- Revised up foreign tourist arrivals forecast for 2024 to 35.5 million on account of the momentum being carried forward from 2023 due to improved tourism confidence and a gradual increase in the number of flights towards pre-COVID levels.

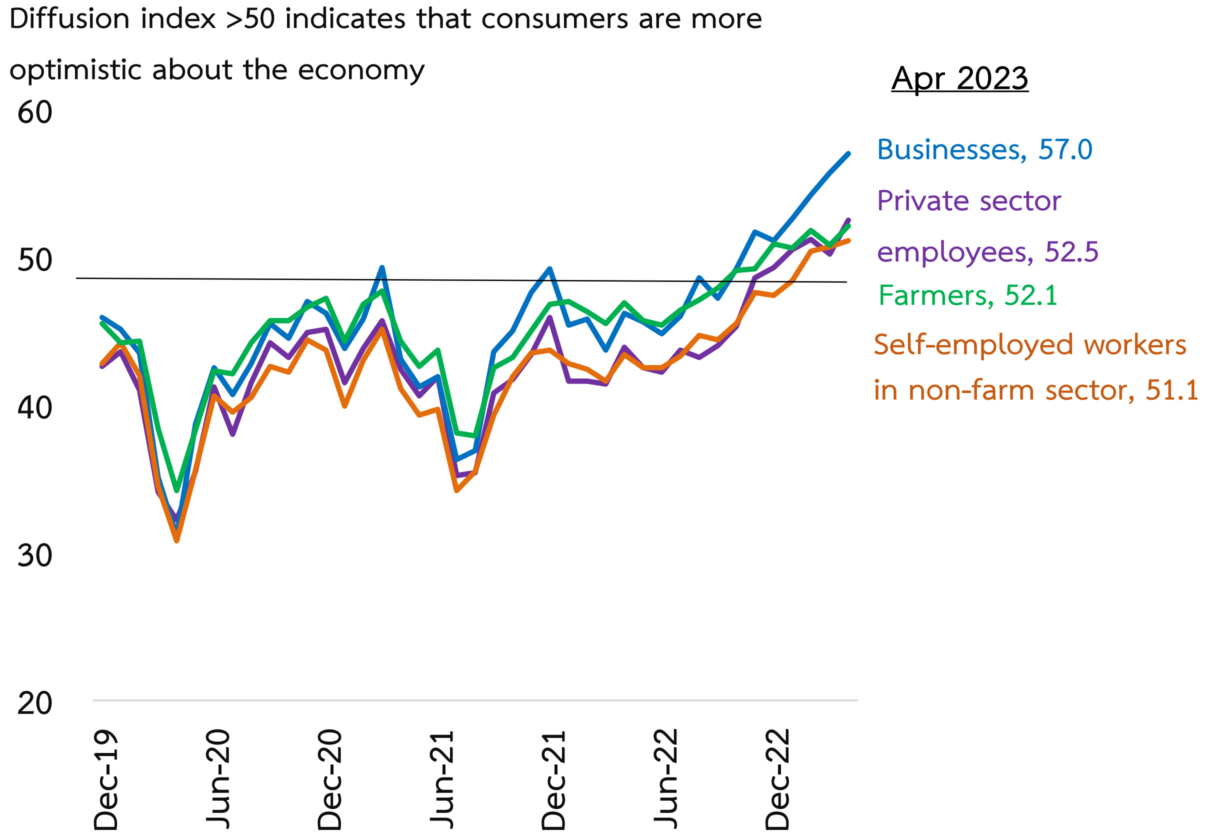
Private consumption should gain further traction propelled by tourism recovery, which would benefit employment and labor income among workers in the services sector and the self-employed, and in turn improve consumer confidence across all occupations.

Real Private Consumption



Source: BOT forecast

Consumer confidence index by occupation

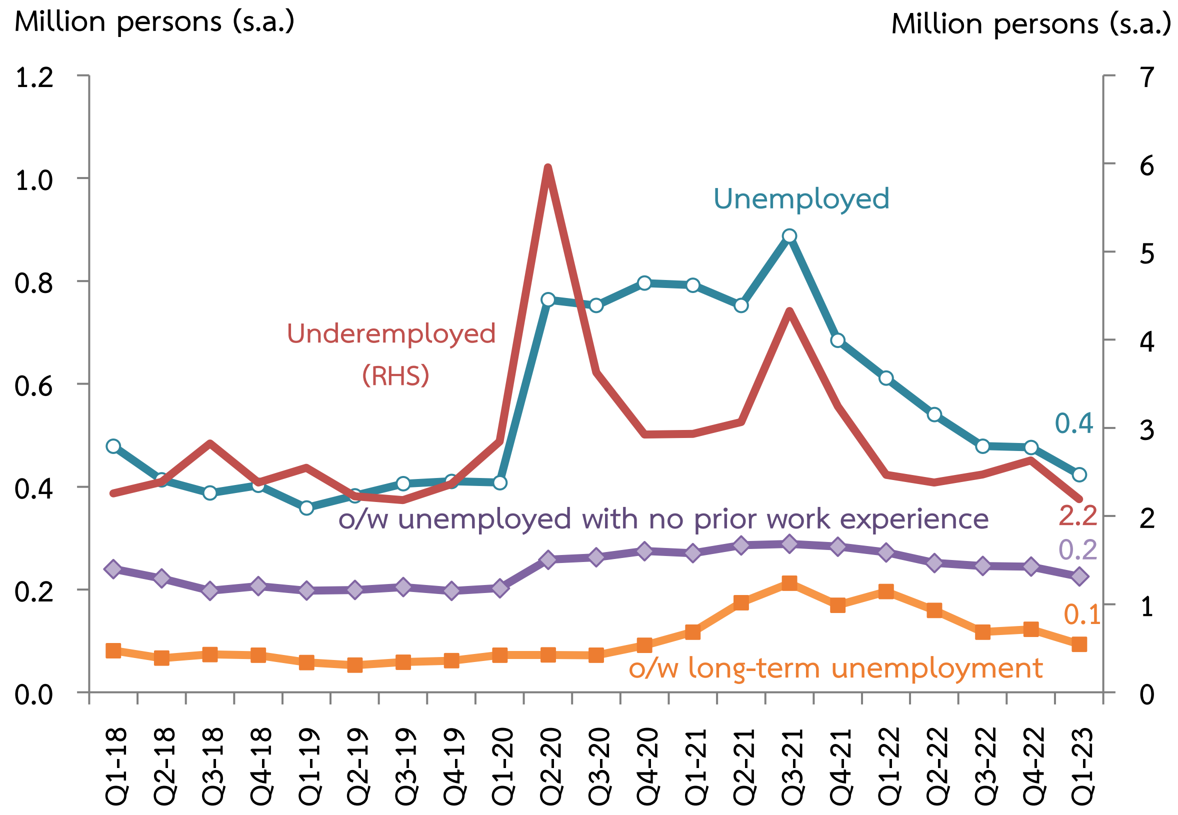


Note: The index is compiled using survey data from 7,621 consumers across districts in Thailand (884 districts)

Source: Ministry of Commerce; BOT calculation

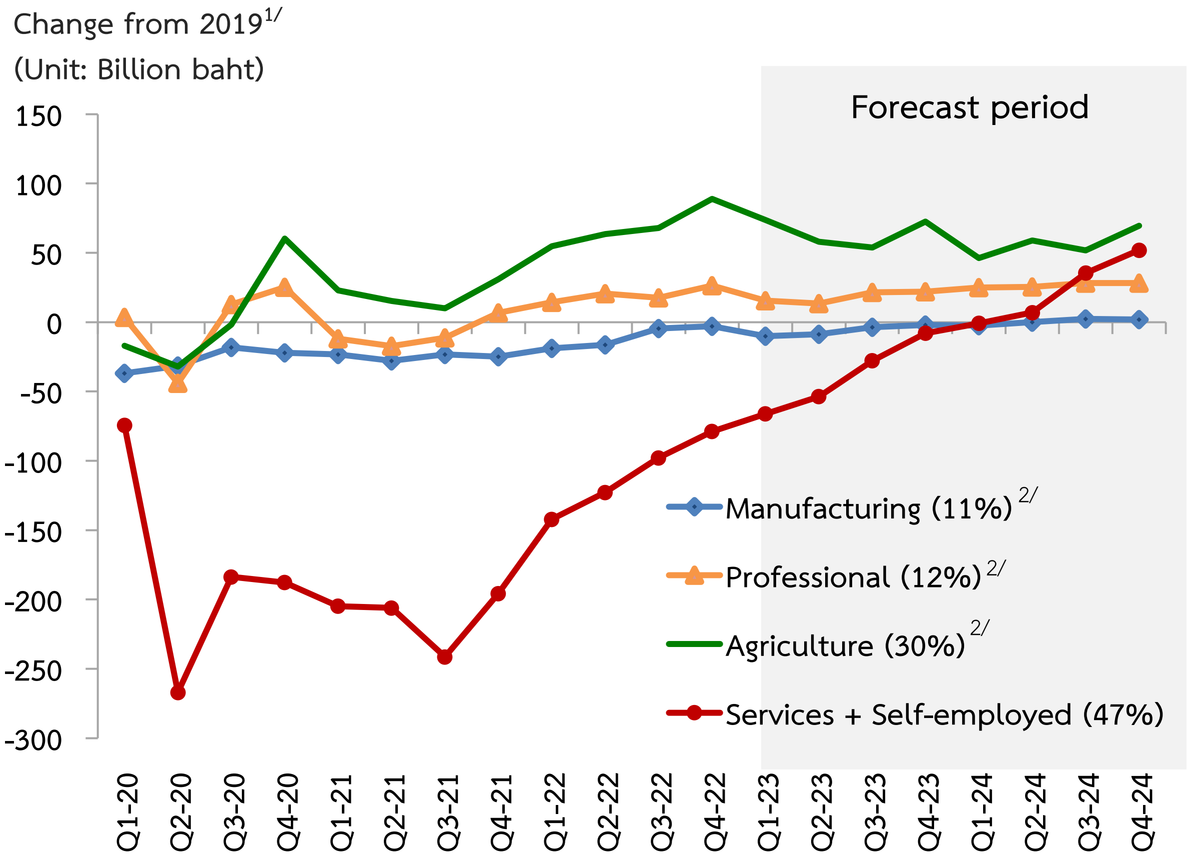
Labor market conditions have continued to improve. Unemployment and underemployment have declined to near pre-COVID levels. Labor income has also benefited from tourism recovery, which would help support private consumption in the period ahead.

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

Projected labor income recovery by sector



Note: [1] Total labor income (including farm income) in 2019 was 5.9 trillion baht
[2] ( ) denotes each sector's share to total labor income in 2022
Source: National Statistics Office's Labor Force Survey, BOT calculation

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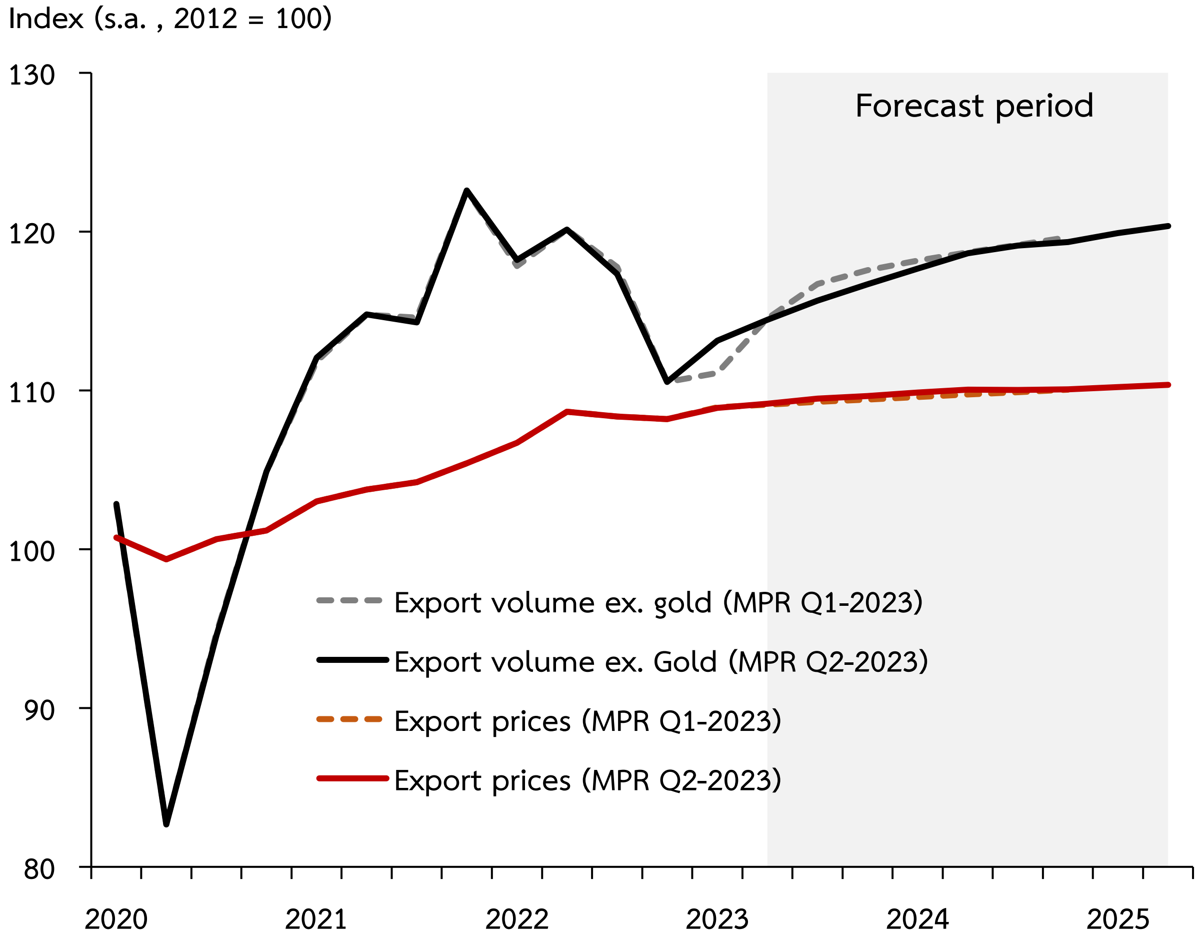
Merchandise exports would recover in tandem with trading partners' growth and should pick up pace in the second half of 2023

Projected merchandise exports (ex. Gold)



- **Merchandise exports in Q1/2023 were higher than expected.** This was mainly owing to higher export quantities driven by increased exports of agricultural and agro-manufacturing products thanks to China's reopening, and increased exports of air conditioners due to the warmer weather in many countries.
- **Looking ahead, export quantities would continue to recover in tandem with trading partners' growth** although spillover benefits might be limited because trading partners' growth is primarily driven by the services sector, and China has shifted to rely more on its domestic production capabilities. Exports are expected to recover more strongly in the latter half of 2023 driven by a pickup in electronics exports in line with exports of other Asian economies, with the momentum being carried forth to 2024.
- **Export prices would remain high** in line with prices of energy and other goods.
- **Export outlook is subject to downside risks** from trading partners' growth and potentially sharper-than-expected decline in Asian exports.

