ธนาคารแห่งประเทศไทย
BANK OF THAILAND

Monetary Policy Report
June 2022

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
Miss Vachira Arromdee	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 14, 2021, the Cabinet approved the monetary policy target for 2021, 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 2022. In the event that average headline inflation in the past 12 months or a forecast of average headline inflation over 12 months ahead breaches the target range, the MPC shall send an open letter to the Minister of Finance to explain reasons for the breach of the target range, together with measures taken and estimated time to bring inflation back to the target. In addition, the MPC will write an additional open letter to the Minister of Finance every six months if average headline inflation based on the above criteria remains outside the target range.

Monetary Policy Instrument

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

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 7 June 2022
(1 day prior to the MPC Meeting)

Executive Summary

Assessment of the Economic and Inflation Outlook

Global Economy

Trading partners are expected to grow at a slower pace compared to the previous assessment, expanding 3.4% in 2022 and 3.1% in 2023. This downward revision to trading partners' growth forecasts is due to the impact of high inflation on growth among advanced economies. China's zero-COVID policy also resulted in a temporary slowdown in the country's demand which in turn affected exports in the region. Nonetheless, latest data suggest that the outbreak of COVID-19 in China has subsided and containment measures are being relaxed, which will pave the way for China's economic recovery. **Global inflation is expected to rise further** due to elevated energy and commodity prices as a result of the Russia-Ukraine conflict and the ongoing global supply disruption which is exacerbated by China's containment measures. **Many central banks are likely to tighten monetary policy more aggressively than previously expected** due to the pickup in inflation and strong economic growth. The resulting tighter financial conditions would lead to a slow down in trading partners' growth in 2023.

The Thai Economy

The Thai economy is expected to continue expanding at 3.3% in 2022 and 4.2% in 2023 driven by a continued recovery in foreign tourist arrivals following the faster relaxation of border controls in Thailand and other countries, as well as a strong recovery in private consumption in line with the recovery in tourism income and purchasing power of high-income households (Box: *Private Consumption: a key driver of economic growth in the period ahead*). Meanwhile, the impact from trading partners' growth slowdown is expected to be quite limited. **The labor market and household income is showing signs of improvement** as economic activities continue to pick up after containment measures are relaxed. However, net farm income is expected to remain largely stable or only slightly increase because while agricultural prices have increased, the costs of chemical fertilizers have also increased. (Box: *Farm income outlook for 2022 amidst impacts of the Russia-Ukraine conflict*).

On the whole, there is a possibility that the Thai economy will register higher growth than expected. This is because (1) the number of foreign arrivals might turn out higher than expected as border controls in both Thailand and abroad are lifted, and (2) the recovery in domestic demand might be stronger than expected as pent-up demand and spending by households with excess savings could result in higher-than-expected private consumption.

Inflation

Headline inflation is expected to be 6.2% in 2022 and 2.5% in 2023. It is expected that headline inflation will remain above the target range throughout 2022 before falling into the target range in 2023. Rising inflation is attributed to higher domestic energy prices as result of higher global crude oil prices. Higher cost pass-through in Thailand has now propagated across more categories of goods, though it is assessed that it is mainly due to cost-push inflation.

There remains the risk that headline inflation could turn out higher than expected. These upside risks include higher-than-expected energy prices and cost pass-through, change in the public's inflation expectations and behavior that could lead to persistently higher core inflation, and potentially higher demand-pull inflationary pressures as the economy recovers.

Nevertheless, medium-term inflation expectations remain well-anchored within the target range although short-term inflation expectations have increased somewhat. **Going forward, the MPC will closely monitor inflation developments, cost pass-through by businesses, and medium-term inflation expectations.**

Financial Conditions and Financial Stability

Overall financial conditions in Thailand remain accommodative. Financing costs are low and financing amount continues to grow. Nevertheless, financing conditions have tightened somewhat due to heightened volatilities in the global financial market. **On exchange rates,** the baht against U.S. dollar depreciated in Q2/2022 due to market concerns that the Fed would tighten monetary policy more aggressively, as well as concerns pertaining to the Russia-Ukraine conflict that is still ongoing. **Financial stability remains sound overall.** Commercial banks' capital funds and reserves remain at high levels. Overall liquidity in the system also remains ample, although the distribution is still somewhat uneven across different economic sectors. Some households and businesses are still vulnerable and thus **it would be necessary to closely monitor households' debt serviceability,** especially of low-income households that are affected by higher living costs and are heavily indebted. The MPC assesses that household spending has recently been more affected by inflation than by higher interest rates. As such, preventing inflation from remaining persistently high to the point that it affects the costs of living is vital to the livelihood of the people.

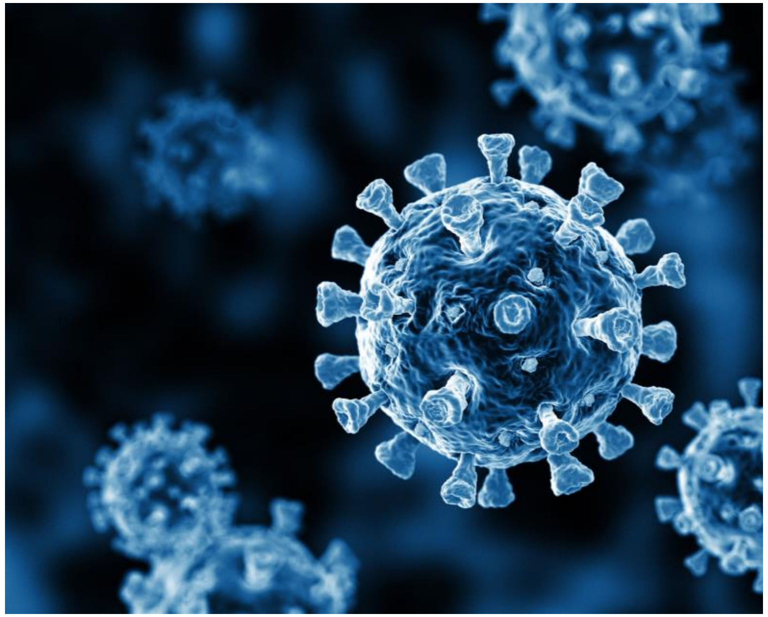
Monetary Policy Decision in the Second Quarter of 2022

At the meeting on 8 June 2022, the Monetary Policy Committee (MPC) voted 4 to 3 to maintain the policy rate at 0.50 percent. Three members voted to raise the policy rate by 0.25 percentage point. The MPC assesses that the Thai economy will continue to recover and could expand faster than previously expected owing to stronger domestic demand and the pickup in foreign tourists. Headline inflation would increase and remain elevated for longer than previously estimated, due to the increase in oil prices and higher cost pass-through. **The MPC view that a very accommodative monetary policy stance will be less needed going forward. However, to ensure that the recovery will continue to gain traction as anticipated, most members voted to maintain the policy rate in this meeting and will reassess the risks to growth and inflation going forward. Meanwhile, three members view that policy normalization is warranted in this meeting given the increased upside risks to both growth and inflation.**

The MPC will assess the appropriate timing for a gradual policy normalization in accordance with the shift in the outlook and risks surrounding growth and inflation. The MPC sees the need to monitor (1) the continuity of the economic recovery, especially the recovery of domestic demand and tourism which is the key driver of growth; (2) risks to inflation especially the trajectory of oil prices, higher cost pass-through, and possible acceleration in demand-pull inflationary pressures in tandem with the economic recovery (Box: *Underlying inflation indicators for Thailand*); and (3) financial stability in Thailand, especially fragile households and businesses who have yet to fully recover and are highly indebted as they are vulnerable to increases in the living and production costs. **In addition, the MPC view that the implementation of measures targeted at vulnerable groups must continue, especially the restructuring of debt to be consistent with borrowers' long-term debt serviceability.**

1. Global Economy

Global Economy: Key Issues



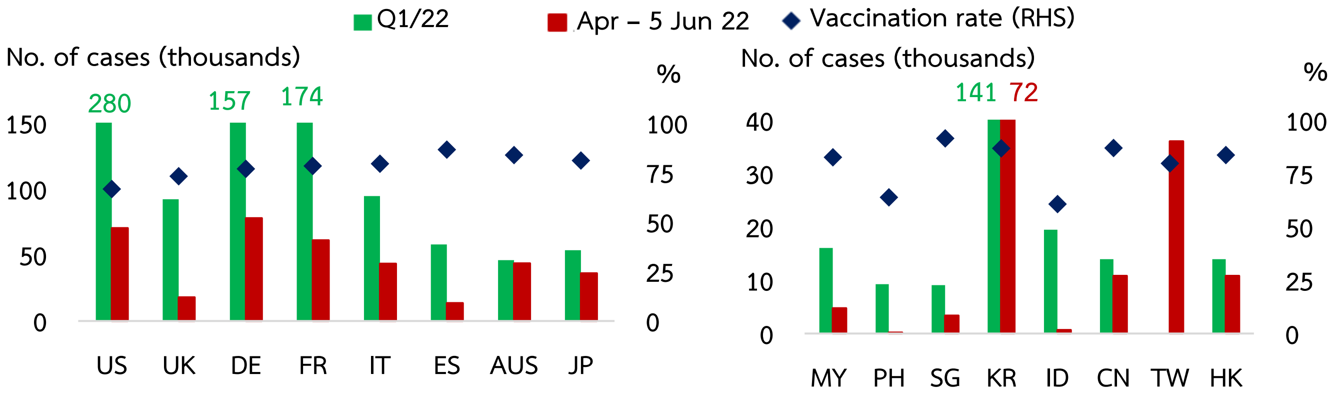
The overall COVID-19 situation has improved. This has led to the relaxation of containment measures in many countries except in China where lockdowns remain in place.

Inflation is rising in many countries as a result of the Russia-Ukraine conflict as well as the global supply disruption which is exacerbated by lockdowns in China

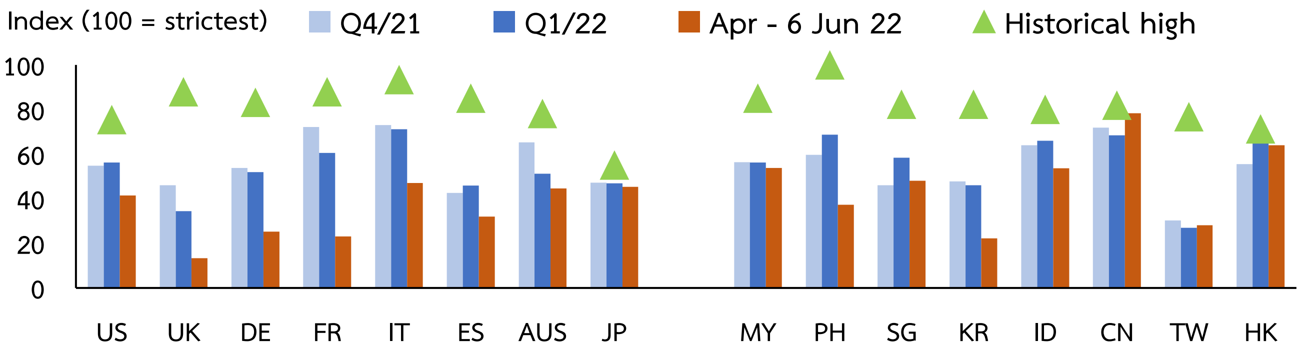
Trading partners posted strong growth rates, albeit lower than previously assessed due to the impact of accelerating inflation and monetary policy tightening.

The COVID-19 situation has improved. Many countries have continued to relax containment measures which have led to a recovery in economic activities, except in some Asian economies where the outbreak is still ongoing.

Number of new cases and vaccination rate (daily average)



Government Response Stringency Index*



The number of COVID-19 Omicron cases has declined from Q1/2022, partly due to accelerated vaccination efforts including booster shots being more widely administered in many countries. **Containment measures have been progressively relaxed** with many countries except China, as they opted to live alongside COVID such as the U.S., Europe, South Korea, and Singapore. As a result, the economic impact has been <u>less severe</u> than previously expected.

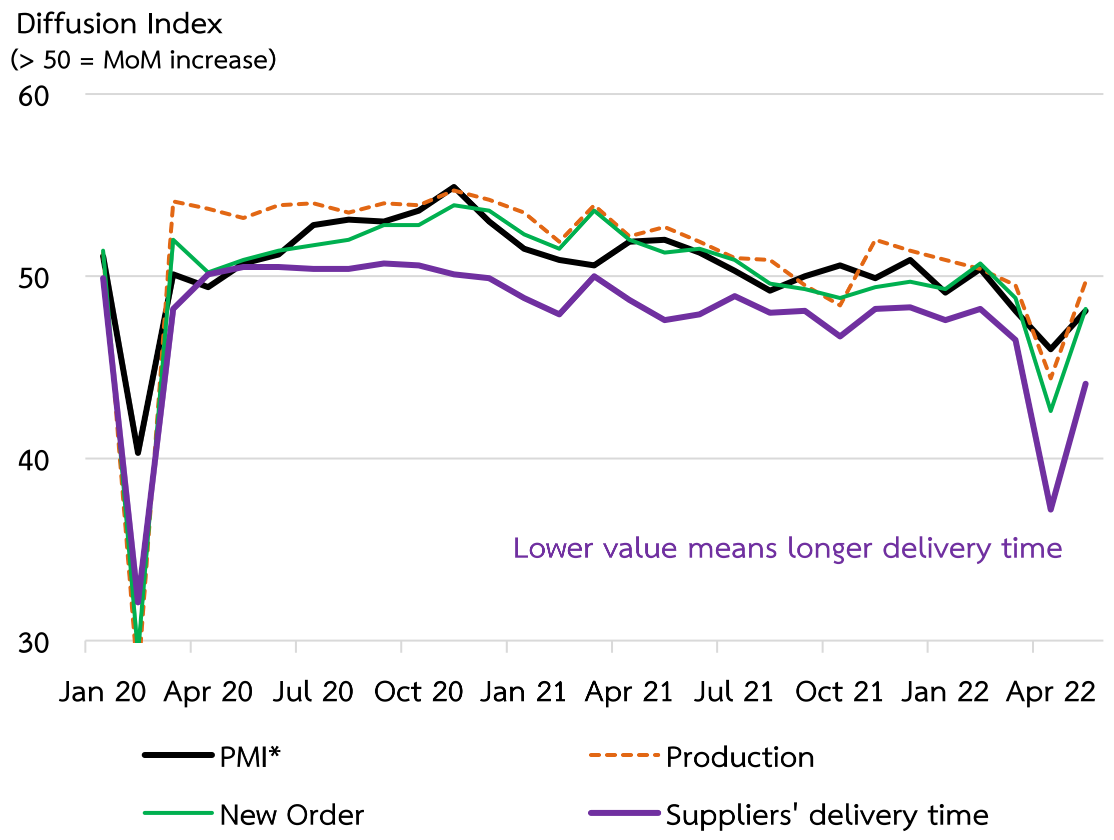
Nevertheless, some Asian economies like China, Taiwan, and Hong Kong have faced more severe outbreak than previously expected. China has implemented strict containment measures in April, which impacted domestic economic activities. However, latest data suggests that the number of COVID-19 cases in China and Hong Kong has declined significantly.

Note: The stringency index ranges from 0 to 100 with 100 being the strictest. The index is made up of 5 sub-indicators: (1) containment and closure measures, (2) economic measures, (3) public health measures, (4) vaccination rates, and (5) other related measures. If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region.

Source: Our World in Data

The COVID-19 outbreak in China is subsiding, as reflected by the significant decline in the number of cases and gradual re-opening of the manufacturing sector. The logistics sector, however, remain affected.

China's Manufacturing Purchasing Manager Index: PMI



Note: PMI index from Caixin Manufacturing PMI,
other components from NBS Composite PMI

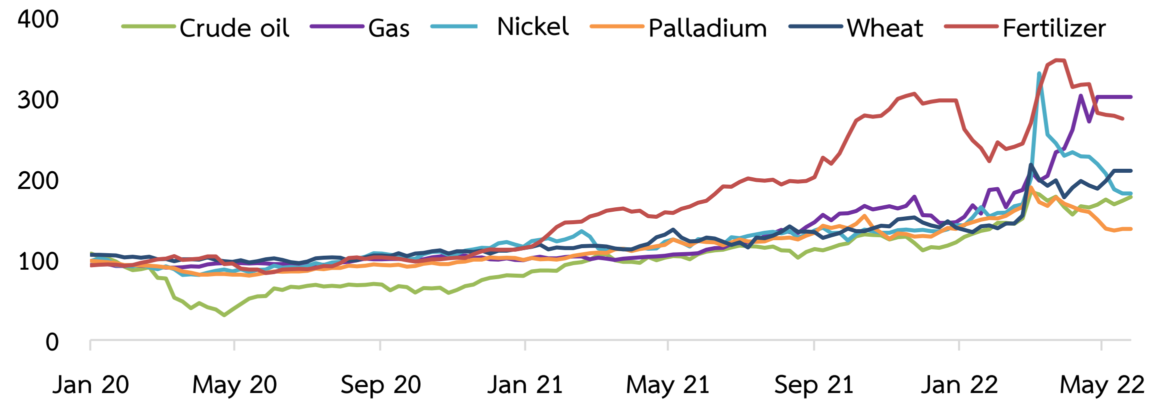
Sources: Caixin, NBS

The COVID-19 situation in China has progressively improved and the outbreak is likely to be under control. The number of cases has declined especially in Shanghai where the recent outbreak was severe, while the outbreak in Beijing has not been severe. Lockdowns have mostly been imposed on the general population, while manufacturing businesses in outbreak areas have now been allowed to resume operations under closed-loop management since mid-April. Under this system, workers are allowed to return to work and live only in designated areas. In addition, 90% of factories in Shanghai are now operational especially those in the automobile, semiconductors, and other key industries although they are not yet operating at full production capacity due to movement restrictions. This is reflected in the uptick in China's latest PMI data in May.

However, China's domestic and international logistics are still affected by the outbreak as reflected in longer shipping times. The time it takes to load and unload goods at the Port of Shanghai has almost doubled even though some ships now use other nearby ports instead. On the whole, it is expected that logistics will gradually improve as the outbreak subsides.

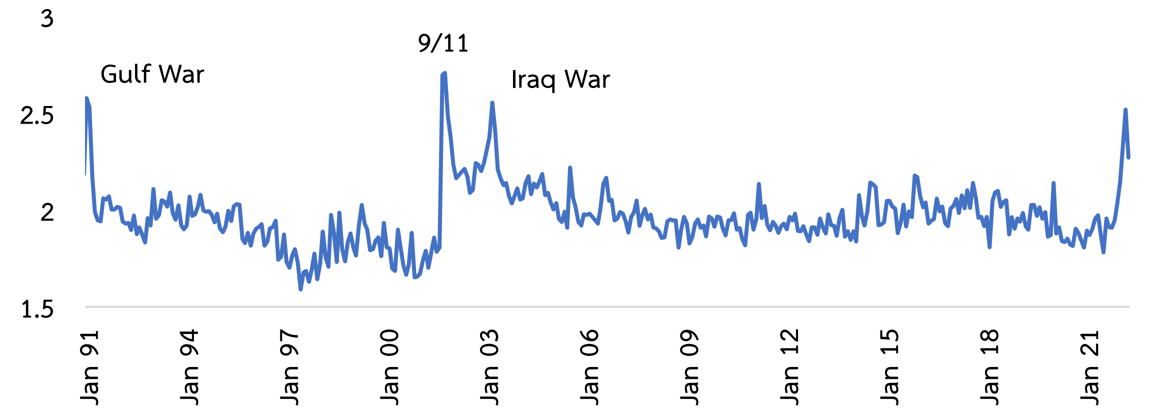
The impact from the Russia-Ukraine conflict has been as expected. Energy and commodity prices are still high and would remain so throughout 2022.

Energy and Commodity Prices



Note: Forecasts from Bloomberg consensus, Sources: CEIC, Bloomberg

Geopolitical Risk Index (monthly average)



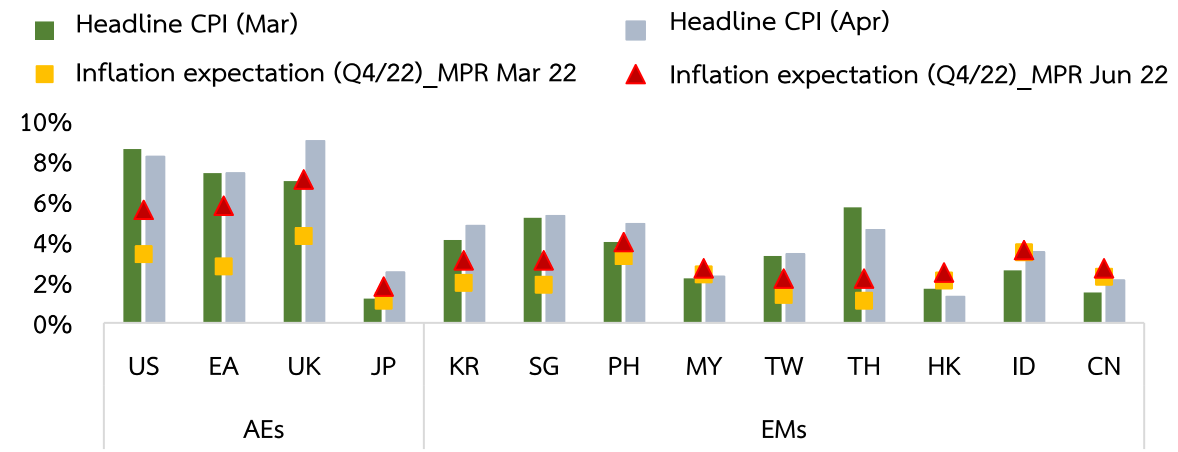
Source: https://www.matteoiacoviello.com/gpr.htm (April 2022)

The impact of the Russia-Ukraine conflict on economic growth and energy and commodity prices, and the sanctions on Russia were largely as expected. It is expected that these impacts would continue throughout 2022.

The Russia-Ukraine conflict has resulted in higher energy and commodity prices, which in turn affected the costs for both producers and consumers. Meanwhile, the global supply disruption is likely to persist while Russia-Ukraine conflict is still ongoing. Russia is a major exporter of energy and commodities such as oil, natural gas, raw metal, nickel, fertilizers, and palladium which is used in making semiconductors. Meanwhile, Ukraine is a major exporter of grains, pig iron, and animal feed. However, in April, concerns about the war has somewhat receded from the prior month. The sanctions on Russia is still largely the same and is likely to remain in effect for extended period as previously expected.

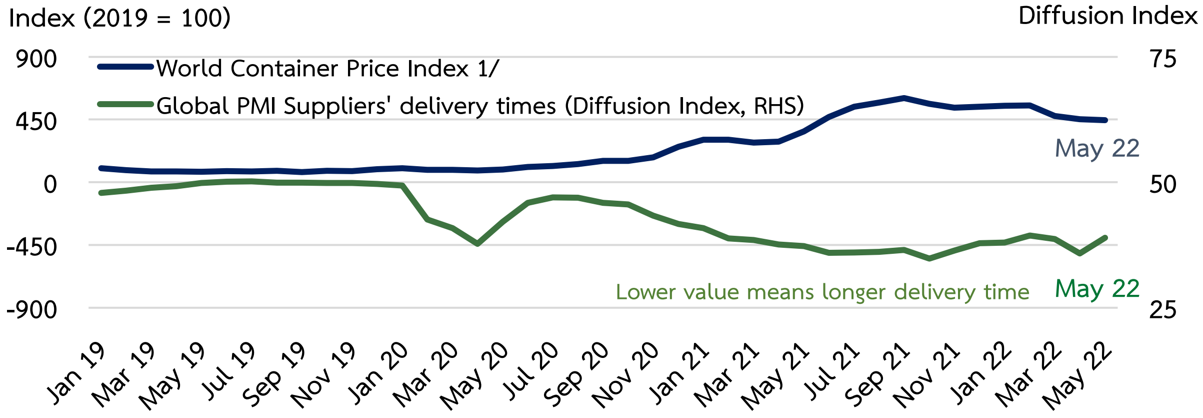
Inflation and inflation expectations in many countries have increased due to high energy and commodity prices as well as impact of the ongoing global supply disruption.

Headline inflation and inflation expectations at the end of 2022



Source: CEIC

Delivery Time and World Container Price Indices



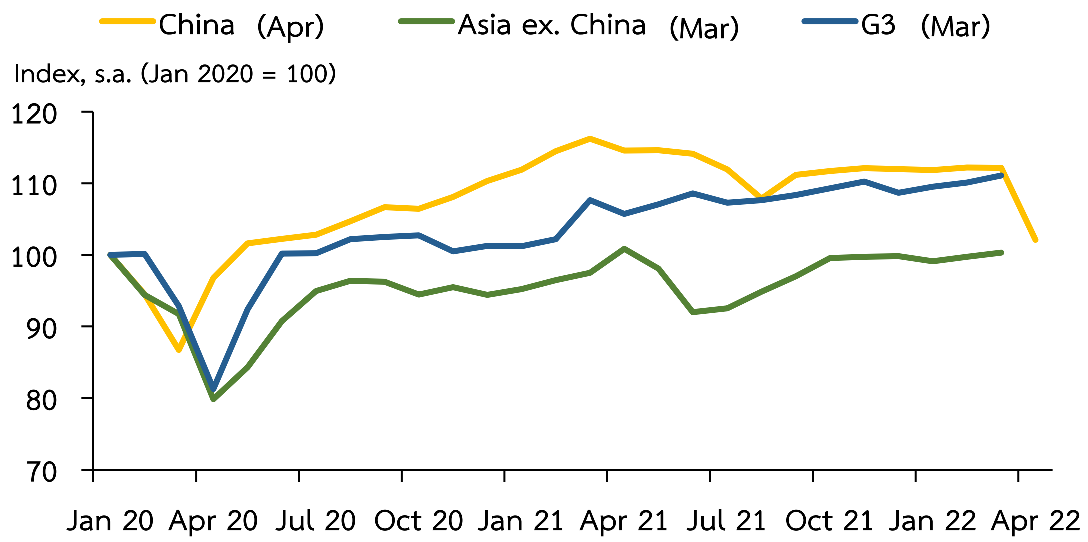
Note: [1/]Composite Container Freight Benchmark Rate per 40-Foot Box, **Sources:** Bloomberg, JP Morgan

Overall, inflation and inflation expectations in many countries have increased due to higher energy and commodity prices as a result of the Russia-Ukraine conflict. Inflation in advanced economies rose with the economic recovery and higher energy prices. Meanwhile, rising inflation in Asian economies were mostly felt by net energy importers such as South Korea and Singapore. Nevertheless, inflation among Asian economies has not yet reached levels seen among advanced economies, partly due to government measures such as energy price controls, energy-related tax reductions, and government subsidies.

The global supply disruption remains a challenge due to lockdowns in China, as reflected by the delivery time and container price indices remaining at high levels. Both are among factors that contribute to higher costs and higher inflation. Nevertheless, in the short-term, container prices have declined slightly thanks to better distribution of freight container across Asia after China's demand for freight container receded due to the lockdowns.

