ธนาคารแห่งประเทศไทย
BANK OF THAILAND

# Monetary Policy Report
# March 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 29 March 2022
(1 day prior to the Monetary Policy Meeting)

# 1. Executive Summary

## Monetary Policy Conduct in the First Quarter of 2022

**At the meetings in February and March 2022, the Monetary Policy Committee (MPC) voted unanimously to maintain the policy rate at 0.50 percent.** It is expected that the Thai economy would continue to expand on the back of the recovery in domestic demand and tourism in the period ahead. The Committee assesses that the sanctions imposed on Russia would not impact the overall path of Thailand's economic recovery. The outbreak of COVID-19 Omicron variant had also impacted economic activities less than the previous waves. Headline inflation in 2022 is expected to average higher than the target range mainly due to rising energy prices and cost passthrough to food prices. It is expected that headline inflation would gradually decline into the target range in early 2023 given that energy prices are unlikely rise further due to the expected increase in oil supply from OPEC+ and US producers, the global shortage of raw materials and commodities being resolved, and low demand-pull inflationary pressure.

**The MPC's policy decision continues to place emphasis on supporting the economic recovery. The MPC assess that rising inflation at the current juncture was due to short-term price fluctuations and therefore could be looked through.** Rising inflation have been driven mostly by cost-push inflation, while demand-pull inflation remains low. Medium-term inflation expectations also remain well-anchored within the target range. In this regard, the MPC views that **the policy rate should be kept on hold to support the continuity of the ongoing economic recovery.** The MPC will continue to monitor factors that affect the growth and inflation outlook namely global energy and commodity prices, cost passthrough to consumer prices, and geopolitical tensions which could become more widespread and lead to more uncertainties in the future. The MPC stands ready to deploy the appropriate policy tools if needed.

## Assessment of the Economic and Financial Outlook

### Global Economy

**Trading partners are expected to grow 3.6% in 2022 and 3.2% in 2023, a slower pace compared to the previous assessment.** This downward revision to trading partners' growth forecasts is due to the sanctions against Russia resulting in rising energy and commodity prices globally, and impacting international trade and global supply chains especially for goods that Russia and Ukraine are the main exporters. Meanwhile, the outbreak of COVID-19 Omicron variant had limited impact on economic activities with many countries now deciding to live with the virus and accelerate vaccination efforts. **Global inflation** is likely to rise further with rising energy and commodity prices (Box: *"Global oil prices: recent developments and outlook").* As a result of rising inflation and economies resuming strong growth on par with pre-COVID levels, especially among advanced economies, **major central banks have started to signal tighter monetary policy stances**. However, **trading partners' growth outlook is subjected to more downside risks** stemming from the Russia-Ukraine conflict and sanctions against Russia that could turn out to be more severe and protracted than expected. This would impact the Thai economy mainly through a slowdown in trading partners' growth as well as high energy and commodity prices (Box: "*Channels through which the Russia-Ukraine conflict impacts the Thai economy*")

### The Thai Economy

**The Thai Economy is expected to continue expanding at 3.2% in 2022 and 4.4% in 2023** on the back of the recovery in domestic demand and tourism. GDP growth outturns in Q4/2021 were better than expected, especially private consumption. Meanwhile, the outbreak of Omicron did not have much impact on economic activities. Nevertheless, **labor market conditions remain fragile and could hinder private consumption going forward.** Fragility in the labor market is reflected by the employment rate which remains below pre-COVID levels and is recovering quite slowly compared to previous crises (Box: "*2-year anniversary of COVID-19: How much has the Thai labor market recovered?"*

**The Thai economy is also subjected to more downside risks** stemming from possibilities that the global supply disruption might be prolonged further due to sanctions against Russia, and the impact of higher energy and commodity prices on the cost of living for households and input costs for businesses, especially for vulnerable groups such as low-income households that are still recovering slowly and are heavily indebted. (Box: *"Impact of inflation on households across different income groups")*

## Inflation

**Headline inflation is expected to be 4.9% in 2022 and 1.7% in 2023. It is expected that headline inflation will rise above 5% in the second and third quarters of 2022 before declining in the latter half of 2022 and returning within the target range in early 2023.** High inflation rates in the second and third quarters reflect the base effect of low oil prices and government measures to assist with the cost of living in 2022. This will result in a higher year-on-year inflation number even if the actual price level doesn't increase much.

**Rising headline inflation is driven mainly by cost-push inflation** from high energy prices and cost-passthrough to food prices. While the share of goods whose price have increased has gotten larger, price increases have most been limited to goods in the energy and food categories. Inflation is expected to eventually return to the target range given that energy and food prices are unlikely to rise further as OPEC+ and US oil producers ramp up production. Meanwhile, **demand-pull inflation** remains low. **Medium-term inflation expectations remain well-anchored within the target range** and were not influenced by short-term price fluctuations. Well-anchored inflation expectations reduce the risks that the public expects prices to rise indefinitely and therefore leading to prices actually being raised (second-round effect). There are no signs of such risks currently.

**However, the inflation outlook is subjected to more upside risks** as oil prices could turn out to be higher than expected and cost passthrough from producers to consumer prices might be higher than expected both directly and indirectly from higher input and transportation costs. **The MPC will continue to monitor inflation developments closely to ensure that medium-term inflation expectations remain in line with the monetary policy target.**

## Financial Conditions and Financial Stability

**Overall financial conditions in Thailand remain accommodative.** Liquidity in the financial system is still abundant although it has tightened somewhat from recent bouts of volatility in the global financial market. **On exchange rates,** the baht against the U.S. dollar appreciated in the early parts of Q1/2022 due to the recovery prospects of the Thai tourism sector, but subsequently depreciated as a result of the Russia-Ukraine conflict and policy rate hikes by major central banks. **Financial stability remain sound overall but some household and businesses have become more vulnerable** due to the impact of COVID-19, higher cost of living, and higher input costs. At the same time, debt-to-income ratios among households and businesses remain elevated.

**Fiscal measures and coordination of policy responses are critical to supporting economic growth amidst the large degrees of uncertainties.** Fiscal measures that could support economic growth in a well-targeted manner by creating income and easing the cost of living for vulnerable groups are particularly important. Meanwhile, monetary policy should remain accommodative to ensure overall financial conditions are conducive to growth. In addition, financial and credit measures aimed at distributing liquidity and alleviating debt burden, especially for those whose income have yet to fully recover, should proceed in tandem with efforts to encourage financial institutions to offer debt restructuring solutions that is sustainable and appropriate to the long-term debt repayment capacity of the borrowers. This would strengthen financial stability and ensure that it would not hold back economic growth in the period ahead. The MPC will continue to monitor factors that could impact the economic outlook and stands ready to deploy the appropriate policy tools to support the economic recovery, while also safeguarding price stability and financial stability.

# 2. Global Economy

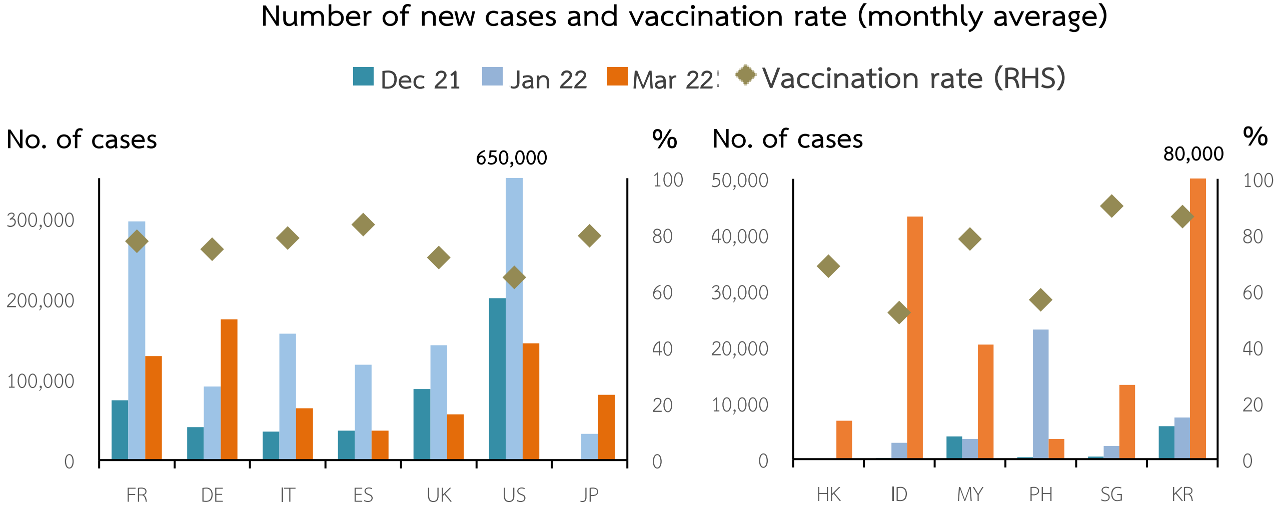
# Global Economy: Key Issues

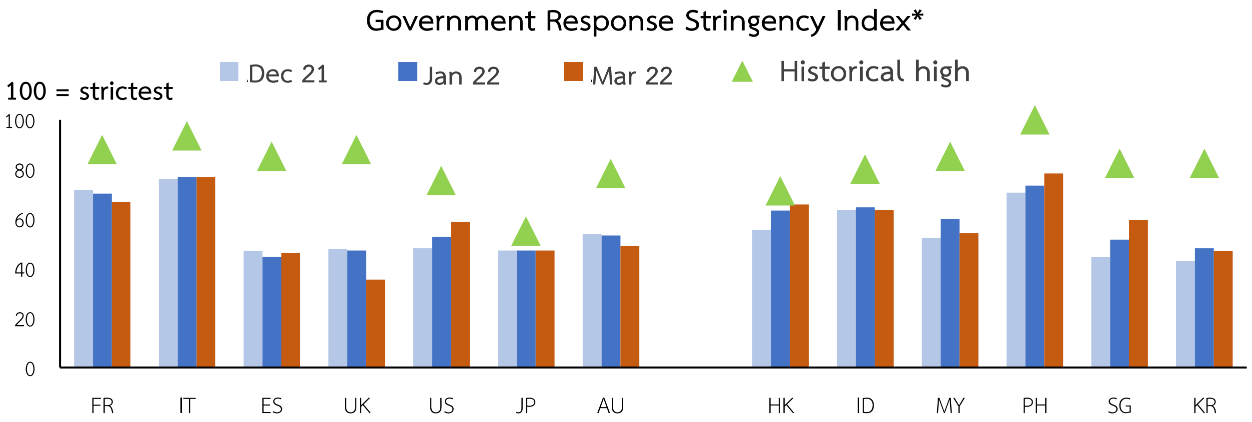

The outbreak of Omicron had limited impact on economic activities.
Many countries have implemented the 'live with virus' policy and focus on accelerating vaccination.


Trading partners registered slower growth than previously assessed due to the impact of sanctions against Russia on commodity prices and the global supply chain.


Inflation in trading partner economies rose sharply in tandem with the sharp rise in energy and commodity prices due to sanctions against Russia.

The number of COVID-19 cases in many countries increased due to the outbreak of the Omicron variant but containment measures have been relaxed overall thus the impact on economic activities has been limited. Many countries now opt to live with the virus and accelerating the distribution of vaccine booster shots to the population.




**The number of COVID-19 Omicron cases has increased in Q1/2022.** Many countries view the Omicron variant as less deadly compared to the Delta variant partly because of the progress made in vaccinating the population including the administration of booster shots which have increased in many countries. **Meanwhile, containment measures remain relaxed.**

**However, there are some countries/areas where the outbreak has been more severe than expected such as Japan, South Korea, and Hong Kong.** On the whole, the global economy remains at risk of an outbreak of a new COVID-19 variant.

Note: The stringency index ranges from 0 to 100 with 100 being the strictest. The index is made up of 5 sub-indicators:

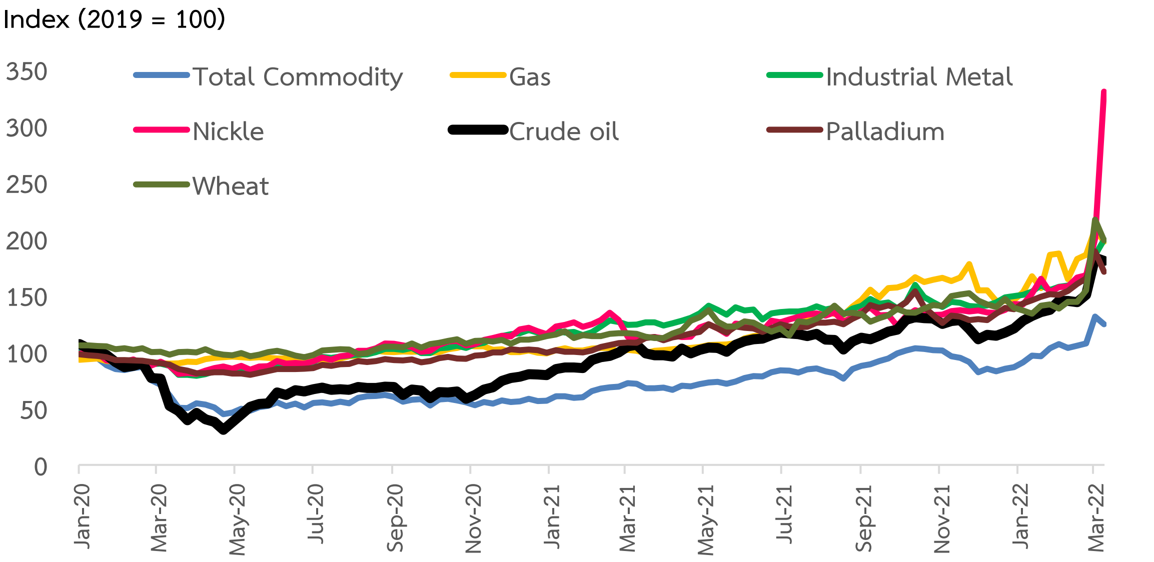
(1) Containment and closure measures
(2) Economic measures
(3) Public health measures
(4) Vaccination rates
(5) Other related measures