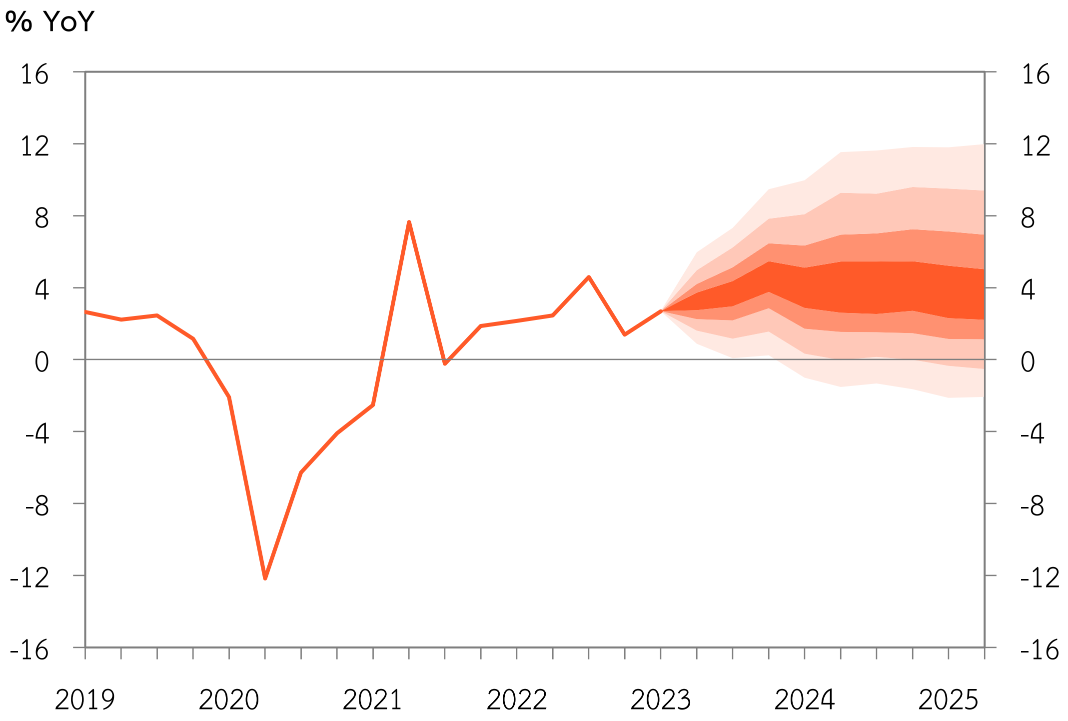
Merchandise exports projection

Growth (%YoY)	Export value	Export prices	Export volume
2023	-0.1 (-0.7)	1.1 (0.9)	-1.2 (-1.6)
2024	3.6 (4.3)	0.6 (0.6)	3.0 (3.7)

Note: ( ) previous forecast from Monetary Policy Report Q1-2023

The Thai economy could outperform the baseline growth projection from higher-than-expected foreign tourist arrivals and stronger-than-expected stimulus from the new government's economic policies

GDP growth



Upside risks to growth

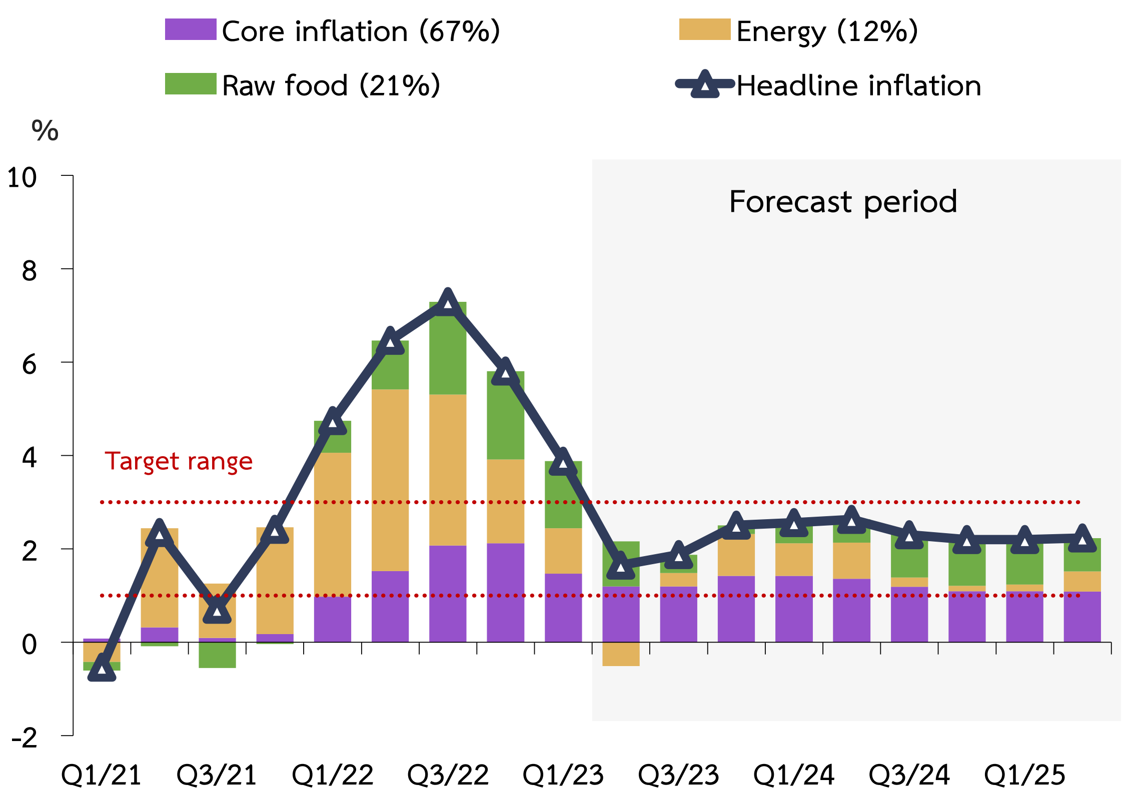
- **Higher-than-expected foreign tourist arrivals** if the number of Chinese tourists recovers faster and stronger than expected
- **Strong-than-expected stimulus from the new government's economic policies** either from policies announced during the election campaigns or in the case that government spending exceeds the fiscal budget. This should take effect in 2024.

Downside risks to growth

- **Slower-than-expected global economic recovery** due to elevated inflation and banking stresses in advanced economies, thus impacting Thai exports going forward
- **Domestic political uncertainties**

Headline inflation has returned to the target range while core inflation remains elevated

Contribution to headline inflation



Note: ( ) denotes weight in CPI basket

Source: Ministry of Commerce, BOT calculation and forecast as of May 23

Inflation forecast

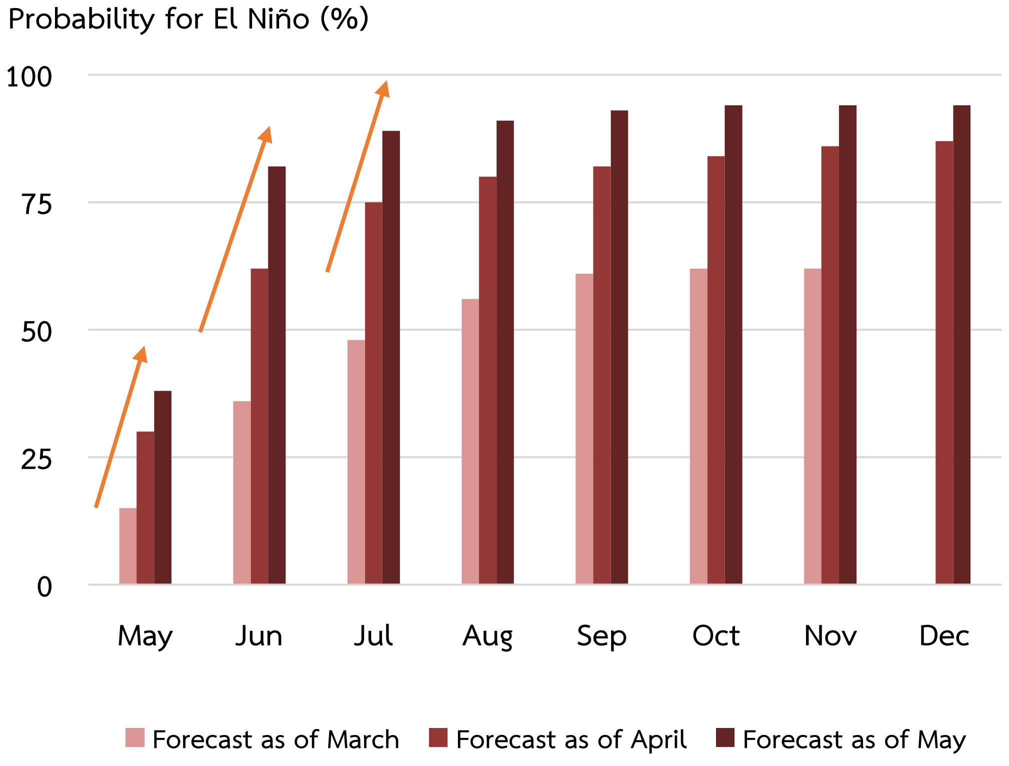
%YoY	2022	2023	2024
Headline inflation	6.1	**2.5** (2.9)	**2.4** (2.4)
Core inflation	2.5	**2.0** (2.4)	**2.0** (2.0)

Note: ( ) denotes previous forecast from Monetary Policy Report Q1-2023

- **Headline inflation forecast for 2023 is revised down** on account of lower-than-expected outturns and easing supply pressures from lower electricity costs, government subsidies, and domestic diesel prices. Meanwhile, raw food prices are expected to increase due to the effects of El Niño. **Headline inflation forecast for 2024 is largely unchanged.** The forecast for energy prices is revised down slightly, which is offset by a slight upward revision to raw food prices.
- **Core inflation forecast for 2023 is revised down** on account of core inflation outturns. However, there remains a need to monitor price increases in some goods and services with pent-up costs absorbed by producers in the past, as well as demand pressures going forward. **Core inflation forecast for 2024 is largely unchanged, with core inflation likely to remain high relative to the past.**

Thailand is likely to be hit by a drought due to the effects of El Niño, increasing risk of a higher-than-expected inflation

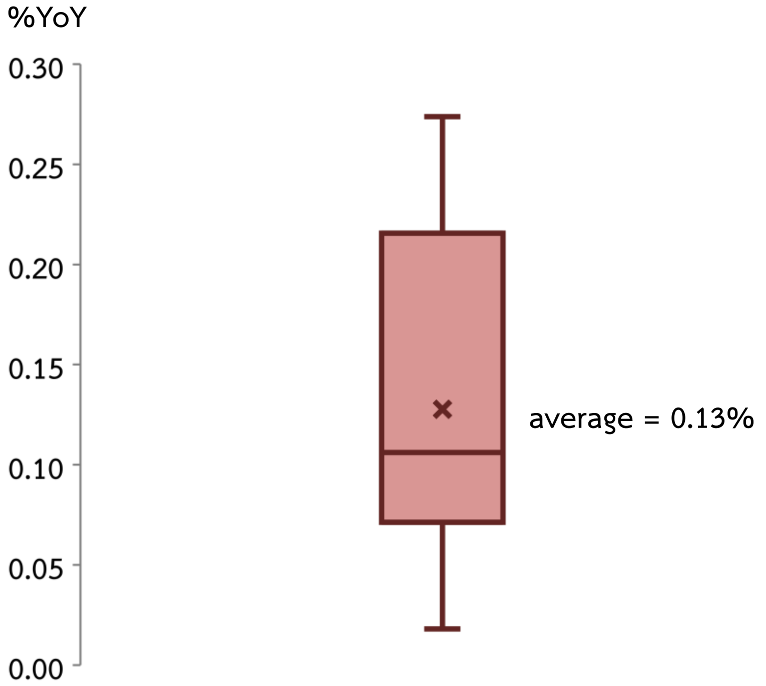
There is a higher probability of El Niño during the monsoon season of 2023



Source: International Research Institute for Climate and Society (IRI)

Drought could lead to an increase in raw food prices

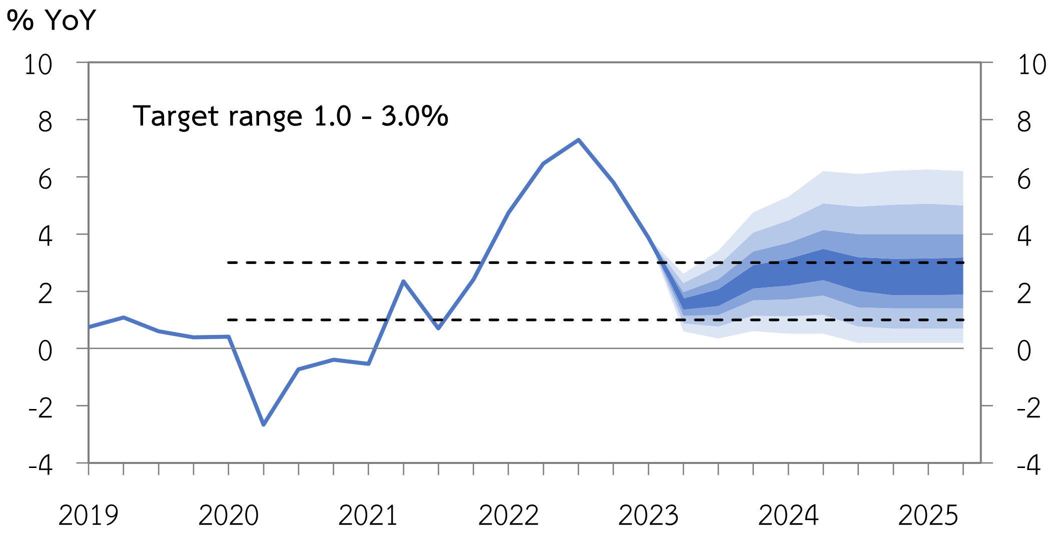
The effects of El Niño on headline inflation during 1997-2020



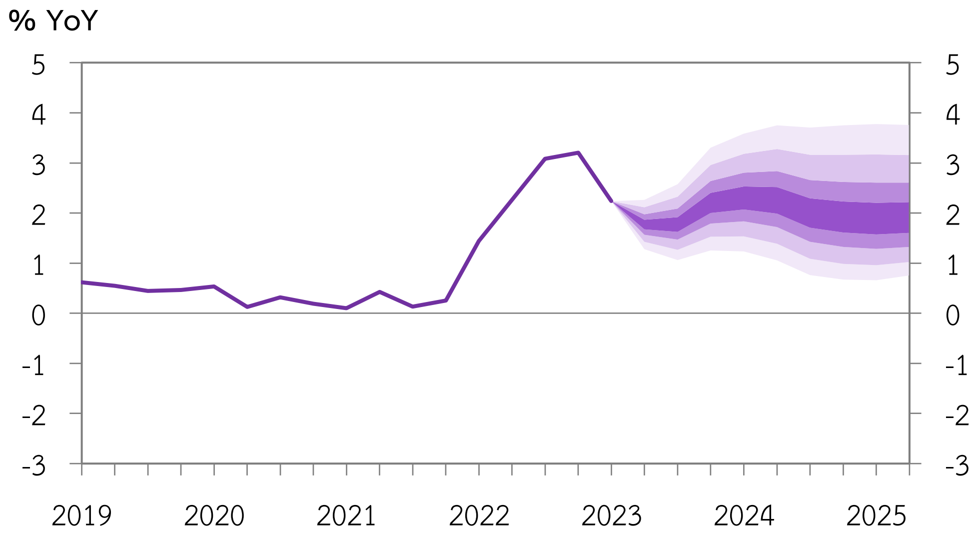
Note: Box plot shows the effects of El Niño on headline inflation during 1997-2020. The box indicates the interquartile range (between the 25th and 75th percentile), while the upper and the lower ends of the whiskers indicate max and min values.