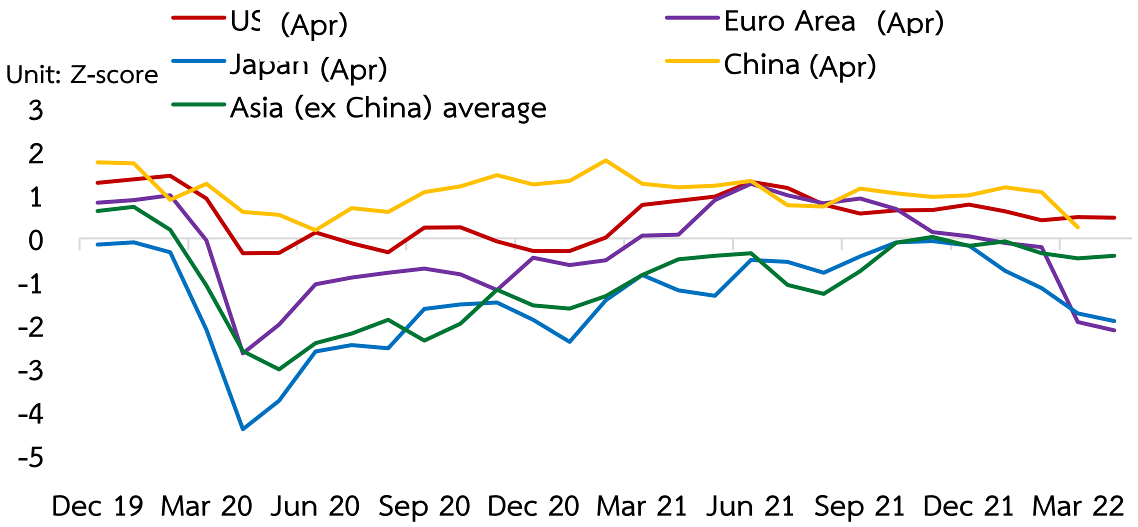
Private consumption has gradually recovered thanks to containment measures being relaxed in many countries except in China where lockdowns remain in place in key cities. Nevertheless, private consumption in the period ahead would be weighed down by the Russia-Ukraine conflict and the impact of rising inflation on consumer purchasing power.

Retail Sales Index



Source: CEIC

Consumer Sentiment Index



Notes: 1/Z-Score calculated from Jan 10 – Apr 22 average

2/Asia consists of Taiwan, South Korea, and Indonesia

Overall, private consumptions has improved thanks to containment measures being relaxed in many countries. The number of COVID-19 cases in many countries have already passed their peaks. Meanwhile, private consumption in China has declined due to the strict lockdowns although this is likely to resolve within Q2/2022.

However, the recovery in private consumption would still be weighed down by concerns over the Russia-Ukraine conflict and the impact of persistently high inflation on consumer purchasing power. This is reflected by the decline in consumer confidence index in many countries, especially advanced economies.

Many central banks are likely to tighten monetary policy more aggressively than previously expected given rising inflation and strong economic recovery.

Expectations of the Fed's monetary policy in 2022-2023

Rate	2021*	2022	2023
Fed funds rate assumption (% at year-end)	0.00 - 0.25	2.50 – 2.75 (1.75-2.00)	3.00 - 3.25 (2.50-2.75)

Factors influencing Asian countries' monetary policy (excluding China)

Countries	Pressures from inflation (compared to Mar 22)	Pressures from Fed Hike	Economy back to pre-covid level?	First hike (forecast)
South Korea	√ (↑)		√	Q3/21
Singapore	√ (↑)		√	Q4/21
Hong Kong	(↑)	√	√	Q1/22
Taiwan	√ (↑)	√	√	Q1/22
Malaysia	√	√	√	Q2/22
Phillippines	√ (↑)	√	√	Q2/22
Indonesia	(↑)	√		(H2/22)

Notes: * outturn

( ) *Monetary Policy Report* Mar 22 forecasts

Source: BOT projections (as of 20 May 22)

The Federal Reserve (Fed) accelerated its policy normalization in response to the U.S. economy growing at near-potential, tight labor market conditions, as well as high and rising inflation. Looking ahead, it is expected that the Fed would tighten its monetary policy stance further, raising its policy rate at every remaining FOMC meeting in 2022. This is because inflation is likely to remain high throughout the year as a result of the Russia-Ukraine conflict and the worsening global supply disruption from strict lockdowns in China. The Fed also announced that it would reduce the size of its USD 8.9 trillion balance sheet (quantitative tightening : QT) starting in June 2022.

Asian central banks are likely raise their policy rates in tandem with the Fed's policy rate hikes given the pickup in inflation in many countries and the gradual economic recovery. Some central banks in the region have already raised its policy rates namely the central banks in South Korea, Singapore, Taiwan, Hong Kong, Malaysia, and the Philippines. Bank Indonesia (BI) has also started to signal a tighter monetary policy stance. Meanwhile, the People's Bank of China (PBoC) announced a reduction in the loan prime rate (LPR) and the required reserve ratio (RRR) to support economic growth in 2022 which has slowed down due to lockdowns being reinstated in China.

Thailand's trading partners are expected to post strong economic growth in 2022 albeit at a slower pace than previously assessed due to rising inflation and lockdowns in China. Trading partners' growth forecast for 2023 is revised down slightly on account of softer growth momentum and tighter-than-expected financial conditions.

Assumptions on trading partners' growth

%YoY	weight (%)	2021*	2022		2023	
			MPR Mar 22	MPR Jun 22	MPR Mar 22	MPR Jun 22
US	20.4	5.7	3.4	2.7	2.1	2.0
Euro Area	9.2	5.1	3.1	2.8	2.0	1.8
Japan	13.9	1.8	2.4	2.2	1.9	1.9
China	18.1	8.1	4.5	4.5	5.1	5.1
Asia (excluding Japan and China)**	30.6	5.4	4.1	4.0	3.9	3.9
Total***	100.0	5.6	3.6	3.4	3.2	3.1

Notes: * Outturns

** Asia (ex Japan and China) includes 7 countries weighted by major Thai trades' share in 2020

*** Weighted by major Thai trades' share in 2020 (13 countries) Asia (30.6%) = Singapore (5.8%) + Hong Kong (6.9%) + Malaysia (5.3%) + Taiwan (2.3%) + Indonesia (4.7%) + South Korea (2.6%) + Philippines (3.1%)

Trading partners are expected to post strong economic growth in 2022 albeit at a slower pace than previously assessed. Growth among advanced economies would decelerate due to rising inflation, while growth among Asian economies would be affected by the temporary slowdown in demand from China. Lockdowns in China would impact the manufacturing sector and demand in China, and lead to growth slowdown among Asian economies. However, China's growth is largely unchanged because of better-than-expected growth outturns in Q1/2022 and the relaxation of control measures in the Chinese property market.

For 2023, trading partners' growth is expected to slow down due to softer growth momentum in 2022 and tighter-than-expected financial conditions due to the Fed and many Asian central banks being more aggressive in monetary policy tightening than previously expected.

2. The Thai Economy

The Thai Economy: Key Issues

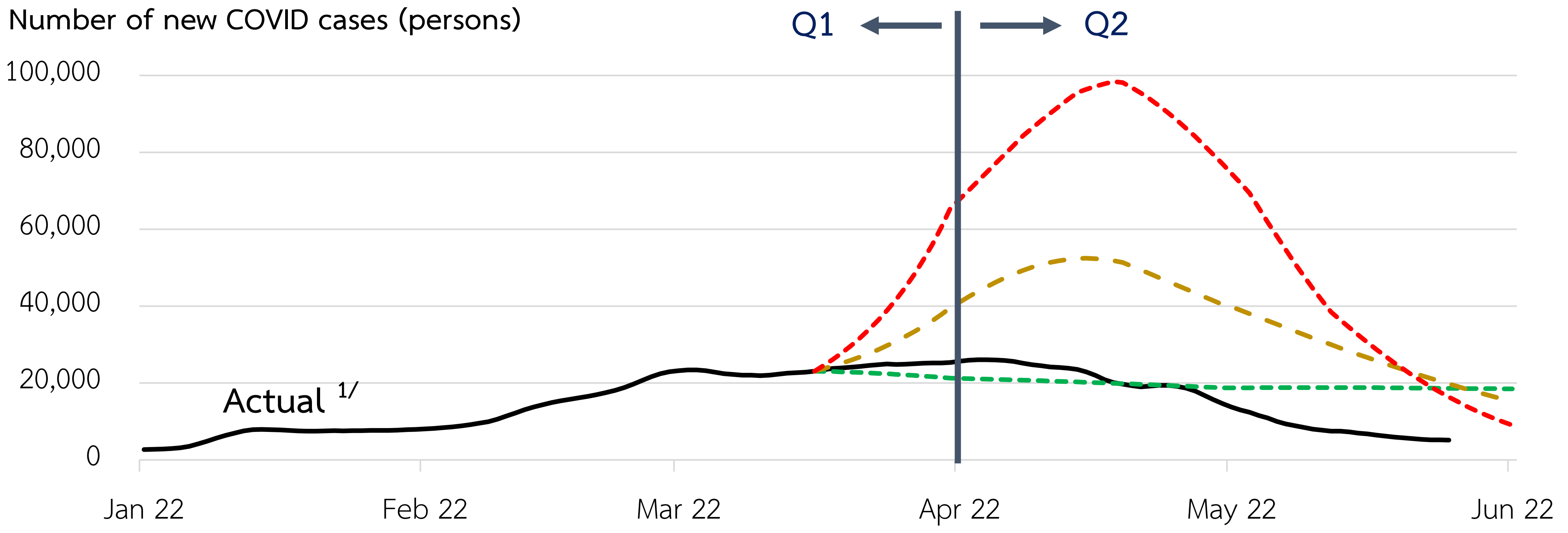
The Thai economy will continue to recover and could expand faster than previously expected owing to a stronger-than-expected recovery in private consumption and the pickup in foreign tourists as border controls in Thailand and other countries are being lifted sooner than expected.

Labor market conditions and household income is showing signs of improvements as economic activities continue to recover.

Headline inflation is expected to rise further and remain elevated longer than previously expected. Headline inflation is expected to be higher than the target range throughout 2022 due to higher domestic energy prices and cost pass-through, all of which are mainly supply-side inflation.

The COVID-19 situation has continued to improve since early-April and is expected to be resolved within Q2/2022 as previously expected.

Projected number of COVID cases (by Department of Disease Control)



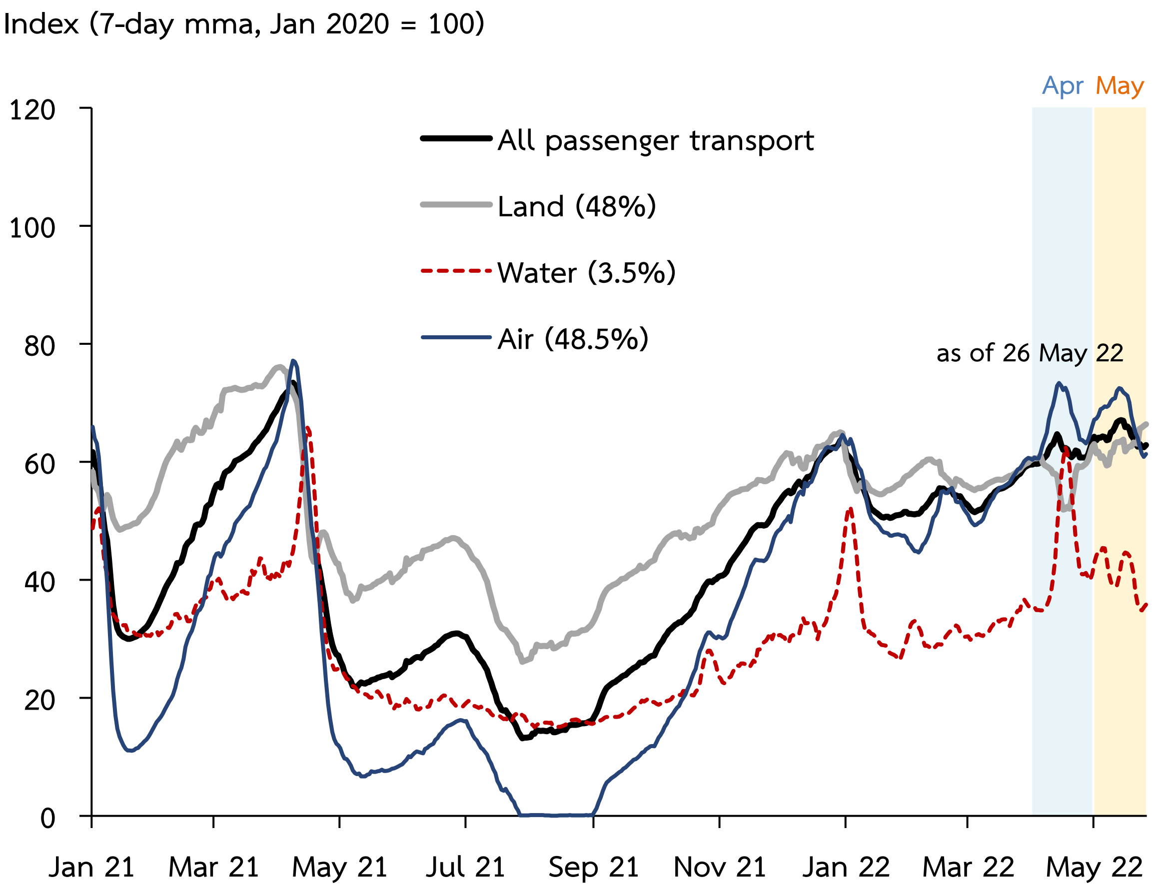
Note: 1/ Average number of new cases over the past 7 days

Source: : Department of Disease Control (Data as of 25 May 2022)

Scenarios as of Mar 22
- All measures are relaxed / low public compliance with health measures
- Measures are maintained / medium public compliance with health measures
- Measures are tightened / strong public compliance with health measures

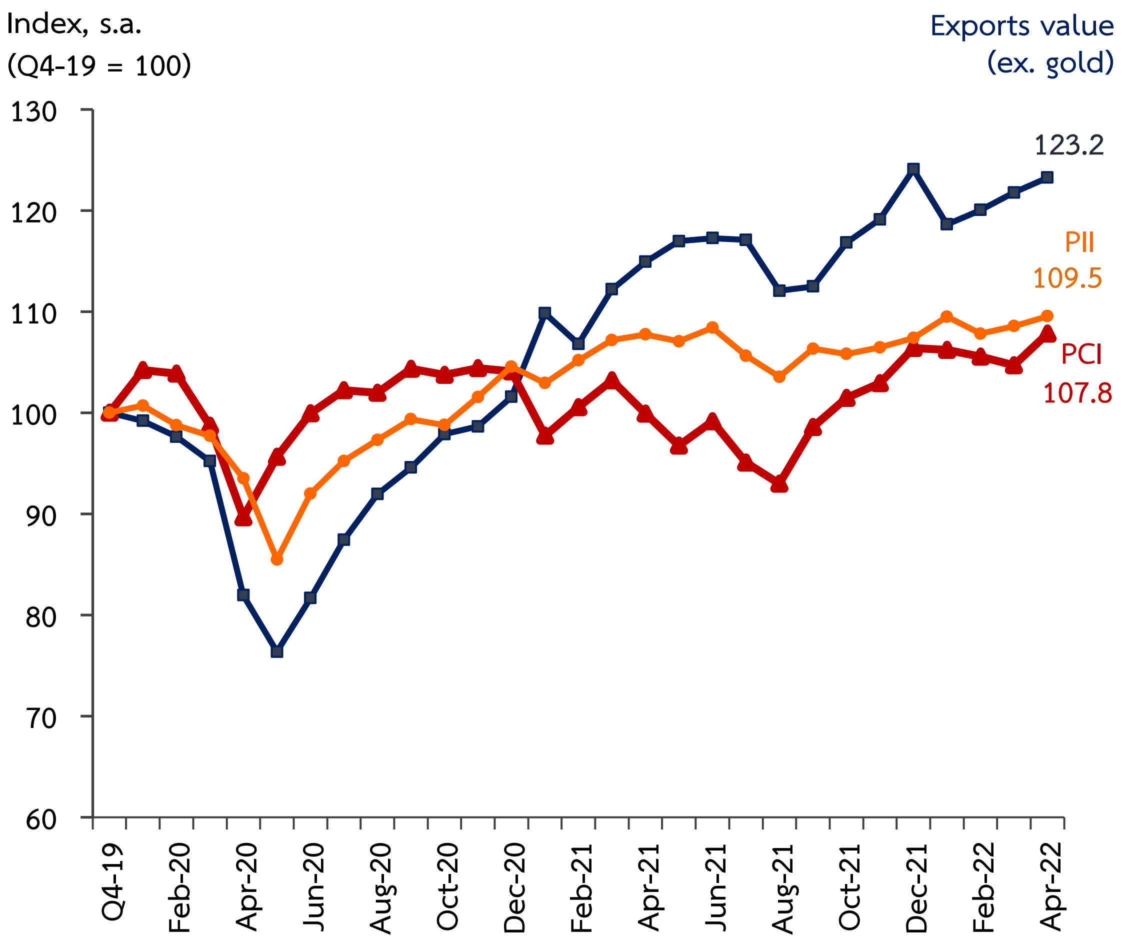
Rapid economic indicators in April and May 2022 suggest that economic activities continues to recover and the impact of Omicron on domestic economic activities has been rather limited.

Thailand's Google Mobility data (by mode of transport)



Note: calculated using various data sources (1) Land: Traffic volume (Department of Highways), BMTA bus passengers, BTS/MRT riderships (2) Air: Number of passengers on domestic flights (Department of Airports) (3) Water: Number of passengers on Chao Phraya express boats, Khlong Saensaeb boats, and ferries

Supply-side economic indicators



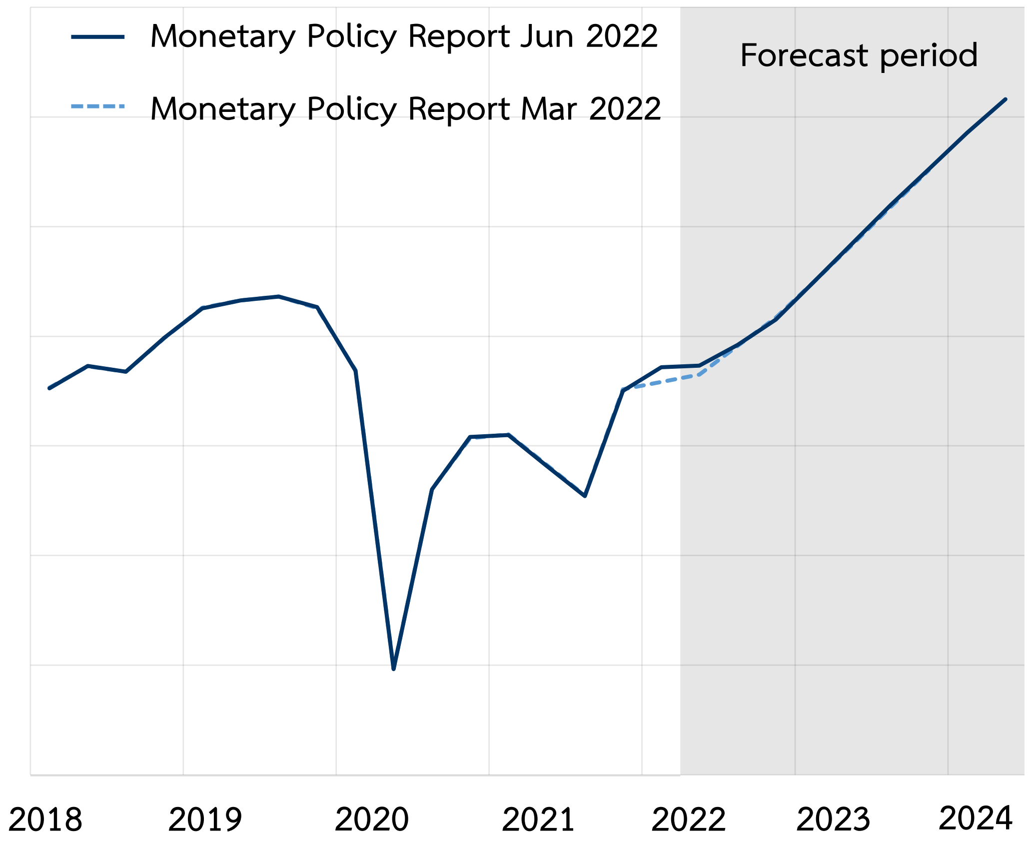
Notes: PCI = Private Consumption Index

PII = Private Investment Index

Source: BOT

The Thai economy is expected to continue recovering. GDP growth is projected to be 3.3% in 2022 and 4.2% in 2023 thanks to a stronger-than-expected outturns in Q1/2022, especially private consumption.

Real GDP



Growth (%YoY)	2021*	2022		2023	
		Mar 2022	Jun 2022	Mar 2022	Jun 2022
GDP growth	1.5	3.2	3.3	4.4	4.2
Domestic demand	1.6	3.4	3.6	3.2	3.0
Private Consumption	0.3	4.3	4.9	4.1	3.6
Private Investment	3.3	4.7	5.4	4.8	4.5
Government Consumption	3.2	-0.7	-1.9	-1.7	-0.5
Government Investment	3.8	4.2	3.5	4.4	3.4
Exports of goods and services	10.4	6.3	7.1	8.5	8.2
Imports of goods and services	17.9	4.9	5.3	4.2	4.2
Current account (billion U.S. dollars)	-10.6	-6.0	-8.0	10.0	5.0
Value of merchandise exports	18.8	7.0	7.9	1.5	2.1
Value of merchandise imports	23.4	11.6	13.8	2.0	3.5
Number of foreign tourists (million persons)	0.4	5.6	6.0	19.0	19.0

Note: *outturn

Sources: NESDB, BOT forecast

Overview of economic forecasts

Economic growth (%YoY)	2022	2023
	3.3	4.2
Private Consumption	Private consumption growth is revised up on account of a stronger-than-expected recovery in economic activities in Q1/2022 and the gradual recovery of the service sector. Looking ahead, there remain downside risks stemming from higher living costs. Box : Private consumption: A key driver of growth in the period ahead	Private consumption will continue to grow after the COVID-19 outbreak subsides and employment gradually recovers on the back of the tourism sector, leading to improvements in income and household purchasing power.
Private Investment	Private investment will continue to expand on account of a stronger-than-expected recovery in economic activities in Q1/2022 and investment exhibiting signs of improvement especially large and medium-sized businesses. Notwithstanding, private investment growth could be weighed down by delays in public private partnership (PPP) projects.	
Merchandise exports (value)	Merchandise exports growth will be stronger than previously assessed mainly due to high commodity prices even though exports quantity would decline due to the economic slowdown among trading partners.	
Foreign tourists	Foreign tourists figures is revised up from the previous assessment from 5.6 million persons to 6 million persons. This is due to border controls in many countries including Thailand being lifted sooner than expected, which will result in higher foreign tourist arrivals in the H1/2022 than previously assessed.	Foreign tourist figures remain unchanged from the previous assessment at 19 million persons. It is expected that the number of Chinese tourists would start to recover after China removes foreign travel restrictions in 2023 once the COVID-19 pandemic subsides.

Box 1: Private consumption: a key driver of growth in the period ahead

Private consumption was affected by the multiple waves of COVID-19 outbreak over the past 2 years, which resulted in subdued economic activities and a significant decline in household income especially for those working in tourism-related sectors. **Looking ahead, however, private consumption is likely to make a strong recovery and become a key driver of growth for the Thai economy** especially once the pandemic subsides, people become more accustomed to living with COVID-19, and the government relaxes border controls and containment measures. Factors underpinning the recovery in private consumption are as follow:

(1) Household income would recover alongside tourism. So far, the recovery of household income has been slow especially for the self-employed and workers in the tourism-related services. However, the gradual return of foreign tourists after international travel restrictions are lifted would lead to improvements in household income which would underpin the recovery of private consumption.

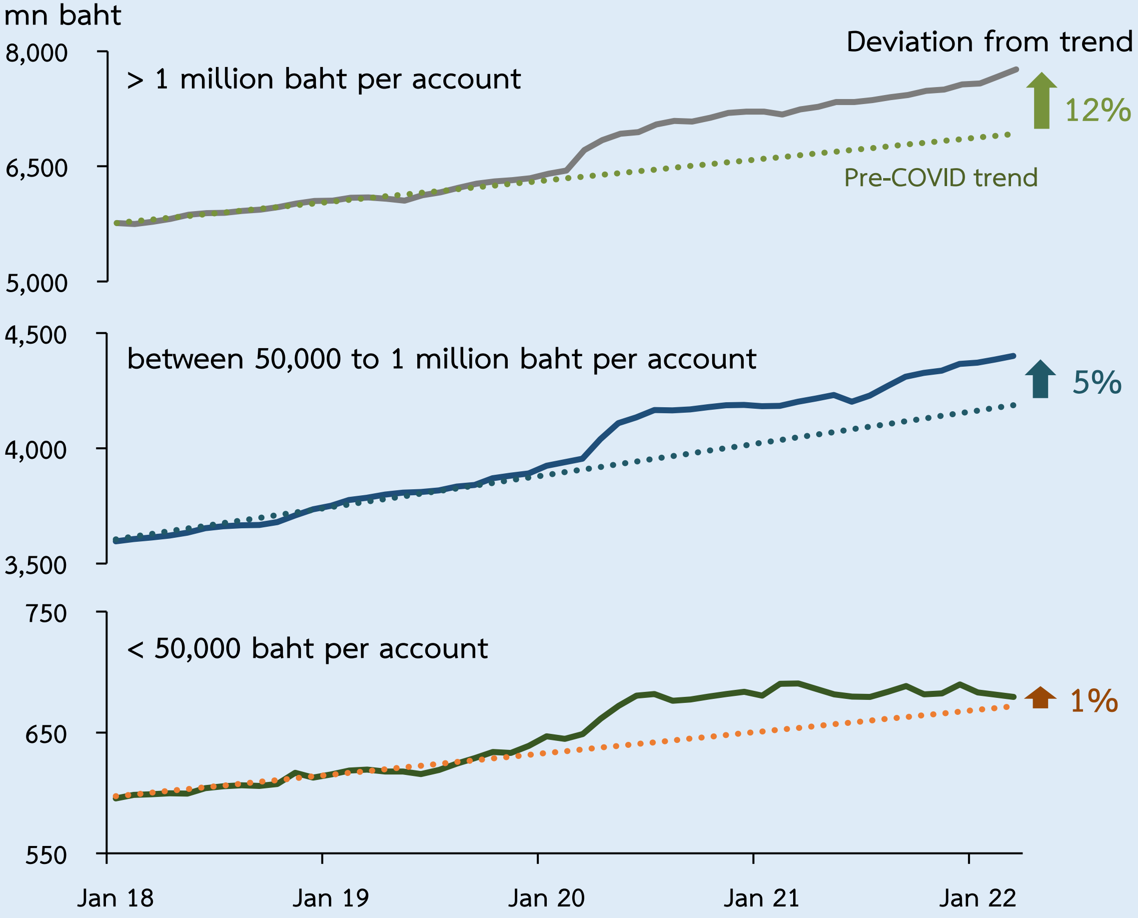
(2) Consumption spending by high-income households will return to pre-COVID trajectory. Households were not able to participate in activities or go out to spend as much as they wish to due to the COVID-19 outbreak and containment measures imposed by the government. As a result, there was **pent-up demand** as reflected by the recent pickup in consumption spending once containment measures were relaxed, especially spending in services. **High-income households, which generally spends more on services than other income groups [1/], still possess purchasing power** as their excess saving has increased. This is reflected by the outstanding balance of personal savings accounts with a balance of more than 1 million baht per account, which has grown 12% from pre-COVID levels (Figure 1). **It is expected that spending by high-income households will continue to expand and return to the pre-COVID trajectory seen in 2018-2019** (Figure 2). Their spending on services, in particular, would support the income recovery of workers in the service sector, who are mostly medium-income and low-income earners, and in turn support continued private consumption growth.