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 (as of 3 Mar 22)

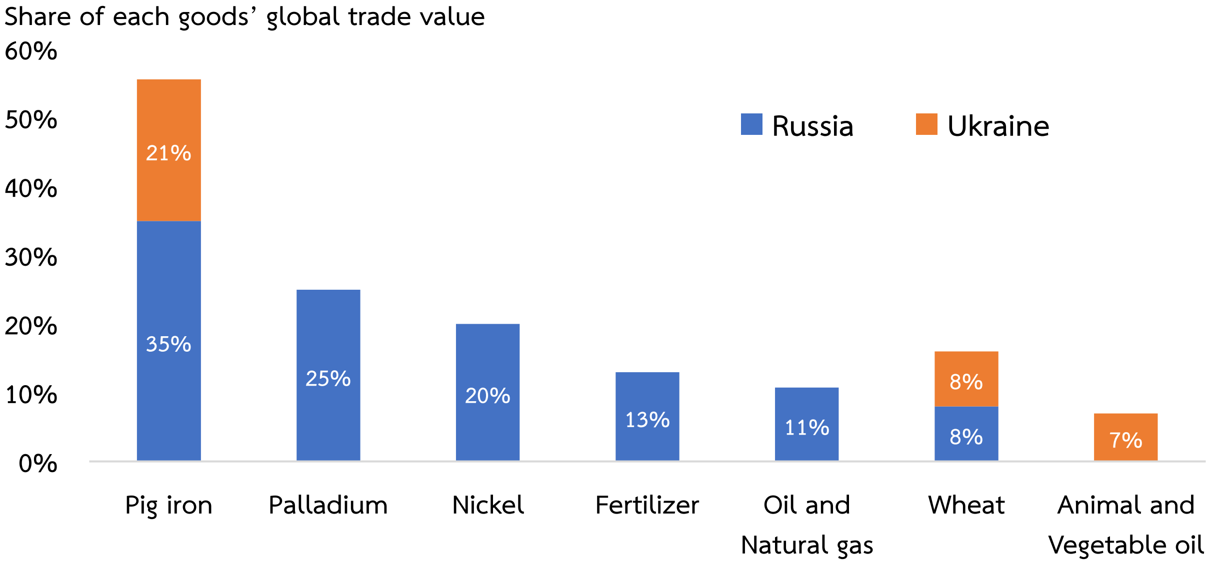
## The Russia-Ukraine conflict and sanctions against Russia led to increases in energy and commodity prices, and affected international trade and supply chain through shortages of goods that Russia and Ukraine are the main exporters.

Energy and Commodity Prices




Source: Bloomberg (as of 4 March 2022)

Share of global trade value of goods that Russia and Ukraine are the main exporters



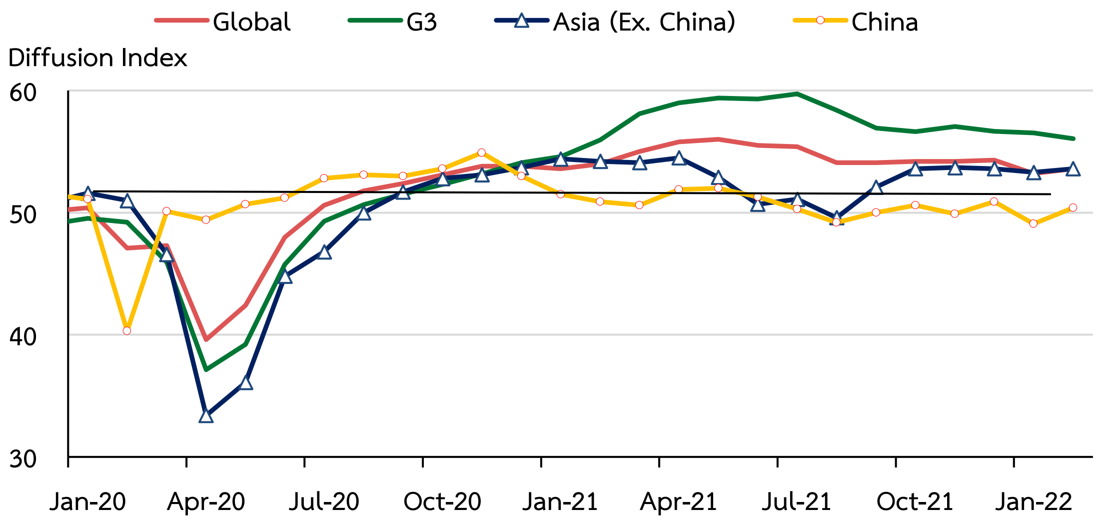

Source: Trade Map, calculated by BOT

**The Russia-Ukraine conflict impacts the global economy through 2 main channels:**

1. **Higher energy and commodity prices** affect the costs faced by producers and cost of living for the consumers, which in turn weigh on the economic recovery through a slowdown in consumption and investment.
2. **Supply chain of goods that Russia and Ukraine are the main exporters.** Russia is a key exporter of petroleum products, pig iron, palladium (input for production of car exhaust pipes and semiconductors), nickel (input for production of stainless steel and EV batteries), chemical fertilizers, and wheat (for both human and animal consumption). Ukraine is a key exporter of food products namely wheat, vegetable oil, as well as pig iron (input for construction materials)

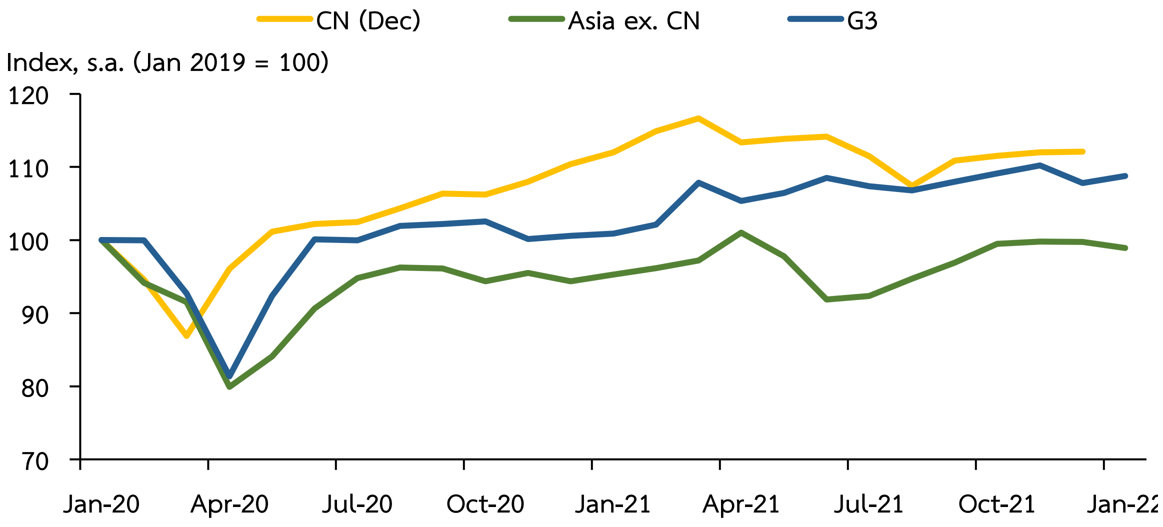
Industrial manufacturing is still registering growth but the supply chain might be affected by the Russia-Ukraine conflict, especially if it lasts longer than expected. Private consumption is gradually recovering as COVID-19 containment measures are relaxed but might be dampened by the impact of the Russia-Ukraine conflict.

Manufacturing Purchasing Manager Index: PMI




Sources: IHS Markit, CEIC

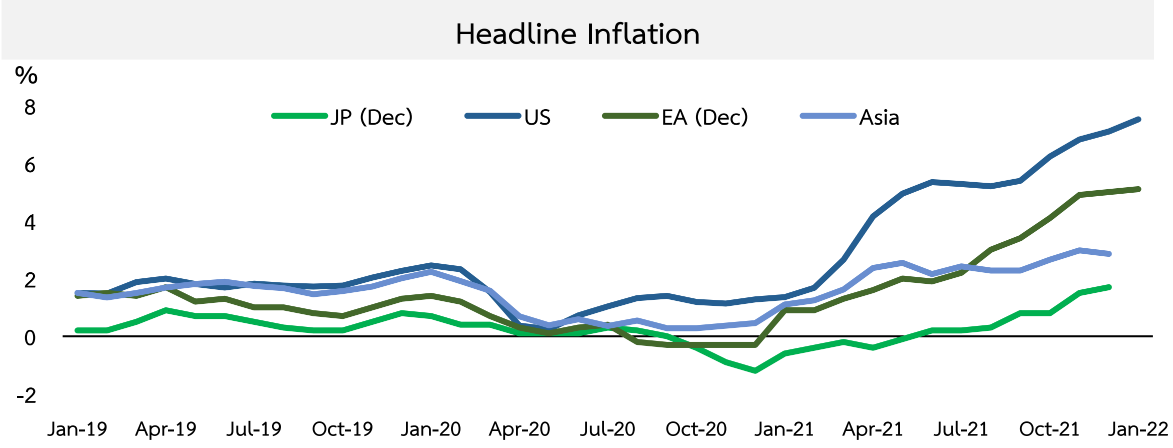
Retail Sales Index



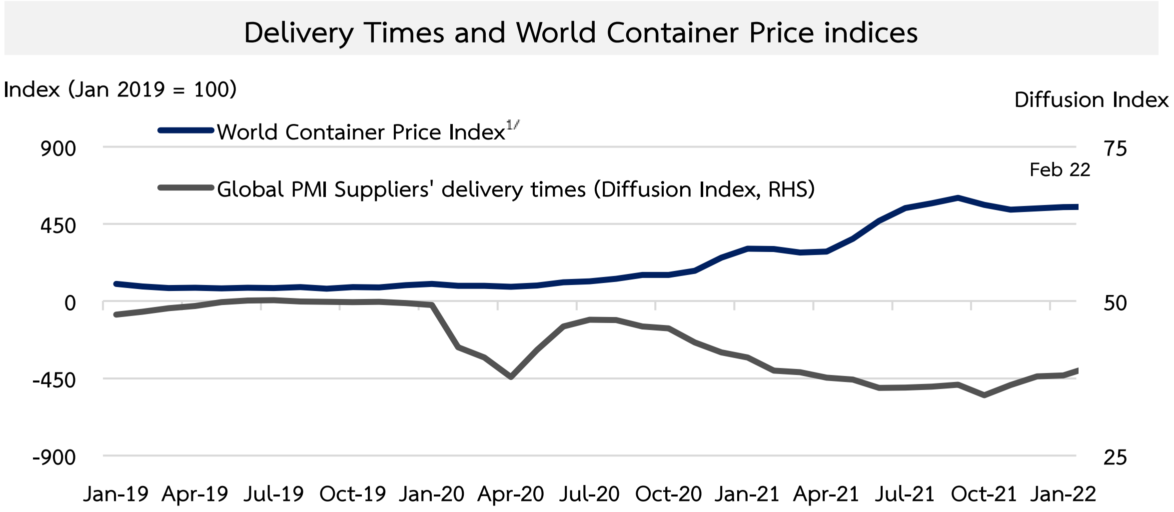

ที่มา: CEIC

**Industrial manufacturing is still registering growth** due to excess demand and the production of goods to replenish inventory that was previously run down. Going forward however, the supply chain might be affected by the shortage of goods and raw materials that Russia and Ukraine are the main exporters. **Meanwhile, consumption is gradually recovering as containment measures are relaxed,** especially in advanced economies where the number of COVID-19 cases has passed its peak. **However, the recovery of consumption is still fragile** as a prolonged conflict between Russia and Ukraine could dampen consumer confidence and rising inflation could affect purchasing power.

## Inflation rose sharply in many countries on the back of rising energy and commodity prices. Meanwhile, global supply disruption is still ongoing but has alleviated somewhat as reflected by recent improvements in shipping time for goods in the global supply chain.




Note: Asia comprises of China, Hong Kong, South Korea, Taiwan, Malaysia, Philippines, and Singapore
Source: CEIC




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

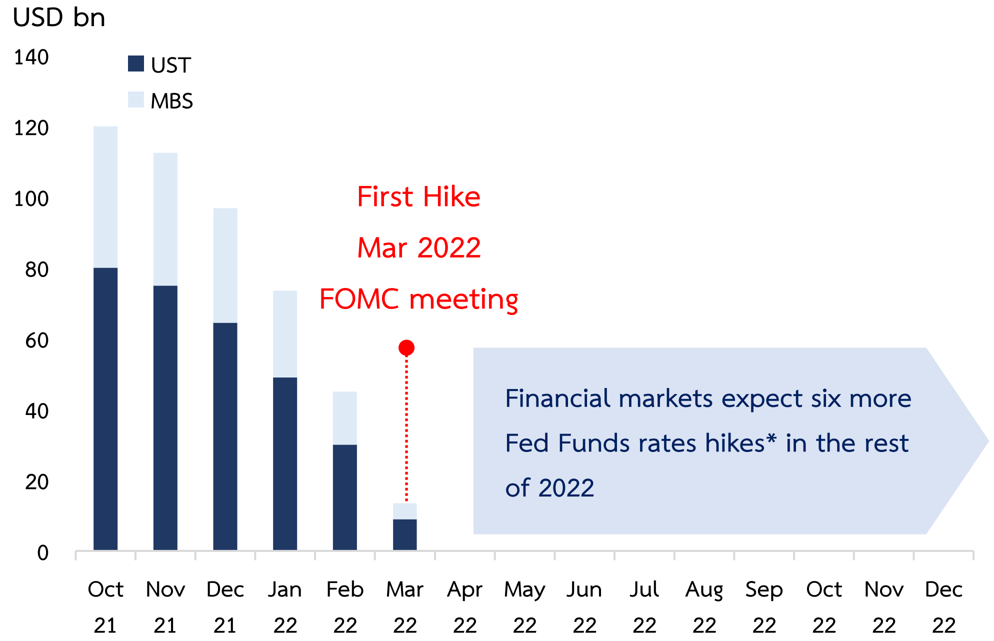
**Global inflation rose sharply due to rising energy and commodity prices as a result of the Russia-Ukraine conflict.** Inflation in G3 countries has continued to rise with the ongoing economic recovery and rising energy prices. Inflation in Asian economies has risen mainly among those that are net energy importers. The relatively modest inflation in Asia is partly due to government measures such as energy price controls, energy-related tax reductions, and government subsidies.