Inflation outlook is still subject to upside risks especially in 2024

Headline inflation forecast



Core inflation forecast



Upside risks to inflation

- **Cost pass-through might be higher and faster than expected** due to pent-up costs, stronger-than-expected tourism recovery, and higher raw food prices due to the effects of El Niño.
- **Supply-side pressures and costs could increase** in part contingent on government economic policies looking ahead.
- **Demand-pull inflation pressure could mount** due to fiscal stimulus under the new government's economic policies.

Downside risks to inflation

- **Slower-than-expected global economic recovery**
- **New government subsidies of living costs** such as subsidies for electricity and retail fuel prices

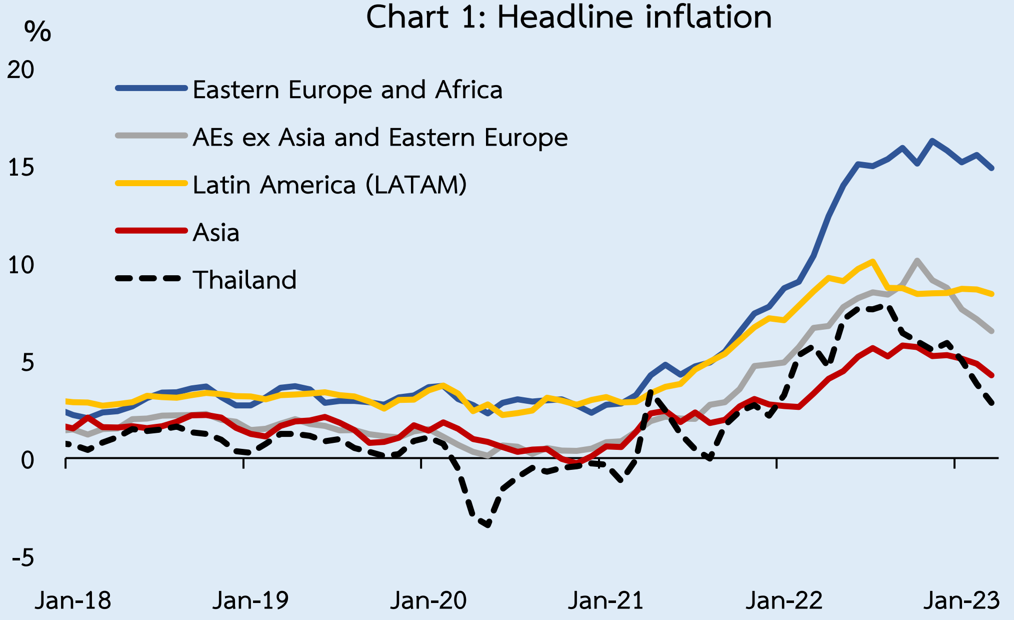
Box 1: Thailand's disinflation process in the Asian context

Inflation has accelerated in many countries around the world, especially in the second half of 2021, rising from an average of 2.2% (an average between 2015-2021) to 8.3% in 2022. For Thailand, inflation increased from 1.2% in 2021 to 7.9% in August 2022, the highest level seen in 15 years. This significant increase in inflation was mainly attributed to global supply factors namely supply disruptions and the Russia-Ukraine conflict which affected oil prices. As such, when these global supply factors gradually dissipated towards the end of 2022, inflation in many countries gradually declined.

Nevertheless, each country's disinflation process differs in terms of size and speed. As a country group **(Chart 1)**, Asia's disinflation process appeared faster than other groups, especially compared to western European and African countries. Moreover, inflation in Asia did not remain elevated like in other groups such as Latin America (LATAM). **Thailand's disinflation process poses unique developments as inflation, which peaked in mid-2022, sharply declined and returned to the target range of 1-3% within just 7 months.**

While high inflation around the world was driven primarily by external factors, differences in disinflation process are due to specific factors commonly shared among each country group. Factors that kept inflation in Asia at low levels and help bringing it down faster than other countries include the followings:

Chart 1: Headline inflation



Note: Eastern Europe and Africa includes BG, CZ, DZ, HU, PL, RO, RU, SK and ZA.
AE ex Asia and Eastern Europe includes AT, BE, CA, CH, DE, DK, ES, FI, FR, UK, IT, NL, NO, SE and US.
LATAM includes BR, CL, CO, MX, and PE.
Asia includes CN, HK, IN, ID, JP, KR, MY, PH, SG, and TH

Source: BIS, BOT calculation using median of headline inflations in each country group

(1) Demand-pull inflationary pressures had been limited in 2022 due to a slower economic recovery than other countries. In contrast, advanced economies (AEs) returned to pre-COVID levels sooner than emerging Asia (EM Asia) **(Chart 2)** partly due to much larger fiscal stimulus packages implemented in AEs.

Box 1: Thailand's disinflation process in the Asian context

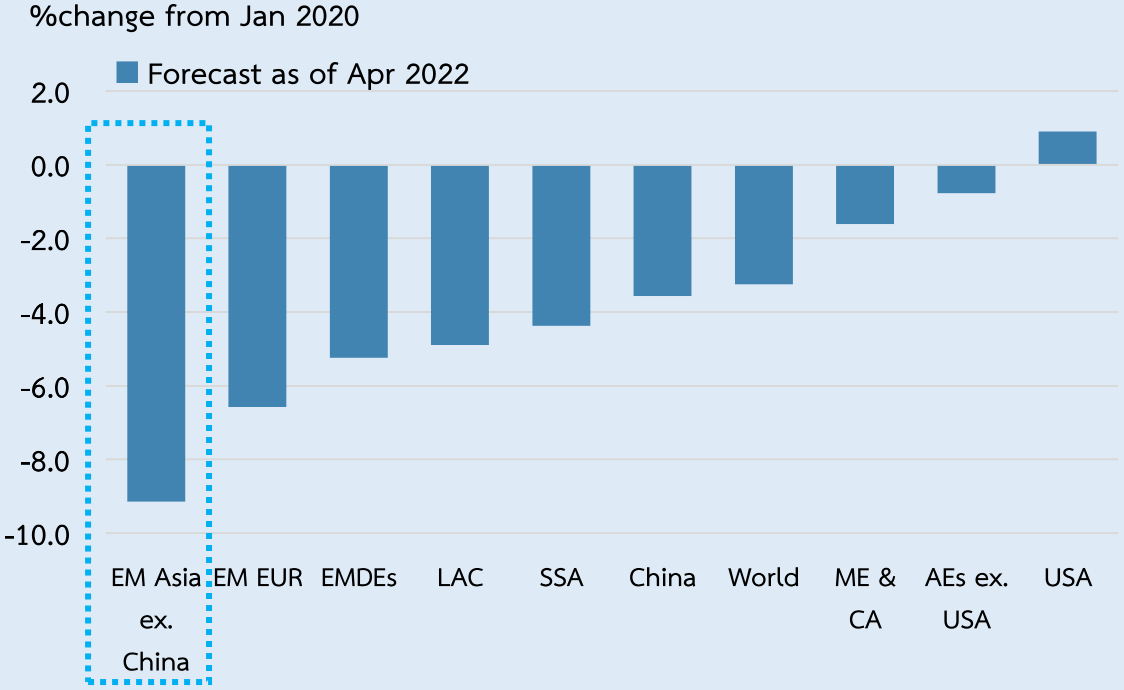
While a strong rebound in demand would result in sharp and broad-based increases in prices of goods and services and would keep inflation high in line with the recovery in household purchasing power and economic activities, it also allows businesses to pass on the higher costs to consumers[1/]. On the contrary, **inflation in Asia was driven primarily by supply-side factors, which typically affect a handful of goods such as energy and raw food, rising inflation could thus turn around rather quickly through market mechanisms.**

(2) Government energy subsidies in Asia have helped alleviate inflationary pressures and prevent the second-round effects. While increases in global energy prices were major drivers of inflation in Asia, energy inflation in Asia was low compared to other regions **(Chart 3).** This was due to government energy subsidies to provide living costs relief for households[2/] including price subsidies and reduction in excise tax on fuel and LPG, and electricity bill subsidies. These measures help facilitate a gradual increase in energy prices, which make up a large share of business operating costs, thus slowing down the cost pass-through and allowing businesses to effectively manage their overall costs.

Note: [1/] Demand-driven inflation presents an important challenge for central banks in using monetary policy to fight against inflation. In the US, for instance, the Fed has raised the federal funds rate by a total to 500 bps since Q1/202. However, inflation only saw a limited decline, decreasing from 8.0% to 5.8% at present.

[2/] These measures include fuel or LPG price subsidies in South Korea, Malaysia, and Thailand; Excise tax reduction on fuel and LPG in Japan, South Korea, and Thailand; and electricity bill subsidies in Thailand and Taiwan.

Chart 2: Changes to the GDP forecasts for 2024: recent vs pre-Covid assessments*



Note: *differences between 2024 GDP forecasts as of Apr-2022 and Jan-2020 (pre-Covid). LAC = Latin American and Caribbean economies; EMDEs = Emerging market and developing economies

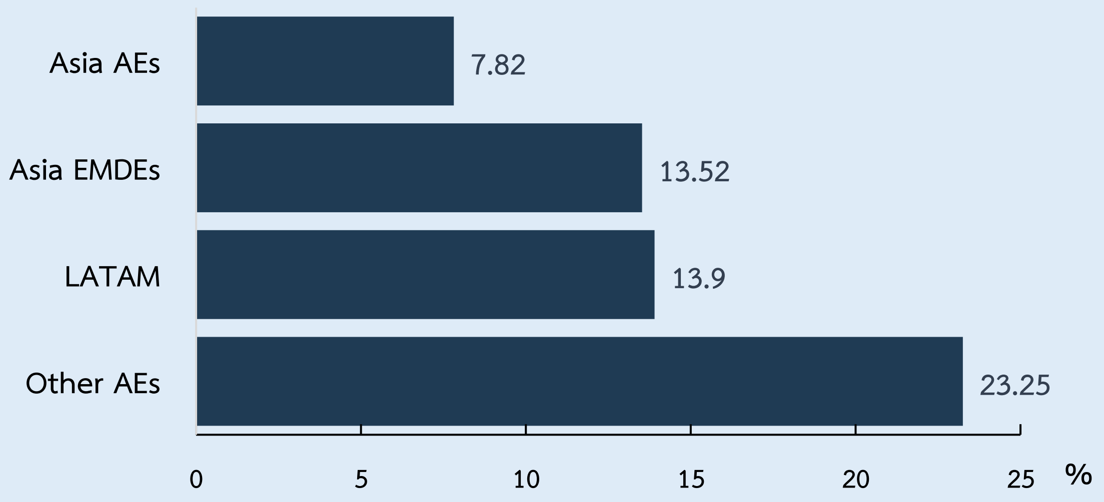
Source: IMF World Economic Outlook, Chapter 1, April 2022

Box 1: Thailand's disinflation process in the Asian context

In addition, these government measures that help prevent sharp increases in energy prices also reduce the need for businesses to set high prices to cover the risk of a sharp rise in input costs. The latter would otherwise result in high costs of living and potentially trigger a second-round effect of a broad-based increase in prices of goods and services.

(3) Labor market conditions and structures in Asian countries did not add to the inflationary pressures and helped reduce risks of wage-price spiral. In mid-2022, wages in EM Asia increased by only 8%, which was much lower than those seen in Europe and LATAM whose wages increased by as much as 13% and 18%, respectively. **Our study found that wage-price sensitivity in Asia is much lower than other regions. In the case of Thailand, a 1% increase in wages would result in just a 0.04% increase in inflation**[3/]. The limited wage increases seen in Asia can be attributed to 3 structural factors in the labor market namely (1) a flexible labor supply where there can be additional supply of labor from informal workers and immigrant workers[4/]; (2) the low wage bargaining power and smaller number of labor unions compared to AEs as reflected by Asia's collective bargaining coverage rate[5/] at less than 25%, whereas the coverage rates in most AEs appear greater than 60%. Meanwhile, the share of employees that are members of the labor unions to total employees in most Asian countries accounts only around 3-12% compared to 15-30% in AEs; and (3) Asian countries do not have an automatic wage indexation like in some US states or some European countries.

Chart 3: Energy inflation



Note: Energy inflation in Q4/2021 (%YoY); Asia EMDEs include India, Indonesia, Malaysia, the Philippines, and Thailand; LATAM includes Chile, Colombia, Argentina, Mexico, and Peru; Asia AEs include Australia, Hong Kong, Japan, South Korea, New Zealand, Singapore, and Taiwan; Other AEs include Belgium, France, Germany, Italy, the Netherlands, Sweden, Switzerland, UK, Canada, and US

Source: IMF

Note: [3/] Chandrasakha and Worasak (2019) "Impact of wage growth on inflation in the context of a changing labor dynamic", Focused and Quick Issue 138, Bank of Thailand

[4/] BIS (2023) "How sticky is current inflation?", BIS Note for EME Governors Meeting on 11 May 2023 noted that shares of informal workers in India, Indonesia, Thailand, and Vietnam are higher than 50%. Thailand and Singapore have additional supply of immigrant workers that are permitted to work in the country.

[5/] Such as total working hours, wages, and benefits

Box 1: Thailand's disinflation process in the Asian context

(4) Exchange rate passthrough (ERPT) to inflation in Asia is low. In 2022, most currencies experienced a sharp depreciation due to monetary policy normalization in the US. Asian currencies depreciated by an average of 9%. However, this had a limited impact on inflation due to the low ERPT. One study found that ERPT in Asia is lower than other regions[6/]. In Thailand's case, the baht depreciation of 1% against the US dollar would result in only a 0.06% increase in price level[7/].