Nevertheless, while private consumption is expected to see a strong recovery thanks to the aforementioned factors, there are risks that remain to be monitored. Such risks include the higher costs of living and debt burden of households, especially among low-income households who are more affected by rising food prices than other income groups whereas their income might not have fully recovered during the initial stages of the recovery.

[1/] The proportion of spending on services of total spending for low-income, medium-income, and high-income households are 40%, 40%, and 45%, respectively.

Box 1: Private consumption: a key driver of growth in the period ahead

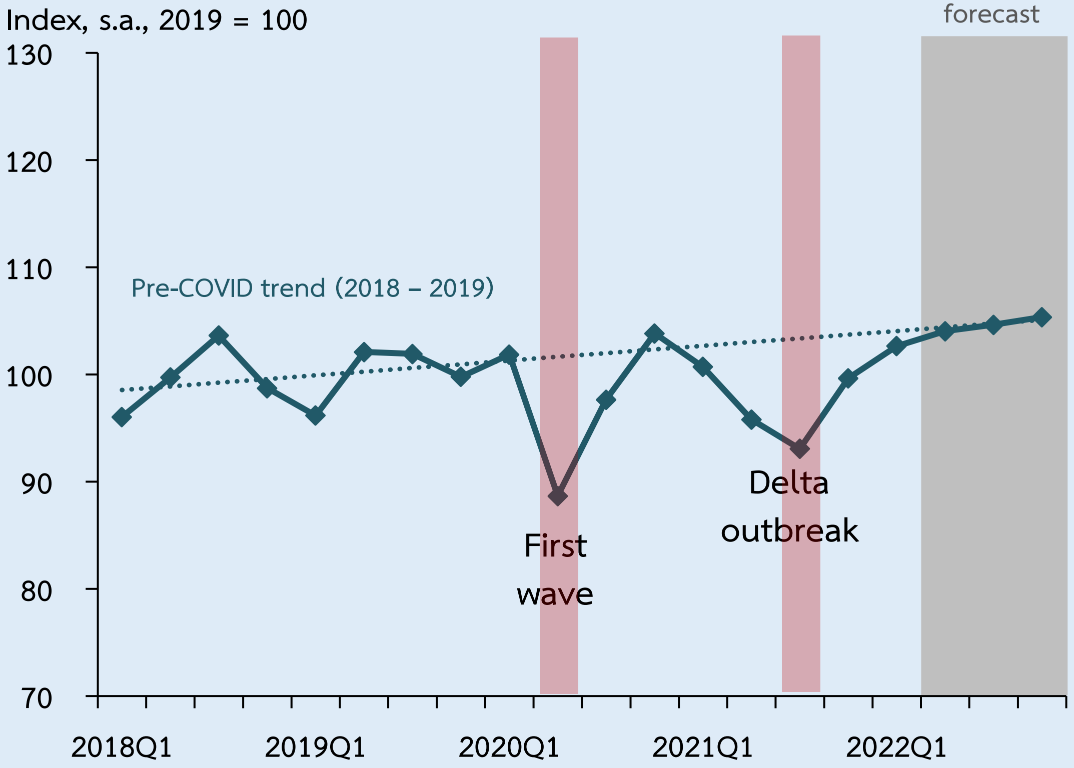
Chart 1: Outstanding balance of personal savings accounts at commercial banks and specialized financial institutions



Note: Dotted line denotes the pre-COVID trend calculated from 2016 – 2019 data

Source: BOT

Chart 2: Real consumption of high-income households



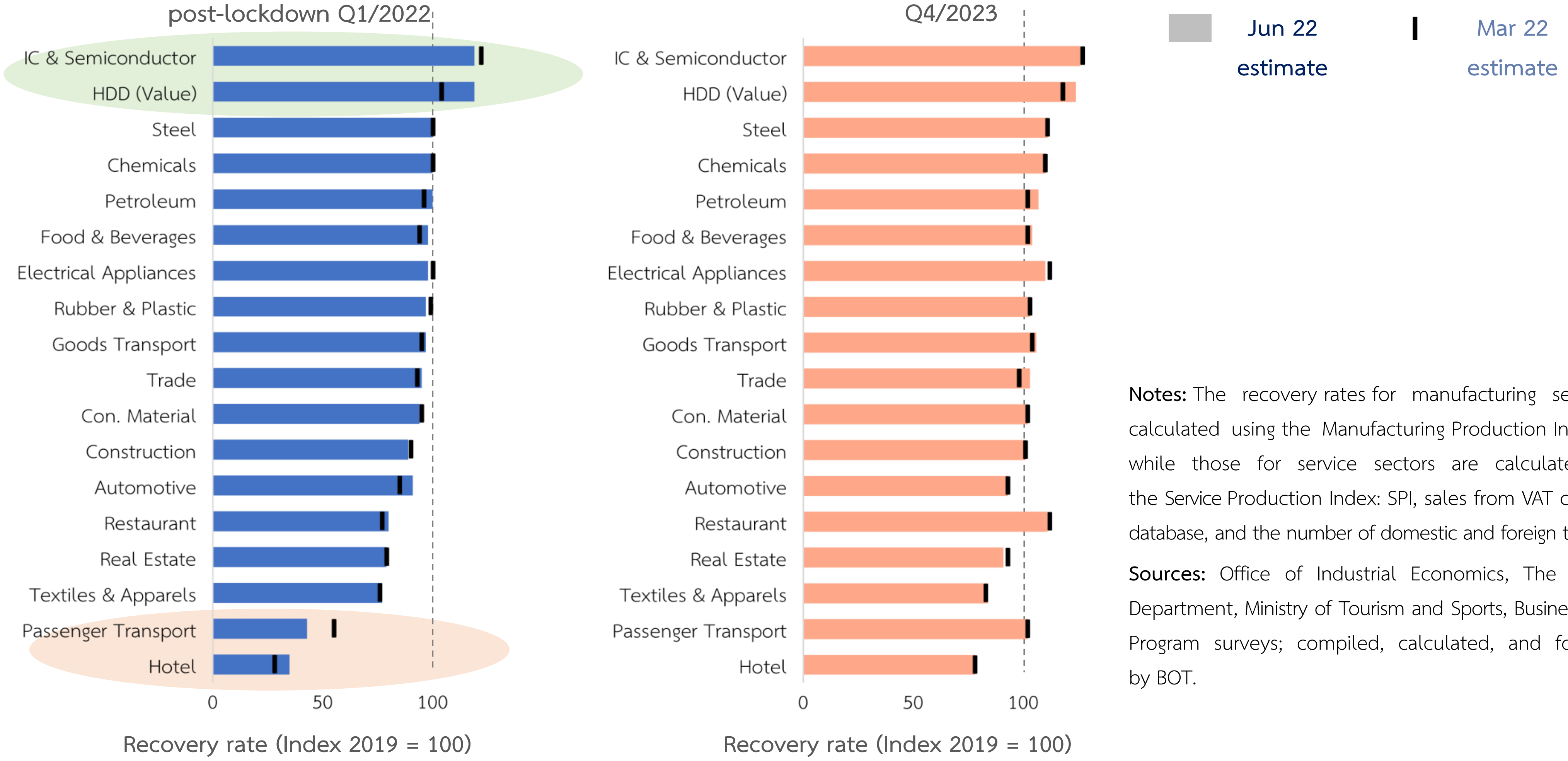
Notes: (1) High-income household earns 87,000 baht on average per month (>90th percentile)

(2) High-income household consumption calculated from NESDC's Thailand private consumption data and SES's high-income household consumption pattern data

Sources: Office of the National Economic and Social Development Council (NESDC) and the National Statistical Office's Household Socio-Economic Survey (SES), calculated by BOT

In terms of business recovery in Q1/2022, growth in some sectors such as exports manufacturing has already exceeded the pre-COVID levels. Meanwhile, sectors like hotels and transportation has not fully recovered and is expected to return to pre-COVID levels in 2023 once foreign tourist arrivals recover.

The recovery of economic activities by business sector

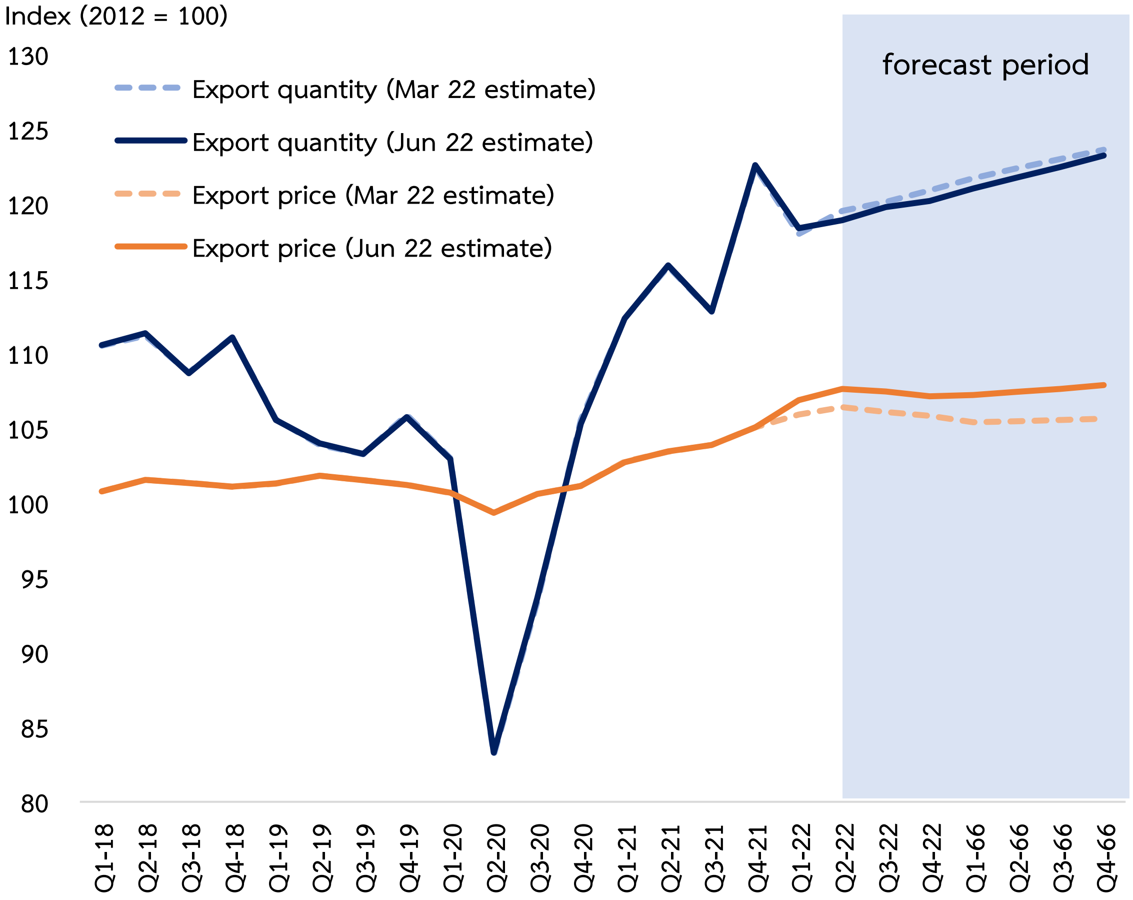


Notes: The recovery rates for manufacturing sectors are calculated using the Manufacturing Production Index: MPI, while those for service sectors are calculated using the Service Production Index: SPI, sales from VAT collection database, and the number of domestic and foreign tourists.

Sources: Office of Industrial Economics, The Revenue Department, Ministry of Tourism and Sports, Business Liaison Program surveys; compiled, calculated, and forecasted by BOT.

Value of merchandise exports growth is expected to expand on the back of higher oil and commodity prices, while export quantity would decline slightly with the slowdown in trading partners' demand.

Export quantity* and price outlook (excluding gold)



Note: *seasonally adjusted index

Source: The Customs Department, calculated by BOT

- **Export prices are likely to increase to a level that is higher than previously expected due to higher prices of oil and goods such as agricultural products, food, iron, and chemicals** in the global market.
- **Global trade volume would decelerate in the period ahead.** This is mainly due to the slow down in demand from advanced economies and China, and the expectations that consumers from those markets would shift more of their spending towards services and tourism after containment measures are relaxed in many countries.
- **Exports of agricultural products to China, especially fruits, are affected by China's stringent zero-COVID policy,** which affects international shipping and raises costs for quality control.
- **Exports of computer parts, IC, and electrical appliances might be affected by lockdowns in key cities in China,** which exacerbates the ongoing shortage of raw materials.

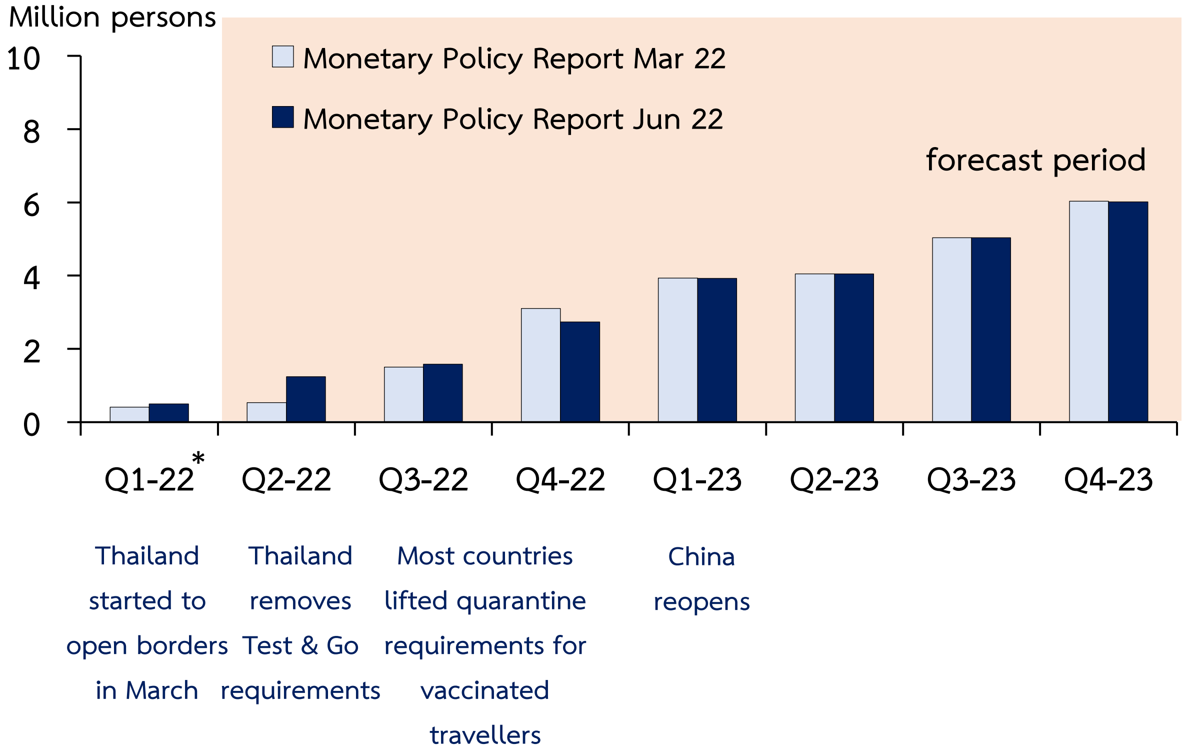
Merchandise exports projection

Growth (%YoY)	Export value	Export price	Export quantity
2022	7.9 (7.0)	3.4 (2.4)	4.4 (4.5)
2023	2.1 (1.5)	0.3 (-0.5)	1.8 (2.0)

Note: ( ) Mar 22 projection

Foreign tourist figures are likely to turn out higher than previously assessed due to the faster-than-expected relaxation of travel restrictions in Thailand and abroad.

Foreign tourist figures projection



Note: *outturn Q1/22

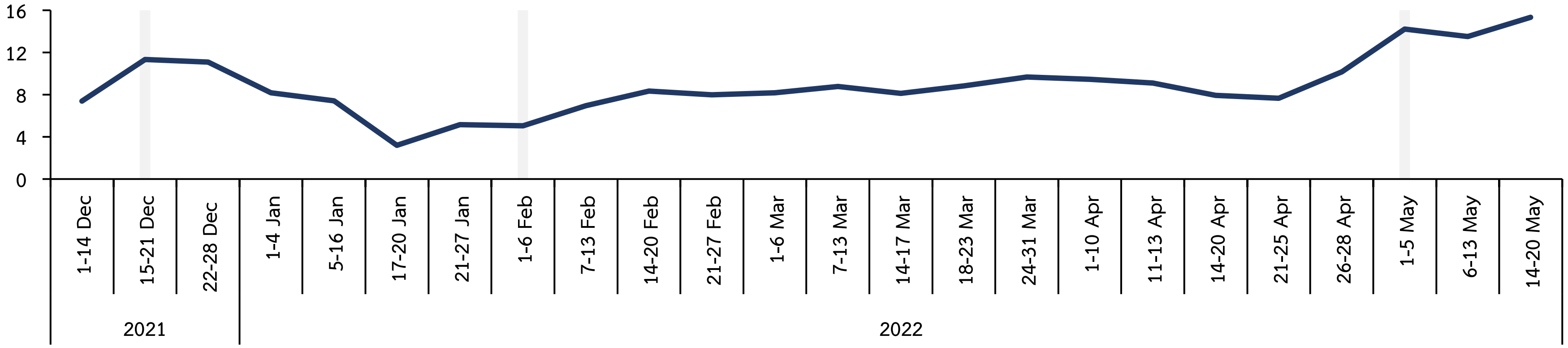
Source: BOT forecast

	2022		2023	
	Mar 22	Jun 22	Mar 22	Jun 22
Foreign tourist arrivals (million persons)	5.6	6.0	19.0	19.0
% compared to 2019 figures	13.9%	15.2%	47.7%	47.7%

- **Foreign tourist figures projection for 2022 is revised up** mainly on account of the faster-than-expected relaxation of border controls in Thailand and abroad. So far, the number of foreign tourists has continued to rise since travel restrictions in Thailand and abroad were gradually relaxed.
- **Foreign tourist figures projection for 2023 remains unchanged.** It is expected that the number of foreign tourists will increase as tourism confidence improves once the COVID-19 pandemic subsides and vaccination becomes widespread globally. The increase would also be driven by the return of Chinese tourists as it is expected that the Chinese government will relax international travel restrictions in 2023.

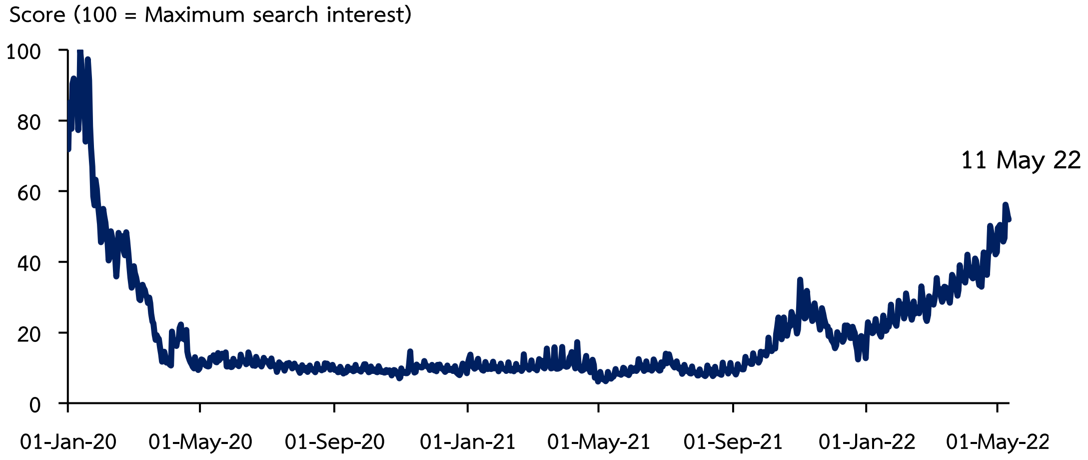
Tourism indicators suggest that the number of foreign tourists will continue to recover given that international travel restrictions are likely to be relaxed further.

International arrivals (average)



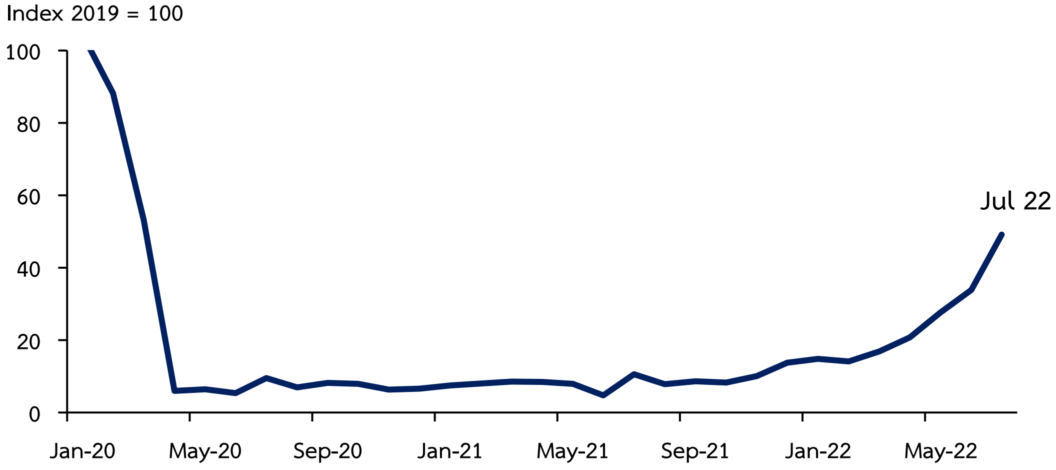
Sources: CCSA, Economics Tourism and Sports Division

International travellers' search interest in flights to and accommodation in Thailand



Source: Google Travel Insights

Seat capacity of international flights to Thailand*



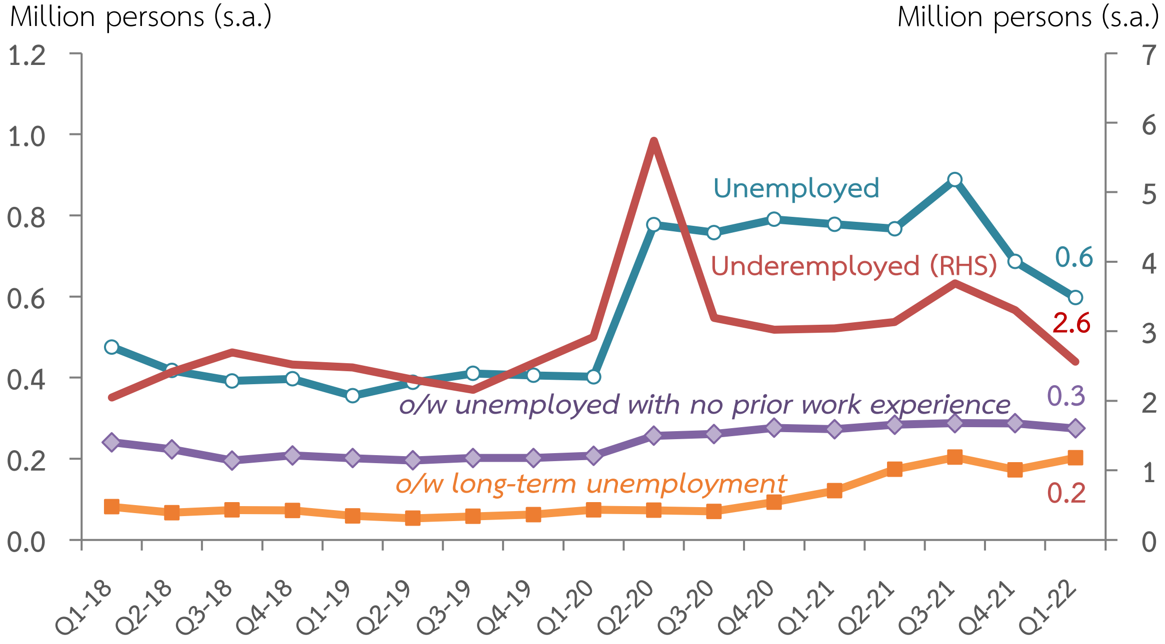
Source: PATA (data as of 18 May 2022)

Note: * consists of Asia, Africa, Europe and Pacific

Labor market conditions and non-farm income are expected to improve as economic activities pick up although they remain below pre-COVID levels.

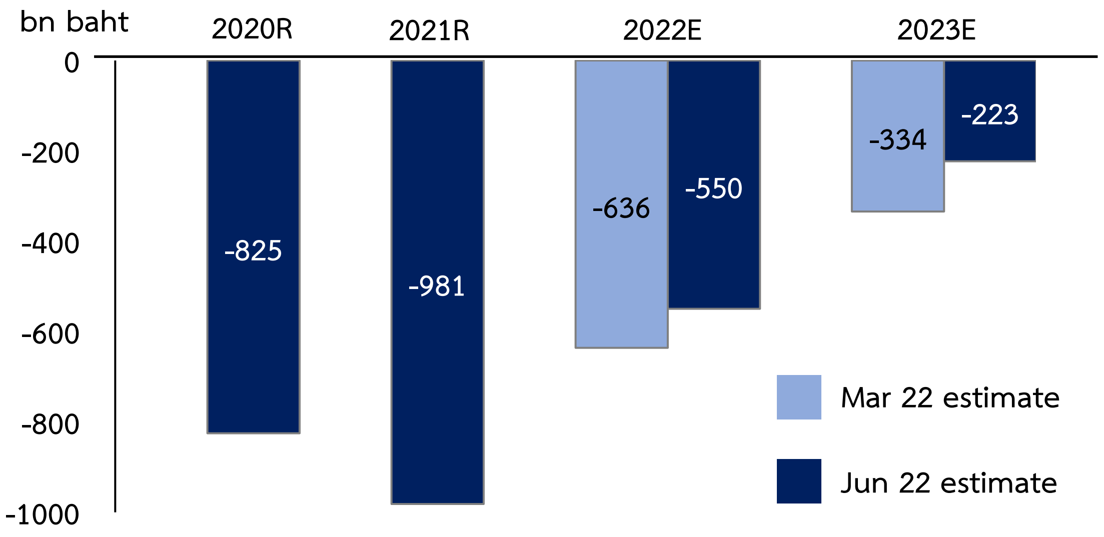
Unemployed and underemployed figures has continued to decline in Q1/2022 as economic activities recover. It is still necessary to monitor long-term unemployment and the number of those unemployed with no prior work experiences, which remain high, given that the unemployed could lose their skills and unable to return to the labor force over the longer-term. **Looking ahead, non-farm income is expected to gradually recover but still remains below pre-COVID levels.** Meanwhile, farm income is expected to remain largely stable or increase only slightly because while agricultural prices have increased, the costs of chemical fertilizers have also increased.