Special Issue 1: Global oil prices: recent developments and outlook

**The global supply disruption is still ongoing but has alleviated somewhat.** Shipping time in the global supply chain has improved recently as demand-supply imbalances decline, partly due to the outbreak of Omicron leading to a slowdown in demand. Looking ahead, shipping costs are likely to remain high and shipping times would still be long.

# The combination of accelerating inflation and some economies' growths returning to pre-COVID levels has prompted central banks, especially those in advanced economies, to signal tighter monetary policy stances.

Expectations of the Fed's tapering and policy rates hikes in 2021-2022




Note: *CME Group 30 Day Federal Funds Futures Settlements (as of 16 Mar 22)
Source: Bloomberg, calculated by BOT

**The Federal Reserve (Fed) raised its policy rate from 0-0.25 percentage points to 0.25-0.50 at the FOMC Meeting on 15-16 March 2022. The decision was underpinned by strong economic growth, tight labor market conditions, as well as high and rising inflation.** Looking ahead, the Fed is likely to raise the policy rates six more times in the rest of 2022, while also reducing the size of its balance sheet (quantitative tightening) starting from Q2/2022. This is because inflation has risen sharply in tandem with the strong economic recovery supported by large fiscal stimulus and pent-up demand from the period before. Meanwhile, the manufacturing sector and the labor market are unable to adapt to rising demand in time, resulting in significant inflationary pressure.

**The European Central Bank (ECB) decided to maintain its policy rate and terminate the Pandemic Emergency Purchase Programme (PEPP) at the end of March 2022.** The ECB also announced that it would reduce asset purchases under the Asset Purchase Programme (APP) in the second quarter of this year. Furthermore, the ECB noted that it might end the APP in the third quarter this year if medium-term inflation remains high and that it might raise the policy rate after the APP's conclusion.

**Note**: ECB monetary policy decision on 10 March 2022

**Thailand's trading partners registered stronger-than-expected growth in 2021 because Omicron variant has affected the economy to a lesser degree than predicted. Nevertheless, trading partners' growth for 2022-2023 has been revised down due to the Russia-Ukraine conflict resulting in higher energy and commodity prices and weighing on economic growth.**

Assumptions on trading partners' growth

| %YoY | weight (%) | 2021* | 2022 MPR Dec 21 | 2022 MPR Mar 22 | 2023 MPR Dec 21 | 2023 MPR Mar 22 |
|---|---|---|---|---|---|---|
| US | 20.4 | 5.7 | 3.8 | 3.4 | 2.2 | 2.1 |
| Euro Area | 9.2 | 5.1 | 4.0 | 3.1 | 2.2 | 2.0 |
| Japan | 13.9 | 1.8 | 2.6 | 2.4 | 2.0 | 1.9 |
| China | 18.1 | 8.1 | 4.9 | 4.5 | 5.1 | 5.1 |
| Asia (excluding Japan and China)** | 30.6 | 5.4 | 4.4 | 4.1 | 3.9 | 3.9 |
| Total*** | 100.0 | 5.6 | 4.0 | 3.6 | 3.3 | 3.2 |

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%)

**In 2021, trading partners registered stronger-than-expected growth because the Omicron outbreak impact the economy to a lesser degree than predicted,** as reflected by GDP growth outturns in Q4/2021. Many governments have chosen to not announce strict containment measures thus the impact on consumption was limited and manufacturing production continued to expand.

**For 2022 and 2023, trading partners' growth has been revised down due to the Russia-Ukraine conflict resulting in higher energy and commodity prices,** which would impact the Thai economy through various channels.

**On the whole, trading partners' growth outlook is subject to more downside risks** stemming mainly from the Russia-Ukraine conflict and sanctions against Russia that could be more severe and protracted than expected.

Special Issue 2: Channels through which the Russia-Ukraine conflict affects the Thai economy

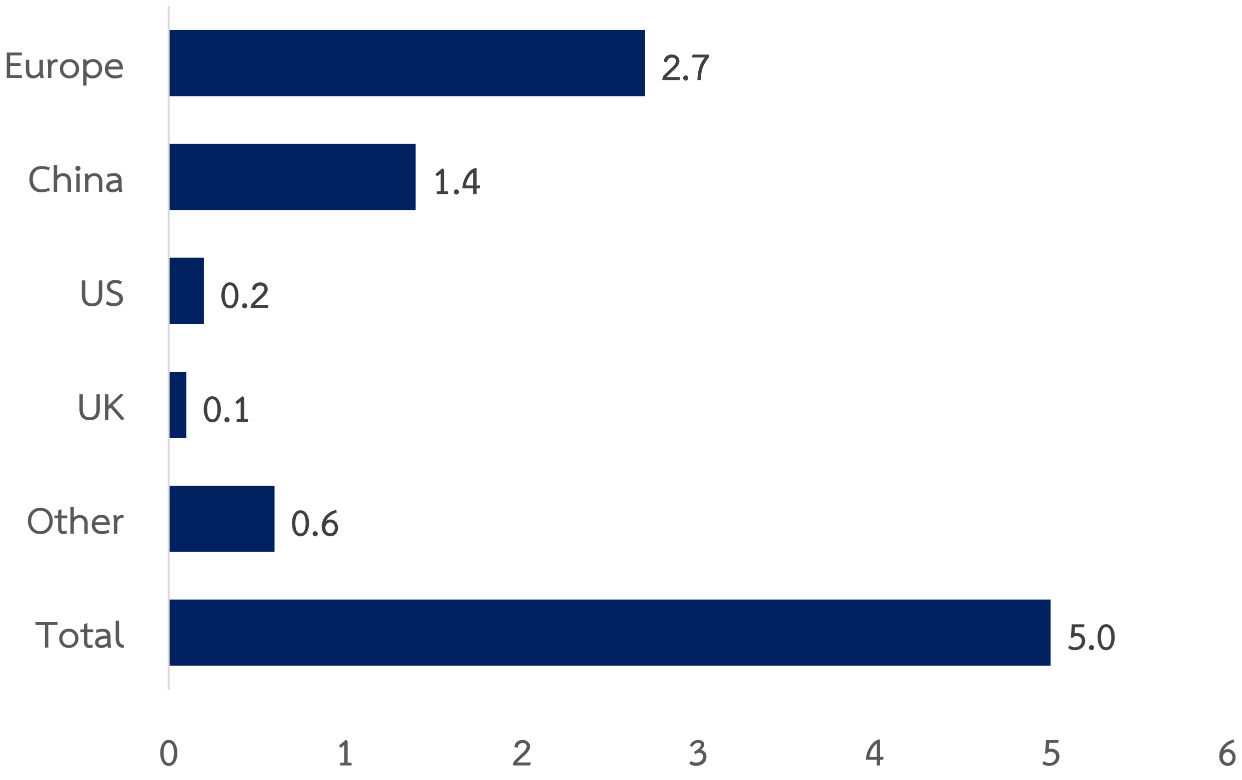
# Special Issue 1

## Global oil prices: recent developments and outlook

**Dubai crude oil prices reached an eight-year high in March 2022 at over 100 U.S. dollar per barrel.** This was driven by concerns that the Russia-Ukraine conflict and the economic and financial sanctions against Russia would result in a significant decrease in crude oil supply from Russia. Oil supply from other producers such as OPEC and the US might not be able to offset the decline in crude oil from Russia, while the demand for oil is still on the rise. As a result, the already tight oil market is likely to tighten further and become more fragile, leading to greater volatility in crude oil prices going forward.

**Russia is the world's second largest producer and exporter of oil and natural gas.** Russia produces up to 10-11 million barrels of crude oil per day, which is about 10 percent of global crude oil production. About half of Russia's crude oil production are exported, with the main destinations being Europe (3 million barrels per day) and China (1.4 million barrels per day) (Chart 1). It is likely that Europe, a major export market for Russian energy commodities, would avoid directly imposing energy-related sanctions against Russia given its dependence on energy from Russia, especially natural gas which could not be easily substituted by other exporters. However, it is expected that sanctions imposed by other countries would indirectly impact Russian energy exports especially (1) the removal of selected Russian banks from SWIFT[1] which would pose an obstacle to trade settlements with Russia; and (2) sanctions imposed by the private sector such as a large oil transport company announcing that it would not transport oil to and from Russia.

Chart 1: Russia's crude oil exports
(Nov 21 – Jan 22 average) (mn barrels per day)

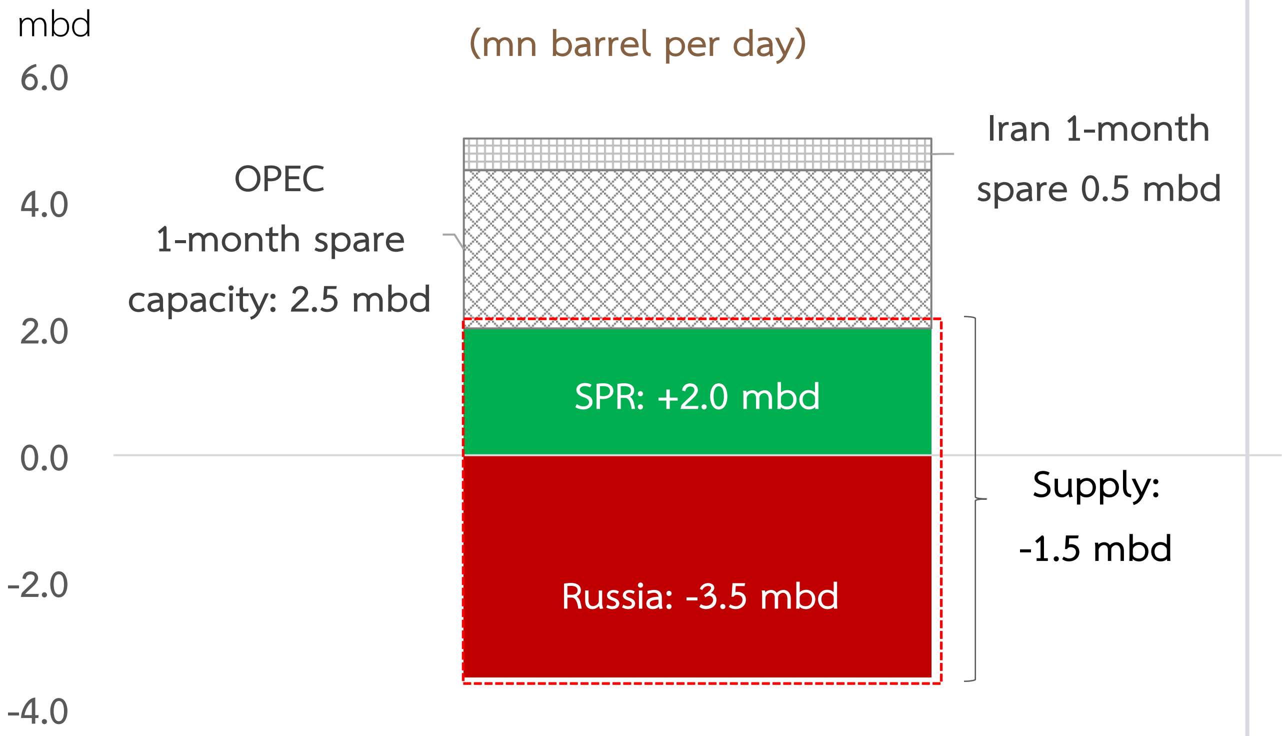



Source: Goldman Sachs Global Research

As a result, many oil importers delayed buying oil from Russia. It is expected that Russian oil exports would decline by about 2.5 million barrels per day. **Currently, there are still uncertainties whether those sanctions would escalate further, particularly whether the EU would prohibit energy imports from Russia. In such case, Russian oil export would decline as much as 3.5 million barrels per day.** Nevertheless, it is expected that Russia would still be able to export oil to China because China would continue to trade with Russia and utilizes its own cross-border payment system. **If one also takes into consideration the impact on Kazakhstan's oil exports of 1.6 million barrels per day** that normally has to transits through Russia due to the country's land-locked nature, **the global oil supply might decline as much as 5 million barrel per day.**

**Oil supply from other producers cannot fully offset the decline in Russian oil exports** (Chart 2) due to lack of capacity to increase production both cyclically and structurally. **With regard to OPEC countries who are the world's top oil producers with sufficiently large oil output to offset the gap left by Russia, while they may have spare capacity to immediately scale up production by 2-3 million barrel per day within a month, it is ultimately up to the OPEC's decision whether they are willing to increase production beyond the agreed amount.** Since 2021, the actual output from OPEC producers has been below the agreed amount because some countries faced political conflict on both domestic and international fronts, while fuel transport pipes were also damaged and often had to be shut down for unscheduled maintenance.

Chart 2: Expected decline in Russia's crude oil supply and spare capacity that could potentially offset it (mn barrel per day)




**Note:** SPR: The US and its allies' strategic petroleum reserve

**Sources:** Wood Mackenzie (Mar 4, 2022) and BOT's calculation

Iranian oil producers might be able to increase production by around 1 million barrel per day if sanctions imposed by the US were lifted. This could help partially offset the supply of Russian oil although negotiations are still ongoing and highly uncertain. The US Oil production is still increasing slowly and remains well below pre-COVID levels even though oil prices have risen sharply and are now above pre-COVID levels. The slow ramp up in US oil production is due to many US oil producers upholding their financial discipline by paying out dividends to their investors before investing in more production capacity. This is reflected in the reinvestment rate being much lower than in the past. US oil producers are also likely to delay investment in fossil fuel energy over the longer term as a result of President Joe Biden's climate policies. Meanwhile, the release of the strategic petroleum reserve (SPR) by the US and its allies in the amount of 60 million barrel (around 2 million barrel per day) might be able to offset just 1 month worth of Russian oil. The limited increase in oil from both OPEC and US have tightened the global oil market as reflected in crude oil inventory among OECD countries which have continued to decline and has been below the 5-year average since 2021.