Inflation in Asia has declined faster than other regions, but remains above levels seen in the past and could still be persistent. Looking ahead, it would be necessary to monitor **(1) demand pressures** in Asia that could mount due to a strong and robust economic recovery supported by a recovery in the services sector. This is especially the case for Thailand, which relies heavily on tourism; and **(2) supply-side pressures** from oil and commodity prices that could re-emerge if geopolitical tensions escalate. Agricultural and food prices could also increase due to the effects of El Niño from mid-2023 onwards. These present upside risks to inflation, especially for countries where food makes up a large share in the CPI basket such as Vietnam, the Philippines, and Thailand (more than 30% in the CPI basket).

In this regard, **even as inflation is declining, central banks still need to closely monitor risks that could result in high and persistent inflation so that monetary policy could respond in a timely and appropriate manner.**

Note: [6/] BIS (2019) "Monetary policy frameworks in EMEs: inflation targeting, the exchange rate and financial stability", Annual Economic Report

[7/] Apaitan et al. (2022) "Heterogeneity in Exchange Rate Pass-Through to Import Prices in Thailand: Evidence from Micro Data", Discussion Paper No. 167 Puey Ungphakorn Institute for Economic Research

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Summary of key forecast assumptions

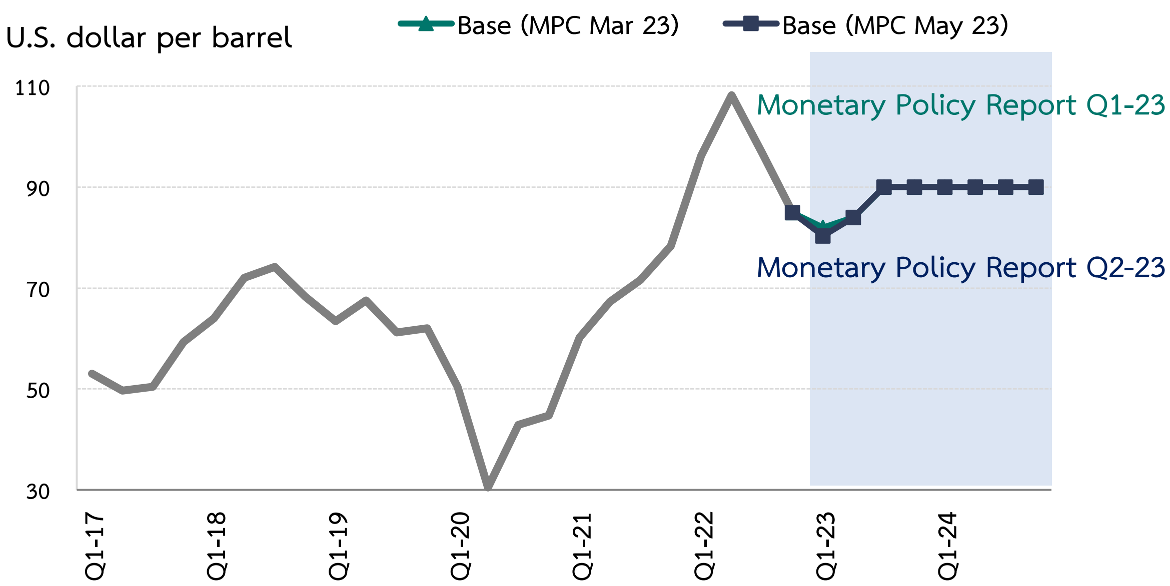
Annual percentage change	2022*	2023	2024
Trading partners' growth (% YoY)[1/]	2.9	2.6 (2.5)	2.7 (2.9)
Fed funds rate (% at year-end)	4.25 – 4.50	5.00 – 5.25 (5.25 – 5.50)	3.75 - 4.00 (4.00 - 4.25)
Regional currencies (excl. China) vis-à-vis the U.S. dollar (index)[2/]	163.3	161.1 (161.2)	158.2 (159.3)
Dubai cride oil prices (U.S. dollar per barrel)	96.4	86.0 (86.0)	90.0 (90.0)
Farm income (% YoY)	12.6	-1.5 (-2.7)	-1.8 (-1.9)
Government consumption at current price (billion baht)	3,080	3,019 (3,019)	3,066 (3,066)
Public investment at current price (billion baht)	1,041	1,081 (1,093)	1,170 (1,194)

Note: [1/] Weighted by each trading partner's share in Thailand's total exports
[2/] Increasing index represents depreciation, decreasing index represents appreciation
* Outturns
( ) previous forecast in the Monetary Policy Report Q1/23

- **Trading partners' growth** for 2022 is revised up on account of better-than-expected outturns in the US, euro area, and China; a continued global economic recovery supported by growth in the services sector; and a recovery in investment and the real estate sector in China. The forecast for 2024 is revised down slightly due to the high base effect, tighter financial conditions, and potentially slower recovery in Asian exports.
- **The federal funds rate** is revised down throughout the forecast period on account of tighter financial conditions and the gradual decline in inflation.
- **Regional currencies (excluding the Chinese yuan)** would appreciate due to the recovery in the services sector and tourism, and export recovery in the latter half of 2023.
- **Dubai crude oil prices** would be unchanged throughout the forecast period. Concerns over the global economic slowdown could put downward pressure on crude oil prices. However, crude oil supply is likely to tighten due to additional production cuts by the OPEC+ which will take effect in May as well as recovery in demand from China in the latter half of the year.
- **Farm income (excluding government support measures)** in 2023 would see a smaller contraction due to higher prices, especially of palm oil, rice, and tapioca. Farm income in 2024 would also see a smaller contraction as prices are expected to rise in tandem with demand for agricultural products.
- **Public spending at current prices** for 2023 is revised down on account of lower-than-expected budget disbursements for public investment spending. The forecast for 2024 is also revised down on account of potential delays in disbursements for transportation infrastructure investment projects of state-owned enterprises.

Assumptions for Dubai crude oil prices are unchanged. Prices are expected to fall in the near term due to concerns over the global economic outlook, but crude oil supply might tighten due to production cuts by the OPEC+.

Projected Dubai crude oil prices



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

Note: * Outturns

( ) previous forecast in the Monetary Policy Report Q1/2023

Source: BOT forecast

Dubai crude oil prices forecasts are unchanged throughout the forecast period.

- Crude oil prices would decline in the near term as concerns over a slowdown in the global economy could result in lower demand for oil.
- Looking ahead, supply of crude oil could tighten due to additional production cuts by the OPEC+ which will take effect in May as well as a recovery in demand from China in Q3/2023. These factors would result in tighter oil market conditions and thus higher oil prices.

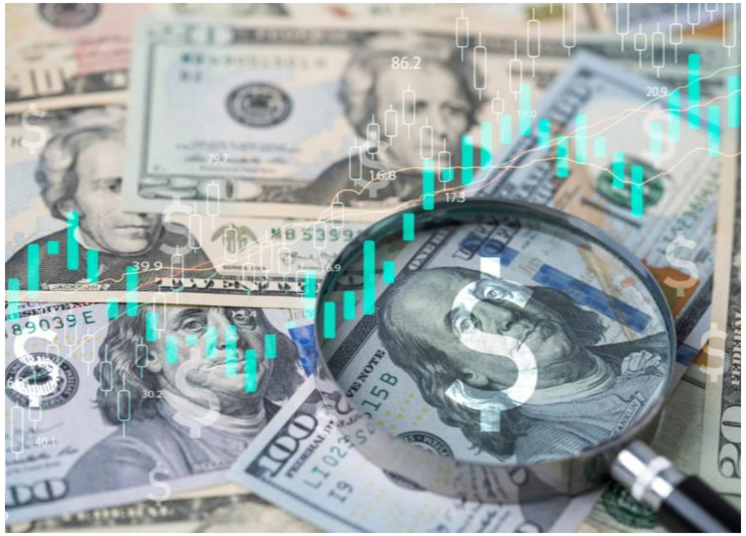
Risks to the outlook for Dubai crude oil prices are now balanced.

- Upside risks: **The Russia-Ukraine conflict** could escalate, broaden, and prolonged; and **the gradual accumulation of crude oil to build up the US strategic petroleum reserve (SPR)**
- Downside risks: **Slower-than-expected global economic recovery.**

Financial conditions: Key Issues

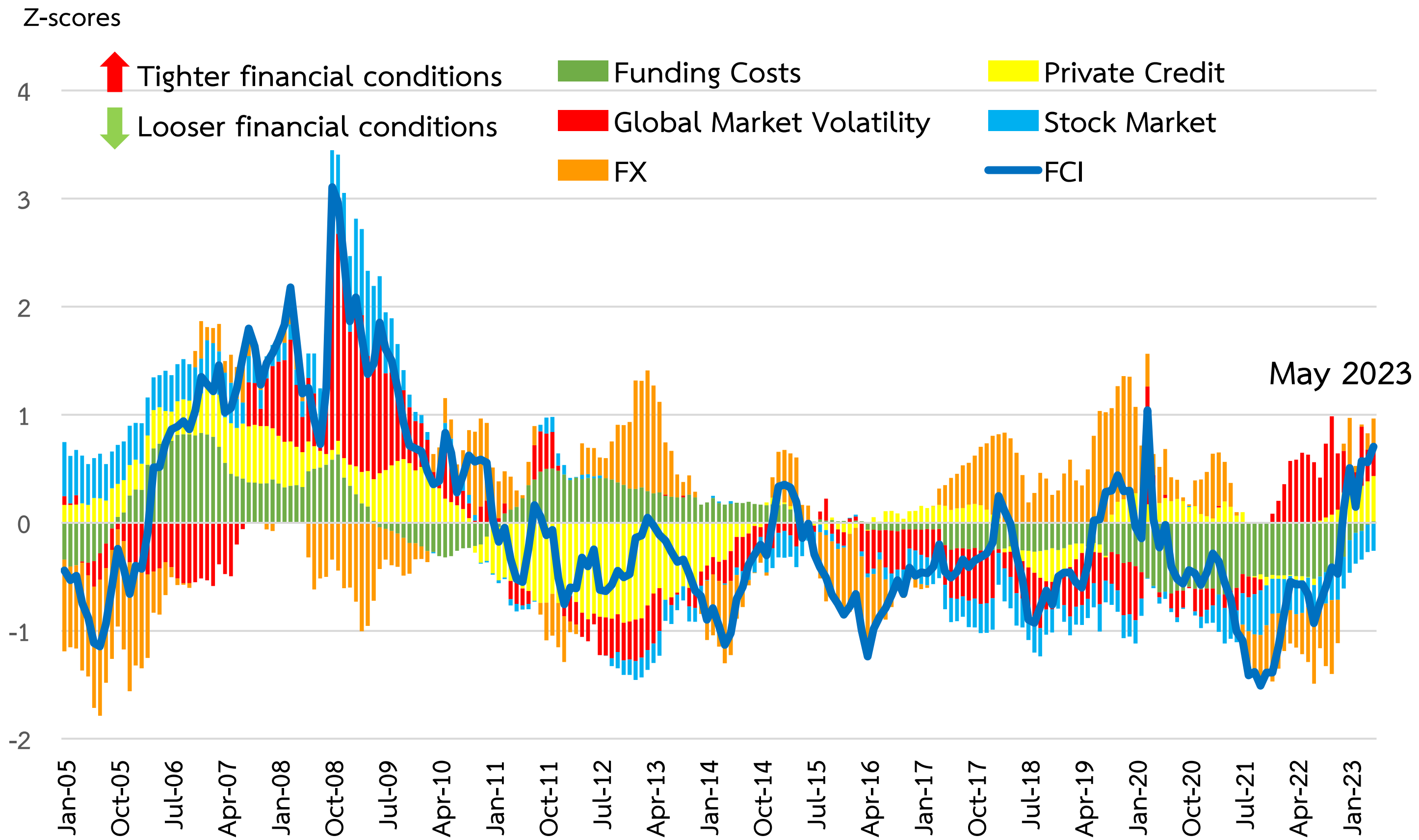
Overall financial conditions have turned less accommodative in line with the monetary policy stance. Borrowing costs have increased somewhat and private credit growth slowed down. However, overall financial conditions remain supportive of fund mobilization.

Private credit has continued to expand. Business loans slowed down mainly owing to debt repayments, while some large corporates issued more corporate bonds.



The baht's movements have been volatile due to the Fed's monetary policy direction, concerns pertaining to banking stresses abroad, and domestic political uncertainties.

Overall financial conditions have turned less accommodative in line with the monetary policy stance, but remain supportive of fund mobilization



Note: Average of data points up until 31 May 2023

(1) 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 obtained from the VAR(2) model. For funding costs and private credit categories, weights of each variable are adjusted according to its share in total private funding.

(2) Private credit includes changes in outstanding of business and household loans, and corporate bonds.

(3) Funding costs are calculated from the new loan rate (NLR) and the average of 6 banks' floating mortgage rates.

Financial conditions tightened slightly from the previous month:

- **Funding costs** increased slightly 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 due to (1) debt repayments by large corporates; (2) the shift of large corporates' financing toward corporate bond issuances; and (3) SME credit contraction due to repayments on maturing soft loans. Meanwhile, commercial banks remain cautious in lending to certain groups of SMEs. However, overall private credit still expanded in line with the economic recovery.
- **Exchange rate (FX)** appreciated as reflected in the stronger average baht-to-US dollar exchange rate and the NEER in May from the same period last year. The appreciation was in line with improving current account balance and the Fed's monetary policy direction.
- **Global financial market volatility** gradually subsided in line with concerns over banking stresses in AEs. Nonetheless, the market remains watchful of risks related to the US debt ceiling.