Labor Market Indicators



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.
Data has been revised per the NESDC's Report of the Population Projections for Thailand 2010-2040 (Revision).
Source: National Statistics Office's Labor Force Survey, BOT forecast

Projected income gap for non-farm workers compared to 2019 level



Notes: R = revised per the NESDC's Report of the Population Projections for Thailand 2010-2040 (Revision)
E = estimate
Source : National Statistics Office's Labor Force Survey, calculated and estimated by BOT

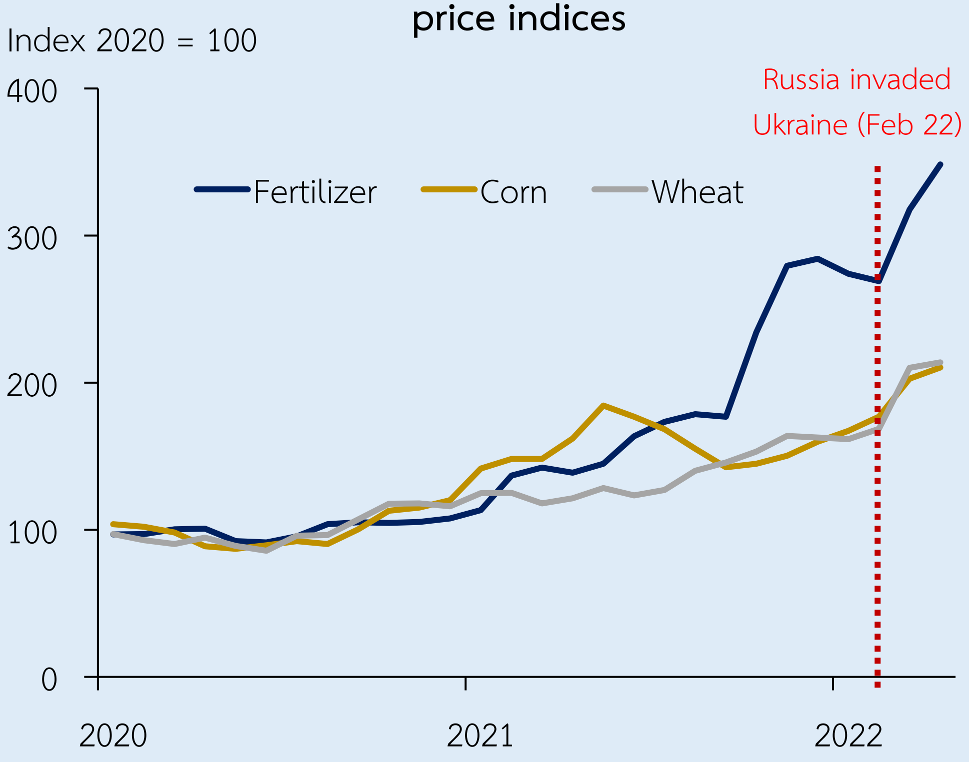
Box 2 : Farm income outlook for 2022 amidst impacts from the Russia-Ukraine conflict

Box 2: Farm income outlook for 2022 amidst impacts from the Russia-Ukraine conflict

On the whole, net farm income in 2022 might remain largely stable or increase only slightly, varying across agricultural products. This is because while the Russia-Ukraine conflict will lead to higher prices for several agricultural products, input costs have also gone up especially chemical fertilizers and animal feed.

Farm income (before deducting costs)[1/] is expected to grow 9.3% in 2022 owing to higher agricultural prices but input costs have also gone up. Russia, the world's number one exporter of chemical fertilizer, has ceased exports in retaliation to the sanctions imposed on them. As a result, the average price of chemical fertilizers in the global market between Jan-Apr 2022 grew as much as 127.6% YoY, a continued increase from the 80.5% growth seen in 2021. For animal feed, both Russia (number one exporter of wheat) and Ukraine (a major corn producer) are unable to export their goods due to the war. Thus, average wheat and corn prices in the global market between Jan-Apr 2022 grew 26.2% YoY and 54.2% YoY, respectively (Chart 1). It is also expected that wheat and corn prices will remain high throughout the rest of the year.

Chart 1: World factor of agricultural production price indices

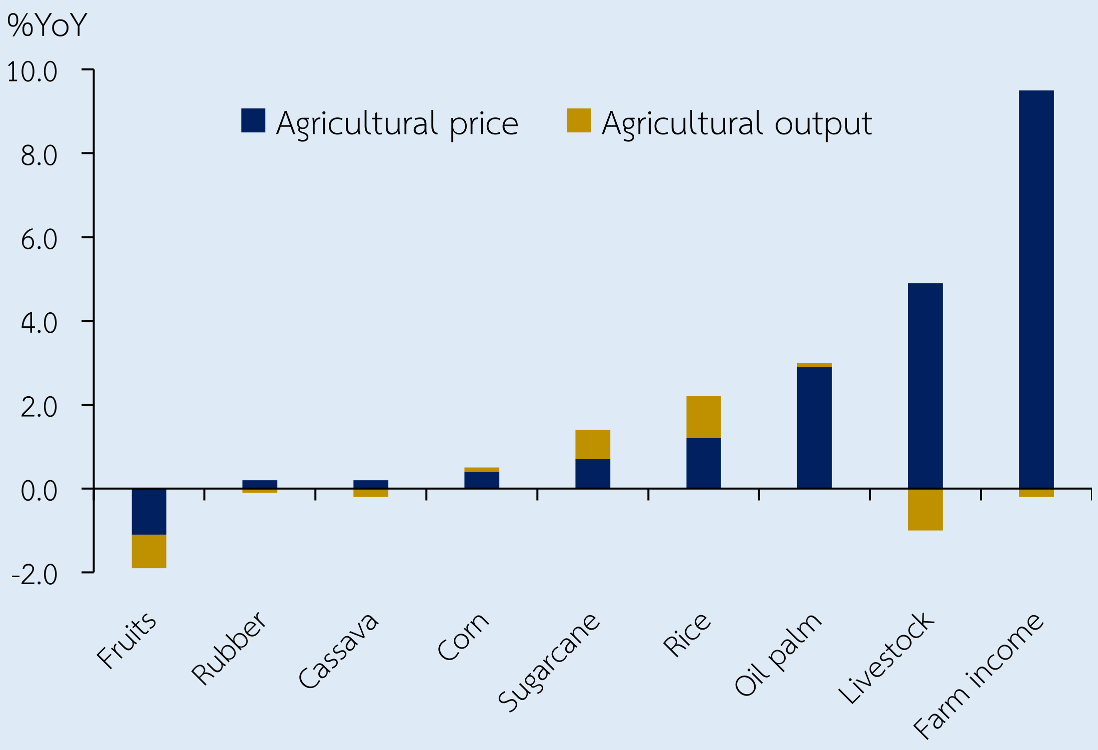


Source: World Bank, calculated by BOT

[1/]The number of workers in the agricultural sector (seasonally adjusted) increased to 12.3 million persons in Q1/2022 compared to 11.7 million persons in pre-COVID. However, the average farm income (before deducting gross) is still lower than the average non-farm income in 2021 by as much as 25%.

Box 2: Farm income outlook for 2022 amidst impacts from the Russia-Ukraine conflict

Chart 2: Farm income forecast by source of growth (before deducting costs and not including 2022 government support measures)



Source: Office of Agricultural Economics, calculated and forecasted by BOT

Net farm income in 2022 will vary across different agricultural products and will be subjected to the following uncertainties:

(1) Those that will see their net income decline due to higher input costs are rice and fruit farmers, which together make up 67% of all farmers in Thailand [2/]. **Most rice farmers [3/] will see a decline in their net income** because rice prices in the market are still below the price guaranteed by the government. Hence, rice farmers who sells their rice at the guaranteed price will see no change in their income, but they would still face higher input costs due to usage of oil[4/] and chemical fertilizers which constitute as much as 30% of the total input costs. Meanwhile, **fruit farmers are most vulnerable to net income loss because not only are they faced with higher input costs as other farmers, they are also subject to the Chinese demand slowdown due the strict zero-COVID policy.** As a result, the average prices of fruits between Jan-Apr 2022 contracted by 14.7% YoY. Almost all fruits are affected including durian and longan which are among Thailand's most important fruit products.

[2/] Thai farmers performs a total 1.4 agricultural activities (types of crop/animals) per household on average therefore the sum of farmers in this analysis (1) + (2) + (3) will total more than 100%.

[3/] Some farmers who are off-season rice farmers (about 0.5 million households) might not see their net income decline because of high crop yields this year due to abundance of water from the dams and rainfall during the draught season. Meanwhile, most farmers (about 4.1 million households) are in-season rice farmers.

[4/] Farmers uses oil as fuel for their machinery which includes land preparation, irrigation, and harvest.

Box 2: Farm income outlook for 2022 amidst impacts from the Russia-Ukraine conflict

(2) Those whose net income will be largely unaffected are rubber, cassava, livestock, and off-season rice farmers which make up 43% of all farmers in Thailand. **It is expected that rubber and cassava prices will not increase much despite their correlation with energy prices[5/] because demand for those crops is concentrated in China and is consequently affected by China's zero-COVID policy.** The average prices of rubber and cassava between Jan-Apr 2022 increased 7.1% YoY and 11.7% YoY, respectively. However, the price increases were still outpaced by the increase in costs of chemical fertilizers hence net income is largely unaffected. Meanwhile, the average **prices of pork, broiler chicken, and eggs** between Jan-Apr 2022 grew 22.1% YoY, 16.9% YoY, and 12.1% YoY, respectively. **Said increases were a result of higher animal feed cost pass-through** from farmers to the consumers and a way for farmers to recuperate the sunk costs they incurred due to the swine flu pandemic. As such, income of livestock farmers remained largely unaffected on the whole.

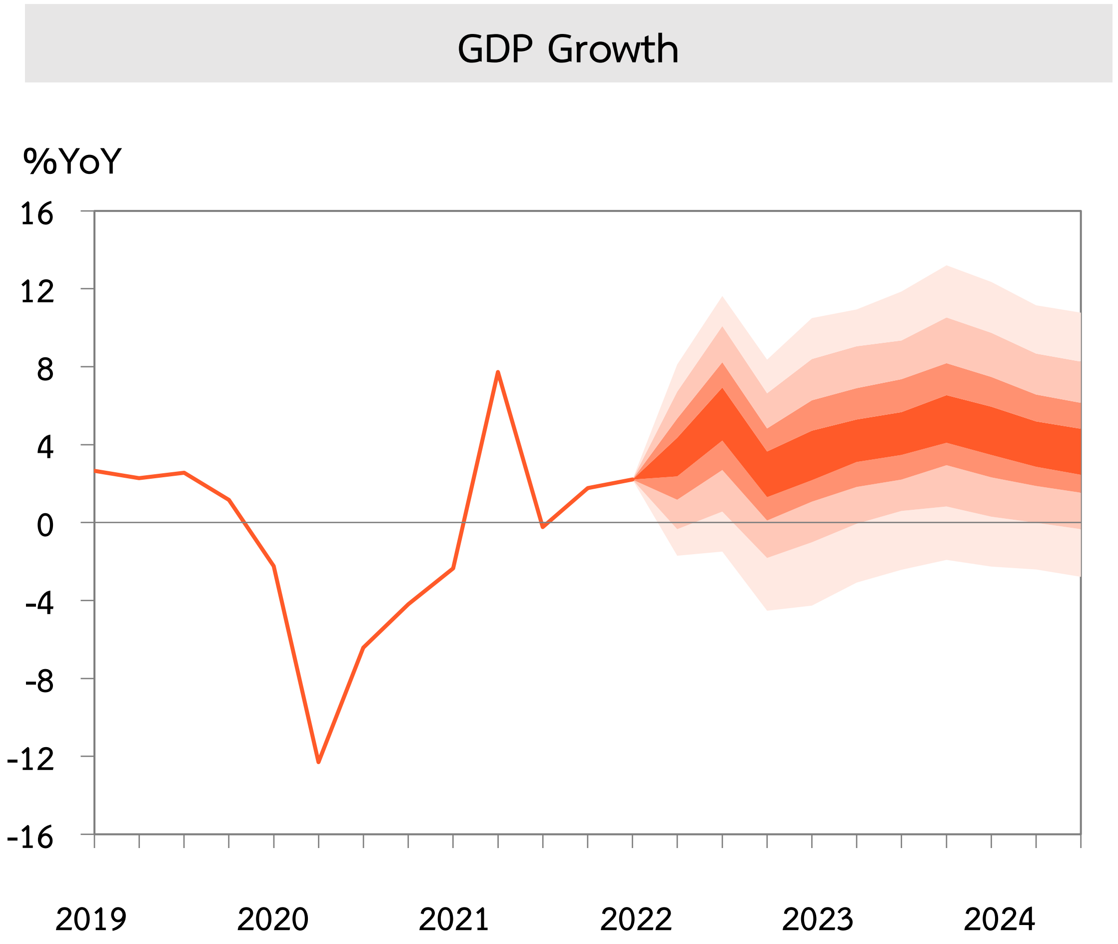
(3) Those whose net income will see growth are oil palm, sugarcane, and corn farmers which make up 18% of all farmers in Thailand. **This group of farmers will benefit from higher prices.** The average prices of oil palm, sugarcane, and corn between Jan-Apr 2022 grew 65.0% YoY, 16.3% YoY, and 13.3% YoY, respectively. The increase was due to the Russia-Ukraine conflict resulting in a global shortage of corn, soybeans, and sunflower seeds, which in turn led to increases in prices of other vegetable oil substitutes as well as palm oil and sugarcane in the global market [6/]. Sugarcane farmers also benefited from high crop output which is expected to see 28.2% YoY growth thanks to adequate rainfall. In this regard, **it is expected that this group of farmers will see strong income growth in 2022 that would also outpace increases in the costs of chemical fertilizers** which constitute 21.5-30.0% of total input costs for this group of farmers.

In summary, the Russia-Ukraine conflicted resulted in an overall increase in agricultural prices but input costs have also increased. As such, it is expected that net income for most farmers in 2022 will either be largely affected or increase slightly at varying degrees across different groups of farmers. Looking ahead, there remain uncertainties pertaining to the Russia-Ukraine conflict and the global economic outlook which could present both upside and downside risks to agricultural prices, input costs, and net income for the farmers. As such, it is necessary to monitor the situation closely given its implications to the livelihood of farmers and Thailand's economic recovery in the period ahead.

[5/] Rubber is a substitute good for synthetic rubber which is produced from crude oil. Cassava can be used to produce ethanol.

[6/] Indonesia, the world's number one producer of palm oil, temporarily ceased exports of palm oil. Meanwhile, Brazil, the world's number one producer of sugarcane, have cut down sugar production and use those sugarcane for ethanol production instead.

There is a possibility that Thailand's economic growth could outperform the baseline projections **if the number of foreign tourists and the recovery in domestic demand turn out stronger-than-expected in the latter half of 2022.**



Factors that would result in growth outperforming the baseline

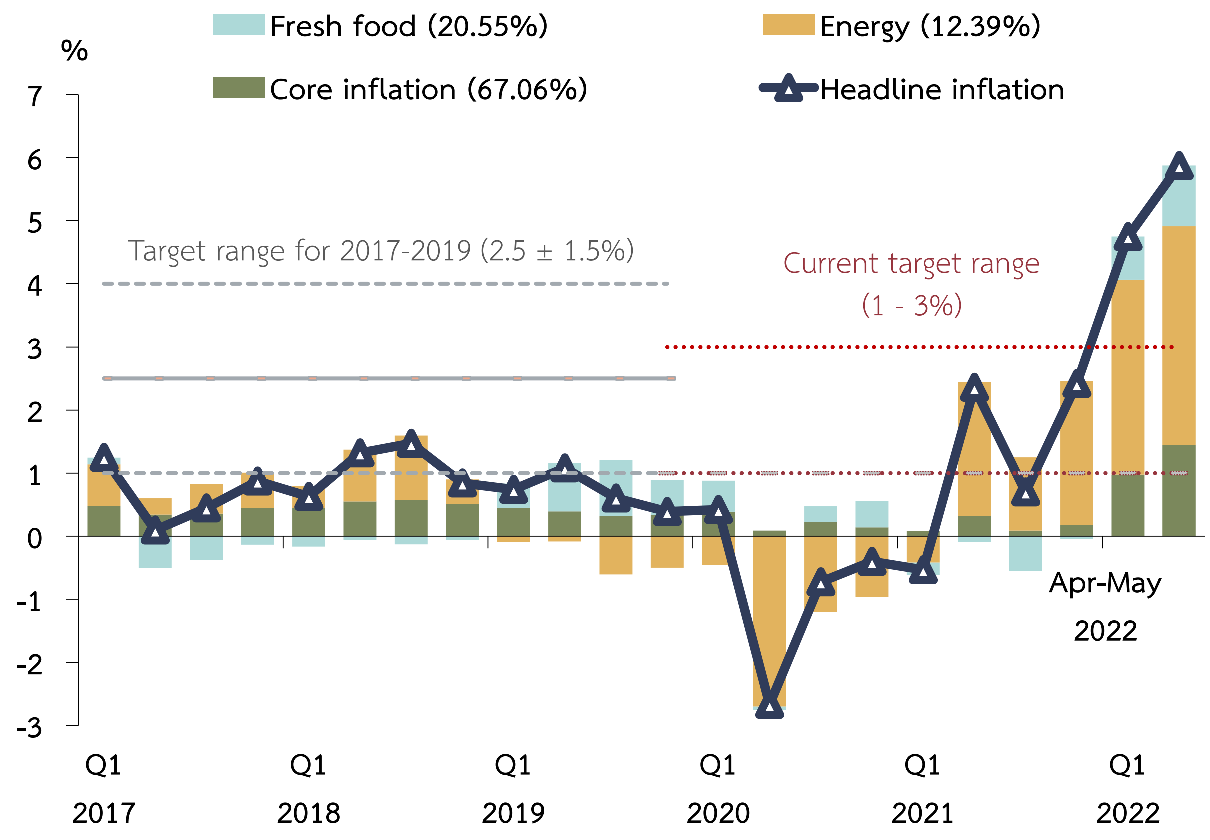
- **A stronger rebound in the number of foreign tourists than previously expected** given that Thailand and other countries have relaxed border controls faster than expected.
- **Stronger-than-expected recovery in in domestic demand, especially as private consumption might register stronger growth than expected due to pent-up demand.** Once the COVID-19 outbreak in Thailand subsides, those with excess savings might feel less concerned and spend more than previously expected.

Factors that would result in growth underperforming the baseline

- **Trading partners' growth slowdown, especially advanced economies and China.** Growth slowdown in advanced economies could impact other countries including China and result in a global economic slowdown. Furthermore, the ongoing supply disruption in manufacturing and global trade could worsen if the COVID-19 outbreak in China lasts longer than what is expected in the baseline. These factors would in turn impact Thai exports in the period ahead.

Headline inflation in Q2/2022 increased from the previous quarter. The increase was mainly attributed to higher core inflation and increases in energy prices.

Headline inflation and the inflation target



Note: ( ) denotes weight in CPI basket

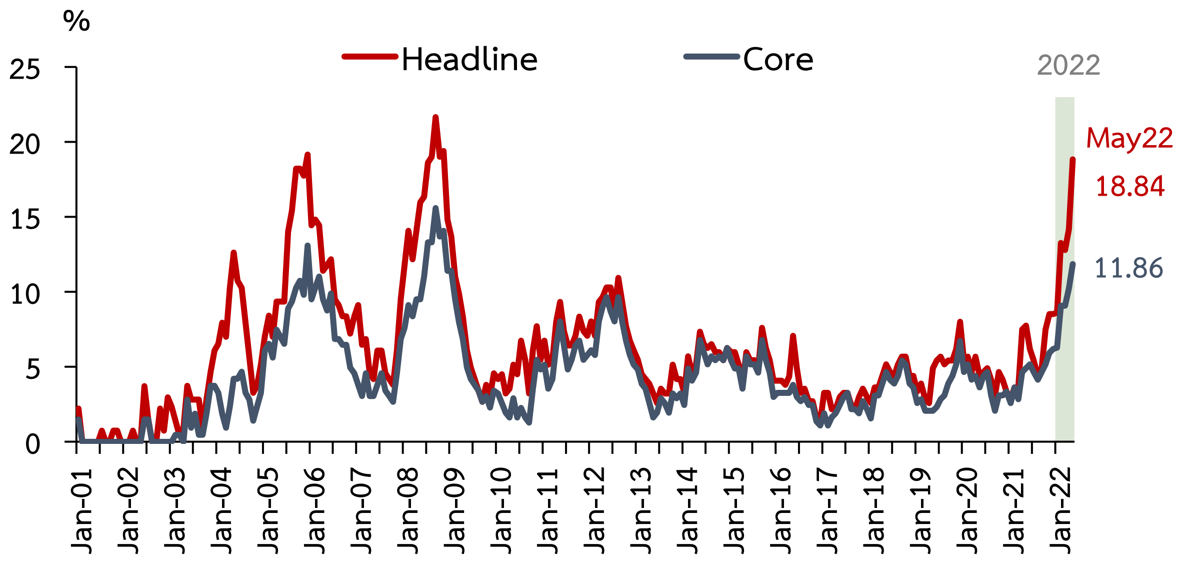
Sources: Ministry of Commerce, BOT forecast

Headline inflation in the first two months of Q2/2022 averaged 5.87%, increasing from 4.75% in the previous quarter. Energy price inflation was attributed to higher retail fuel prices as a result of the Russia-Ukraine conflict, and higher electricity costs from Ft adjustments. Fresh food price inflation was attributed to higher egg prices as a result of higher animal feed costs, and higher fruit prices as fruit exports improved.

Core inflation in the first two months of Q2/2022 averaged 2.14%, increasing from 1.43% in the previous quarter. The increase was mainly attributed to higher food prices as prices of prepared food and seasoning and condiments rose in tandem with higher input costs. Inflation in non-food categories were attributed to higher prices of personal care, and cleaning supplies which was also driven by higher input costs.

The increase in prices of goods and services have broadened to more categories although goods whose price have continued to increase were mostly goods in the food category. However, goods in other categories have also saw more continuous price increases partly due to higher cost pass-through from businesses to consumers.

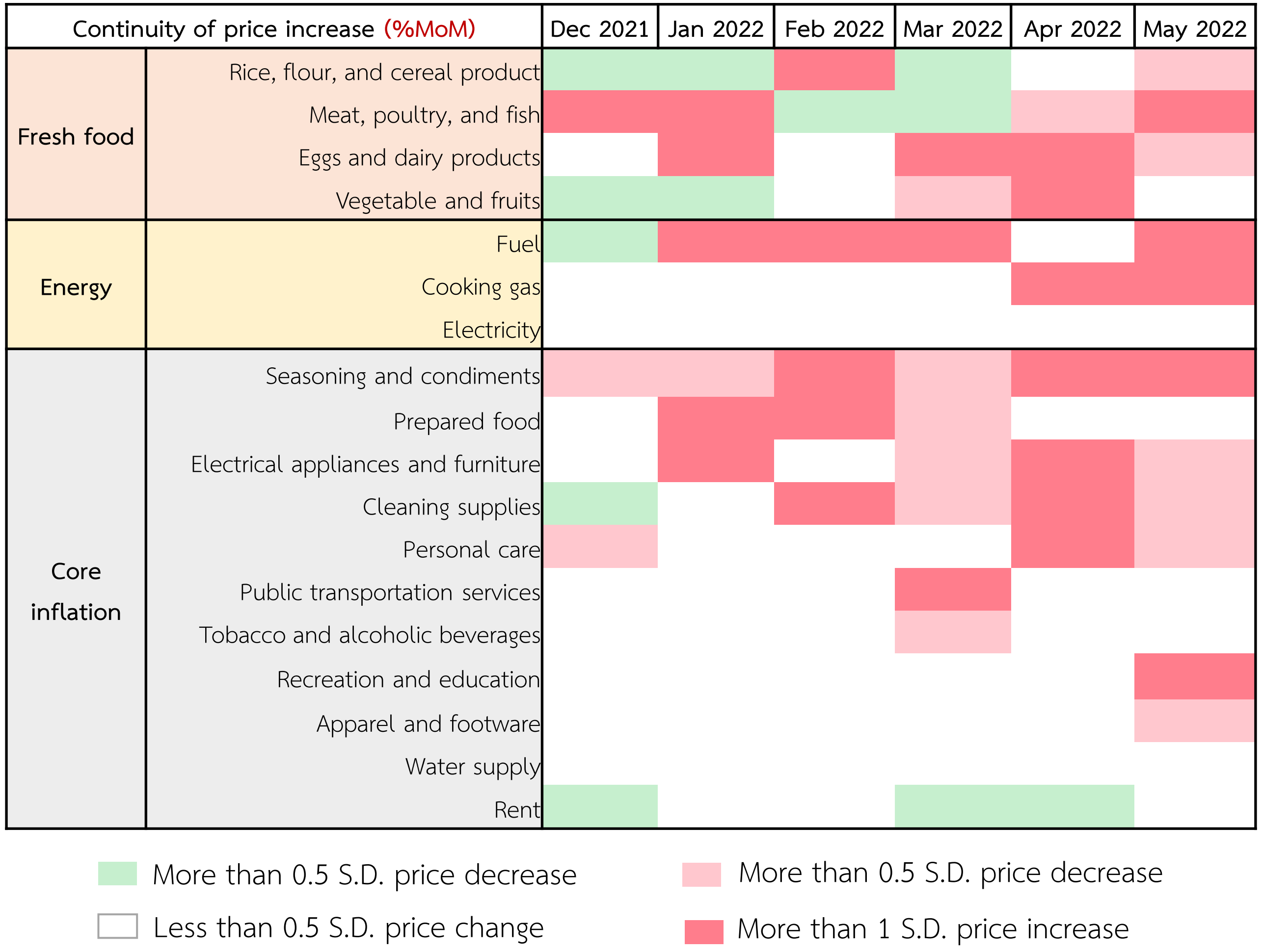
Share of goods and services in the CPI basket whose prices have increased significantly*



Note: * Defined as year-over-year price increase by more than 2 S.D. from the 5-year average. Core refers to the share of core goods compared to all the goods in the CPI basket.

Sources: Ministry of Commerce, BOT calculation

Price changes by categories**



Note: **calculated from %MoM. Education and apparel categories saw price in May as it was the beginning of the school year.

Source: Ministry of Commerce, BOT calculation

Headline inflation is expected to average 6.2% in 2022 and 2.5% in 2023 due to domestic energy prices, higher cost pass-through, the upcoming minimum wage increase, and further cost pass-through in 2023.