**In addition, oil demand is expected to continue recovering** as reflected in the improving economic activities of major oil importers such as the US, India, and Germany. The growth outlook of these economies is looking more upbeat as the public grow less concerned over the Omicron outbreak. Likewise, the demand for oil for transportation purposes have also recovered as reflected in the higher number of commercial flights in operation. Many countries such as Norway, Sweden, and Japan are also preparing to lift international travel restrictions and re-open its borders to foreign tourists.

**Looking ahead, crude oil prices are likely to be more volatile and unpredictable amidst tightening global oil market conditions that are more susceptible to both demand and supply factors, as well as the highly fluid situation surrounding the Russia-Ukraine conflict and sanctions against Russia.** This presents an important challenge for macroeconomic policymakers in many countries, including Thailand, who must ensure that it would not have a significant impact on economic growth and inflation.

[1] *Society for Worldwide Interbank Financial Telecommunication (SWIFT) is a secure financial messaging service. More details can be found in the BOT's Payment Insight Vol.13 (Feb 2022) "SWIFT: cross-border financial messaging"*

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# Special Issue 2

## Channels through which the Russia-Ukraine conflict affects the Thai economy

The Russia-Ukraine conflict erupted on February 24, 2022 prompting the western alliance led by the US and members of the European Union (EU) to retaliate with severe economic and financial sanctions against Russia. Not only did these developments impact the Russian and Ukrainian economies, they also had unavoidable global repercussions and Thailand is no exception. The impact of the Russia-Ukraine conflict can be summarized under 3 main channels (Chart 1) as follow:

(1) Energy and commodity prices: **The Russia-Ukraine conflict directly affects energy and commodity prices** because Russia is a major producer and exporter of many key goods such as oil (10% of global oil export), pig iron (35%), palladium (25%), nickel (20%), chemical fertilizers (13%) and wheat (8%). As such, commodities prices saw an overall increase when US and allies imposed sanctions against Russia. The S&P Goldman Sachs Commodity Index (GSCI Index) increased as much as 17%[1] from the week prior to the sanctions. Furthermore, the shortage of the aforementioned commodities might impact the production of goods across the global supply chain. Examples include palladium which is a key input in the manufacturing of car exhaust pipes and semiconductors, and nickel which is used in the production of stainless steel and EV batteries.

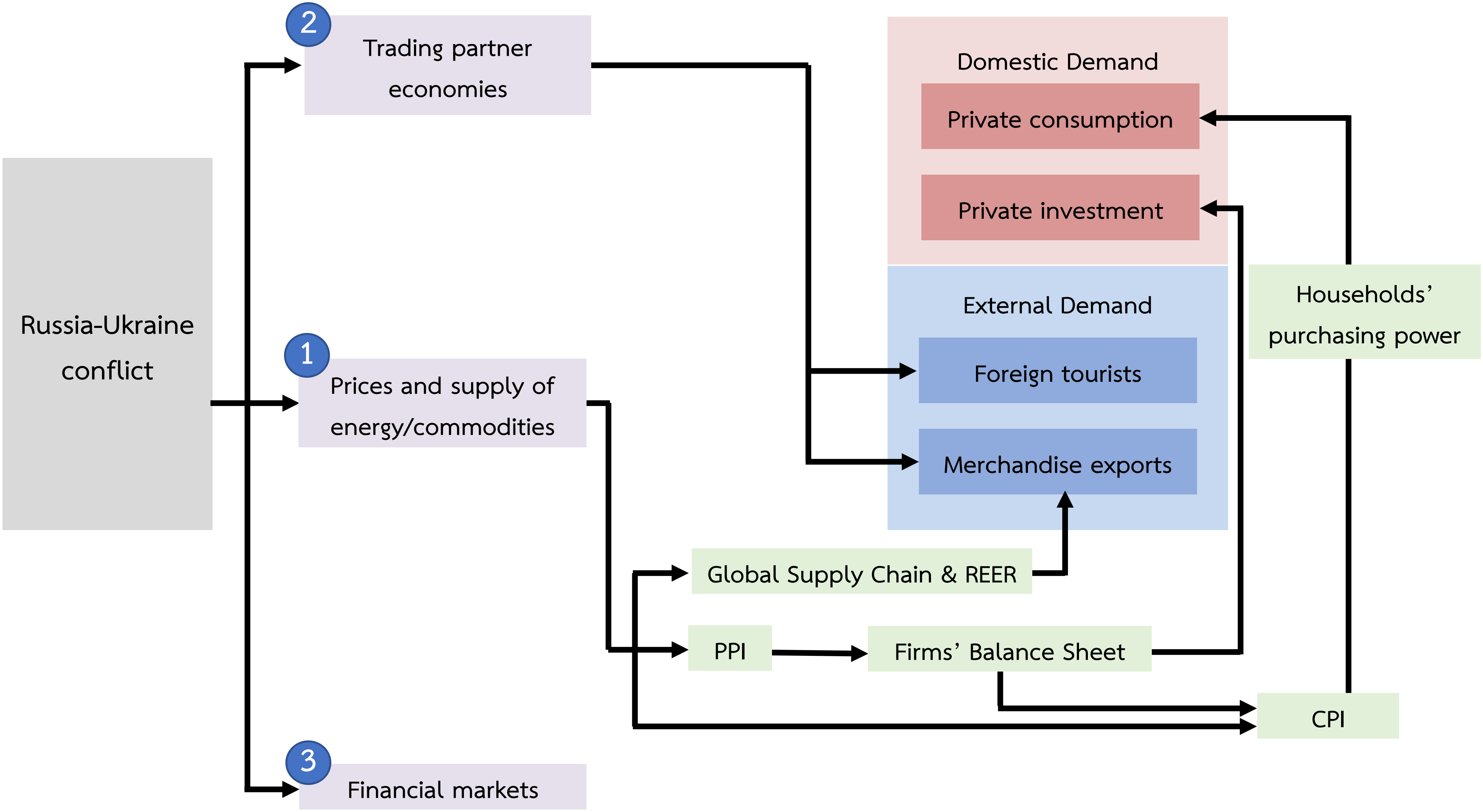
[1] *Data from Refinitiv as of 3 March 2022*

Rising energy and commodity prices would impact the costs of producing goods and services as reflected by the producer price index (PPI). If businesses are unable to absorb those higher costs, they would pass it on to consumer prices as reflected by the consumer price index (CPI), resulting in higher inflation. Inflation in Thailand is expected to rise above the target range and peak in the second and third quarters of 2022 before gradually declining into the target range in the beginning of 2023 (Every 10 USD/barrel increase in oil prices would see headline inflation rise by about 0.5%)[2]. Higher prices would hamper private consumption. On the other hand, higher costs mean less profit for the businesses which could subsequently impact private investment. On the whole, the slowdown in domestic demand from both consumption and investment may weigh on Thailand's overall economic recovery.

(2) Trading partners' growth: The combination of the aforementioned impact on energy and commodity prices and uncertainties surrounding possible retaliations from either side affects many countries around the world, including those that are Thailand's trading partners especially the euro area. The growth slowdown of trading partners would result in a decline in external demand which impacts the Thai economy through 2 main channels:

[2] *A 10 USD/barrel increase in crude oil prices would also see GDP declining by 0.1% and the current account deficit increase by about 3.8 billion USD (or 0.8% of GDP)*

Figure 1: Flow chart illustrating the channels through which the Russia-Ukraine conflict affects the Thai economy



### (2.1) Merchandise exports

The slowdown in trading partners' growth leads to a slowdown in Thailand's merchandise exports which would subsequently impact Thailand's consumption, investment, and overall economic growth. If the impact on EU economies is severe, Thai exports would be impacted significantly because the EU is Thailand's 4th largest export market, accounting for 10% of total export value. Meanwhile, the direct impact on Thai exports to Russia and Ukraine would have limited bearing on overall growth because exports to Russia and Ukraine combined make up only 0.5% of total exports.

### (2.2) Foreign Tourists

The Russia-Ukraine conflict would likely result in a decline in the number of 2 groups of foreign tourists: (1) Russian tourists, which account for about 4% of all foreign tourists arriving in Thailand before the pandemic. The decline in number of Russian tourists may come about as a result of sanctions imposed by Western nations that sent the Ruble depreciating by more than 60% and payment limitations due to many Russian banks being removed from the SWIFT[3] network and major payment providers such as VISA and Mastercard ceasing to provide service to Russian banks; and (2) European tourists, which account for about 16% of all foreign tourists arriving in Thailand before the pandemic, might be affected by the closure of the Russian airspace that made international travel more costly. Both European and Russian tourists play an important part in the recovery of the Thai tourism sector, especially in 2022 when there is little tourist arrival from China due to the Chinese government's Zero-COVID policy.

**(3) Financial Markets** Severe sanctions initially resulted in a global risk-off sentiment. Investors sold off risky assets causing their prices to fall globally before rebounding after concerns among investors subsided. Likewise, the Thai stock market (SET Index) initially fell 5% and the baht depreciated 3%[4]. However, the overall impact has been limited partly because of Thailand's strong external stability as reflected in the large international reserves and low external debt. The impact of the conflict on Thai mutual funds that invest in Russian equity and bond was quite limited because these funds account for only 0.3% of total investment of Foreign Investment Funds (FIF). There was also no sign of mass unit redemption in recent periods.

*[3] Society for Worldwide Interbank Financial Telecommunication (SWIFT) is a secure financial messaging service. More details can be found in the BOT's Payment Insight Vol.13 (Feb 2022) "SWIFT: cross-border financial messaging*

*[4] Data as of 9 March 2022 compared with data as of 24 February 2022*

*[5] Data from Morningstar as of end-December 2021*

Return to trading partners' economic growth page

# 3. The Thai Economy

# The Thai Economy: Summary of Key Issues

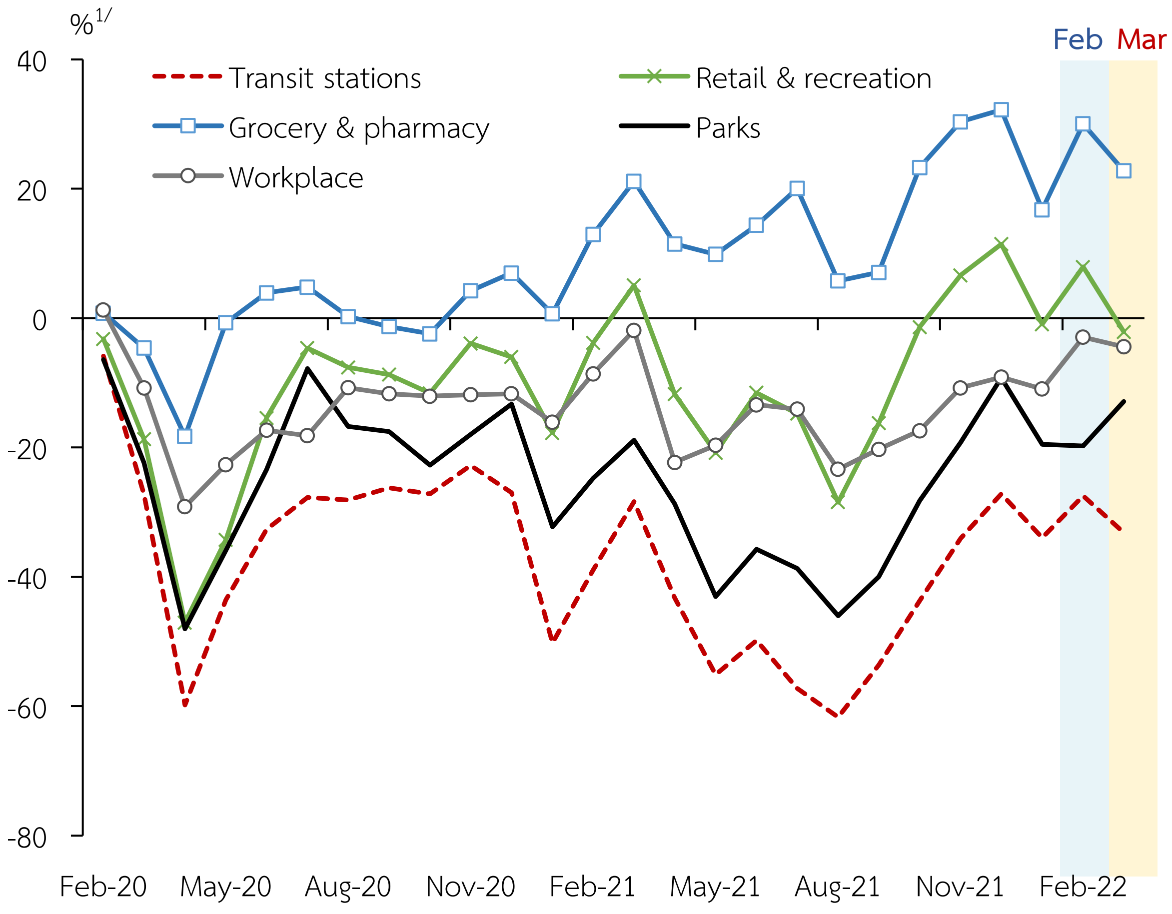

The Thai economy will continue to recover. Sanctions against Russia will impact the Thai economy through higher energy and commodity prices but will not derail the overall recovery path.

The recovery in the labor market remains fragile and is not yet broad-based. Employment remains below pre-COVID levels and is recovering more slowly compared to past crises.


Headline inflation is on the rise, and is expected to rise above the target range in 2022 due to cost-push inflationary pressure before gradually declining back to the target range in 2023.