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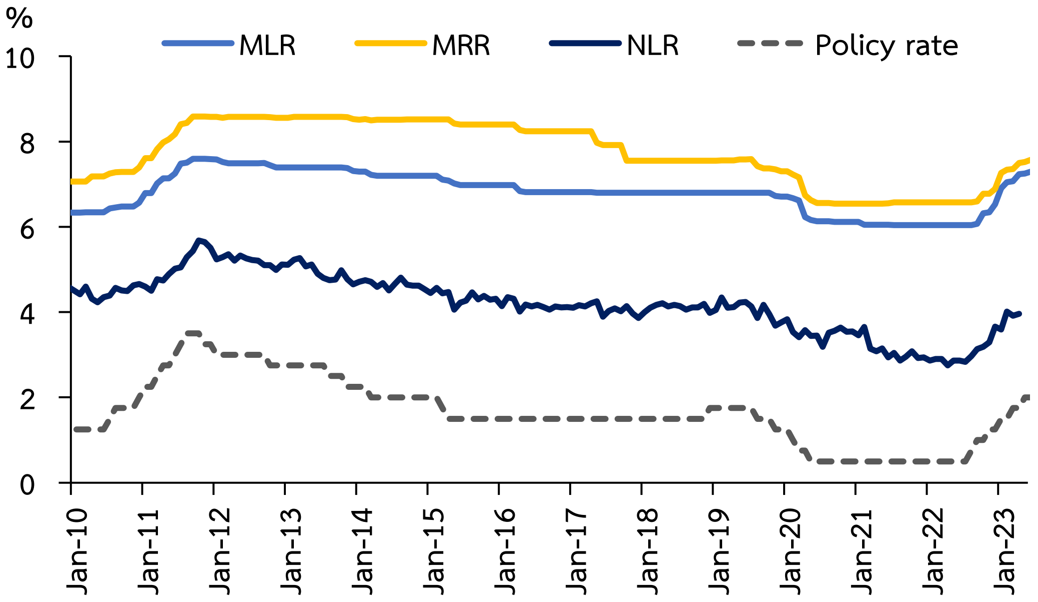
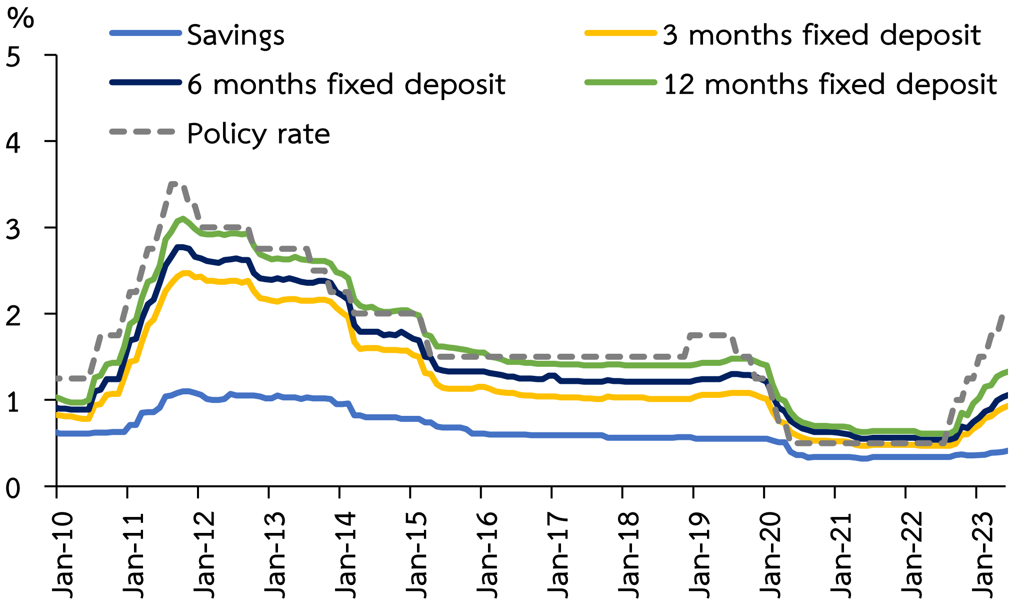
Commercial banks' lending rates increased slightly in line with the policy rate, but remain below levels seen in the past

Commercial bank lending rates



Commercial bank deposit rates

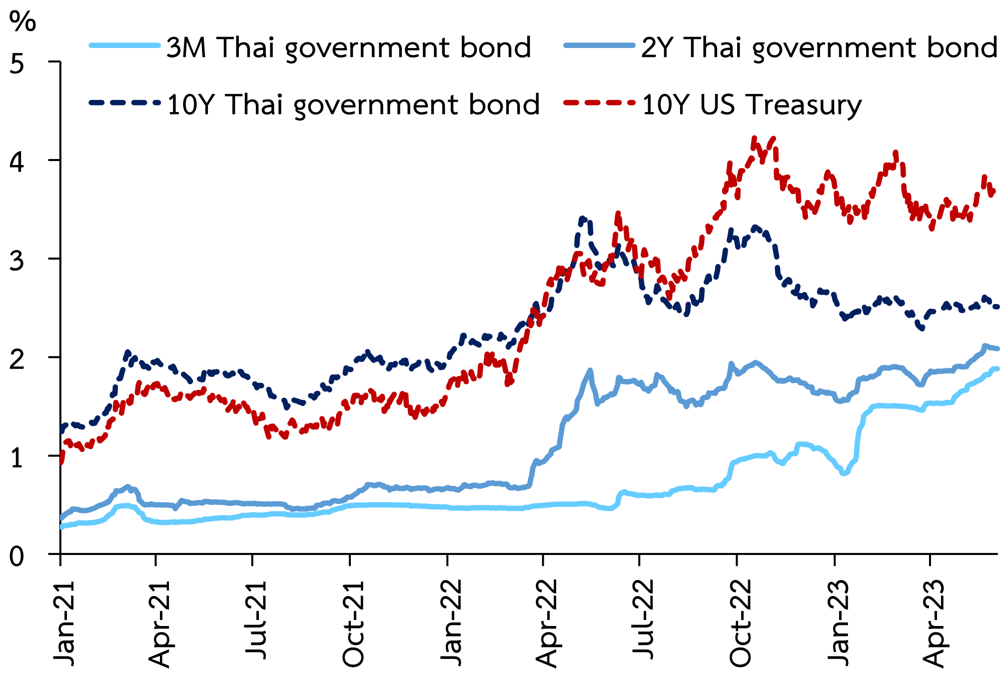


Note: (1) Monthly average of 13 commercial banks (data as of 6 Jun 2023)
(2) New loan rate: NLR (as of Apr 2023)
Source: BOT

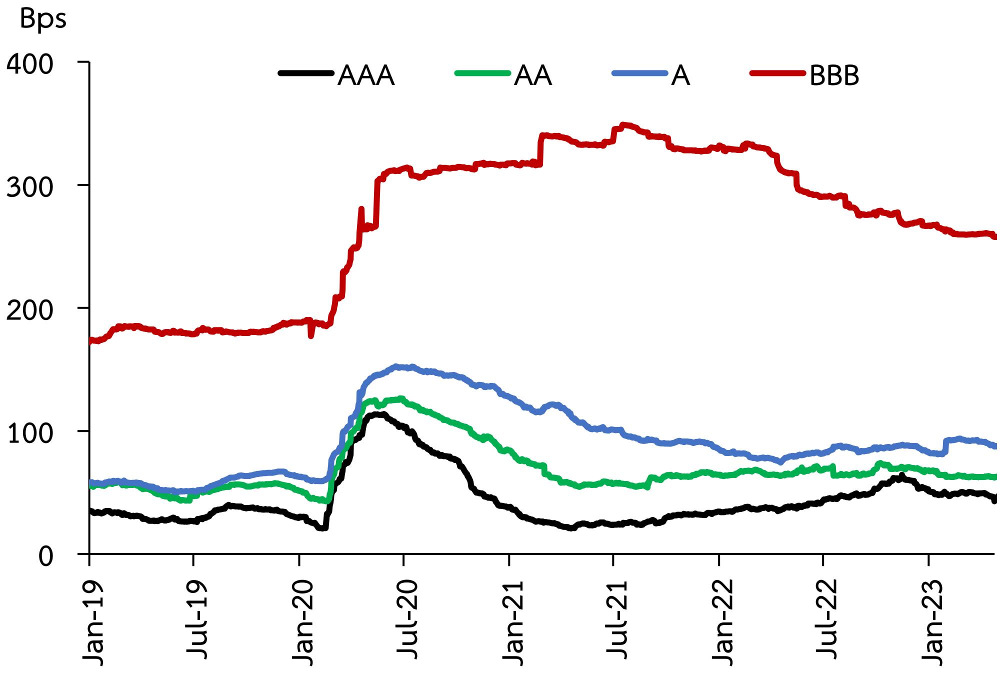
Lending rates and deposit rates offered by commercial banks have gradually increased, but remain below levels seen in the past. Since the MPC's decision to raise the policy rate to 2.00% on 31 May 2023, commercial banks have started to transmit the higher financing costs to the minimum retail rate (MRR) but at a lesser degree than the minimum loan rate (MLR). This is to soften the impact on vulnerable borrowers, most of whom are subject to the MRR. Meanwhile, deposit rates, especially fixed deposits, are gradually increasing (Box 2: Monetary policy transmission to commercial banks' interest rates). **New Loan Rates (NLR) as of April 2023 increased slightly** from the previous month in line with reference lending rates but is still below levels seen in the past. The increase in NLR was observed in loan contracts smaller than 100 million baht in retail and manufacturing sectors, and loan contracts larger than 500 million baht in the manufacturing sector.

Financing costs in the bond market remain largely stable. Short-term government bond yields increased in line with the policy rate, while long-term bond yields increased slightly.

Thai government bond and US Treasury yields



Corporate credit spreads, by credit rating

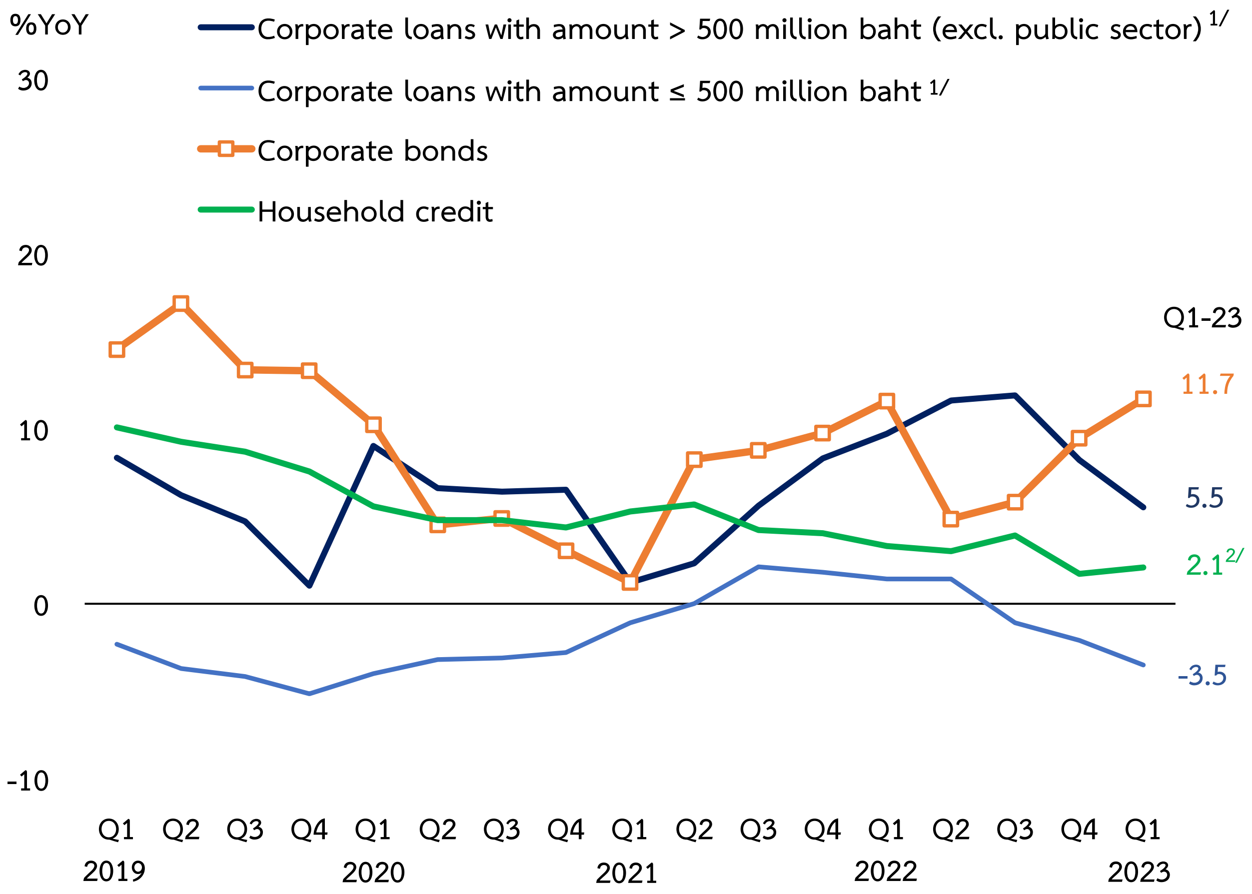


Source: Thai BMA (as of 6 Jun 2023)

Short-term government bond yields increased in line with the policy rate. Meanwhile, **long-term government bond yields saw a slight increase partly influenced by higher US Treasury yields** which were driven by: (1) the Fed's monetary policy normalization; (2) banking stresses in the US and Europe; and (3) uncertainties pertaining to the US debt ceiling. However, there was still demand for long-term government bonds from domestic investors while credit spreads remain relatively stable. As such, Thai bond yields did not see a significant increase and thus **private sector financing costs in the bond market were largely unaffected.**

Private credit in Q1/2023 still saw a positive growth and is expected to continue expanding as economic activities recover

Private credit



Note: [1/] Credit limit at each commercial bank
[2/] Household credit would have grown 4.3% if credit card and personal loan portfolios of one bank had not been transferred to its subsidiary (excluded from private credit calculation)

In Q1/2023, large corporate loan growth (credit limit >500 million baht) slowed down mainly due to debt repayments, especially in the services and manufacturing sectors. Loans extended to manufacturing businesses have continued to contract in line with the slowdown in exports due to slowing demand from trading partners. Nonetheless, borrowings by holding companies and retail businesses remained positive. **Some large corporates have also shifted to issuing bonds** with corporate bond issuances having seen a continued expansion since end-2022 and reaching a 3-year high.

SME loan growth (credit limit ≤500 million baht) contracted from the same period last year. This was mainly due to repayments on maturing soft loans.

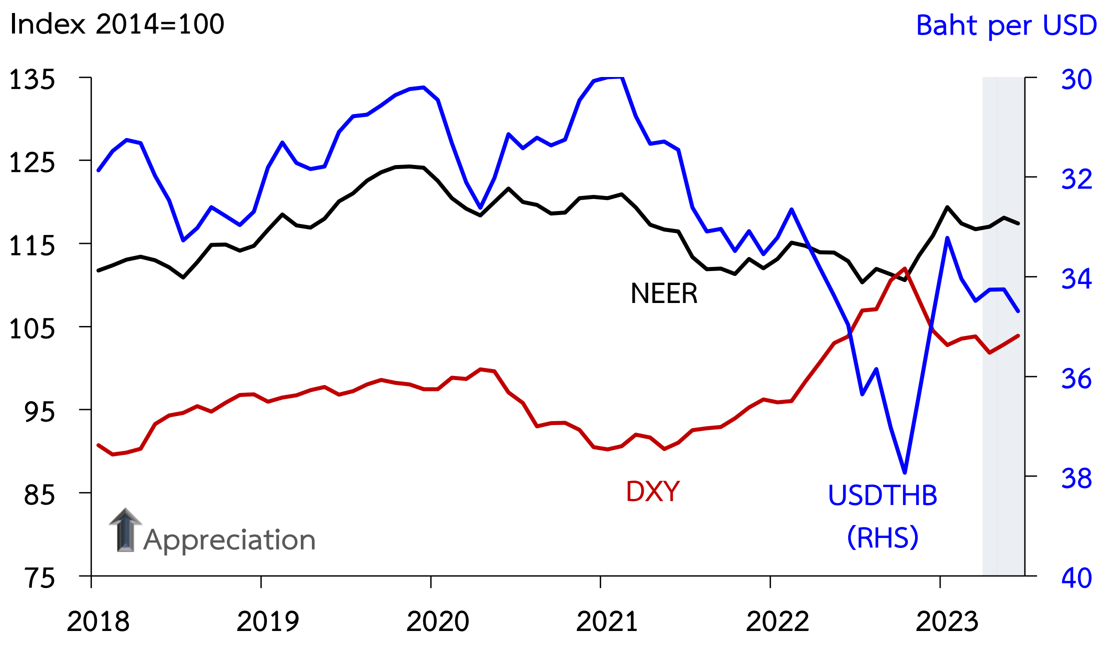
Household credit growth increased slightly especially mortgages and personal loans. This was in line with improving consumer confidence as the economy continues to recover and partly due to demand for liquidity to cope with higher living costs. Nonetheless, auto loan growth slowed down after having accelerated in the previous quarter to lock in costs for car purchases during the interest rate upcycle. Meanwhile, credit card loans continued to expand[1/].