Headline inflation projections

	2022	2023
Headline inflation	**6.2** (4.9)	**2.5** (1.7)
Core inflation	**2.2** (2.0)	**2.0** (1.7)

Note: ( ) previous forecast from Monetary Policy Report March 2022

Source: Ministry of Commerce, BOT calculation

- Energy prices

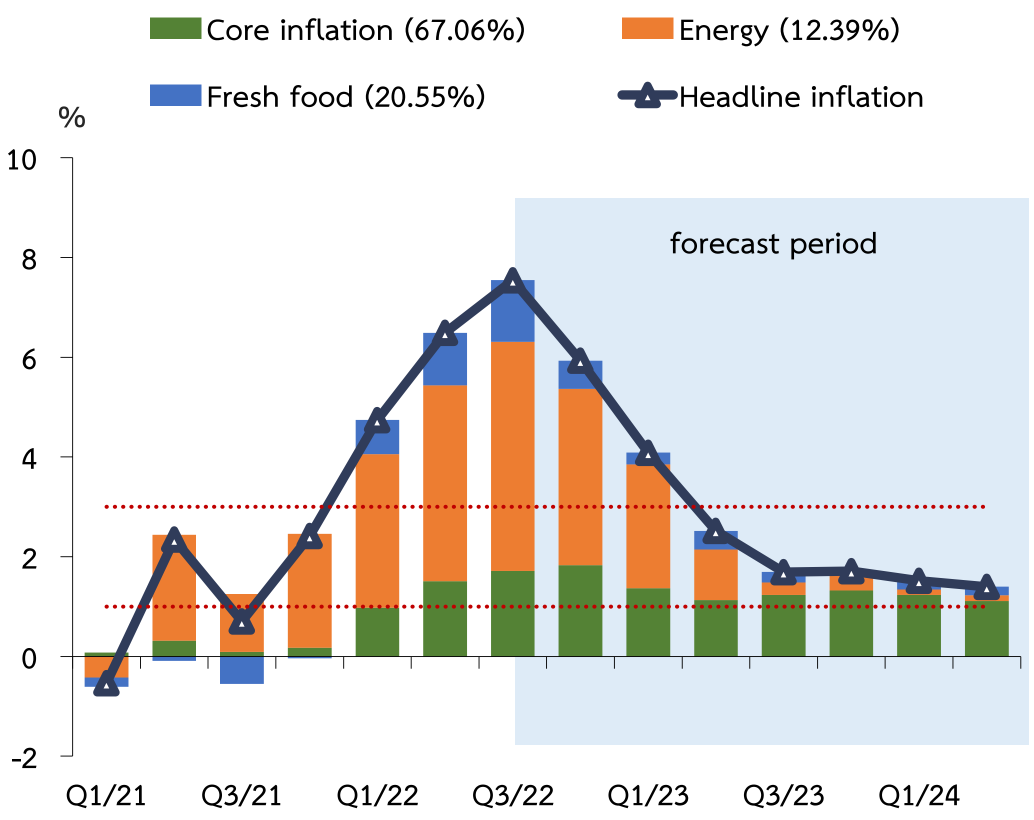
  Global oil prices will rise further due to the latest EU sanctions on Russian oil. Retail fuel prices in Thailand will also increase due to higher energy costs.
- Cost pass-through from businesses

  Production costs will rise due to higher energy and commodity prices. Businesses will be less able to absorb the costs and will subsequently pass it down to consumers via prices of goods and services.
- Minimum wage increase

  Costs of producing goods and services will be higher due to higher average wage and will be passed down to consumer prices in 2023.

Assumptions for Dubai crude oil prices

Contribution to headline inflation

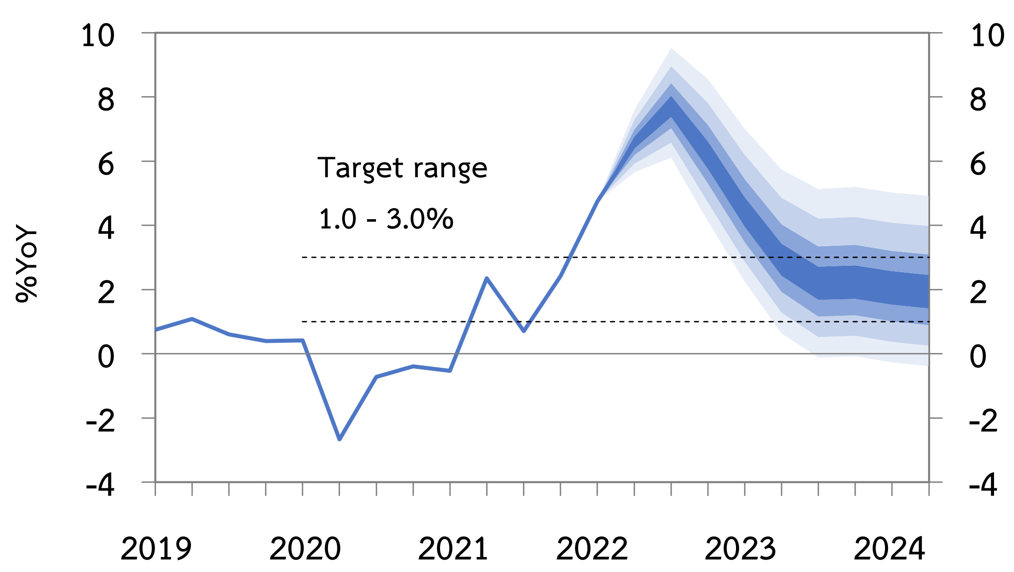


Note: ( ) denotes weight in CPI basket

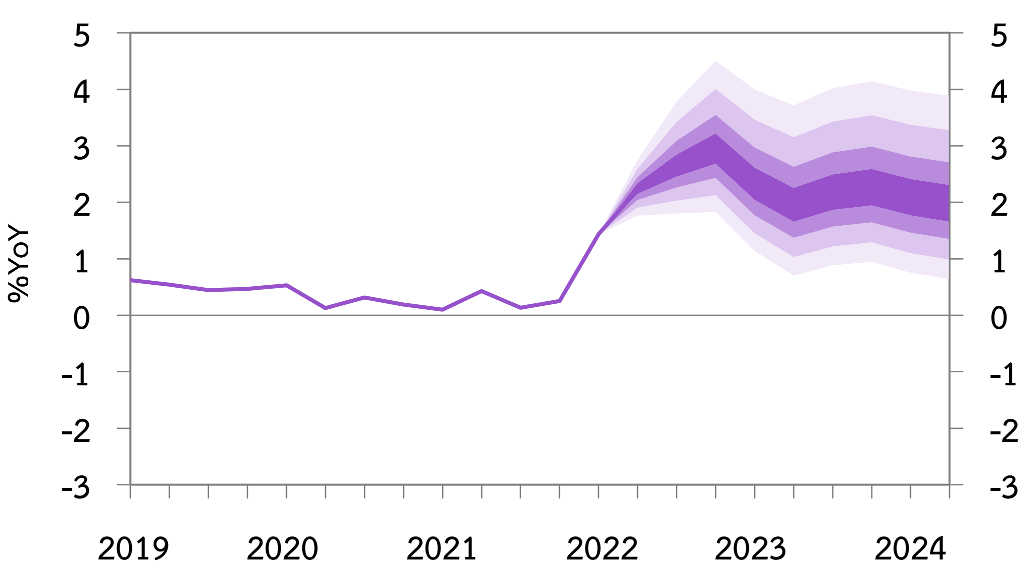
Sources: Ministry of Commerce, BOT forecast as of June 2022

Headline inflation might turn out higher than the baseline due to higher-than-expected cost pass-through from businesses once the economic recovery gains traction and consumers are more able to cope with higher prices.

Headline Inflation Forecast



Core Inflation Forecast

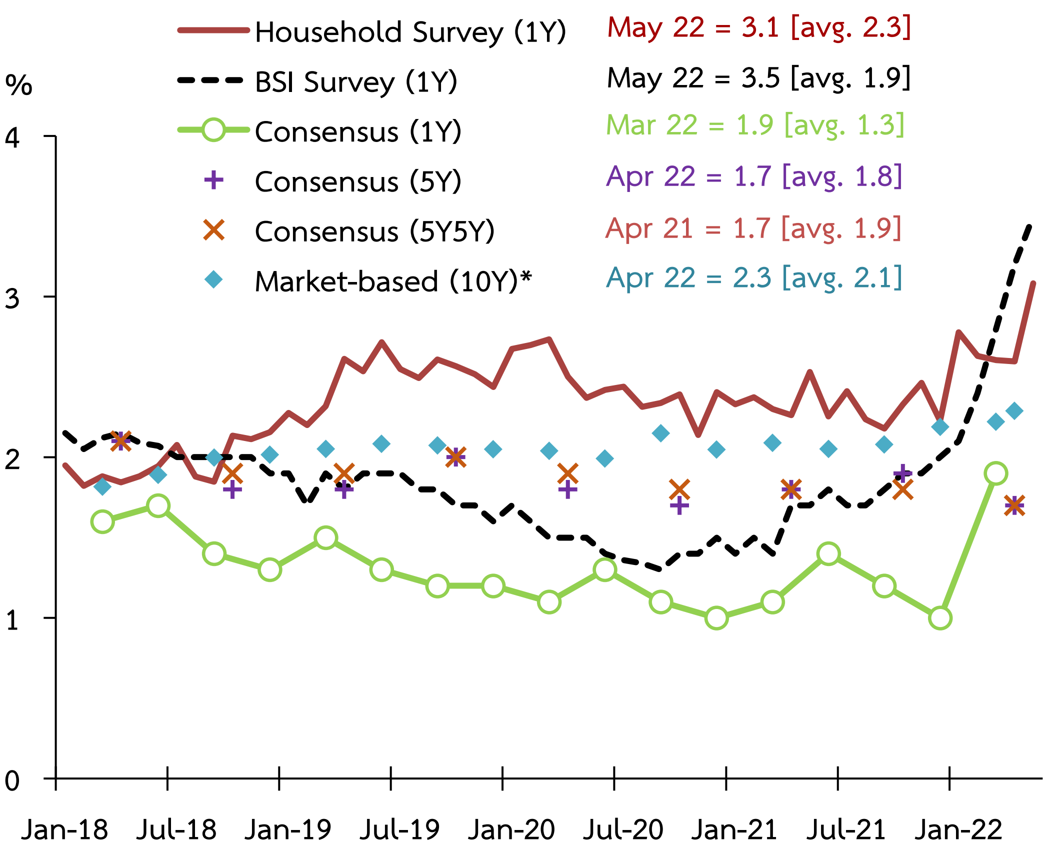


Factors that could result in higher inflation than the baseline

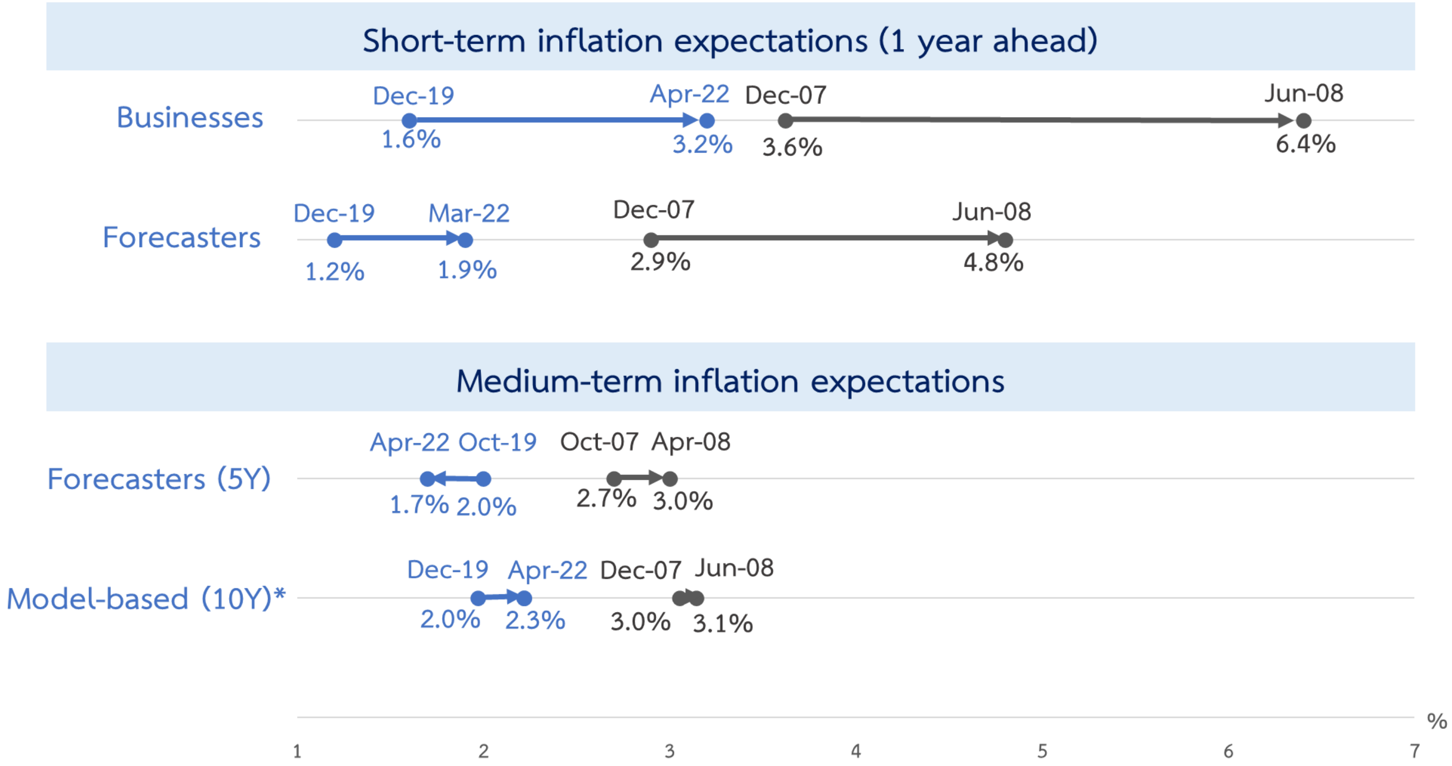
- Higher-than-expected energy prices and a rise in various production costs making businesses more likely to adjust prices of goods and services than previously expected.
- A significant change in inflation expectations and behavior of the private sector could result in persistently high core inflation. The economic recovery could also bring about higher demand-pull inflationary pressure going forward, resulting in persistently high inflation.

Medium-term inflation expectations remain well-anchored within the 1-3% target range although short-term inflation expectations have edged up.

Inflation expectations



Medium-term inflation expectations for the periods 2007 – 2008 and 2019 – 2022 remain within target, though short-term inflation expectations have edged up



Notes: [ ] average from Jan 18; *Forecasted using affine term structure model which utilizes yield curve data and macroeconomic factors

Sources: Asia Pacific Consensus Economics, Business Sentiment Survey (BOT), Consumer Confidence Index (Ministry of Commerce)

Summary of key forecast assumptions

Annual percentage change	2021*	2022	2023
Trading partners' growth (% YoY)[1/]	5.6	3.4	3.1
		(3.6)	(3.2)
Fed funds rate (% at year-end)	0.00 – 0.25	2.50 – 2.75	3.00 – 3.25
		(1.75-2.00)	(2.50-2.75)
Regional currencies (excl. China) vis-à-vis the U.S. dollar (index) [2/]	153.5	157.0	156.7
		(156.3)	(155.8)
Dubai crude oil prices (U.S. dollar per barrel)	69.4	105.0	105.0
		(100.0)	(90.0)
Farm income (% YoY)	2.9	9.3	-4.3
	(4.0)	(7.5)	(-2.9)
Government consumption at current price (billion baht)	2,941	2,973	2,970
		(2,981)	(2,968)
Public investment at current price (billion baht)[3/]	1,063	1,129	1,177
		(1,130)	(1,192)

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

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

[3/]Assumptions include loans for economic and social development under Section 22 in Public Debt Management Act, B.E. 2548 (2005)

* Outturns

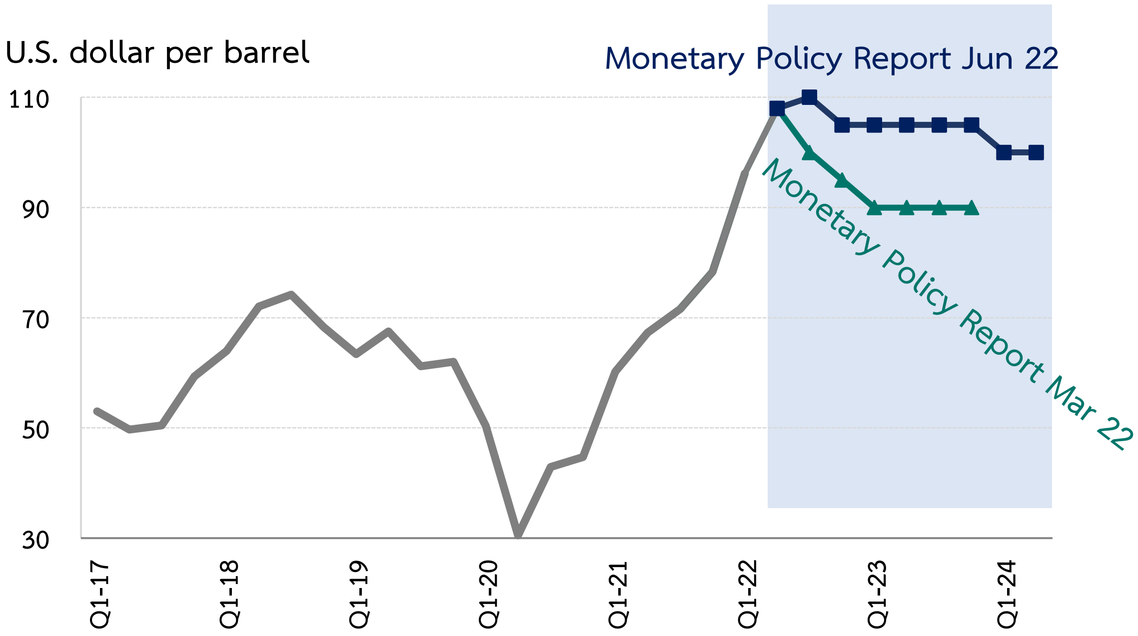
( ) previous forecast in the Monetary Policy Report March 2022

- **Trading partner economies'** growth is revised down throughout the forecast period due to higher living costs in line with higher inflation, as well as tighter monetary policy stances weighing down on consumption, especially in US and the EU. The Russia-Ukraine conflict being prolonged would also affect investors' sentiment.
- **The Federal Funds Rate** is expected to be raised more aggressively. It is expected that the Fed would raise the policy rate at every remaining FOMC meeting in 2022 in response to high inflationary pressure that is more persistent than expected.
- **Regional currencies (excluding the Chinese yuan)** would depreciate throughout the forecast period due to the Fed's more aggressive policy rate hike and the slowdown in Asia's exports as a result of the COVID-19 outbreak in China. However, regional currencies are expected to see some appreciation in the period ahead as Asia's economic fundamentals improve with the relaxation of containment measures and international travel restrictions.
- **Dubai crude oil prices** would be higher throughout the forecast period due to EU ban on oil imports from Russia.
- **Farm income (excluding government support measures)** would be higher in 2022 due to price increases to pass the higher costs of fertilizers and animal feed through to consumers, as well as higher prices in the global market especially for palm oil, chicken eggs, chicken meat, and cassava. Farm income growth would subsequently decline in 2023 due to the high-base effect.
- **Public spending at current prices** is revised down mainly on account of delays in SOE investment. Government consumption spending in Q1/2022 is revised down in accordance with actual outturns although it is expected to continue expanding in the period ahead.

Assumptions for Dubai crude oil prices

Dubai crude oil prices is expected to be higher than previously assessed due to the latest EU ban on oil imports from Russia.

Projected Dubai crude oil prices



U.S. dollar per barrel	2021*	2022	2023
Dubai crude oil prices (annual average)	69.4	105.0	105.0

* Outturns

Source: BOT forecast

Dubai crude oil price forecasts are revised up from 100 to 105 U.S. dollar per barrel in 2022, and from 90 to 105 U.S. dollar per barrel in 2023 due to

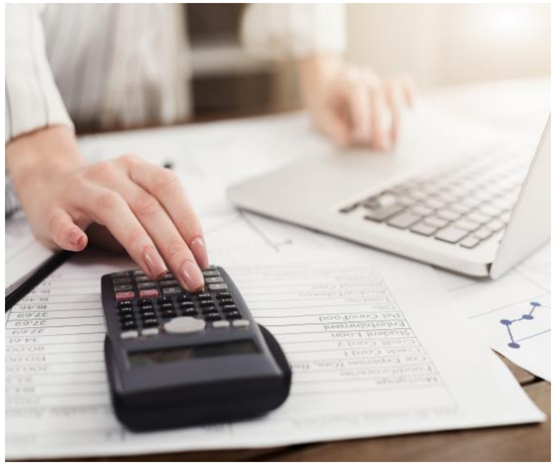
- **The recent EU ban on oil import from Russia resulting in higher-than-expected price outturns and possibly lower crude oil supply than previously assessed.** It is expected that the ban on import of crude oil and refined oil products will take effect within 6 and 8 months from the announcement date, respectively.

Risks to Dubai crude oil price forecasts remain tilted to the upside

- **Upside risks: the Russia-Ukraine conflict** could further escalate, spread to other regions, and be more drawn out than previously expected.
- **Downside risks: Lockdowns in China lasting longer than expected,** dampening oil demand. **Iran might also ramp up its oil production** if the nuclear agreement with the U.S. is reached.

3. Financial conditions

Financial conditions: Key issues



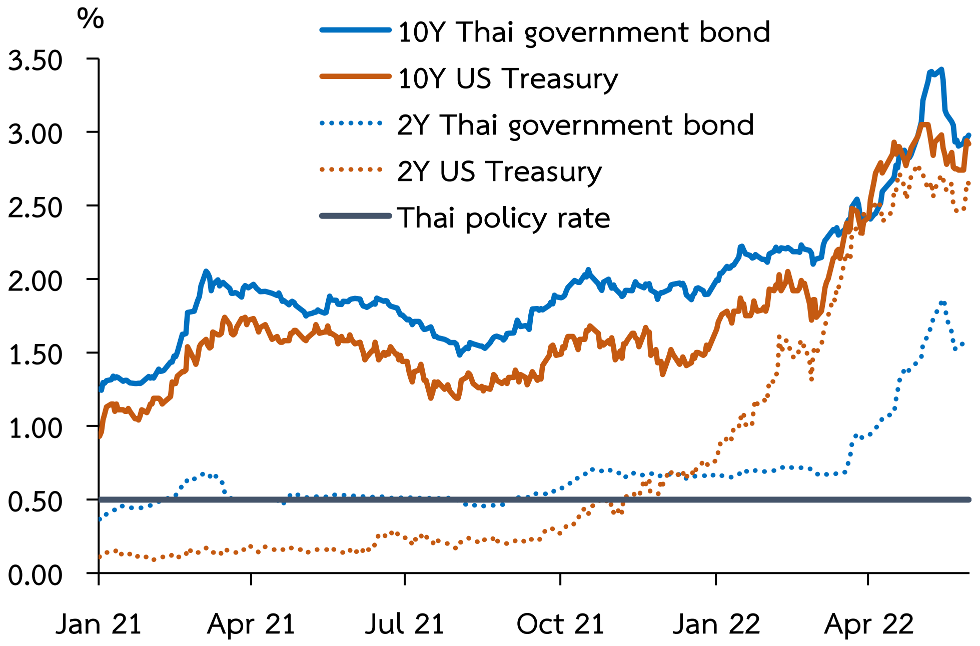
Financing costs remain low overall despite increases in government bond yields due to expectations of policy rate hikes in Thailand and higher US treasury yields.

Financing by businesses and households is expected to pick up with the recovery in economic activities.

The baht depreciated in line with regional currencies due to concerns that the Fed would raise rates more aggressively and concerns pertaining to the Russia-Ukraine conflict that is still ongoing

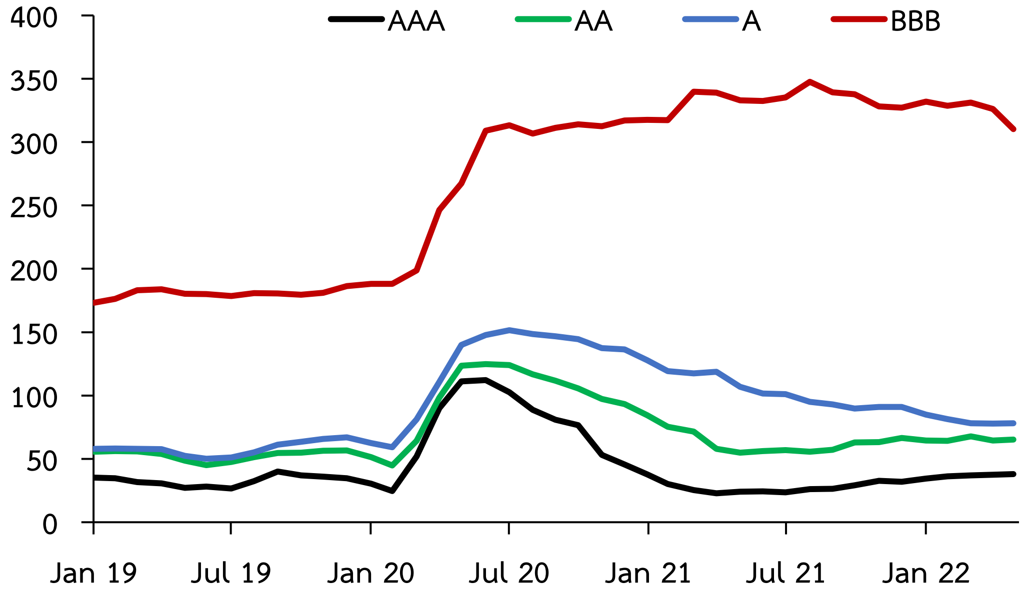
Government bond yields increased but did not impact financing activities overall.