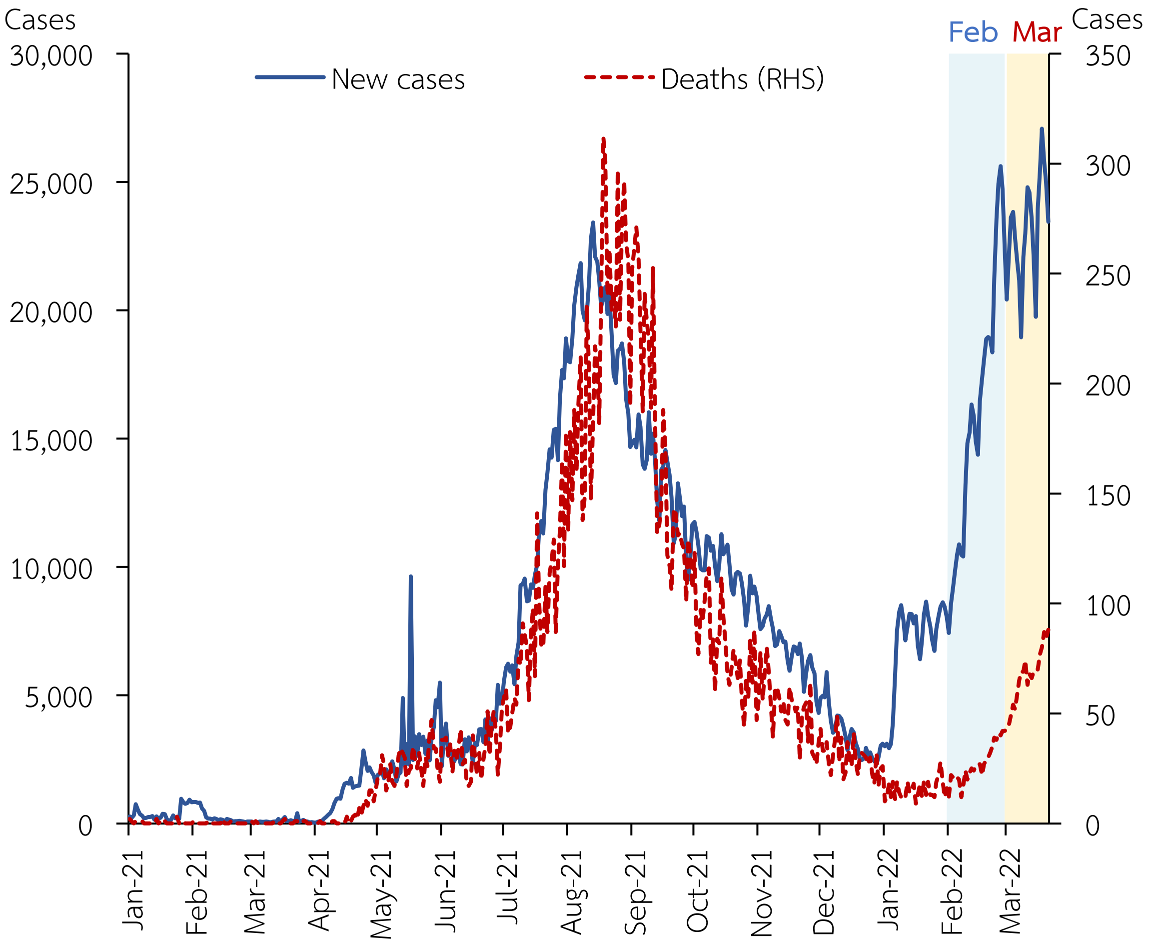
## Economic outturns in February and March 2022 suggest that domestic economic activity is largely stable despite high number of COVID-19 cases and rising death tolls.

### Thailand's Google Mobility data[1/] (as of 17 Mar 22)




**Note:** [1/] Change vis-à-vis the mid-point of each day before the COVID-19 outbreak (3 Jan - 6 Feb 20)
**Source:** Google

### The COVID-19 situation in Thailand (as of 21 Mar 22)



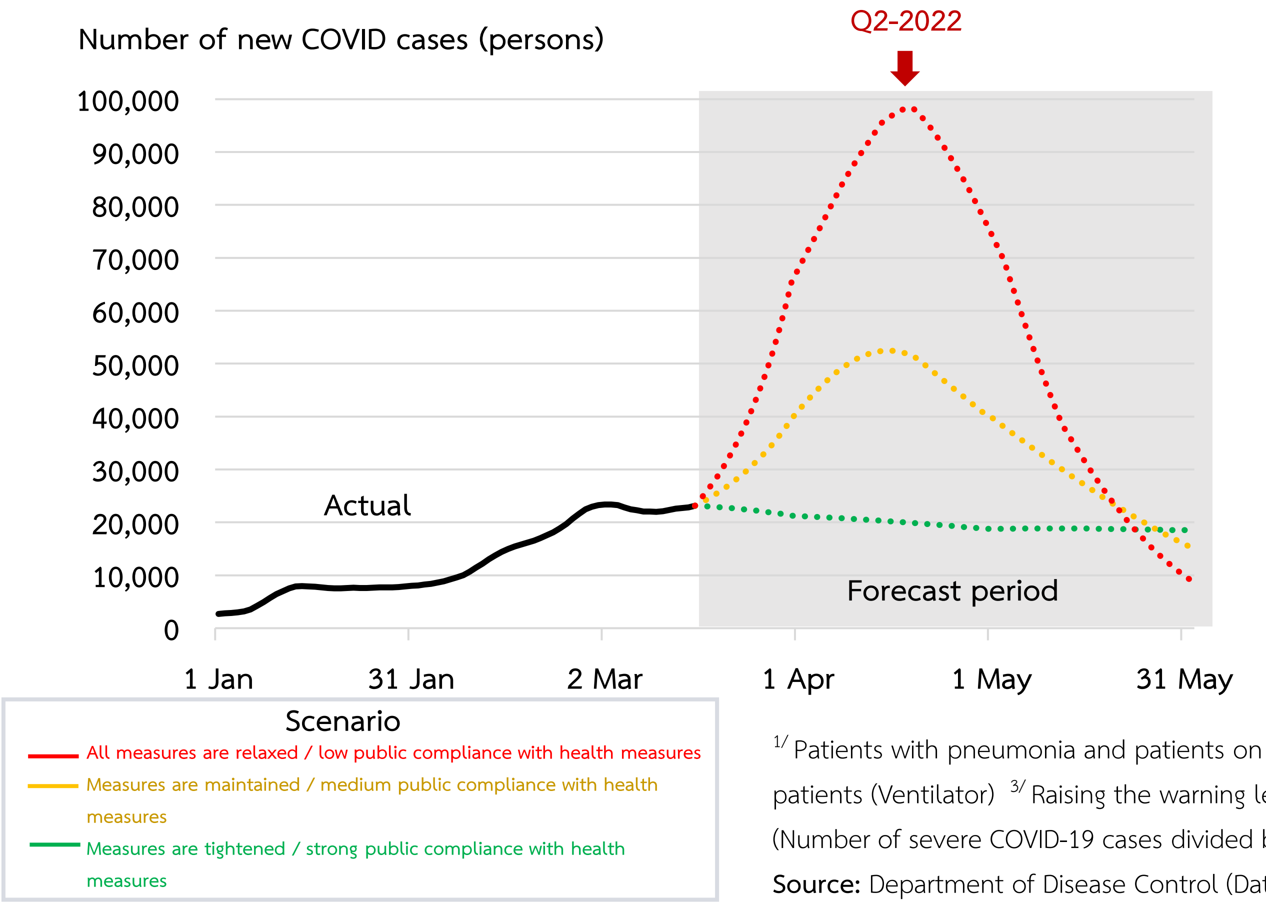

**Source:** Department of Disease Control

## Looking ahead, the outbreak of COVID-19 in Thailand will be more protracted than expected although the economic impact will be limited.

## The healthcare system is able to handle severe COVID-19 cases and thus the government is unlikely to reinstate strict containment measures.

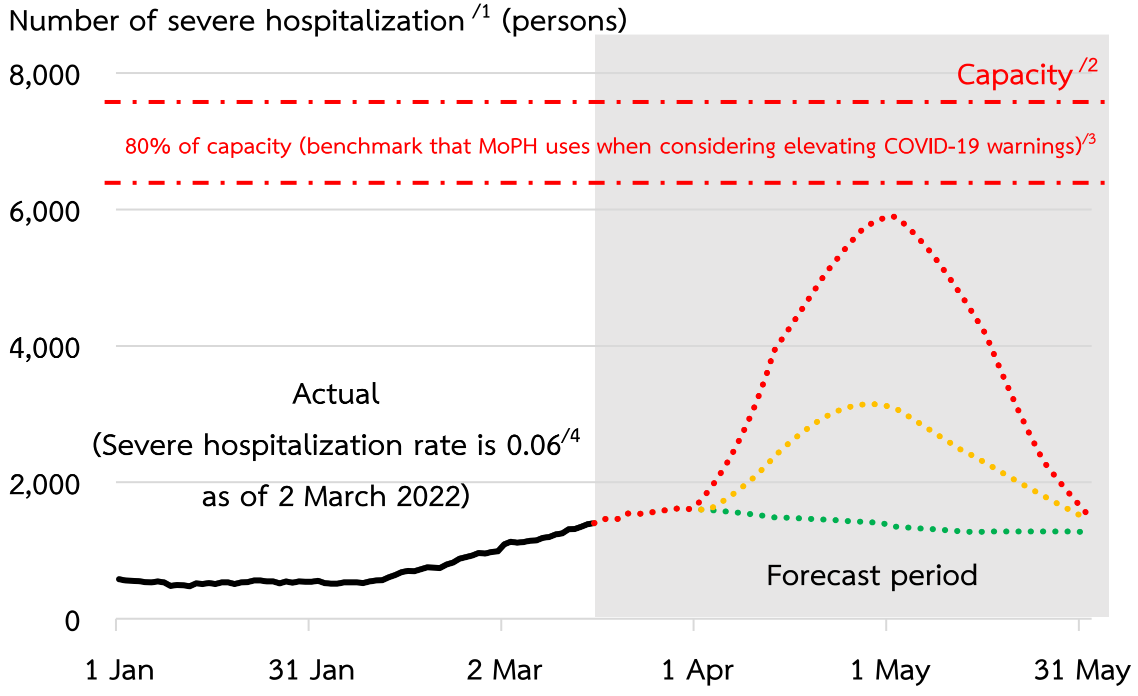
### Projected number of COVID cases (by Department of Disease Control)

Number of new cases is expected to peak then gradually decline within the second quarter of 2022, instead of within the first quarter of 2022 in the previous assessment.




### Projected number of severe cases (by Department of Disease Control)

It is unlikely that the government will reinstate strict containment measures as the number of severe COVID-19 cases is still within the capacity of the healthcare system.




1/ Patients with pneumonia and patients on breathing aid 2/ Around 7,800 patients, counting only level 2.2 patients (Oxygen High Flow) and level 3 patients (Ventilator) 3/ Raising the warning level from 4 to 5 (highest) 4/ Calculations based on Department of Disease Control's projections (Number of severe COVID-19 cases divided by the average number of new cases over the past 7 days as of 14 days ago)

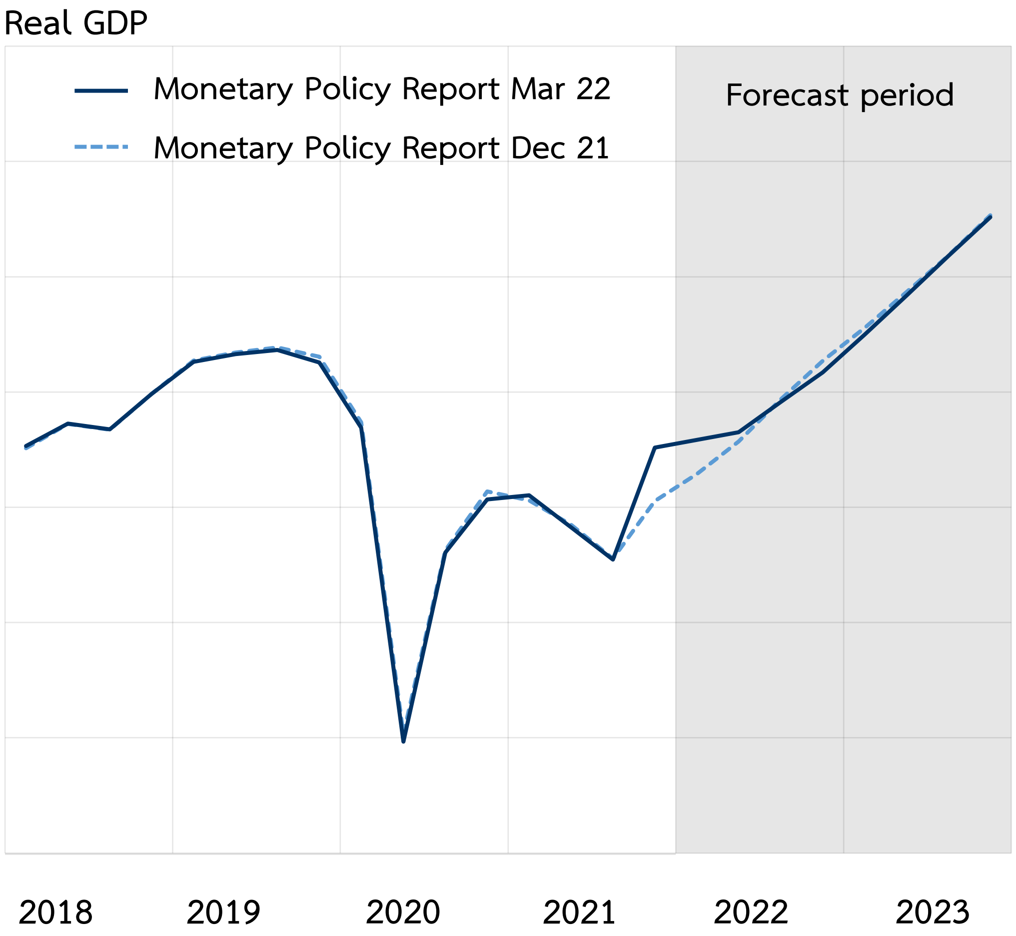
**Source:** Department of Disease Control (Data as of 2 March 2022)

Economic outturns for Q4/2022 were better than expected, especially private consumption. Notwithstanding, GDP growth forecasts for 2022-2023 are revised down due to the Russia-Ukraine conflict resulting in higher energy and commodity prices, the slowdown in trading partners' growth, and the Omicron outbreak in Thailand

Contributions to the revision in GDP growth forecasts

| GDP Growth (%YoY) | 2022 | 2023 |
|---|---|---|
| Previous forecast as of Dec 2021 | 3.4 | 4.7 |
| - Better-than-expected economic outturns for Q4/2022 and improved private consumption outlook | 0.4 | |
| - Impact from the outbreak of Omicron in Thailand | -0.1 | |
| - Slowdown in trading partners' growth due to the Russia-Ukraine conflict | -0.2 | -0.1 |
| - Lower foreign tourist figures especially Russian tourists | | -0.2 |
| - Impact from higher oil and commodity prices | -0.3 | |
| Total change from previous forecast | -0.2 | -0.3 |
| Latest forecast as of Mar 2022 | 3.2 | 4.4 |

The Thai economy is projected to expand continuously by 3.2% in 2022 and 4.4% in 2023, driven by the recovery in domestic demand and tourism. Meanwhile, the economic impact from the outbreak of COVID-19 Omicron variant would be less compared to previous outbreaks.