For Q2/2023[2/], loan demand would continue to grow with the economic recovery for inventory build-up and investment in machinery and equipment. However, the rising borrowing costs in line with the policy rate could result in some slowdown in business loan demand going forward. Meanwhile, household credit would continue to grow with increasing consumption spending needs and improving consumer confidence.

Note: [1/] After adding back credit card and personal loan portfolios of one bank already transferred to its subsidiary
[2/] Report on Credit Conditions Q1/2023 and Outlook for Q2/2023

The baht depreciated slightly from the previous quarter driven by both external and Thailand-specific factors

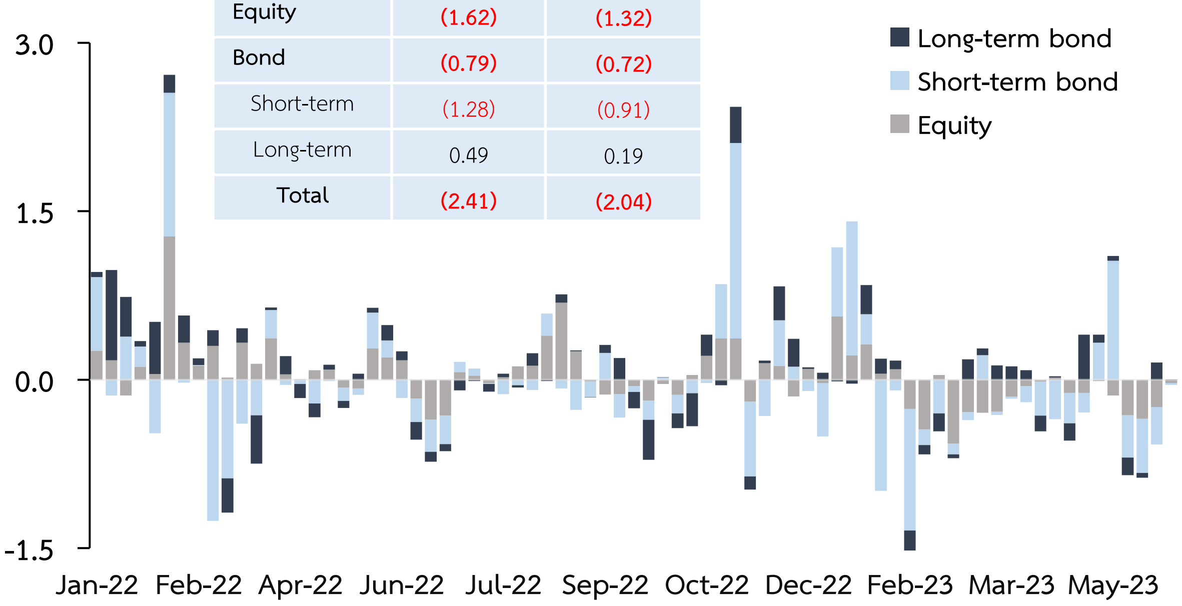
Baht per U.S. dollar (USDTHB) and exchange rate indices



Source: BOT, Bloomberg, and Refinitiv (as of 6 Jun 2023)

Capital flows into Thai securities

Million USD	Q1/2023	Q2/2023
Equity	(1.62)	(1.32)
Bond	(0.79)	(0.72)
Short-term	(1.28)	(0.91)
Long-term	0.49	0.19
Total	(2.41)	(2.04)



Note: Weekly data, cumulative from the first trading day

Source: ThaiBMA and Bloomberg (as of 6 Jun 2023)

In Q2/2023, the baht averaged 34.40 per U.S. dollar (an average from 1 Apr to 6 June 2023), **depreciating 1.42% from the average value in the previous quarter.** The baht's movement was driven by market expectations about the Fed's monetary policy, the Chinese yuan depreciation, and political uncertainties in Thailand. **The nominal effective exchange rate (NEER) averaged 117.51, largely unchanged from the previous quarter.** This was because the baht's movement was in line with trading partners' and competitors' currencies. **There have been net capital outflows from both bond and equity markets in Q2/2023.** Capital outflows have continued from the previous quarter due to deteriorating global market sentiment and political uncertainties in Thailand.

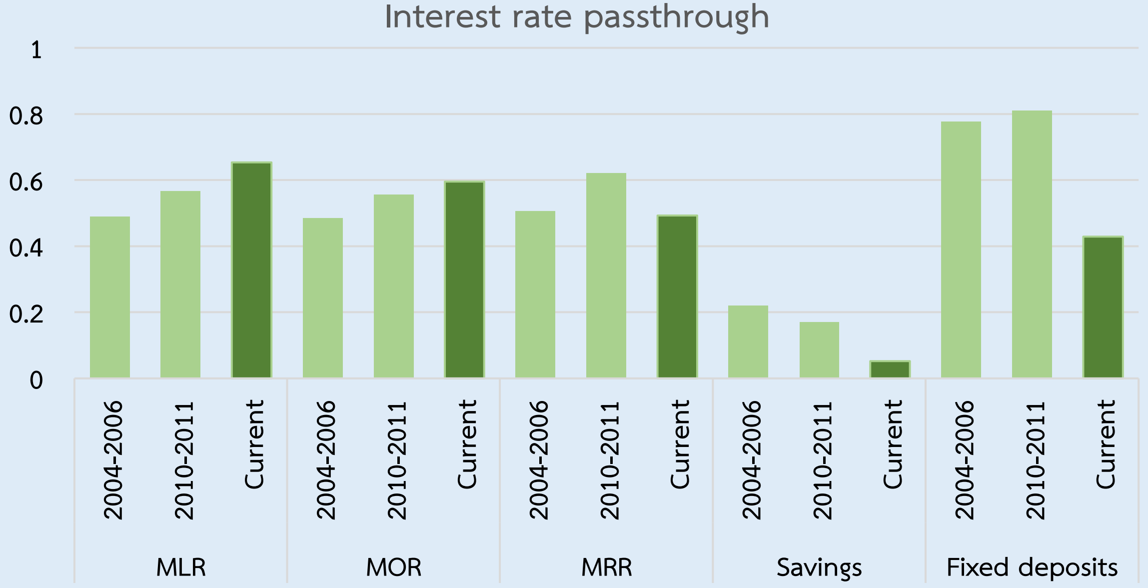
Box 2: Monetary policy transmission to commercial banks' interest rates

On 31 May 2023, the Monetary Policy Committee (MPC) decided to raise the policy rate to 2.00%. This was the 6th policy rate hike since August 2022 after having kept the policy rate at the historical low for more than 2 years since the onset of the COVID-19 pandemic. **Policy rate adjustments affect commercial bank's interest rates, which is an important channel of monetary policy transmission for bank-based economy.**

A study on how commercial banks adjust their interest rates during the tightening cycles suggests that monetary policy transmission to commercial banks' interest rates in this current cycle differs from the previous cycles in various dimensions:

Overall **(1) Commercial banks adjust each type of lending rates differently from the past.** In this current cycle, the increase in the minimum lending rate (MLR) appeared faster and larger than the minimum retail rate (MRR). **(Chart 1)** This is different from the past where the adjustments were similar among different interest rate types. This changing behavior partly helps to alleviate the impact on debt burden for vulnerable SMEs and households, most of whom are subject to the MRR, especially as some financial assistance measures would gradually expire this year. Moreover, a gradual increase in the MRR during the time when income is gradually recovering would also improve debt serviceability.

Chart 1: Policy rate passthrough to commercial banks' deposit and lending rates in each tightening cycle



Note: 1) Passthrough is calculated from changes in each type of interest rates to changes in policy rate. 3 tightening cycles include Q3/2004-Q4/2006, Q3/2010-Q3/2011, and Q3/2022-Q2/2023.
2) Passthrough to lending rates excludes the effect of temporary FIDF fee reduction that expired during the current tightening cycle; Passthrough to fixed deposits is calculated from the average passthroughs to 3-month, 6-month, 12-month, and 24-month fixed deposit rates.
3) Minimum overdraft rate (MOR) refers to the lending rate charged on overdrafts.

Source: BOT calculation, data as of 12 Jun 2023 (after the MPC meeting on 31 May 2023, including interest rate adjustments by 7 commercial banks)

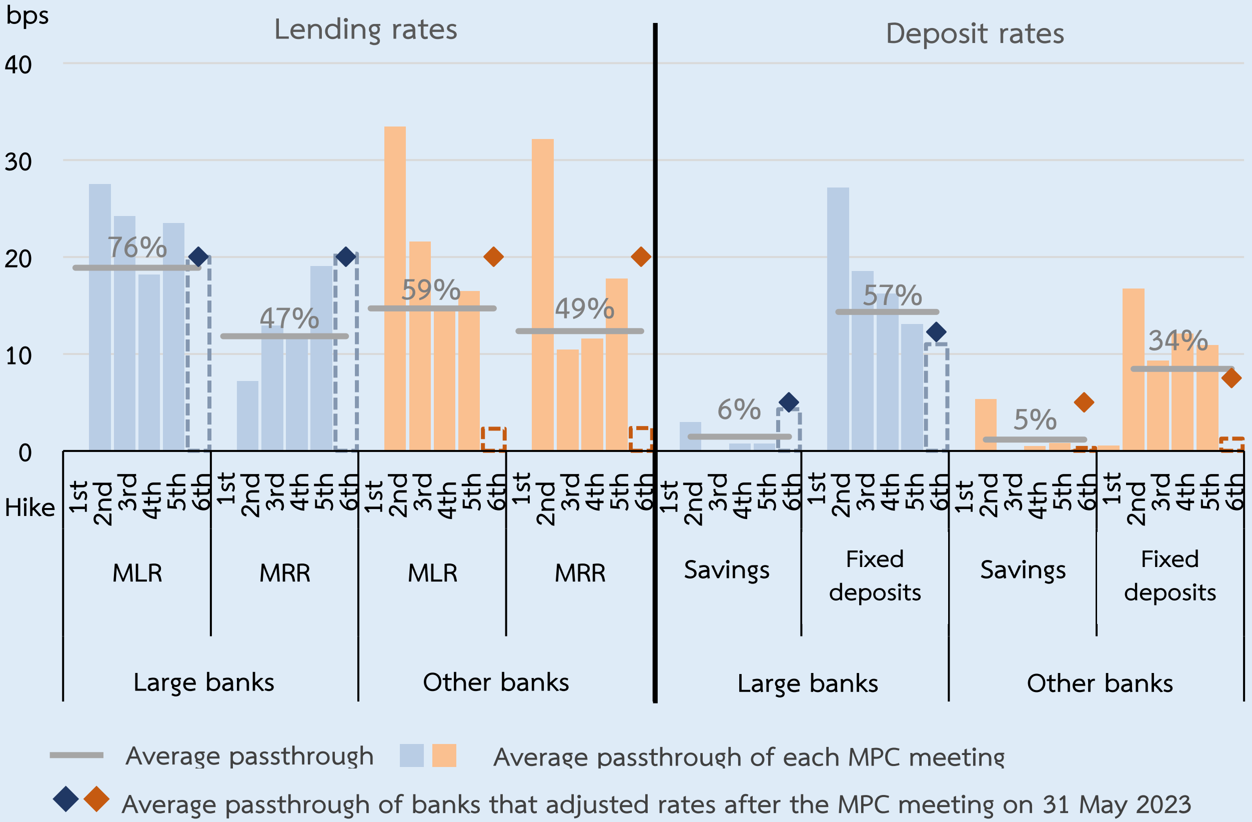
Box 2: Monetary policy transmission to commercial banks' interest rates

(2) Commercial banks did not raise deposit rates as much as they did in the past, especially saving deposits. This is partly due to abundant liquidity in the banking system. Deposits of households and businesses was growing at 3%, close to pre-pandemic levels. The loan-to-deposit ratio (L/D ratio) is 90.6 as of March 2023, which is at its lowest since 2016, reflecting that commercial banks still have capacity to lend.

The commercial bank dimension: Different commercial banks adjust their lending and deposit rates differently in this current tightening cycle. The changing behavior can be categorized into 2 groups: large commercial banks, and other banks[1/] (Chart 2). **For lending rates,** (1) large commercial banks transmit the higher financing costs to MLR more than other banks (76% vs. 59%), and to MRR less than other banks (47% vs. 49%); and (2) large commercial banks tend to raise the MLR soon after the policy rate hike, while gradually raising the MRR later. Meanwhile, other banks would frontload both MLR and MRR increases at the onset of the policy rate hike. **For deposit rates,** (1) large commercial banks raise their deposit rates more than other banks, especially for fixed deposits; and (2) large commercial banks would frontload deposit rate increases at the onset of the policy rate hike before eventually tapering down, while other banks would raise deposit rates gradually throughout.