Thai government bond and US Treasury yields



Sources: Thai BMA, Federal Reserve Economic Data (FRED)
(data as of 2 Jun 2022)

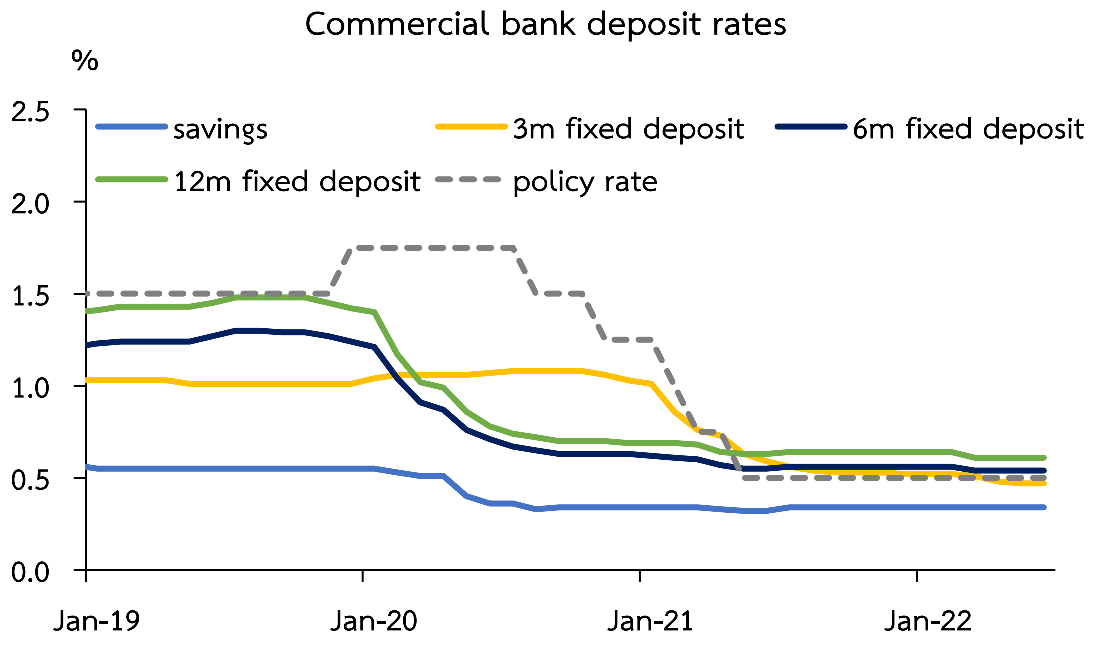
Corporate and government bond credit spread, by credit rating

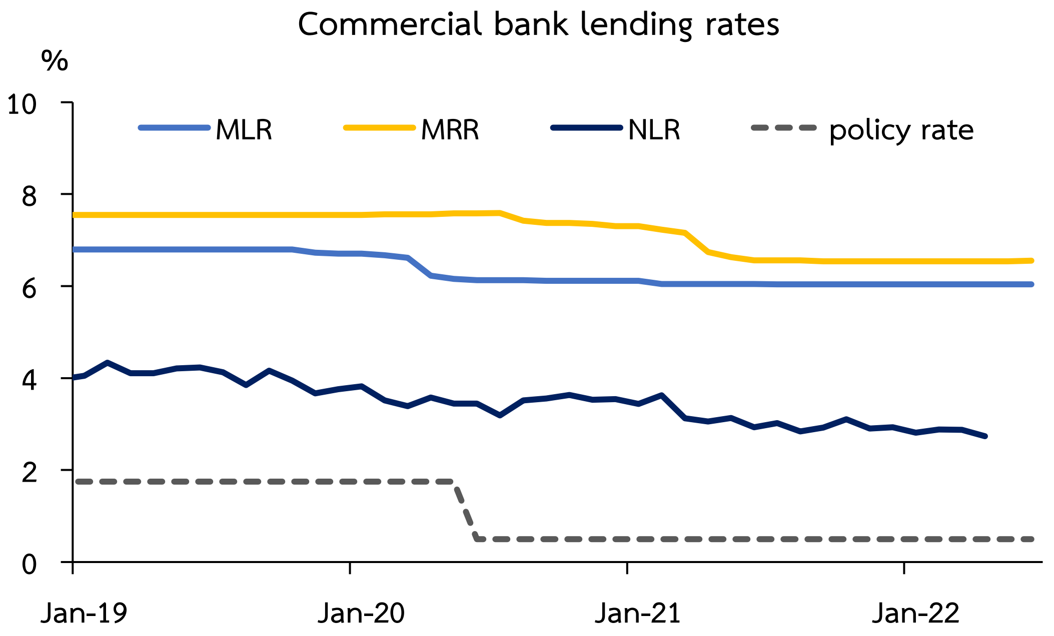


Sources: Thai BMA
(data as of 2 Jun 2022)

Government bond yields continued to rise since the end of the previous quarter due to the expectations that the MPC could raise the policy rate sooner and the recent increases in US treasury yields as a result of the Fed's monetary policy tightening. **The credit spread for bonds with less than 3 year to maturity** declined slightly although the credit spread for bonds with BBB credit rating remained high. **On the whole, the higher financing costs faced by the private sector did not affect financing activities.** Businesses have gradually obtained financing in the prior period and is expected to continue seeking more financing as the economic recovery gains traction.

Commercial bank interest rates are low, in line with the policy rate.



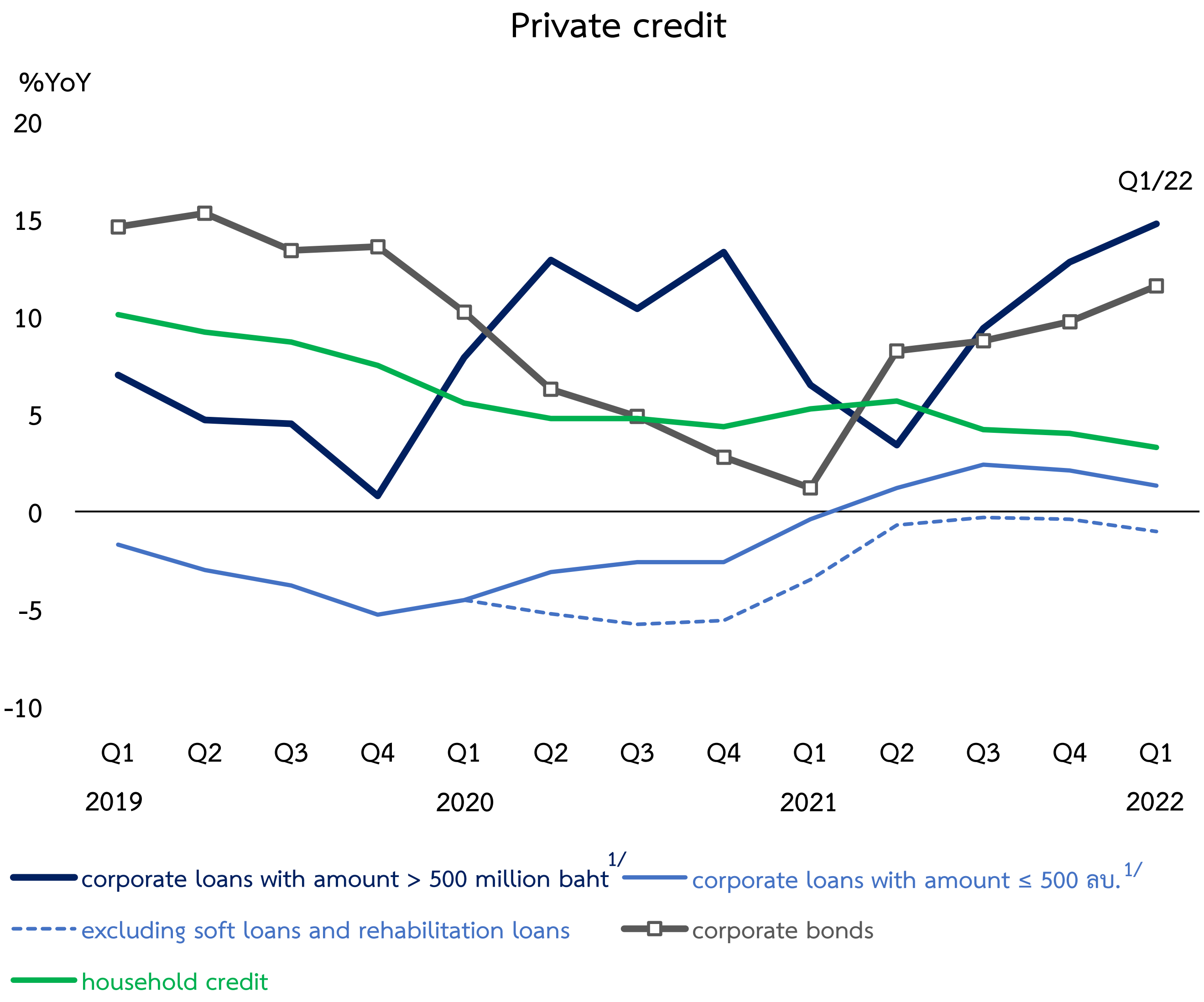


Notes: (1) Monthly average of 13 commercial banks (data as of 2 Jun 2022)
(2) New loan rate: NLR (data as of Apr 2022)

Source: BOT

Deposit rates offered by commercial banks are largely unchanged at low levels in line with the policy rate. **Lending rates offered by commercial banks** have been stable at low levels with the **minimum loan rate (MLR) and minimum retail rate (MRR)** still remaining below pre-COVID levels. Meanwhile, the **new loan rate (NLR)** as of April 2022 declined slightly from the previous month, mainly due to loan contracts larger than 100 million baht in the manufacturing and commerce sectors.

Private credit is expected to pick up as the economic recovery continues.



In Q1/2022, large corporates (credit limit > 500 million baht) continued to be able to obtain financing. Corporate loans grew across many sectors driven by the need for working capital given higher input costs, for financing business operations in line with the recovery in economic activities, and for exporting goods. Corporate bond issuance also continued to expand mainly driven by the need to repay maturing debt and the need for more working capital.

SME loans (credit limit ≤ 500 million baht) grew at about the same pace as before, mainly supported by the soft loan facility, especially loans extended to businesses in commerce and manufacturing sectors.

Household credit growth slowed down in line with the decline in household confidence during the outbreak of the Omicron variant.

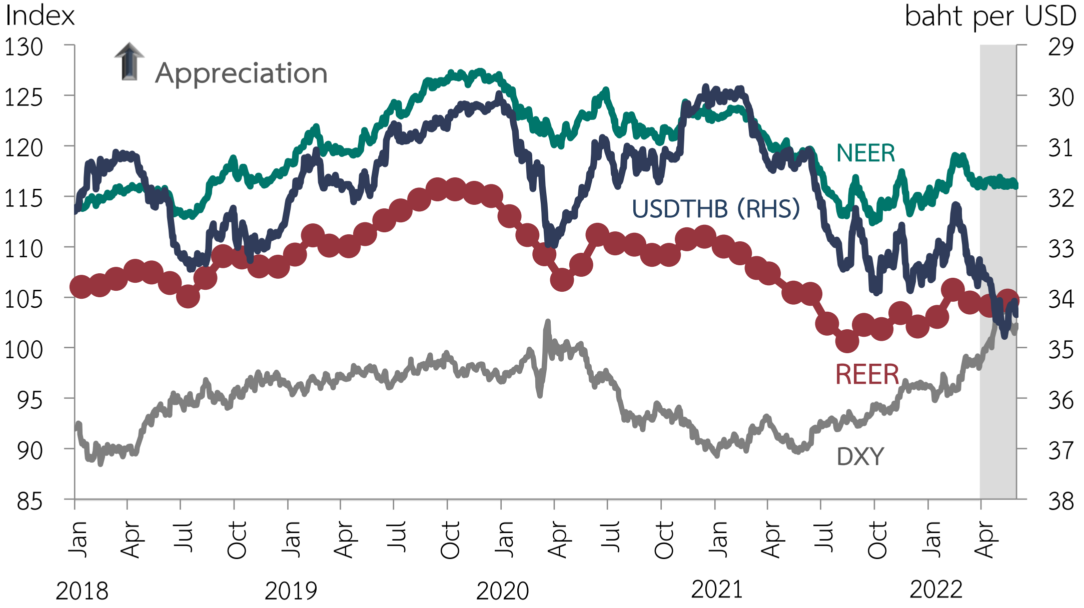
For Q2/2022[2/] it is expected that corporate credit demand would continue to grow across all sectors given financing needs for working capital purposes and exports, which are in line with the ongoing economic recovery. Household credit is expected to pick up as household confidence improve due to the limited economic impact of Omicron.

Note: [1/] Credit limit at each commercial bank does not include financial businesses.
[2/] Report on Credit Conditions Q1/2022 and Outlook for Q2/2022

The baht depreciated in line with regional currencies due to concerns that the Fed might raise rates more aggressively to control inflation.

- **In Q2/2022, the baht averaged 34.13 baht per U.S. dollar, a depreciation from the previous quarter in line with regional currencies. Global financial market volatility also increased** as risk-off sentiment prevails among investors due to concerns that the Fed might raise rates more aggressively in response to higher inflation, and concerns pertaining to the Russia-Ukraine conflict that is still ongoing. On the whole, the baht depreciated 2.8% from end-2021, a smaller depreciation than other regional currencies. There is also continued capital inflow into Thai assets driven by expectations of an economic recovery in the latter half of the year.
- **The nominal effective exchange rate (NEER) averaged 116.3**, largely unchanged from the previous quarter mainly due to the appreciation of the Russian ruble and U.S. dollar, and the depreciation of the yen.

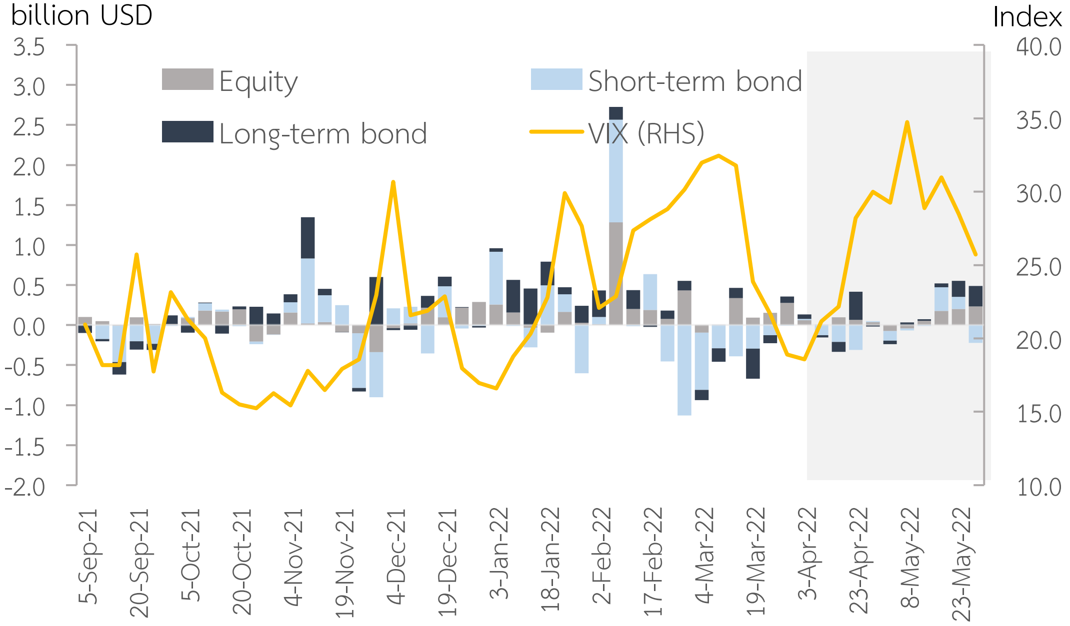
Baht per U.S. dollar (USDTHB) and exchange rate indices



Note: REER for May 2022 is calculated using April 2022 inflation data

Sources: BOT, Bloomberg, and Refinitiv (data as of 2 Jun 2022)

Capital flows into Thai securities and volatility index

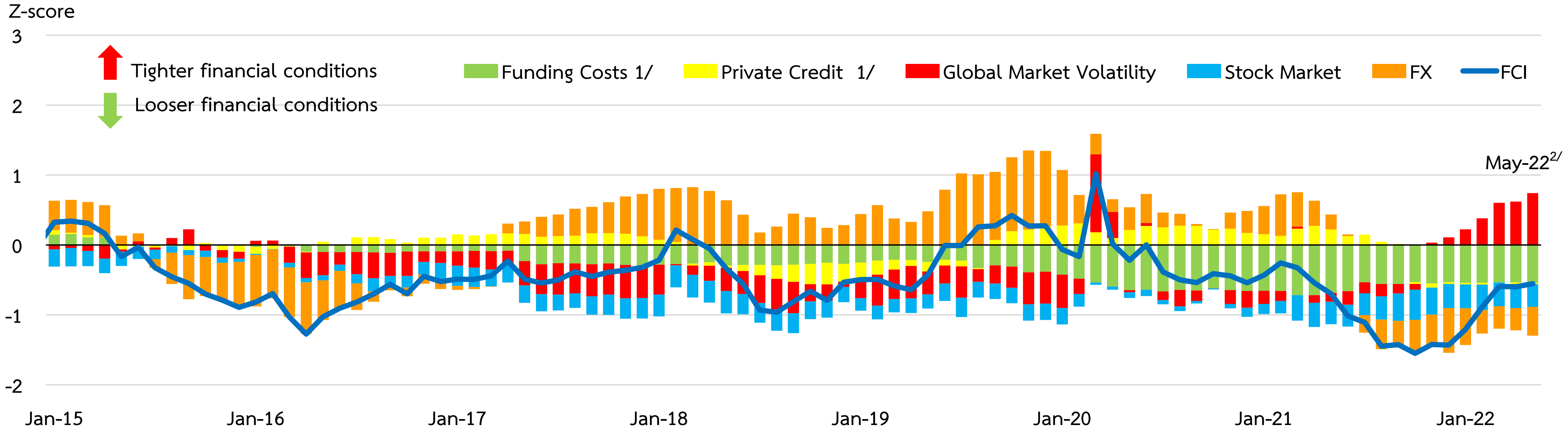


Note: Weekly data from working days

Sources: ThaiBMA, Bloomberg

Financial conditions remain accommodative overall despite some tightening due to heightened global financial market volatilities. However, said volatility is likely to recede somewhat now that the monetary policy directions of major central banks have become more certain.

Financial Conditions Index: FCI



Notes:

FCI is calculated using first principal components of both FX and non-FX financial condition indicators which are weighted by th eir respective sizes of accumulated impulse response on real GDP (%yoy) over 8 quarters using VAR(2) model. For funding costs and private credit categories, weights of each variable are adjusted according to its proportion i n t otal private funding structure. Non FX indicators include (1) funding costs, (2) private credit, (3) global market volatility, and (4) stock market. The details of constructing financial condition index is summarized in FAQ 184

1/ New loan rate (NLR), average of 6 banks ’ floating mortgage rates, and new loan amounts extended to businesses and households in the most recent month are assumed to b e e qual to the previous month’s data.

2/ Average of data points up until 23 May 22

Source: Bank of Thailand

Details on the construction of the Financial Conditions Index is summarized in FAQ 184 (Only available in Thai)

4. Monetary Policy Decision

Monetary Policy Decision: Summary of Key Considerations

Monetary Policy

The MPC voted 4 to 3 to maintain the policy rate at 0.50% to support the continuity of the economic recovery. 3 members voted to raise the policy rate by 0.25 percentage point.

Economic recovery

The Thai economy will continue to recover and could expand faster than previously expected owing to domestic demand and the recovery in tourism.

Inflation risks

Headline inflation would increase and remain elevated for longer than previously estimated and is subjected to more upside risks.

Financial stability

The financial system remains stable overall but some households and businesses are still vulnerable and could be further affected by higher living and production costs.

The MPC voted 4 to 3 to keep the policy rate on hold. All members agreed that a very accommodative monetary policy will be less needed going forward.

MPC Meeting No. 3/22
(8 Jun 2022)

MPC voted 4 to 3
to maintain the policy rate at **0.50%**

3 members voted to raise
the policy rate by 0.25 percentage point

The MPC assesses that the Thai economy will continue to recover and could expand faster than previously expected owing to stronger domestic demand and the pickup in the number of foreign tourists. Headline inflation would increase and remain elevated for longer than previously estimated due to the increase in oil prices and the higher and more persistent cost passthrough. Looking ahead, the MPC views that a very accommodative monetary policy will be less needed going forward.

Most MPC members view that the policy rate should be maintained at this meeting to ensure that the recovery will continue to gain traction as anticipated. Three MPC members view that policy normalization is warranted given the increased upside risks to both growth and inflation.

The financial system remains resilient overall. However, some households and businesses remain vulnerable to rising living and production costs. The MPC sees the need to continue implementing debt restructuring measures as well as measures targeted for the vulnerable groups.

The MPC will assess the appropriate timing for a gradual policy normalization in accordance with the shift in the outlook and risks surrounding growth and inflation.

Going forward, the MPC will formulate their policy decisions by taking into account the following key factors affecting the economic outlook, inflation, and financial stability

1

Economic growth:

Domestic demand and tourism – the key growth drivers for the Thai economy.

2

Inflation:

Energy price outlook, cost pass-through, and the potential acceleration in demand-pull inflationary pressure from the economic recovery

3

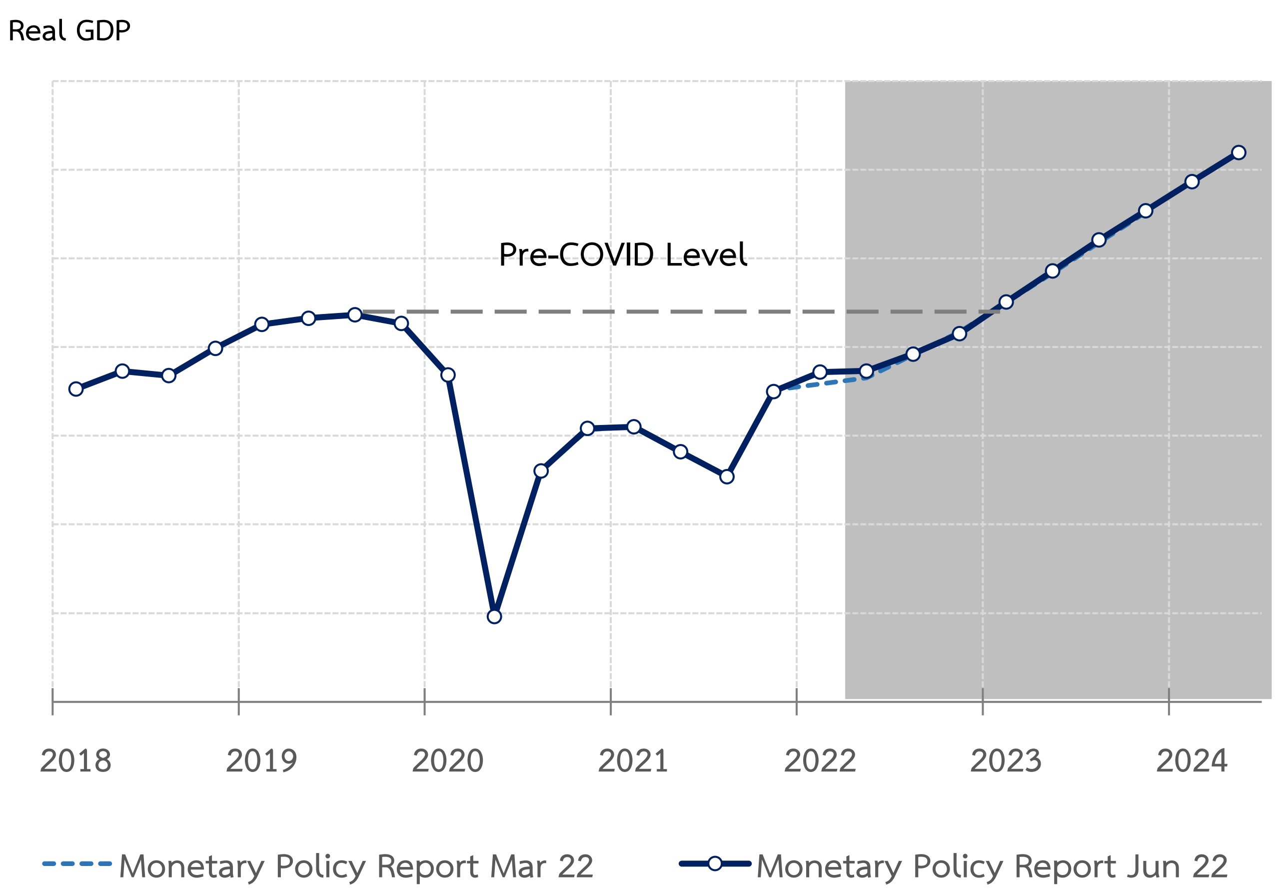
Financial stability:

Debt serviceability of households affected by higher living costs

Economic growth | Inflation | Financial stability

Economic growth: Thailand's GDP is expected to return to pre-COVID levels in Q1/2023 driven by domestic demand and the recovery in tourism. It is expected that the economy will reach potential output in the latter half of 2023.

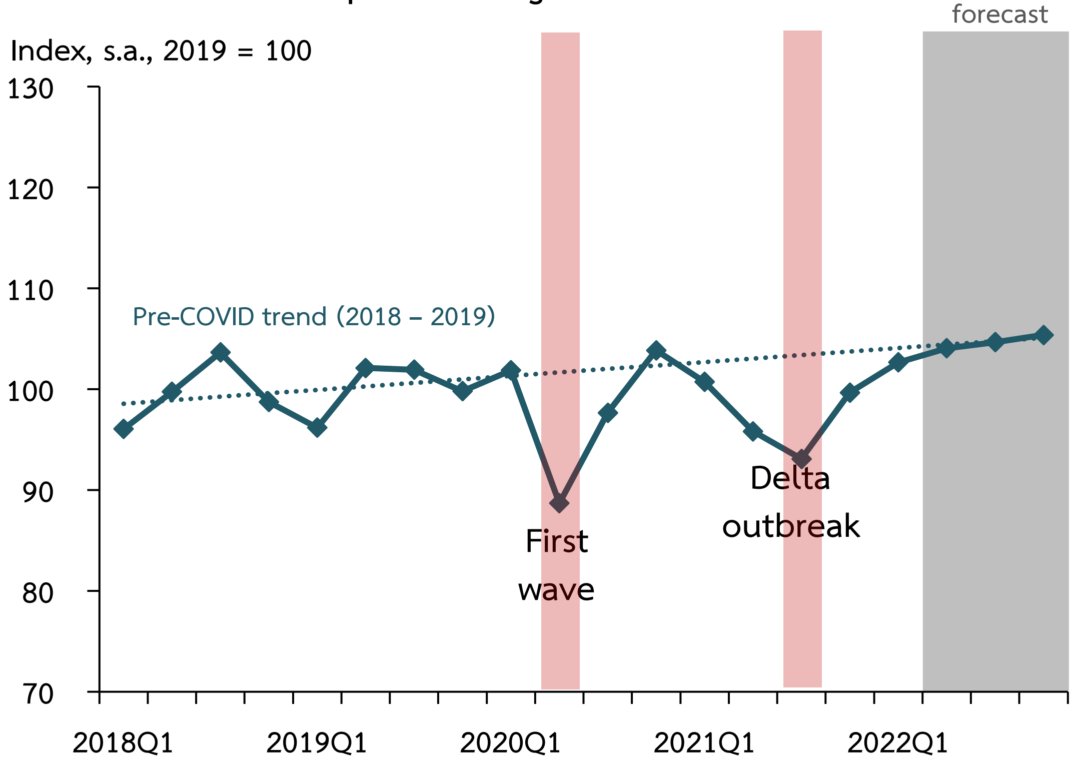
Real GDP



Domestic demand:

Private consumption will recover primarily on the back of high-income households. It would also benefit from the recovery in low-income and middle-income non-farm workers as the service sector and the self-employed incomes recover in tandem with the tourism sector in the period ahead.