Note: * Outturns

Source: Office of the National Economic and Social Development Council, forecast by the Bank of Thailand

| %YoY | 2020* | 2021 | | 2022 | |
|---|---|---|---|---|---|
| | | Dec 21 | Mar 22 | Dec 21 | Mar 22 |
| GDP Growth | 1.6 | 3.4 | 3.2 | 4.7 | 4.4 |
| Domestic demand | 1.6 | 4.3 | 3.4 | 3.2 | 3.2 |
| Private consumption | 0.3 | 5.6 | 4.3 | 3.8 | 4.1 |
| Private investment | 3.2 | 5.4 | 4.7 | 5.0 | 4.8 |
| Government consumption | 3.2 | -0.3 | -0.7 | 0.3 | -1.7 |
| Public investment | 3.8 | 3.6 | 4.2 | 1.4 | 4.4 |
| Exports of goods and services | 10.4 | 5.5 | 6.3 | 9.7 | 8.5 |
| Imports of goods and services | 17.9 | 4.6 | 4.9 | 4.6 | 4.2 |
| Current Account (billion, U.S. dollars) | -10.9 | 1.5 | -6.0 | 19.7 | 10.0 |
| Value of merchandise exports | 18.8 | 3.5 | 7.0 | 2.9 | 1.5 |
| Value of merchandise imports | 23.4 | 4.8 | 11.6 | 3.7 | 2.0 |
| Number of foreign tourists (million persons) | 0.4 | 5.6 | 5.6 | 20.0 | 19.0 |

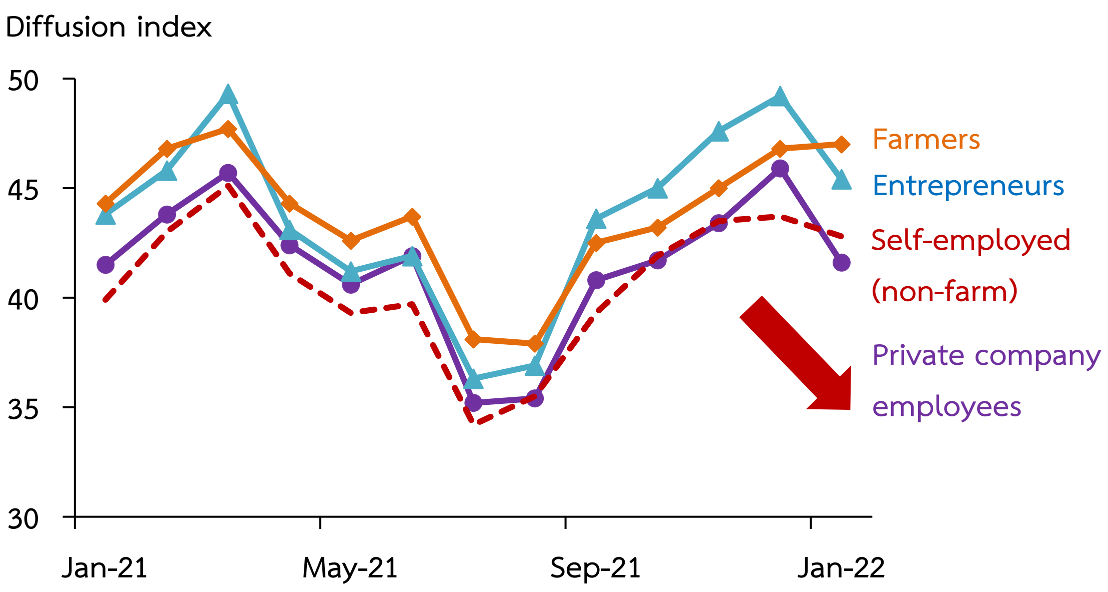
# Overview of economic forecasts

| Economic growth (%YoY) | 2022 | 2023 |
|---|---|---|
| | 3.2 | 4.4 |
| Private consumption | Strong private consumption growth will be driven by a continued recovery in economic activities and additional government measures. However, the pace will be slower than in the previous forecast due to higher cost of living as a result of the Russia-Ukraine conflict affecting energy and commodity prices, the prolonged COVID-19 outbreak, and the phasing out of government measures. | Private consumption will continue to recover after the pandemic and the Russia-Ukraine conflict subside, which will allow the tourism sector to recover and lead to improvements in both household income and purchasing power. |
| Private investment | Private investment will expand in tandem with the expansion in merchandise exports and the gradual recovery in tourism. However, the pace will be slower than in the previous forecast due to increased uncertainties, the slowdown in domestic demand, and higher production costs impacting businesses' profitability and investment decisions. | |
| Merchandise exports (Value) | Merchandise exports growth will be stronger than previously assessed mainly due to the increases in prices especially of petroleum-related products. On the quantity side, the global supply chain situation has improved somewhat and manufacturing for exports has picked up as a result, but there remain downside risks stemming from the Russia-Ukraine conflict. | Merchandise exports will continue to expand driven by higher export volume while the contribution from prices will be less given the expected decline in crude oil prices. |
| Foreign tourists | Foreign tourist figures remain unchanged from the previous assessment at 5.6 million persons. While foreign tourist arrivals in the first quarter were higher than expected, foreign tourist arrivals throughout the remainder of the year might be somewhat affected by the sanctions imposed on Russia that will result in a significant lower-than-expected number of Russian tourists. | Foreign tourist figures would see a strong rebound after the pandemic subsides. It is also expected that more countries would open up their borders, especially China. It is expected that foreign tourist figures would be around 19 million persons which is slightly lower than the previous assessment due to lower projected number of Russian tourists. |

# Private consumption is expected to recover but at a slower pace than previously assessed.

**Private consumption is expected to recover** but at a slower pace than the previous assessment due to **(1) higher cost of living from sharp price increases in some items** which adversely affects consumer's purchasing power and confidence, **(2) the outbreak of COVID-19 Omicron variant** whereby the number of new cases and containment measures in place continue to have some impact on economic activities even though vaccination progress have resulted in higher Mobility Index compared to the Delta outbreak, and **(3) support from government measures phasing out going forward.**

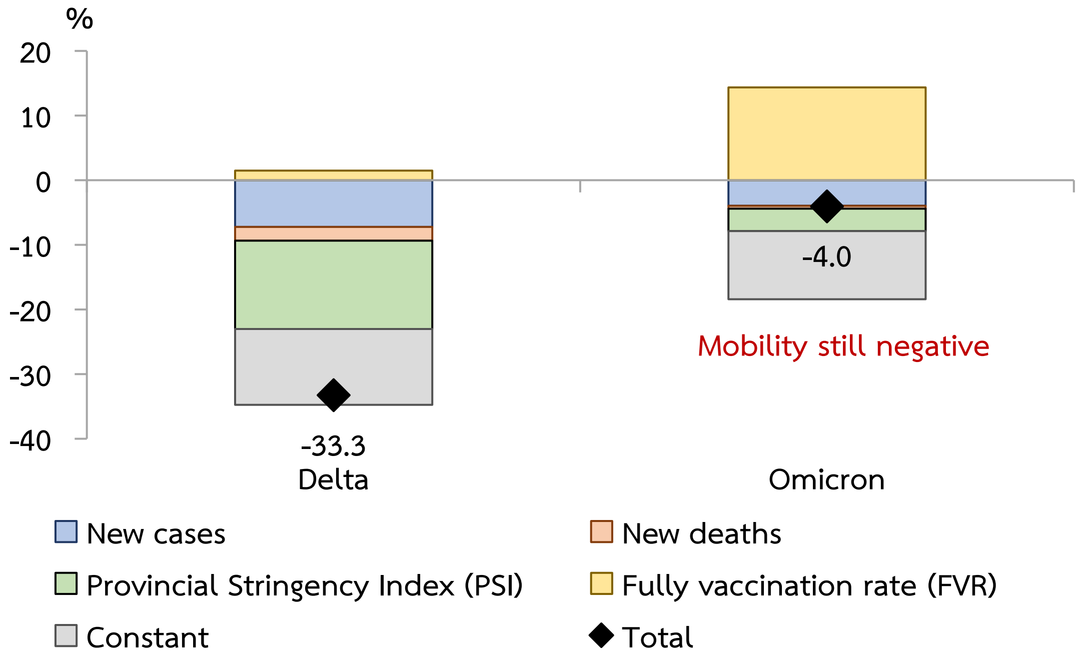
## Consumer Confidence Index (by occupation)




**Note**: Diffusion index above 50 indicates that consumers are confident in the current state of the economy (period of confidence). The diffusion index is calculated from 8,490 consumer surveys in all districts (884 districts per province) as a collaboration between the Bank for Agriculture and Agricultural Cooperatives and educational institutions across Thailand

**Source:** Economic and Trade Indices Database and Trade Policy and Strategy Office, calculated by the Bank of Thailand

## Changes in the Mobility Index for Thailand[1/]




Note: [1/] Google mobility equation = −11.75 − 0.33 * New cases − 10.66 * New deaths − 0.19 * PSI + 0.20 * FVR + 1.25 * Dummy_omicron + 0.16 * New cases * Dummy_Omicron + ε

[2/] Provincial Stringency Index (PSI) is calculated by the Bank of Thailand

**Source:** Our World in Data, Google, and BOT, calculated by the Bank of Thailand

# Fiscal stimulus has played a part in shoring up consumer purchasing power but would eventually phased out going forward.

## Government measures in the first half of 2022

| | Budget (bn baht) | Time period | Spending ratio[1/] as of 28 Feb 2022 |
|---|---|---|---|
| We Travel Together campaign (phase 3) | 6.0 | Oct 21 – Jan 22[5/] | 50.8% |
| Travel around Thailand campaign | 1.0[2/] | Oct 21 – Apr 22[5/] | 10.7% |
| Measure to promote and maintain employment for SMEs | 37.5 | May 21 – Jan 22 | 72.0% |
| Measure to remedy insured persons in entertainment businesses | 0.7[3/] | Dec 21 – Mar 22 | 98.8% |
| Shop and Payback scheme 2022 | 6.2[4/] | 1 Jan – 15 Feb 22 | - |
| Extra allowance for state welfare card holders (phase 4) | 8.1 | Feb – Apr 22 | 63.3% |
| Additional allowance for vulnerable group (phase 2) | 1.4 | Feb – Apr 22 | 47.2% |
| Half-Half co-payment scheme (phase 4) | 34.8 | Feb – Apr 22 | 73.8% |
| We Travel Together campaign (phase 4) | 9.0 | Feb – May 22[5/] | - |
| Total | 104.7 | | |

Measures with increased/decreased budget or extended period (compared with *Monetary Policy Report* December 2021)

Newly announced measures

**The government has continued to roll out measures to boost domestic consumption in the first half of 2022.** These include the Half-Half co-payment scheme (phase 4), We Travel Together campaign (phase 4), extra allowance for state welfare card holders (phase 4), and additional allowance for vulnerable group (phase 2).

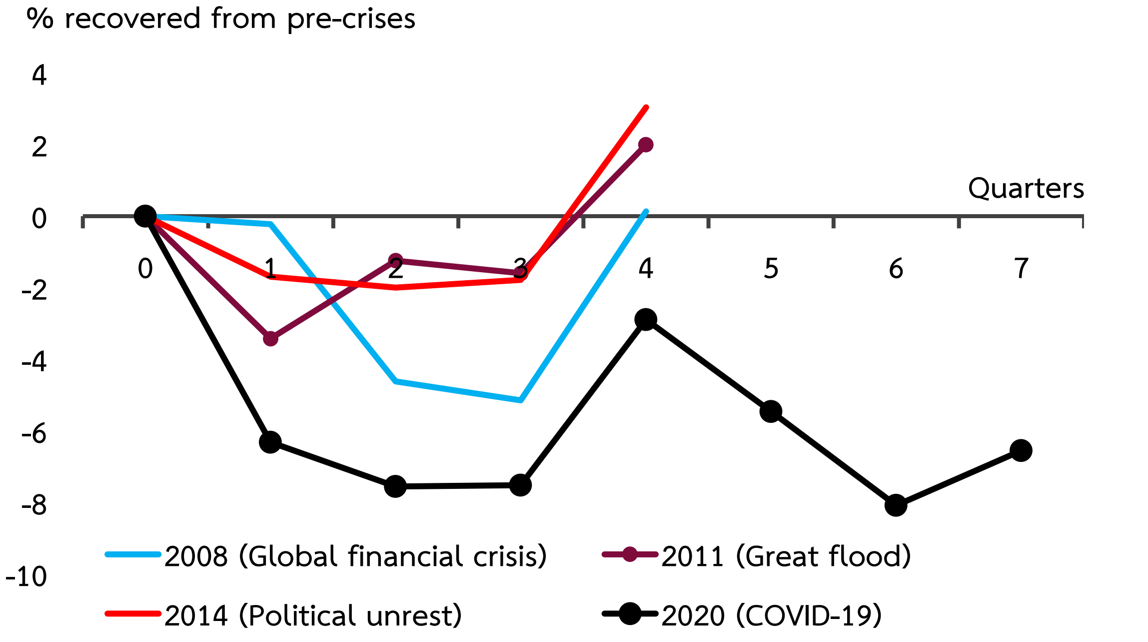
**However, the fiscal stimulus effect will fade out in the first half of 2022.** It is necessary to monitor the approval of additional measures as well as the risks related to relatively low spending ratio of some measures.