The changing behaviors of the interest rate passthrough as outlined above can be attributed to many factors namely (1) different funding structure of each commercial bank (Chart 3). Large commercial banks account 87% of total loan outstanding of commercial banks in Thailand, over half of which are subject to the MLR and borrowers are mostly large corporates who are able to service their debts. As such, large commercial banks were able to transmit the higher financing costs more quickly to

Chart 2: Interest rate passthrough during the current tightening cycle



Note: Interest rate passthrough is weighted by loan and deposit outstanding of each commercial bank
Source: BOT, data as of 12 Jun 2023 (after the MPC meeting on 31 May 2023, including interest rate adjustments by 7 commercial banks)

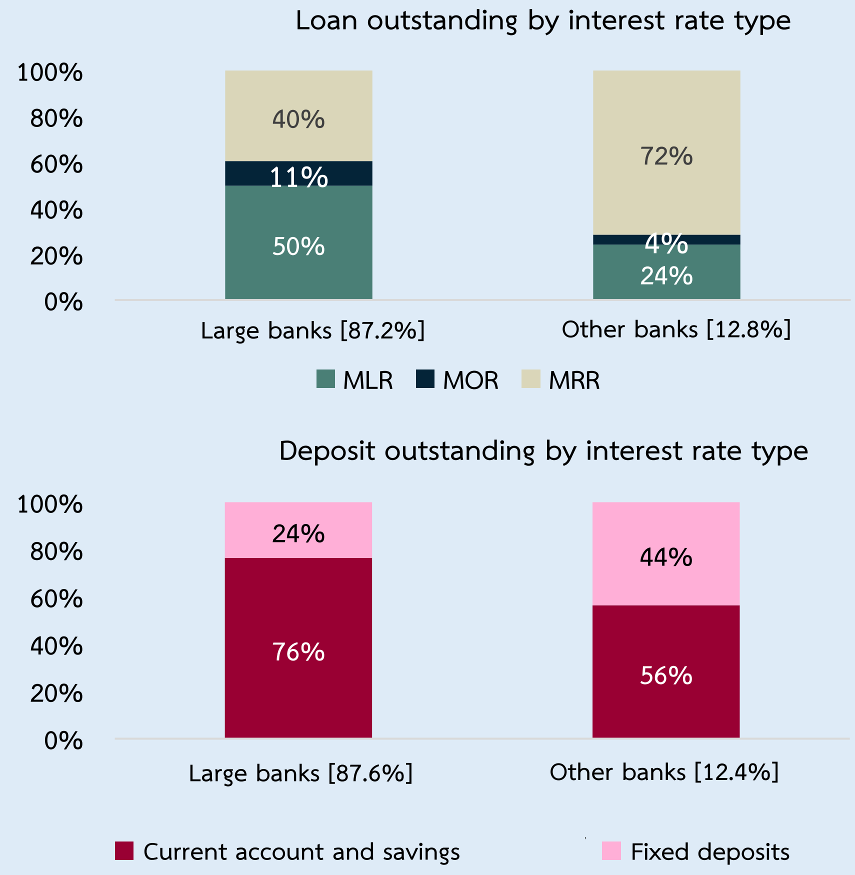
[1/] Large commercial banks include BBL, KTB, KBANK, SCB, BAY, and TTB
Other banks include UOBT, CIMBT, SCBT, TISCO, KKP, LH, ICBCT, and TCR

Box 2: Monetary policy transmission to commercial banks' interest rates

this group and at a more gradual pace to their retail borrowers through the MRR. Large commercial banks also account 88% of total deposit outstanding of commercial banks in Thailand, relying more on saving deposits (76% of total deposits) than fixed deposits (24% of total deposits). So far, large commercial banks have raised fixed-deposit rates more than saving rates, especially for 12-month and 24-month fixed deposits. This partly helps to manage their costs during an interest rate upcycle. As a result, households have begun to shift their saving balances towards fixed deposits since Q4/2022; and **(2) lending and deposit rates offered by other banks were already higher than those being offered by large commercial banks.** Lending rates offered by other banks were on average 1% higher than those being offered by large commercial banks. As such, other banks did not raise their lending rates much in order to remain competitive. At the same time, other banks would raise fixed-deposit rates by a smaller extent because deposit rates being offered were already higher, while they also rely more on fixed deposits with share of fixed deposits almost doubles that of large commercial banks.

In summary, monetary policy transmission remains effective overall. The changing behaviors of the interest rate passthrough such that commercial banks being more careful with interest rate adjustments affecting the vulnerable groups are in line with the gradual and measured approach of the monetary policy normalization that aims to support the sustainable economic recovery. Meanwhile, the Bank of Thailand would continue to emphasize the importance of financial measures while working together with all stakeholders to find sustainable solutions to assist the vulnerable groups.

Chart 3: Financial structure of Thai commercial banks



Note: [...] denotes share of loan/ deposit outstanding of Thai commercial banks as of end-2022

Source: Bank of Thailand

Monetary Policy Decision: Summary of Key Considerations

Economic growth

The Thai Economy should continue to expand

Inflation outlook

Headline inflation has returned to the target range, but the outlook is still subject to upside risks from demand-pull pressures and cost pass-through

Financial stability

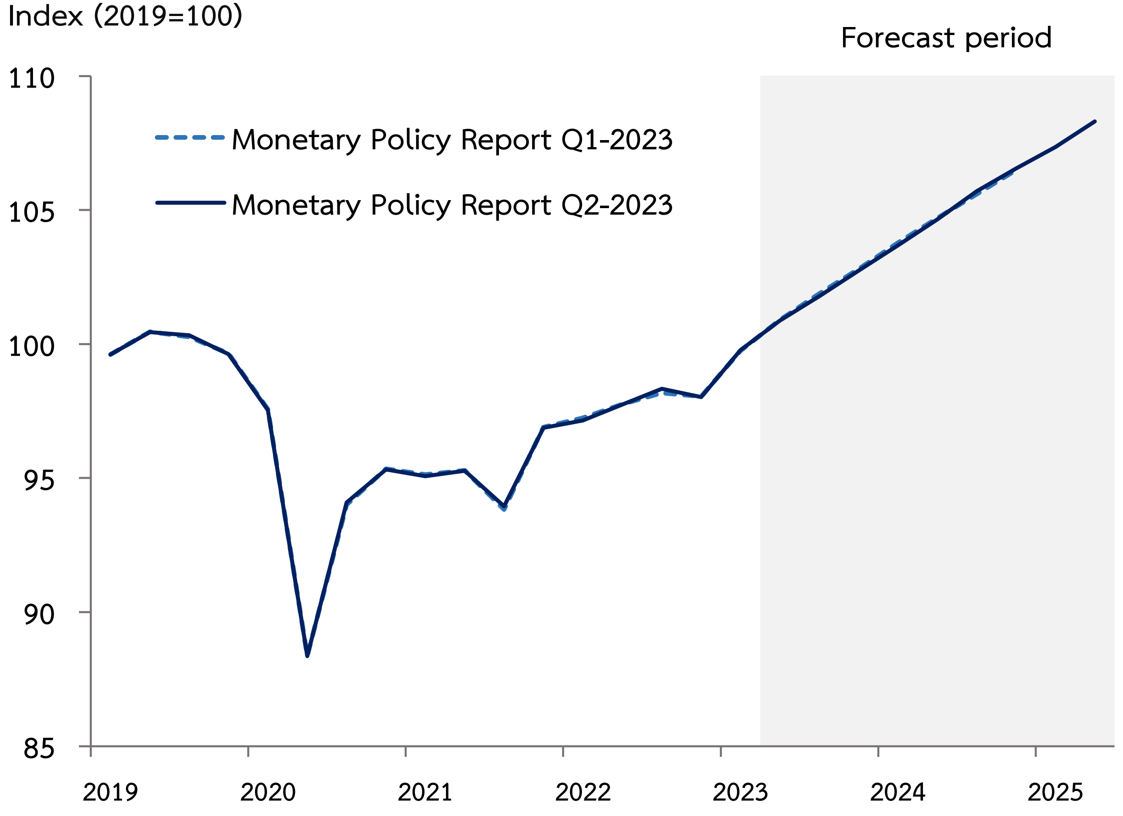
Overall financial system remains resilient, but financial positions of the vulnerable groups must be monitored

Monetary Policy Decision

The MPC judged that continuation of a gradual policy normalization remains appropriate in light of growth and inflation outlook, and is prepared to adjust the size and timing should the outlook shifts from the current assessment

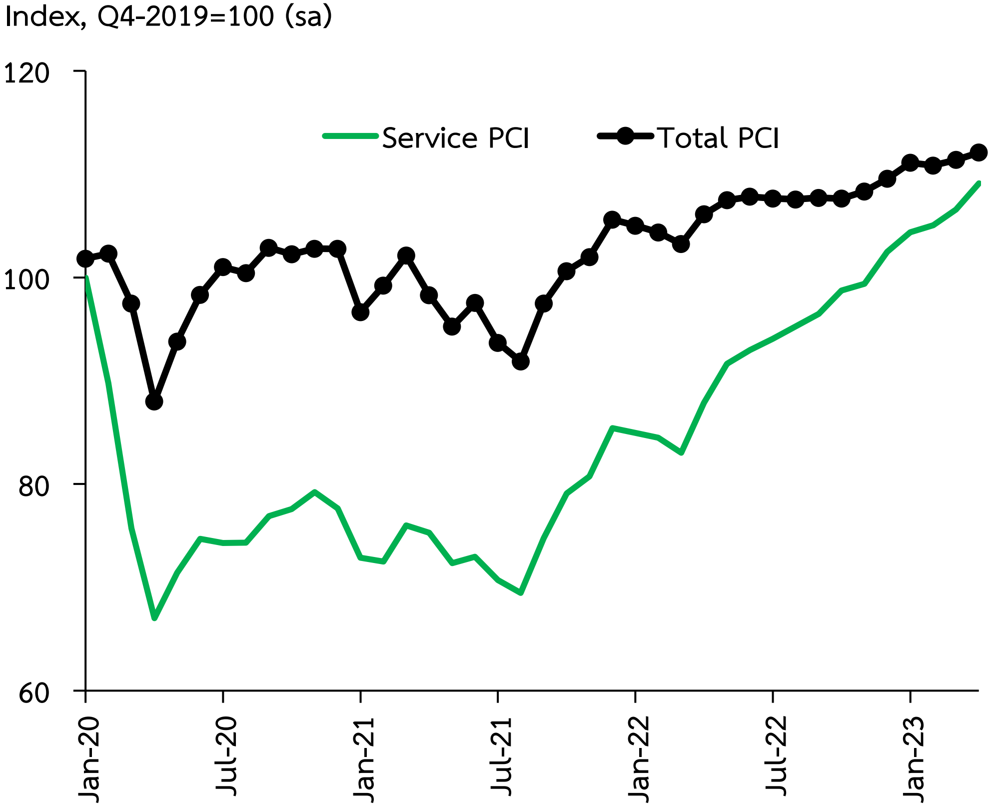
The Thai economy should continue to expand driven by growth in the tourism sector, which would in turn support private consumption

Real GDP



Source: BOT forecast as of May 2023

Recovery in the services sector should help support private consumption



Note: Service PCI represents domestic services expenditures which include foreign tourist spending. Total PCI excludes spending of Thais traveling abroad.

Source: BOT calculation

Headline inflation has returned to the target range. Core inflation is gradually declining but remains high compared to levels seen in the past.

Underlying inflation indicators

Underlying inflation indicators	2022												2023			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
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	1.8	1.7
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	2.1	2.0
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	2.6	2.6
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	2.8	2.7
Common CPI	1.0	1.7	1.9	2.2	2.5	2.8	3.2	3.6	3.7	3.9	4.1	4.3	4.2	3.8	3.7	3.4
MUCSVO Trend		2.2			2.7			3.2			3.4			3.3		

Deviation from the mid-point of the target range of 2%

- Less than 0.5% from mid-point
- Less than 0.25% - 0.5% from mid-point
- Close to mid-point (+/- no more than 0.25%)
- More than 0.25% - 0.5% from mid-point
- More than 0.5% from mid-point

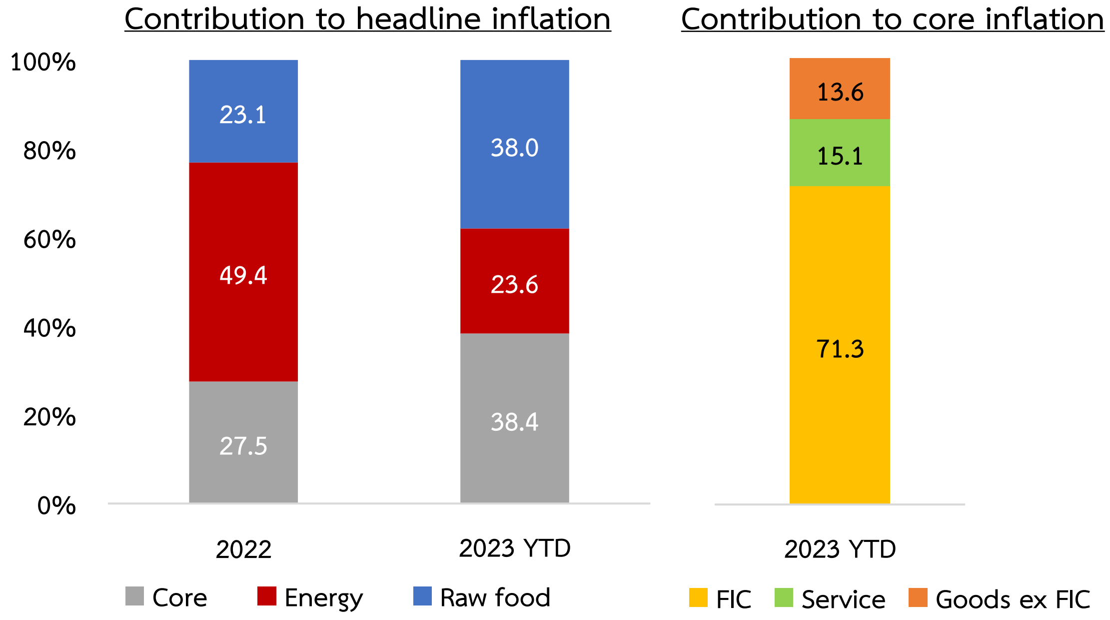
Note: These monthly indicators are %YoY except MUCSVO trend which is %QoQ annualized of 10 categories of goods and services

Symmetric trimmed mean 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 principal component model. MUCSVO trend is constructed following Stock and Watson (2015)

Source: Ministry of Commerce, BOT calculation

Core inflation will play a larger role going forward. Upside risks remain from demand pressures amid economic expansion, higher cost pass-through, and more frequent price adjustments driven by rising supply pressures.

Core inflation is increasingly driven by stickier components



Inflation Persistence[1/]				
Core components			Non-core components	
Food in core (FIC)	Service	Goods ex FIC	Raw food	Energy
0.65	0.43	0.43	0.23	0.19

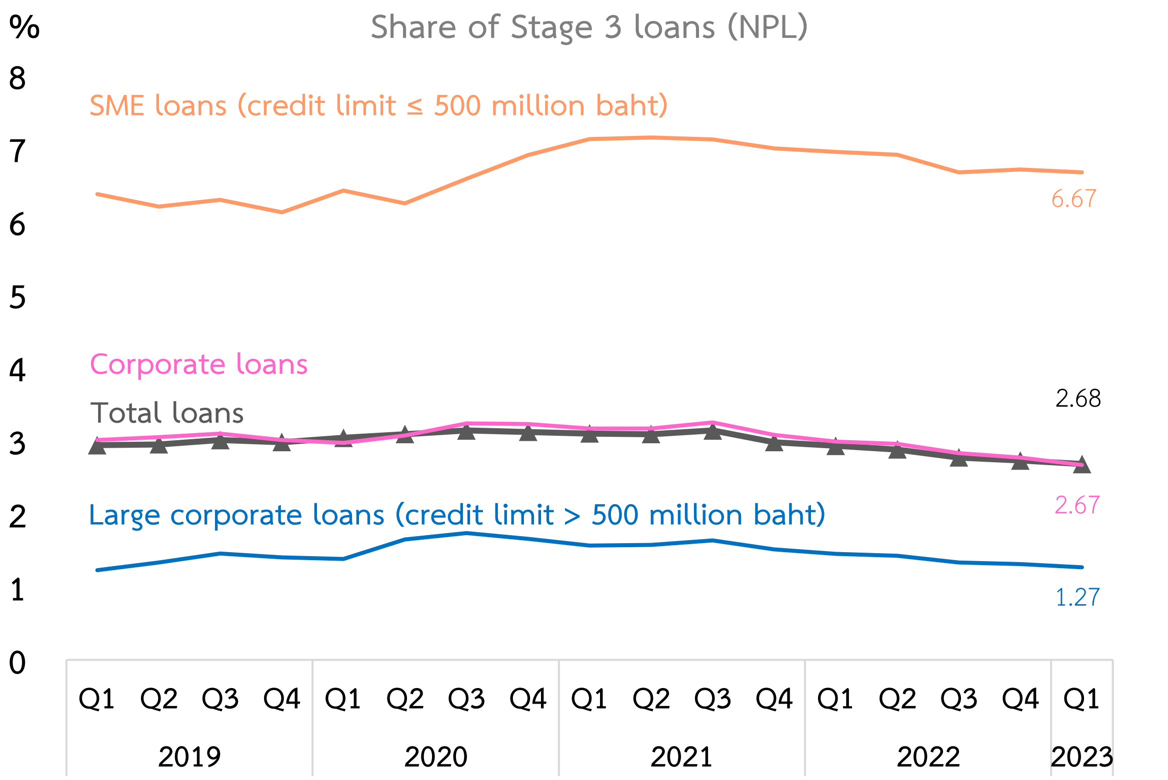
Note: [1/] Inflation persistence is the first coefficient in the autoregressive model, calculated using quarterly change in price in both aggregate and disaggregate levels from Q2/2002 – Q1/2023

Key factors to be monitored

1. Cost pass-through and demand pressures could increase due to stronger-than-expected economic recovery
2. Supply-side pressures could rise in part contingent on forthcoming government economic policies
3. Persistently high inflation could have implications for price-setting behavior and inflation expectations

Financial stability remains sound overall, but financial fragilities remain for some households exposed to rising living costs and debt burden. Implementation of appropriate debt restructuring and income recovery would help improve debt serviceability.