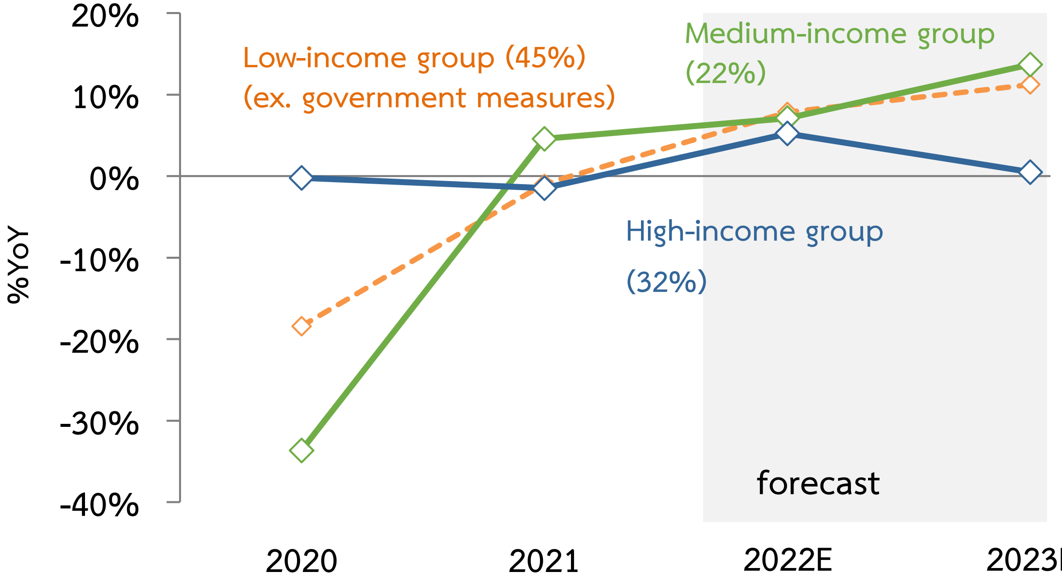
Real consumption of high-income households



Notes: (1) High-income household earns 87,000 baht on average per month (>90th percentile)
(2) High-income household consumption calculated from NESDC's Thailand private consumption data and SES's high-income household consumption pattern data

Sources: Office of the National Economic and Social Development Council (NESDC) and the National Statistical Office's Household Socio-Economic Survey (SES), calculated by BOT

Growth in Non-Farm Income



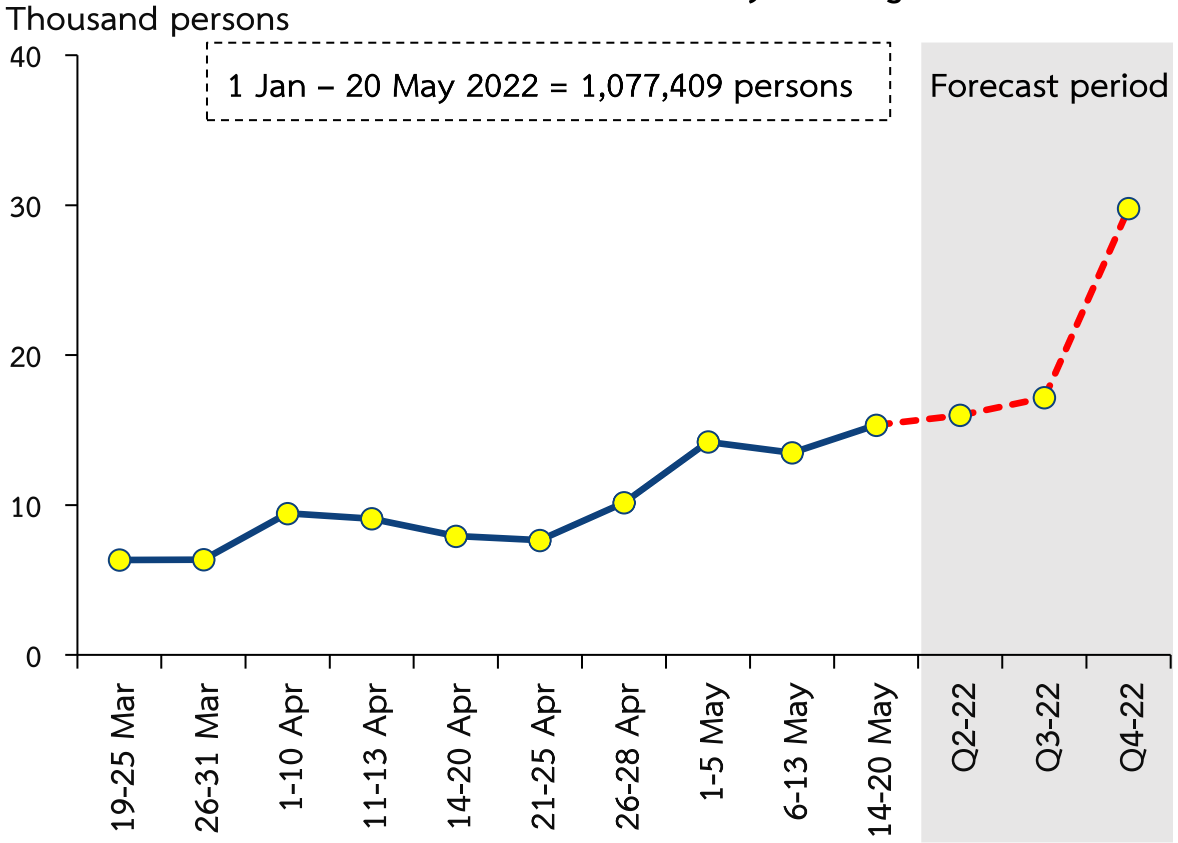
Notes: * Occupations are grouped based on their average income in 2021. Low-income group are private sector workers in the service and manufacturing sectors (excluding professional workers). Medium-income group are those that are self-employed workers. High-income group are professional workers in the private sector.
Brackets ( ) denote each group's share of total private consumption in 2021.

Sources: National Statistics Office, BOT calculations and forecast

Box : Private consumption: a key driver of growth in the period ahead

Tourism: The recovery in foreign tourist arrivals is expected to continue as international travel restrictions are likely to be relaxed further as reflected in recent tourism indicators.

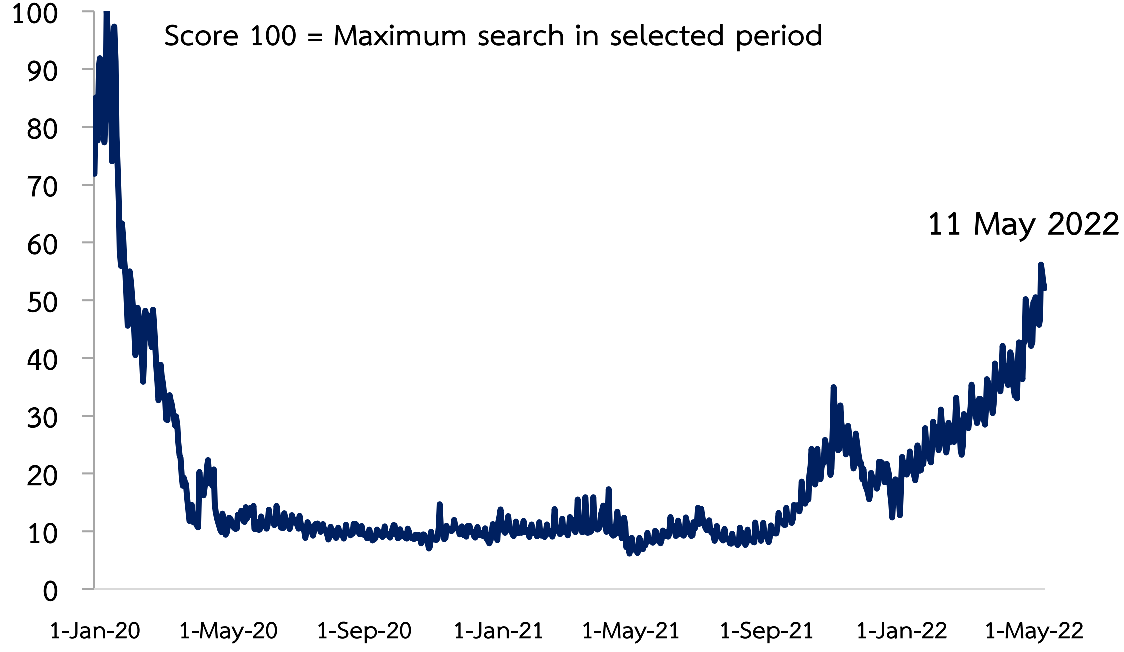
Number of tourists* (daily average)



* Data from weekly tourism situation report

Sources: Economics Tourism and Sports Division, Ministry of Tourism and Sports, BOT forecast

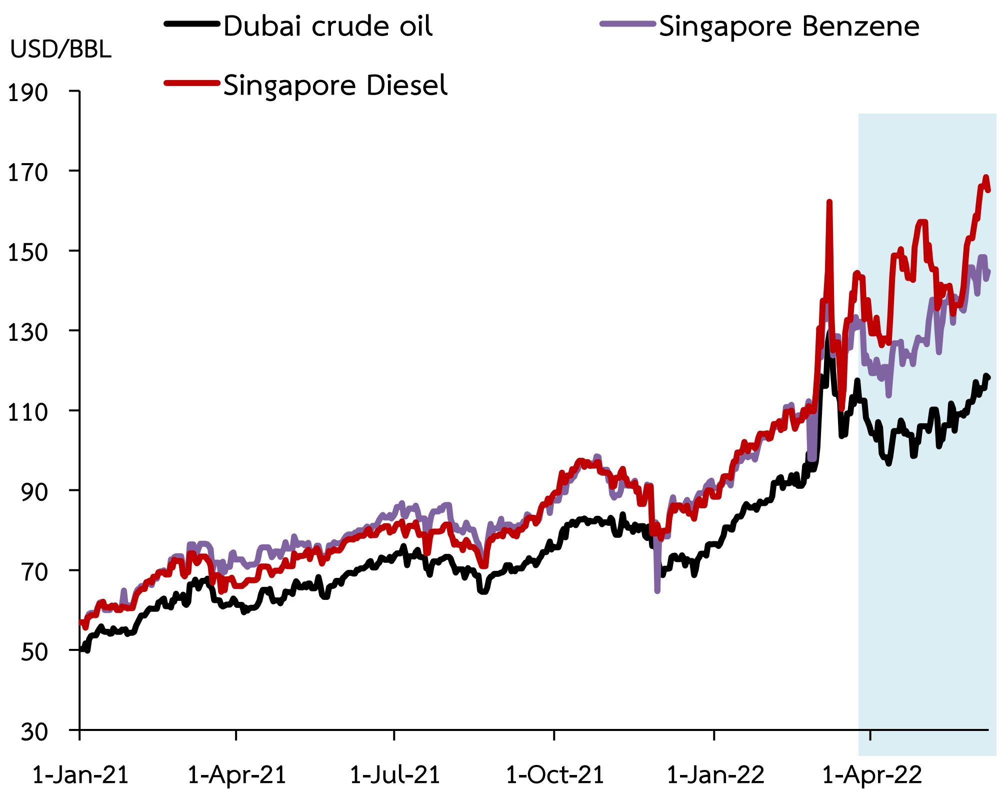
International travellers' search interest in flights to and accommodation in Thailand



Source: Google Travel Insights

Energy prices: Domestic oil prices is subjected to more upside risks stemming from both external and domestic factors

Crude oil and Singapore fuel oil prices



Source: Bloomberg (data as of 7 Jun 2022)

Risks to Dubai crude oil prices remain tilted to the upside

- **Upside risks:** The Russia-Ukraine conflict could escalate, and last longer than previously expected.
- **Downside risks:** Iran might ramp up oil production if the nuclear agreement with the U.S. is reached.

Refined oil product prices in Singapore are higher than Dubai crude oil prices

- **Upside risks:** The refined oil product market might tighten due to (1) sanction on oil imports from Russia which could cause many countries to import oil from other markets instead; and (2) the global and regional economy might recover faster than expected.
- **Downside risks:** Oil demand could decline as the global economy slows down due to rising energy and commodity prices, as well as higher global interest rates.

Domestic retail oil prices

- **Upside risks:** Fiscal constraints could limit fuel price subsidies through both excise tax policy and the oil fund. This could result in a sharper increase in oil prices than the level envisioned by the Ministry of Energy.

Cost pass-through: Businesses might pass on higher costs to consumers sooner going forward, especially those that are now less profitable and less able to absorb costs due to higher global oil and commodity prices, as well as those that already absorbed higher costs in prior periods.

Sector	Operating Profit Margin (%)*		Time period that businesses can absorb costs without passing on to selling prices (months)**	
	Q4/21	Q1/22	Q4/21	Q1/22
Steel and metal fabrication	5.6%	5.4%	1.9 – 3.6	1.9 – 3.3
Petroleum	7.1%	6.5%	2.5 – 5.3	1.6 – 4.4
Petrochemical	12.9%	11.1%	4.7 – 6.5	1.7 – 3.5
Trade	5.6%	5.3%	5.0 – 5.6	4.1 – 4.6
Logistic transportation	10.8%	9.3%	6.9 – 10.2	5.5 – 6.1

Notes: *Median Operating Profit Margin (OPM)
**Time period (month) that businesses can absorb the rising costs without having to pass on to selling prices (OPM falling to 5% and 0%), calculated from financial statements of listed companies and costs rise as per energy and commodity prices assumptions

Source: Stock Exchange of Thailand, calculated by BOT

Inflationary pressure: Underlying inflation indicators have edged up. Looking ahead, inflation is subject to upside risks stemming from demand-pull inflationary pressure that could arise from a strong economic recovery.

Underlying Inflation Indicators (%YoY)	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022
Core CPI	0.5	1.8	2.0	2.0	2.3
Core CPI (excl. rent & measures)	0.7	2.2	2.4	2.6	2.8
Symmetric trimmed mean CPI	1.2	2.2	2.4	2.4	3.2
Sticky Price CPI	0.5	2.4	2.8	2.7	3.2
Principal Component CPI	0.5	1.1	1.3	1.5	2.0
Common Component CPI	1.4	1.7	1.8	1.9	2.2

Box 3: Underlying inflation indicators for Thailand

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

Note: Median is 2% which is the mid-point of the 1-3% target range

Note: These monthly indicators are expressed as year-over-year changes. Symmetric trimmed mean CPI excludes goods and services whose prices have increased/decreased as much as 10% Sticky Price CPI is calculated from goods and services whose prices changed infrequently compared to the average of 4.8 times per month. Principal Component CPI is calculated from common underlying factors underpinning the change in price of goods and services across 28 categories. Common Component CPI is calculated using Generalized dynamic factor model

Sources: Ministry of Commerce, calculated by BOT

Box 3: Underlying inflation indicators for Thailand

In general, headline inflation is calculated from the year-on-year change in the consumer price index (CPI), in which some goods and services within the CPI basket could be affected by temporary shocks that cause large fluctuations in inflation that the indicator may not best reflect the underlying inflation trend. As such, calculating and monitoring underlying inflation indicators is important as it helps policymakers to assess and predict inflationary pressures more accurately. The BOT currently monitors the following indicators of underlying inflation:

(1) Core CPI is an underlying inflation indicator that permanently excludes inflation in food and energy prices from the CPI basket (fixed-item exclusion) given that prices in said categories tend to be more volatile in the short-term due to supply-side factors. Core CPI is widely used by many central banks around the world as it is simple and easy to communicate with the public. However, the permanent exclusion of food and energy prices also means that some information pertaining to the inflation trend in certain periods is lost. For instance, if food and energy prices during that period reflect the underlying inflation trend and is not undergoing short-term volatilities. On the contrary, if prices of goods and services that were not excluded undergoes short-term volatilities, the Core CPI will also be volatile and won’t reflect the inflation trend as well as it should.

(2) Core CPI excluding rent and measures is an underlying inflation indicator that excludes changes in the rent and effect of government measures from the Core CPI. The reasons for said exclusion are as follow:

- **Rent:** Rent has a large weight in the Core CPI (21.8%). Changes in rent prices have also been quite low in recent period, partly because the survey sample is seldomly changed and renters rarely increase rent. For these 2 reasons, excluding rent from the Core CPI would allow the indicator to better reflect price movements in other categories and hence the underlying inflationary pressure.
- **Government measures and tax measures** such as water bill reduction, tuition fee assistance, and excise taxes on cigarettes, which affect prices of some goods and services, could distort the interpretation of the underlying inflation trend. This is because government measures typically presents a one-time shock that does not truly affect the underlying inflationary pressure. As such, excluding government measures and tax measures until their effect dissipate would allow the indicator to better reflect the underlying inflation trend.

Box 3: Underlying inflation indicators for Thailand

(3) Symmetric trimmed mean CPI is an underlying inflation indicator that excludes some goods or services whose prices have changed significantly during that period (period-by-period exclusion) equally between those whose price have increased and decreased. The symmetric trimmed mean CPI differs from the Core CPI in that the goods and services excluded are not necessarily from the same category across the different time periods.

In determining how much goods and services are excluded, excluding too much could result in the indicator not accurately reflecting the underlying inflation trend, while too little would leave some short-term volatilities intact. In Thailand's case, goods whose prices have increased or decreased as much 10% are excluded as this achieves 3 desirable characteristics for the indicator: (1) low volatility; (2) unbiased; and (3) has good predictive power for the inflation outlook.

(4) Sticky Price CPI is an underlying inflation indicator that is calculated from goods and services whose prices change infrequently (i.e. prices are sticky). This is done by removing from the CPI basket goods and services whose prices change more often than average frequency (average frequency of price changes for all 445 goods and services in Thailand is once every 4.8 months (Apaitan et a. (2020)). The construction of the Stick Price CPI is based on the study by Bryan and Meyer (2010).

(5) Principal Component CPI is an underlying inflation indicator constructed using principal component analysis. The correlations between prices of goods and services across 28 sub-categories form the principal component. This principal component reflects broad-based price changes across most goods and services and is not affected by temporary shocks arising from supply-side factors or sector-specific shocks.

(6) Common Component CPI is an underlying inflation indicator constructed using the generalized dynamic factor model based on the methodology used by Forni et al. (2020). Prices of all goods and services in the CPI basket are divided into 66 sub-categories and then the common factor that drives price changes for all 66 sub-categories in the same direction is extracted. This common factor reflects inflation in a broad-based manner as it separates inflation driven by the common factor from inflation driven by idiosyncratic factors.

The key benefits of Principal Component CPI and Common Component CPI are that they use price data of all goods and services within the CPI basket without any exclusions, thus fully utilizing all the explanatory power offered by available price data.

Box 3: Underlying inflation indicators for Thailand

It is necessary to monitor many indicators in monitoring the inflation outlook as each underlying inflation indicator has its pros and cons, and offers different information. Monitoring many indicators also provides checks and balances, and thus more confidence in the assessment of the inflation outlook. **Latest inflation data from May 2022 showed an increase in many underlying inflation indicators for Thailand.** For instance, the Sticky Price CPI, Symmetric trimmed mean CPI, and Core CPI (excluding rent & measures) have increased by more than 0.5 percentage point from the midpoint of the target range. Meanwhile, Core CPI is also close to the levels seen during previous episodes of high inflation. These indicators reflect that prices of goods and services are on the rise and thus inflation developments must be monitored closely in conducting monetary policy going forward.

Underlying inflation indicators (%YoY)	Jan 22	Feb 22	Mar 22	Apr 22	May 22
Core CPI	0.5	1.8	2.0	2.0	2.3
Core CPI (excl. rent & measures)	0.7	2.2	2.4	2.6	2.8
Symmetric trimmed mean CPI	1.2	2.2	2.4	2.4	3.2
Sticky Price CPI	0.5	2.4	2.8	2.7	3.2
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- Less than 0.5% from median
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- Close to median (+/- no more than 0.25%)
- More than 0.25% - 0.5% from median
- More than 0.5% from median

Note: Median is 2% which is the mid-point of the 1-3% target range

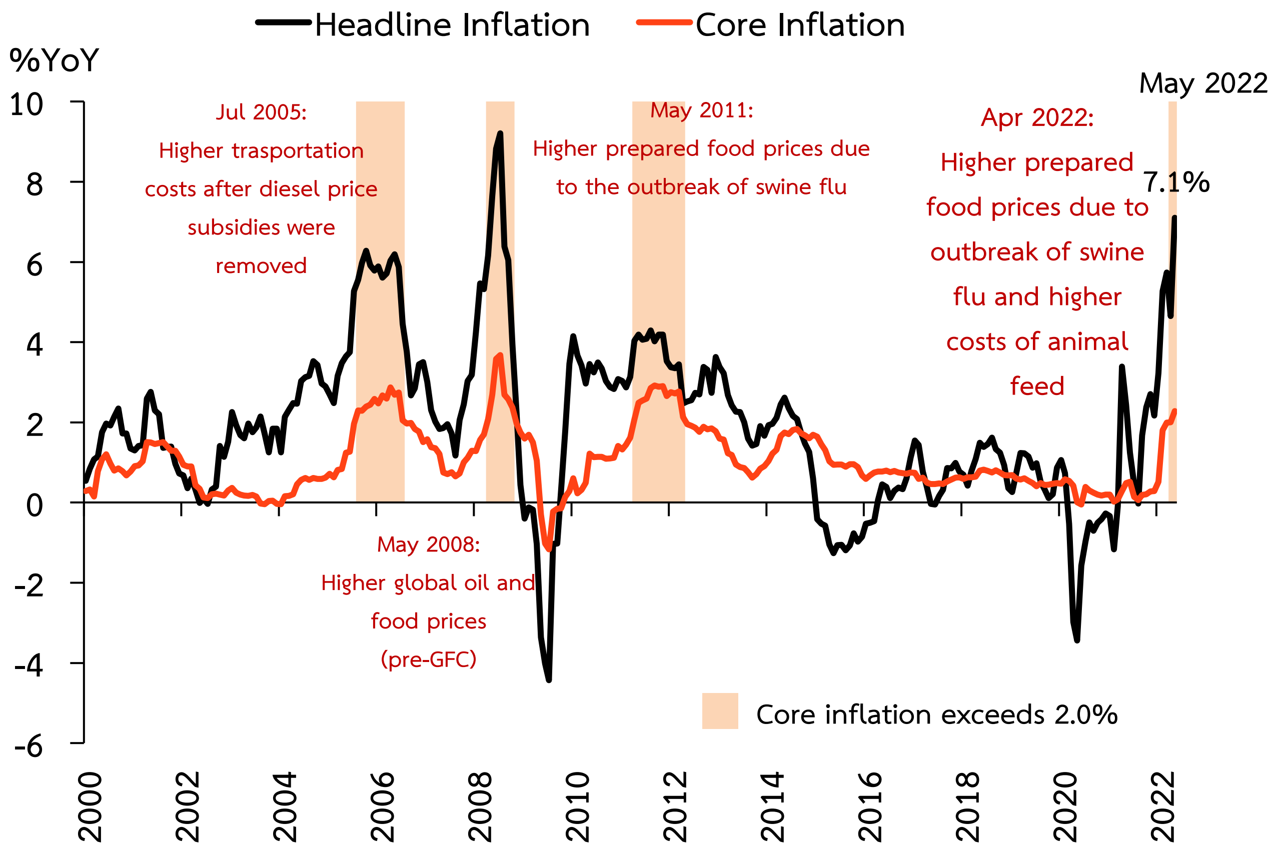
References

Apaitan, T., Disyatat, P., Manopimoke, P., (2020). “Thai inflation dynamics: A view from disaggregated price data”, *Economic Modelling,* 84, 117-134.

Bryan, M.F., Meyer, B., (2010). “Are some prices in the CPI more forward looking than others? We think so”, *Economic Commentary,* 2010-2.

Forni, M., Hallin, M., Lippi, M., Reichlin, L., (2000). “The Generalized Dynamic Factor Model: Identification and estimation”, *Review of Economics and Statistics*, 82, 540-554.

Anchoring inflation expectations: Core inflation has edged up closer to levels seen during past episodes of high inflation. Monetary policy should respond in a timely manner to keep inflation expectations well-anchored and prevent anticipations of an inflation regime change.

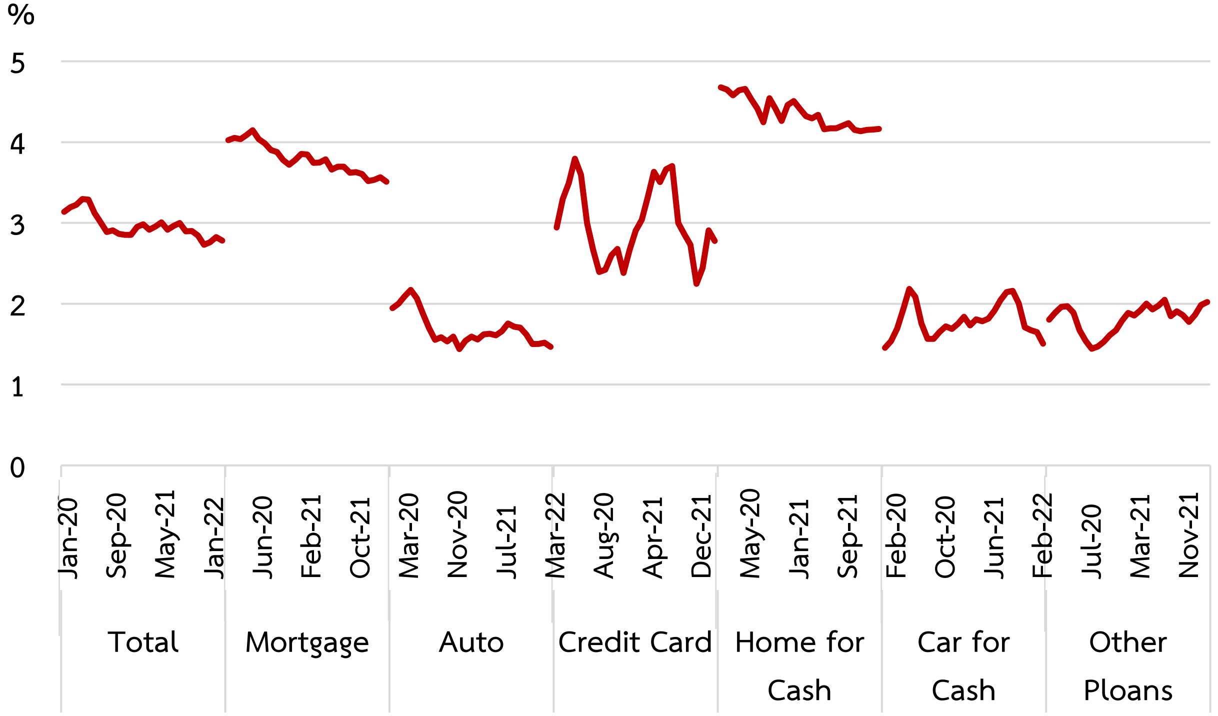


Source: Ministry of Commerce

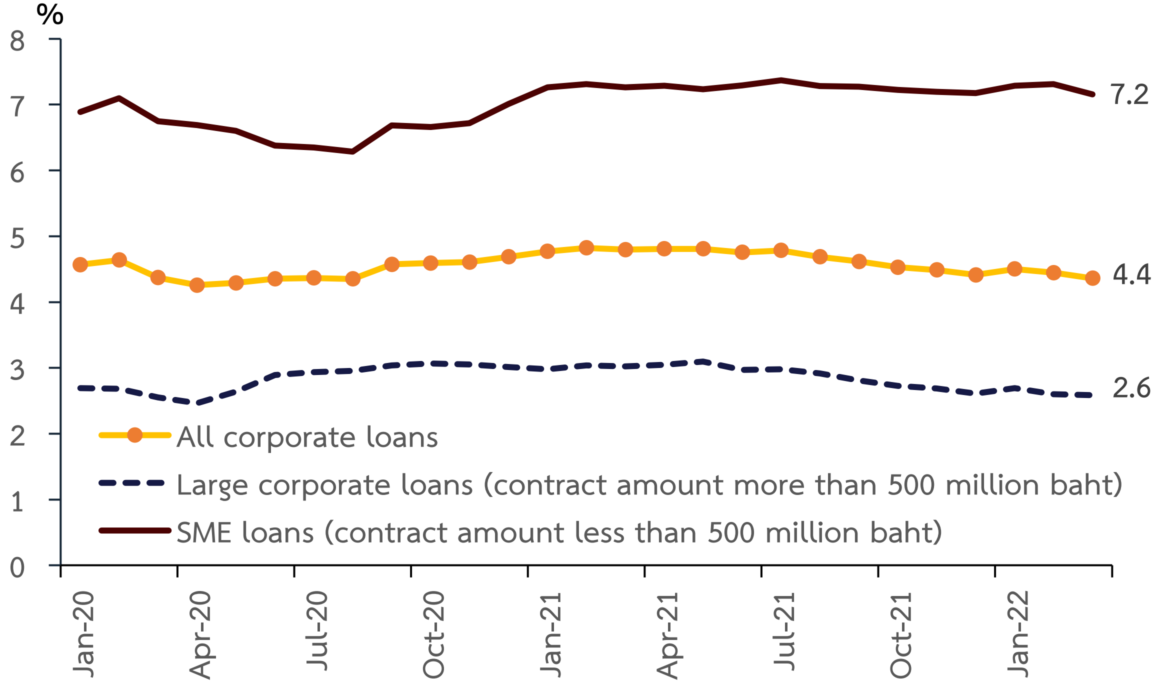
- **Core inflation exceeded 2% as with previous episodes of high inflation** in 2005, 2008, and 2011.
- **Changes in the public's view on inflation (inflation psychology) might lead to persistently high core inflation,** such as through higher pricing or negotiations for higher wages based on recent inflation outturns. The pass-through of higher energy costs to consumer prices which is an indirect effect of rising costs.
- **Monetary policy should respond in a timely manner and adapt to the changing growth and inflation outlook. This is to prevent the public's expectations of persistently rising inflation (regime change).** The appropriate course of monetary policy actions would foster confidence among the general public and keep medium-term inflation expectations well-anchored within the target range.