Note: [1/] Spending ratio = accumulated spending (both public and private) / target for each project
[2/] Budget decreased from 5 bn baht to 1 bn baht according to Cabinet decision on 24 Jan 2022
[3/] Budget increased from 0.6 bn baht to 0.7 bn baht according to Cabinet decision on 15 Feb 2022
[4/] Estimation of government's income loss from lowered personal income tax
[5/] Campaign period up to the last applicable date.

**Source:** The Cabinet Resolution, compiled by Bank of Thailand and the Ministry of Finance

Fragile labor market conditions will continue to hold back private consumption. Employment is recovering at a slower pace compared to past crises and the applications for unemployment benefits remained higher than pre-COVID levels.

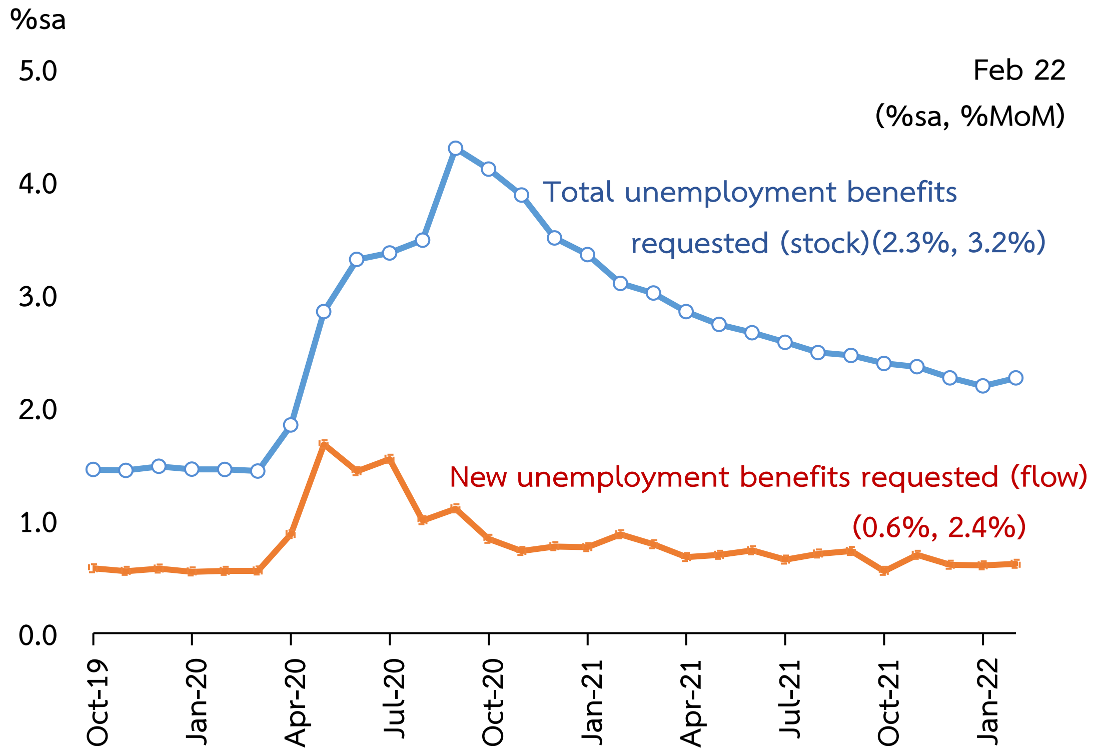
**Recovery period for private non-farm employment to return to pre-crises level**




**Note:** Employment calculated from a sample group of non-farm employment, excluding construction which accounts for 11.4 million persons (around 30% of the total labor force)

**Source:** Employment survey by the National Statistical Office of Thailand, Department of Employment, and calculated by the Bank of Thailand

**Applications for unemployment benefits to all employees under the social security system (Section 28)**

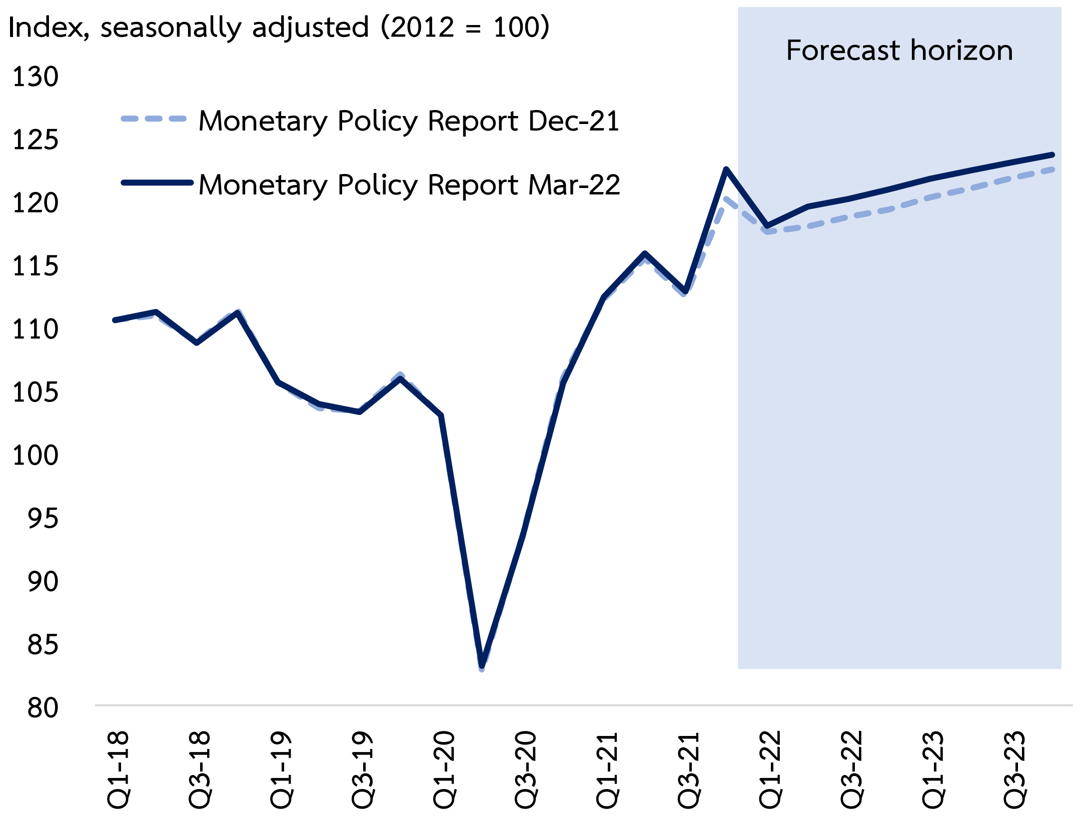



**Source:** Social Security Office, calculated by the Bank of Thailand

Special issue 3: The 2-year anniversary of COVID-19: How much has the Thai labor market recovered?

# Merchandise exports volume (excluding gold) is expected to increase throughout the forecast period driven by stronger-than-expected external demand from trading partners in recent periods even after taking into account the adverse impact from the Russia-Ukraine conflict and sanctions against Russia.

Merchandise exports outlook (excluding gold)




**Source:** Bank of Thailand

## Tailwinds

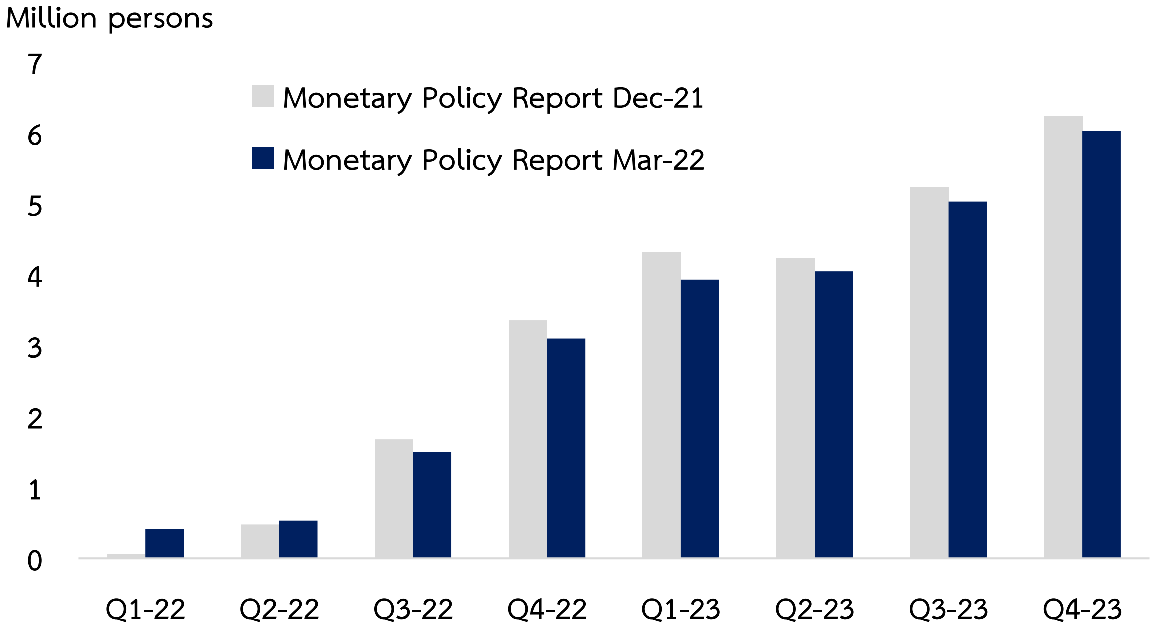
- **Global supply disruption had less-than-expected impact on the Thai economy.** In particular, the shortage of electronic parts in the automobile, electronics, and electrical appliances industries has somewhat subsided since the end of 2021, thus allowing businesses to accelerate production and fulfill orders that were delayed earlier.
- **The outbreak of COVID-19 Omicron variant had impacted trading partners less than expected.** Furthermore, there are other supporting factors such as the digitalization trends that would benefit exports of electronics and automobiles going forward. Some countries will also benefit from higher commodity prices.

## Headwinds

- **The Russia-Ukraine conflict and sanctions against Russia** would affect confidence and income of trading partners, especially European and Russian markets, as well as higher costs for exporters.

## Foreign tourist figures are still expected to increase. However, it would be necessary to monitor the impact of the Russia-Ukraine conflict on the recovery of foreign tourist arrivals going forward.

### Projected foreign tourist arrival




| Million persons | 2022 | | 2023 | |
|---|---|---|---|---|
| | Dec 21 | Mar 22 | Dec 21 | Mar 22 |
| Foreign tourists | 5.6 | 5.6 | 20.0 | 19.0 |

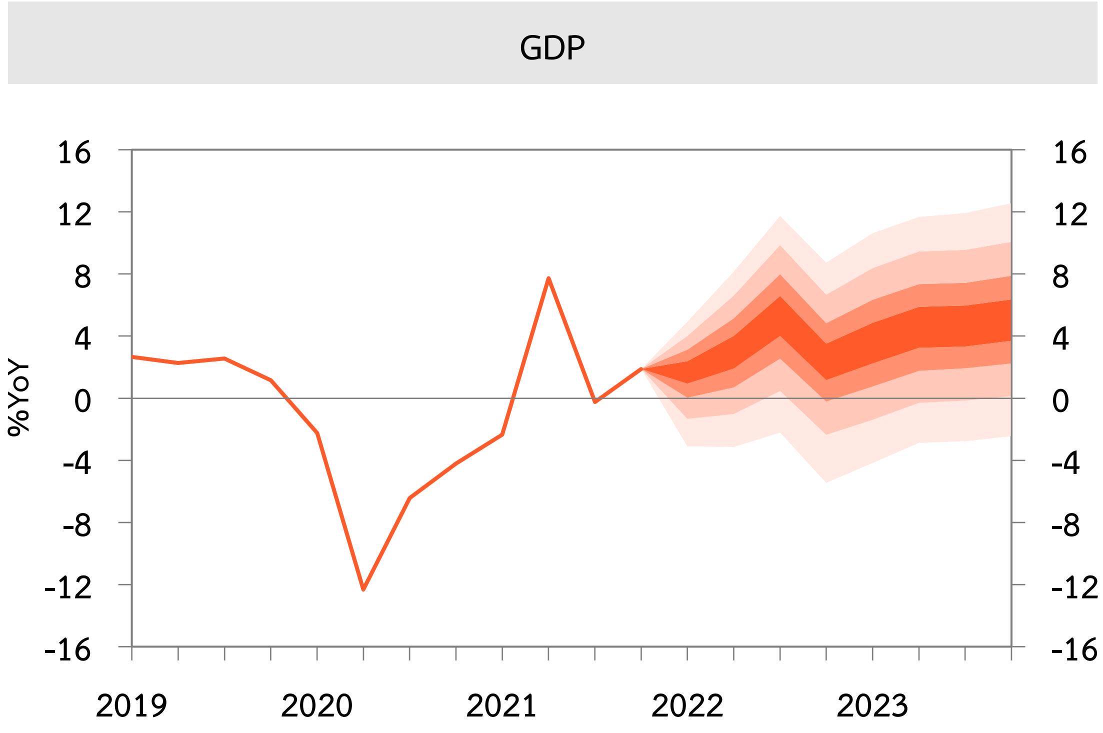
**Source:** BOT forecast

### Russian tourists' share of total foreign tourist arrival in Thailand

| | 2019 | 2021 | Jan 2022 |
|---|---|---|---|
| Number of Russian tourists (million persons) | 1.5 | 0.03 | 0.02 |
| % of total foreign tourist arrivals | 3.7% | 7.2% | 17.7% |

- **Projected foreign tourist figures for 2022 remains unchanged.** While the Russia-Ukraine conflict will impact foreign tourist arrivals in the period ahead, such a decline is expected to be offset by higher-than-expected foreign tourist arrivals during the first quarter.
- **Foreign tourist figures for 2023 is revised down** as a number of Russian tourists may not travel to Thailand after the Russia-Ukraine conflict.