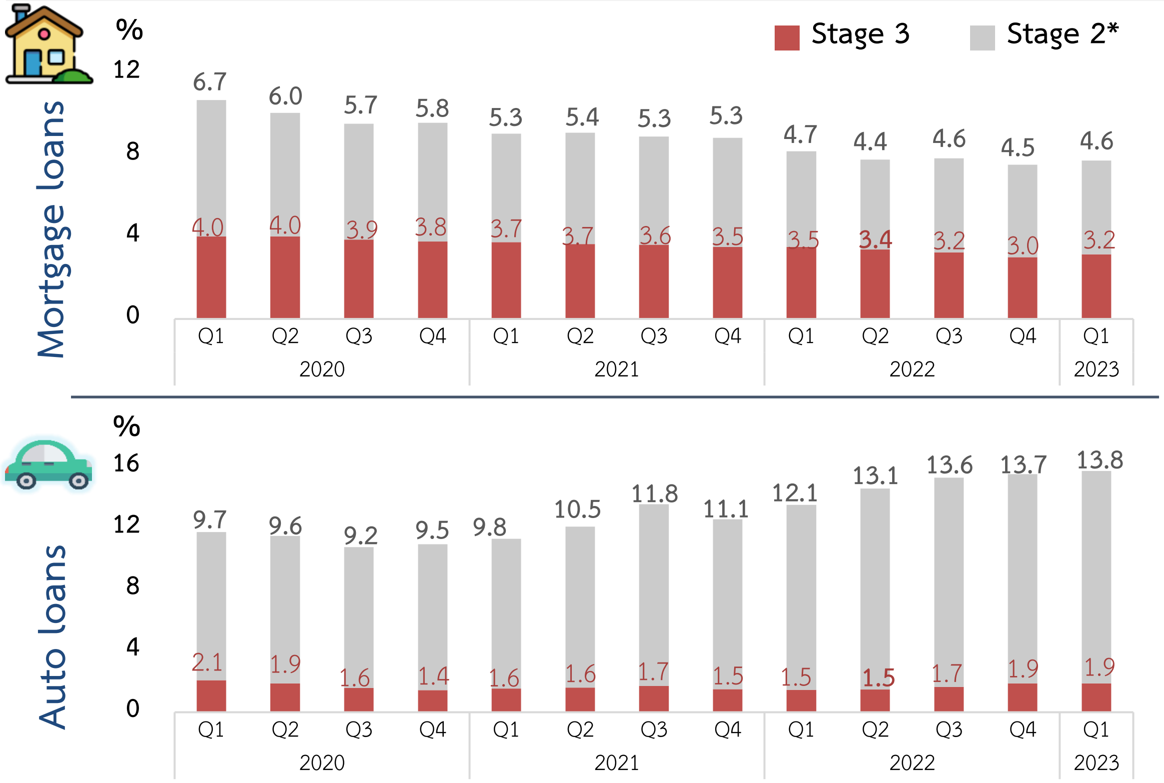
Loan quality slightly improved as seen in a decline in NPL ratio, resulting from loan portfolio management and debt restructuring



Note: Since Q4-2022, one bank has transferred credit card and personal loan portfolio to its subsidiary

Source: BOT

There remains a need to monitor debt serviceability of highly leveraged households with slow income recovery



Note: Stage 2 covers loans with significant increase in credit risk, resulting in Stage 2 loans having wider scope than Special Mentioned (SM) loans under pre-TFRS 9 loan classification

Source: BOT

The continuation of a gradual policy normalization remains appropriate in light of growth and inflation outlook

MPC Meeting No. 3/2023
(31 May 2023)

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

Current policy rate:

2.00%

The Thai economy should continue to expand, driven mainly by tourism and private consumption, while merchandise exports are expected to recover gradually. Headline inflation returned to the target range, while core inflation is expected to remain elevated. The inflation outlook is subject to upside risks stemming from rising demand pressures amid expanding economic activity and higher cost pass-through from supply pressures.

Financial stability remains sound overall. Debt serviceability of businesses and households has improved with the economic recovery. However, financial positions of some SMEs and households remain vulnerable and sensitive to higher living costs and debt burden. Hence, the continued implementation of debt restructuring measures is still necessary.

The MPC expects the Thai economy to continue expanding but upside risks to inflation must be monitored closely. The MPC judges that it is appropriate to raise the policy interest rate in a gradual and measured manner toward a level consistent with long-term sustainable growth, and is prepared to adjust to size and timing of policy normalization should the evolving growth and inflation outlook differ from the current assessment.

Percent	2021	2022	2021				2022				2023
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
GDP growth	1.6	2.6	-2.5	7.7	-0.2	1.9	2.2	2.5	4.6	1.4	2.7
Production											
Agriculture	2.3	2.5	-0.6	3.1	5.2	2.1	3.4	4.0	-2.2	3.4	7.2
Non-agriculture	1.5	2.6	-2.5	8.2	-0.5	1.9	2.0	2.3	5.1	1.2	2.3
Manufacturing	4.9	0.4	1.7	17.0	-0.9	3.5	2.0	-0.8	6.0	-5.0	-3.1
Construction	2.2	-2.7	12.7	2.3	-4.5	-0.6	-5.1	-4.4	-2.6	2.6	3.9
Wholesales and retail trade	1.6	3.1	-1.9	4.1	2.1	3.1	2.7	3.2	3.5	3.1	3.3
Transport and storage	-2.7	7.1	-18.0	10.8	-1.3	4.8	3.5	5.0	10.1	9.8	12.4
Accommodation and Food Service	-14.2	39.3	-37.4	17.8	-18.8	-4.7	32.2	44.7	53.2	30.6	34.3
Information and Communication	6.1	5.1	5.2	6.2	7.4	5.8	5.7	6.3	4.7	3.9	3.4
Financial intermediation	5.5	0.9	6.5	6.3	6.1	3.1	1.0	1.4	1.0	0.5	1.5
Real estate and renting	1.7	2.1	2.1	2.5	0.6	1.5	1.3	2.4	3.1	1.9	1.9

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

Percent	2021	2022	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1
GDP growth	1.6	2.6	-2.5	7.7	-0.2	1.9	2.2	2.5	4.6	1.4	2.7
Expenditure											
Domestic demand	1.8	4.1	1.9	4.8	-1.5	2.2	3.6	4.3	6.0	2.6	2.7
Private consumption	0.6	6.3	-0.1	5.3	-3.2	0.6	3.5	7.1	9.1	5.6	5.4
Private investment	3.0	5.1	2.9	8.8	2.3	-1.1	2.9	2.3	11.2	4.5	2.6
Government consumption	3.7	0.2	1.0	0.7	2.5	10.4	8.2	2.7	-1.5	-7.1	-6.2
Public investment	3.4	-4.9	18.8	3.1	-6.7	1.8	-3.8	-8.8	-6.8	1.5	4.7
Imports of goods and services	17.8	4.1	2.1	29.9	27.4	15.6	4.4	7.3	9.5	-4.8	-1.0
imports of goods	18.2	5.4	5.0	29.9	26.5	14.5	6.6	9.9	11.2	-5.9	-3.3
imports of services	16.0	-0.6	-9.4	30.3	32.6	21.0	-3.3	-1.9	3.7	-0.9	8.9
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	3.0
exports of goods	15.3	1.3	3.0	30.9	12.4	17.5	9.7	4.3	2.3	-10.5	-6.4
exports of services	-19.9	65.8	-61.0	9.0	19.4	31.2	35.5	47.7	79.2	94.9	87.8
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	2.9
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	4.0
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	n.a.
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	224.5
Unemployment rate (%)	2.0	1.3	2.0	1.9	2.3	1.7	1.5	1.4	1.2	1.2	1.0
Unemployment rate, seasonally-adjusted (%)	n.a.	n.a.	2.0	1.9	2.2	1.7	1.5	1.4	1.2	1.2	1.0

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

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BANK OF THAILAND

Indicators	2021	2022	2021				2022				2023
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
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	0.6
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	1609.2
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	12.0
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	19.3
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	10.9
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	120.3
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	106.0
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	6.6
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	1.1
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	19.8
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	60.0
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	1.0
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	90.6

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 6 largest Thai commercial banks (since july 2021)

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BANK OF THAILAND

Indicators	2021	2022	2021				2022				2023
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
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	n.a.
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.	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	2.7
Housing loans	3.5	3.0	3.7	3.7	3.6	3.5	3.5	3.4	3.3	3.0	3.2
Auto leasing	1.5	1.9	1.6	1.6	1.7	1.5	1.5	1.5	1.7	1.9	1.9
Credit cards	2.3	3.1	3.0	3.5	3.0	2.3	2.8	2.7	2.5	3.1	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	2.3
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	7.4
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	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	4.9
Current ratio (times)	1.7	1.8	1.6	1.6	1.7	1.7	1.8	1.8	1.7	1.8	1.8
Non-Performing Loans (NPLs) of commercial banks (%)											
Large businesses	2.6	2.4	3.0	3.0	2.8	2.6	2.6	2.5	2.3	2.4	2.4
SMEs	7.2	6.9	7.2	7.3	7.3	7.2	7.2	7.2	6.9	6.9	6.9

Note: [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	2023 Q1
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	11,860
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	3,709
Townhouses and commercial buildings	21,372	19,752	5,709	6,133	4,775	4,755	4,367	4,943	5,226	5,216	3,906
Condominiums	23,525	25,413	5,804	6,151	5,469	6,101	4,583	6,244	7,082	7,504	4,245
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	21,936
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	4,906
Townhouses and commercial buildings	23,709	28,525	2,765	7,492	5,597	7,855	4,655	9,015	6,957	7,898	5,272
Condominiums	23,445	53,778	4,956	5,314	2,525	10,650	15,709	15,912	9,331	12,826	11,758
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	146.65
Townhouses (including land)	160.60	167.36	158.78	159.59	161.55	162.48	164.44	167.37	168.44	169.20	171.97
Condominiums	180.37	184.43	177.18	178.79	185.40	180.10	181.99	185.26	181.57	188.92	194.74
Land	177.73	180.17	171.03	172.21	179.22	188.43	178.80	179.57	177.99	184.33	175.02
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	61.3
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	3.1
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	n.a.
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	n.a.
Short-term (%)	38.1	40.1	39.0	38.6	38.2	38.1	38.1	39.5	40.7	40.1	n.a.
Long-term (%)	61.9	59.9	61.0	61.4	61.8	61.9	61.9	60.5	59.3	59.9	n.a.
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	n.a.

Note:: [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

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Probability distribution of GDP growth forecast

%	2023	2023	2023	2024	2024	2024	2024	2025	2025
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
> 16	0	0	0	0	0	1	1	1	1
14.0-16.0	0	0	0	0	1	1	1	1	1
12.0-14.0	0	0	1	1	3	3	3	3	3
10.0-12.0	0	0	3	3	6	6	6	6	5
8.0-10.0	0	2	8	8	10	9	10	10	9
6.0-8.0	5	12	20	16	13	13	13	12	12
4.0-6.0	25	30	28	19	14	14	14	14	14
2.0-4.0	49	33	24	24	23	23	22	20	22
0.0-2.0	20	19	11	17	19	19	17	20	18
(-2.0)-0.0	1	4	3	8	9	8	8	9	10
(-4.0)-(-2.0)	0	1	1	2	3	2	3	4	3
(-6.0)-(-4.0)	0	0	0	0	1	1	0	1	1
(-8.0)-(-6.0)	0	0	0	0	0	0	0	0	1
< -8	0	0	0	0	0	0	0	0	0

Probability distribution of inflation forecast

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Probability distribution of headline inflation forecast

%	2023		2024				2025		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
> 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	1	1	1	1	1
7.0-8.0	0	0	0	1	2	2	3	3	3
6.0-7.0	0	0	1	2	5	5	5	5	6
5.0-6.0	0	0	4	7	10	9	9	9	10
4.0-5.0	0	2	13	15	16	15	14	14	14
3.0-4.0	3	14	25	24	22	20	18	18	18
2.0-3.0	31	35	31	27	23	22	21	21	20
1.0-2.0	56	37	20	18	16	17	17	17	17
0.0-1.0	10	11	5	6	6	7	8	8	8
(-1.0)-0.0	0	1	1	1	1	2	2	2	2
(-2.0)-(-1.0)	0	0	0	0	0	0	0	0	0
< -2	0	0	0	0	0	0	0	0	0

Probability distribution of core inflation forecast

%	2023		2024				2025		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
> 5.5	0	0	0	0	0	0	0	0	0
5.0-5.5	0	0	0	0	0	0	0	1	1
4.5-5.0	0	0	0	0	1	1	1	2	2
4.0-4.5	0	0	1	2	3	3	3	3	4
3.5-4.0	0	0	3	5	6	6	6	6	7
3.0-3.5	0	1	11	13	13	11	10	11	11
2.5-3.0	1	10	24	22	20	17	15	16	16
2.0-2.5	28	32	31	27	24	21	20	20	20
1.5-2.0	57	40	22	20	21	22	21	21	22
1.0-1.5	13	15	7	8	10	14	15	15	14
0.5-1.0	0	2	1	1	3	4	5	5	3
0.0-0.5	0	0	0	0	0	1	1	1	0
(-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

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