Credit quality: Credit quality of household credit is largely unchanged while the credit quality of corporate loans saw slight improvements.

Share of stage 3 (non-performing loan: NPL) in household credit



Share of stage 3 (non-performing loan: NPL) in corporate loans

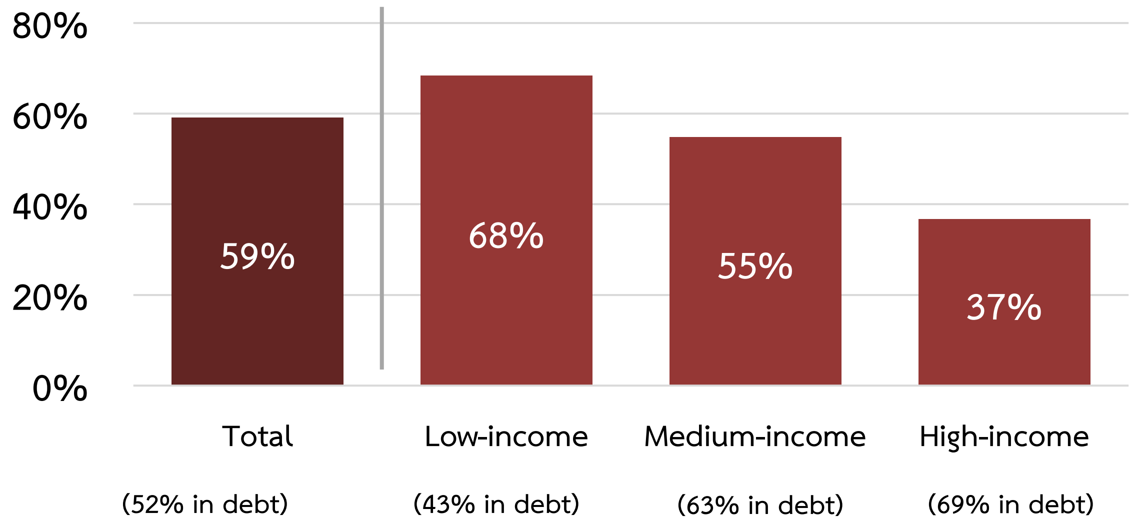


The NPL ratio of total household credit is largely stable at below 3% of total debt, with improvements seen in many loan types due to credit risk management on part of the financial institutions as well as debt assistance measures. However, the NPL ratio of other consumer loans is still on the rise. As such, it is still necessary to monitor debt serviceability especially of households whosee income is still recovering slowly. **The NPL ratio of total business credit declined slightly** partly due to the debt restructuring and debt assistance measures.

Debt serviceability of households:

remains a risk that needs to be monitored, especially among low-income households. There is a need to continue implementing debt restructuring measures as well as measures targeted at the vulnerable groups.

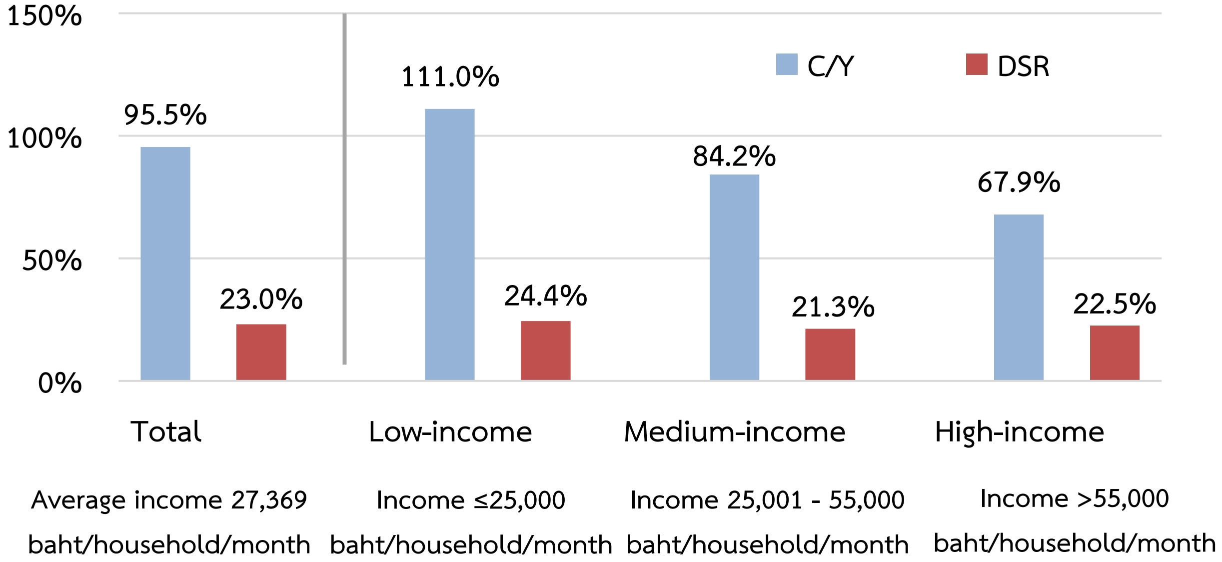
Share of vulnerable households[1/] to total households in debt



Note: [1/]Vulnerable households: households earning less net income than debt burden

Source: National Statistical Office's Household Socio-economic Survey, calculated by BOT

Consumption-to-income (C/Y) ratio and debt service ratio (DSR)



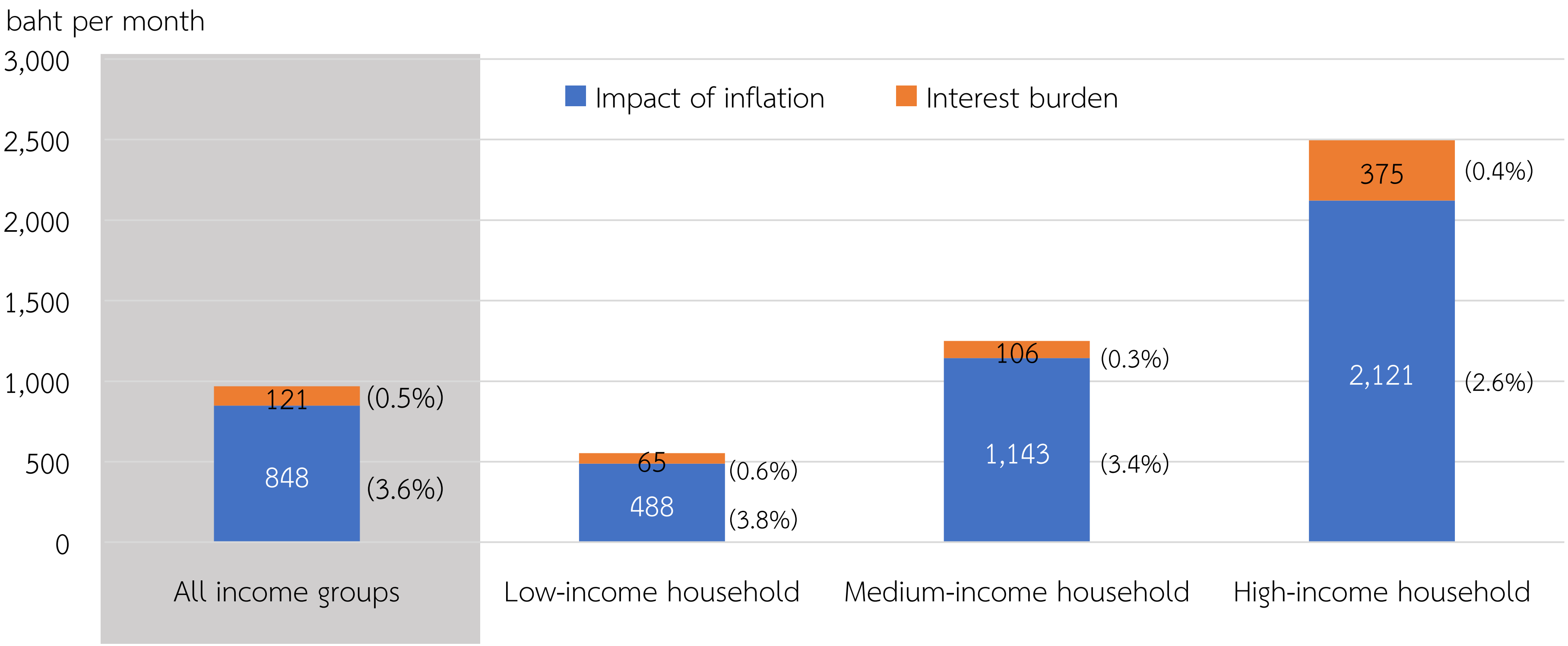
Source: National Statistical Office's Household Socio-economic Survey, calculated by BOT

The financial health of low-income households is highly vulnerable. More than two-thirds of low-income households with debt have insufficient net income to service their debt (chart on the left) and insufficient income for consumption spending as reflected in their C/Y ratio of more than 100%. They are also heavily indebted as reflected in their debt service ratio of 24% which is higher than other income groups (chart on the right).

Household spending:

was affected by inflation more than higher interest rates. Preventing inflation from remaining persistently high to the point that it impact the costs of living is therefore vital to the livelihood of the people.

Change in household spending due to the impact of inflation and higher interest rates



Notes: Impact of inflation: inflation that has increased 4.7% YTD 2022. Interest burden: 1% increase in the financial institutions' lending rates

( ) = share of effects as compared to all households' income and indebted households' income for interest burden

Source: National Statistical Office's Household Socio-economic Survey, calculated by BOT

Data tables

Percent	2020	2021	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1
GDP growth	-6.2	1.5	-2.1	-12.3	-6.4	-4.0	-2.5	7.7	-0.2	1.9	2.2
Production											
Agriculture	-3.5	1.0	-8.3	-3.5	-1.6	-0.2	1.0	2.1	2.2	-0.6	4.1
Non-agriculture	-6.4	1.6	-1.7	-13.0	-6.7	-4.7	-2.6	8.3	-0.3	2.0	2.0
Manufacturing	-5.6	4.9	-2.7	-14.5	-5.0	-0.4	1.1	17.0	-0.9	3.8	1.9
Construction	1.3	2.7	-10.4	6.8	9.4	-0.9	13.5	3.1	-4.2	-0.8	-5.5
Wholesales and retail trade	-3.2	1.7	4.5	-10.1	-5.7	-3.1	-2.4	5.0	2.7	3.0	2.9
Transport and storage	-22.9	-2.9	-9.4	-38.8	-23.9	-21.0	-16.9	10.3	-1.4	3.2	4.6
Accommodation and Food Service	-37.5	-14.4	-24.4	-53.3	-39.8	-34.0	-36.8	16.4	-19.0	-4.9	34.1
Information and Communication	1.1	5.6	1.4	0.4	0.6	1.8	4.5	5.6	6.8	5.3	5.9
Financial intermediation	5.1	5.7	6.9	3.8	3.7	6.3	6.4	5.9	6.1	4.4	1.5
Real estate and renting	1.5	1.8	1.9	1.1	1.7	1.4	2.2	2.7	0.7	1.5	1.0

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

Percent	2020	2021	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1
GDP growth	-6.2	1.5	-2.1	-12.3	-6.4	-4.0	-2.5	7.7	-0.2	1.9	2.2
Expenditure											
Domestic demand	-1.5	1.6	-0.6	-5.5	-0.2	0.2	2.1	4.6	-1.6	1.7	3.2
Private consumption	-1.0	0.3	2.7	-6.6	-0.6	0.8	-0.3	4.7	-3.2	0.4	3.9
Private investment	-8.2	3.3	-5.2	-14.4	-10.4	-3.2	3.1	9.2	2.6	-0.8	2.9
Government consumption	1.4	3.2	-2.4	1.5	3.7	2.4	2.2	1.0	1.5	8.1	4.6
Public investment	5.1	3.8	-9.6	12.0	17.0	0.0	19.8	3.4	-6.2	1.7	-4.7
Imports of goods and services	-14.1	17.9	-3.4	-23.6	-20.8	-8.4	1.0	28.7	29.5	16.4	6.7
imports of goods	-10.6	18.3	-1.0	-19.7	-17.4	-3.8	4.6	29.9	28.0	14.0	4.4
imports of services	-27.8	16.0	-12.4	-38.2	-34.6	-26.4	-13.4	23.6	37.1	28.1	15.4
Exports of goods and services	-19.7	10.4	-5.9	-28.0	-23.5	-21.7	-10.3	28.4	12.3	17.6	12.0
exports of goods	-5.8	14.9	1.9	-16.0	-7.4	-1.4	2.9	30.8	12.0	16.6	10.2
exports of services	-61.3	-23.1	-27.7	-69.4	-74.4	-76.2	-62.3	4.8	14.7	28.8	30.7
Trade balance (billion, U.S. dollars)	40.9	40.0	9.2	8.8	14.1	8.7	8.9	10.9	9.3	10.9	9.2
Current account (billion, U.S. dollars)	21.2	-10.6	11.2	1.5	8.0	0.4	-1.2	-2.5	-5.2	-1.7	-1.6
Financial account (billion, U.S. dollars)	-12.0	-2.1	-9.6	6.0	-6.3	-2.0	-5.1	-1.9	2.6	2.3	n.a.
International reserves (billion, U.S. dollars)	258.1	246.0	226.5	241.6	251.1	258.1	245.5	246.5	244.7	246.0	242.4
Unemployment rate (%)	1.7	1.9	1.0	2.0	1.9	1.9	2.0	1.9	2.3	1.7	1.5
Unemployment rate, seasonally-adjusted (%)	n.a.	n.a.	1.0	2.0	1.9	2.0	2.0	1.9	2.2	1.7	1.5

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

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

Indicators	2020	2021	2020				2021				2022		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Apr	May
1. Financial market sector													
Bond market													
Bond spread (10 years - 2 years)	0.9	n.a.	0.6	0.8	0.8	0.9	1.5	1.3	1.3	1.2	1.4	1.5	1.4
Equity market													
SET index (end of period)	1,449.4	1,657.6	1,125.9	1,339.0	1,237.0	1,449.4	1,587.2	1,587.8	1,605.7	1,657.6	1,648.8	1,667.4	1,663.4
Actual volatility of SET index 1/	30.4	12.0	46.9	25.2	13.7	23.0	13.6	12.4	11.8	10.4	9.2	7.5	15.5
Price to Earnings ratio (P/E ratio) (times)	28.8	20.8	13.0	18.9	21.2	28.8	41.4	30.2	20.5	20.8	20.7	20.2	19.6
Exchange rate market													
Actual volatility of Thai baht (%annualized) 2/	5.4	5.4	5.5	5.5	5.3	5.2	4.4	4.4	5.5	7.3	6.6	6.4	7.9
Nominal Effective Exchange Rate (NEER)	122.6	117.8	123.3	122.5	122.0	122.5	122.7	119.3	114.8	114.6	116.8	116.4	116.3
Real Effective Exchange Rate (REER)	110.2	104.7	111.3	108.9	110.0	110.4	109.0	106.0	101.7	102.3	104.4	103.8	104.8
2. Financial institution sector 3/													
Minimum Lending Rate (MLR) 4/	5.36	n.a.	5.93	5.36	5.36	5.36	5.36	5.36	5.49	5.49	5.49	5.49	5.49
12-month fixed deposit rate 4/	0.49	n.a.	0.75	0.49	0.49	0.49	0.44	0.42	0.45	0.45	0.45	0.45	0.45
Capital adequacy													
Capital funds / Risk-weighted asset (%)	20.1	19.9	18.7	19.2	19.8	20.1	20.0	20.0	19.9	19.9	19.8	n.a.	n.a.
Earning and profitability													
Net profit (billion, Thai baht)	145.2	181.1	67.5	32.4	28.0	17.1	44.2	60.4	38.5	37.9	49.0	n.a.	n.a.
Return on assets (ROA) (times)	0.7	0.8	1.0	0.6	0.5	0.3	0.8	1.1	0.7	0.8	0.9	n.a.	n.a.
Liquidity													
Loan to Deposit and B/E (%)	92.3	94.2	92.5	92.8	93.0	92.3	92.2	92.8	93.8	94.2	92.8	n.a.	n.a.

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 5 largest Thai commercial banks from July 2021

Indicators	2020	2021	2020				2021				2022		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Apr	May
1. Financial market sector													
3. Household sector													
Household debt to GDP (%)	89.4	90.1	80.2	83.8	86.6	89.4	90.8	89.5	89.6	90.1	n.a.	n.a.	n.a.
Financial assets to debt (times)	2.9	n.a.	2.8	2.9	2.9	2.9	2.9	3.0	3.0	n.a.	n.a.	n.a.	n.a.
Non-Performing Loans (NPLs) of commercial banks (%)													
Consumer loans	2.9	2.7	3.2	3.1	2.9	2.9	2.9	2.9	2.9	2.7	2.8	n.a.	n.a.
Housing loans	3.8	3.5	4.0	4.0	3.9	3.8	3.7	3.7	3.6	3.5	3.5	n.a.	n.a.
Auto leasing	1.4	1.5	2.1	1.9	1.6	1.4	1.6	1.6	1.7	1.5	1.5	n.a.	n.a.
Credit cards	2.4	2.3	3.5	3.0	2.4	2.4	3.0	3.5	3.0	2.3	2.8	n.a.	n.a.
Other personal loans	2.4	2.3	2.6	2.5	2.3	2.4	2.5	2.5	2.4	2.3	2.5	n.a.	n.a.
4. Non-financial corporate sector[5/]													
Operating profit margin (OPM) (%)	6.2	8.3	6.2	4.3	7.1	7.3	9.2	8.2	7.9	8.4	7.8	n.a.	n.a.
Debt to Equity ratio (D/E ratio) (times)	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	n.a.	n.a.
Interest coverage ratio (ICR) (times)	3.7	6.6	3.7	2.6	4.3	5.1	6.5	6.3	5.9	6.9	6.8	n.a.	n.a.
Current ratio (times)	1.6	1.7	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.8	n.a.	n.a.
Non-Performing Loans (NPLs) of commercial banks (%)													
Large businesses	3.0	2.6	2.6	2.9	3.0	3.0	3.0	3.0	2.8	2.6	2.6	n.a.	n.a.
SMEs	7.0	7.2	6.7	6.4	6.7	7.0	7.2	7.3	7.3	7.2	7.2	n.a.	n.a.

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

Indicators	2020	2021	2020				2021				2022		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Apr	May
5. Real estate sector													
Number of approved mortgages from commercial banks (Bangkok and Vicinity) (units)													
Total	70,950	63,207	14,882	17,531	18,977	19,560	15,958	17,238	14,413	15,598	13,611	3,721	n.a.
Single-detached and semi-detached houses	17,367	18,310	3,553	4,408	4,790	4,616	4,445	4,954	4,169	4,742	4,661	1,186	n.a.
Townhouses and commercial buildings	23,062	21,372	5,314	5,559	6,128	6,061	5,709	6,133	4,775	4,755	4,367	1,181	n.a.
Condominiums	30,521	23,525	6,015	7,564	8,059	8,883	5,804	6,151	5,469	6,101	4,583	1,354	n.a.
Number of new housing units launched for sale (Bangkok and Vicinity) (units)													
Total	73,022	60,394	18,591	11,535	23,122	19,774	9,996	16,028	11,085	23,285	22,919	5,361	10,625
Single-detached and semi-detached houses	17,746	13,240	3,682	3,495	5,483	5,086	2,275	3,222	2,963	4,780	3,466	902	1,548
Townhouses and commercial buildings	29,370	23,709	8,132	6,046	9,396	5,796	2,765	7,492	5,597	7,855	4,243	1,632	2,372
Condominiums	25,906	23,445	6,777	1,994	8,243	8,892	4,956	5,314	2,525	10,650	15,210	2,827	6,705
Housing price index (2009 = 100)													
Single-detached houses (including land)	133.19	135.84	132.19	132.42	133.37	134.77	134.10	135.04	136.50	137.72	138.63	138.12	n.a.
Townhouses (including land)	156.20	160.60	155.51	155.95	156.47	156.86	158.78	159.59	161.55	162.48	164.44	164.78	n.a.
Condominiums	170.08	180.37	169.94	174.24	166.40	169.76	177.18	178.79	185.40	180.10	181.99	183.61	n.a.
Land	163.37	177.73	159.04	162.19	165.13	167.12	171.03	172.21	179.22	188.43	178.80	178.23	n.a.
6. Fiscal sector													
Public debt to GDP (%)	52.0	59.6	41.8	45.9	49.5	52.0	54.5	55.4	58.4	59.6	60.6	60.8	n.a.
7. External sector													
Current account balance to GDP (%)[6/]	4.2	-2.1	8.4	1.4	6.5	0.3	-0.9	-2.0	-4.4 -	1.3	- 1.2	n.a.	n.a.
External debt to GDP (%)[7/]	36.9	38.2	32.5	33.7	33.5	36.9	35.9	36.1	36.7	38.2	n.a.	n.a.	n.a.
External debt (billion, U.S. dollars)	190.7	197.7	165.9	171.9	172.2	190.7	186.5	187.1	190.0	197.7	n.a.	n.a.	n.a.
Short-term (%)	39.2	37.5	36.1	36.1	36.3	39.2	38.7	38.2	37.7	37.5	n.a.	n.a.	n.a.
Long-term (%)	60.8	62.5	63.9	63.9	63.7	60.8	61.3	61.8	62.3	62.5	n.a.	n.a.	n.a.
International reserves / Short-term external debt (times)	3.0	2.7	3.1	3.3	3.5	3.1	2.8	2.9	2.8	2.7	2.7	1.7	n.a.

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

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

Table: Probability distribution of GDP growth forecast

%	2022			2023				2024	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
> 16	0	0	0	0	1	1	2	2	2
14.0-16.0	0	1	0	0	1	1	2	1	2
12.0-14.0	0	3	1	1	2	3	3	3	3
10.0-12.0	1	9	1	4	4	5	7	6	5
8.0-10.0	5	14	5	7	10	11	12	11	12
6.0-8.0	13	19	10	13	13	14	15	16	16
4.0-6.0	25	17	17	16	18	20	22	20	22
2.0-4.0	23	15	22	20	24	21	18	21	20
0.0-2.0	19	11	20	18	14	13	9	10	10
(-2.0)-0.0	11	6	13	9	7	5	5	5	5
(-4.0)-(-2.0)	4	2	6	4	3	2	2	2	2
(-6.0)-(-4.0)	0	1	3	2	2	2	1	2	1
(-8.0)-(-6.0)	0	0	1	1	1	1	1	1	0
< -8	0	0	2	2	1	1	1	1	1

Table: Probability distribution of headline inflation forecast

%	2022			2023				2024	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
> 10	0	2	0	0	0	0	0	0	0
9.0-10.0	0	10	2	0	0	0	0	0	0
8.0-9.0	1	27	8	1	0	0	0	0	0
7.0-8.0	23	37	18	4	1	0	0	0	0
6.0-7.0	60	20	27	10	3	1	1	1	1
5.0-6.0	16	4	27	19	7	4	4	4	3
4.0-5.0	0	0	14	26	15	9	9	8	8
3.0-4.0	0	0	4	24	22	16	17	15	14
2.0-3.0	0	0	0	12	25	23	23	22	21
1.0-2.0	0	0	0	3	18	24	24	24	25
0.0-1.0	0	0	0	0	7	15	15	17	19
(-1.0)-0.0	0	0	0	0	1	5	5	6	7
(-2.0)-(-1.0)	0	0	0	0	0	1	1	1	1
< -2	0	0	0	0	0	0	0	0	0

Table: Probability distribution of core inflation forecast

%	2022			2023				2024	
	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	1	0	0	1	1	0	0
4.5-5.0	0	0	3	1	1	1	2	1	1
4.0-4.5	0	2	8	3	2	3	4	3	2
3.5-4.0	0	8	14	7	4	6	7	6	5
3.0-3.5	1	19	21	12	8	11	11	10	9
2.5-3.0	19	30	24	18	14	15	16	14	13
2.0-2.5	59	29	20	22	19	19	20	18	18
1.5-2.0	20	10	7	21	22	21	20	20	20
1.0-1.5	1	1	1	11	19	15	14	17	18
0.5-1.0	0	0	0	3	9	6	5	8	10
0.0-0.5	0	0	0	0	2	1	1	2	3
(-0.5)-0.0	0	0	0	0	0	0	0	0	0
< -0.5	0	0	0	0	0	0	0	0	0

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