## There are risks that Thailand's economic growth could underperform the baseline projections stemming from the shortage of inputs faced by certain industries which might be protracted, and the higher costs of living and doing business which could impact vulnerable households and businesses which are reflected in the downward-skewed fan chart.




### Factors that would result in growth underperforming the baseline

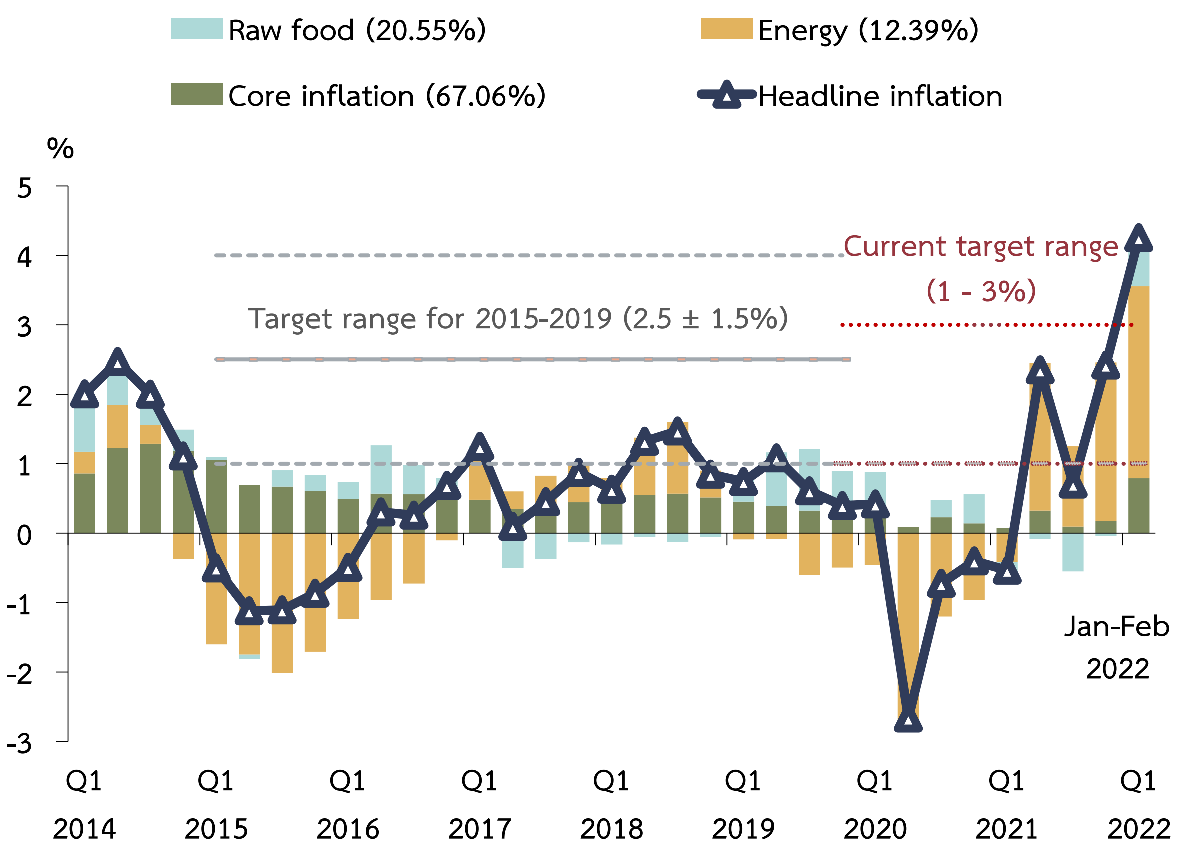
- Global supply disruption might turn out to be more severe than expected. For instance, the Russia-Ukraine conflict could spread to other countries or be drawn out to the point that it results in shortage of inputs for some industries and merchandise exports.
- Cost of living might increase to the point where it impacts private consumption especially if inflation is much higher than expected. Meanwhile, household income has not yet fully recovered.
- The outbreak of COVID-19 might become widespread and have severe impact, or become more protracted than in the baseline. In such scenario, many countries including Thailand might respond by implementing strict containment measures.

### Factors that would result in growth outperforming the baseline

- Private sector spending might be higher due to pent-up demand. Once the pandemic subsides, people with excess saving might become less concerned and spend more than previously assessed.

# Average headline inflation for the first two months of Q1/2022 was higher than the previous quarter. The increase was mainly attributed to price increases in the energy, fresh food, and prepared food categories.

### Headline inflation and the target range




**Note:** ( ) is weight in the headline inflation basket

**Source:** Ministry of Commerce, calculated by the Bank of Thailand

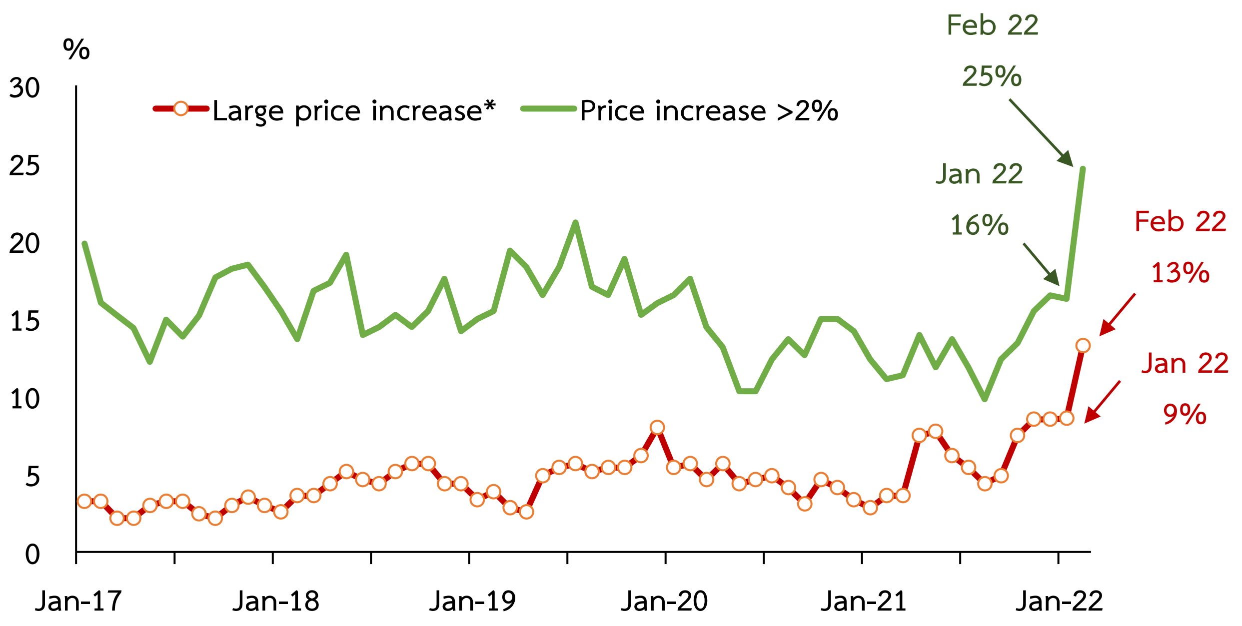
**Headline inflation in the first two months of the first quarter of 2022 averaged 4.25%, increasing from 2.42% in the previous quarter.** Energy price inflation was attributed to higher oil prices as a result of the Russia-Ukraine conflict as well as higher electricity costs from Ft adjustments and the low-base effect from government subsidy to lower the costs of living in the previous year. Meanwhile, fresh food price inflation was attributed to meat prices, especially pork whose price was driven higher by decreased supply.

**Core inflation in the first two months of the first quarter of 2022 averaged 1.16%, increasing from 0.27% in the previous quarter.** The increase was attributed to higher prepared food prices from higher input costs, and higher prices of seasoning and condiments.

Special issue 4: Impact of inflation on households across different income groups

# The share of goods and services whose prices rose became larger, but price increases have mostly been limited to the energy and food categories.

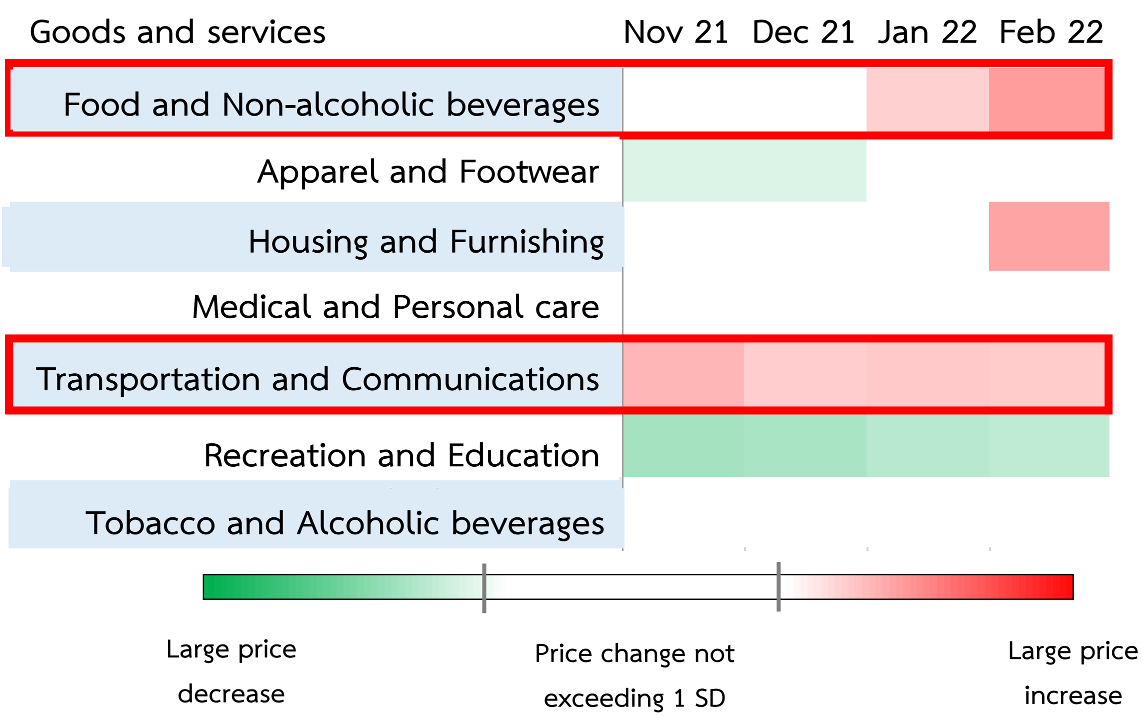
## Share of goods and services




**Note:** *Calculated from %YoY average price increase for 5 years with 2 SD

**Source:** Ministry of Commerce, calculated by the Bank of Thailand

## Change in prices for different goods and services

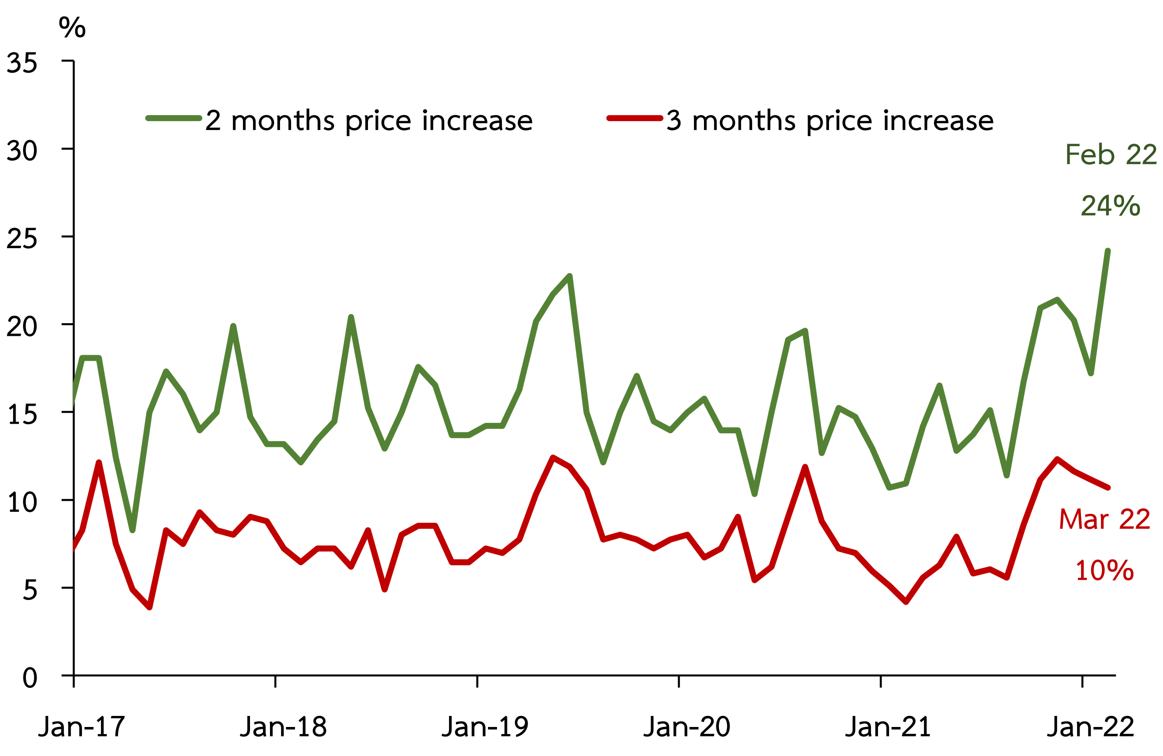



**Note:** Calculated from %YoY for the past 5 years; Housing and Furnishing category in Feb 22 was the result of low base effect from electricity and water bills subsidy measures.

**Source:** Ministry of Commerce, calculated by the Bank of Thailand

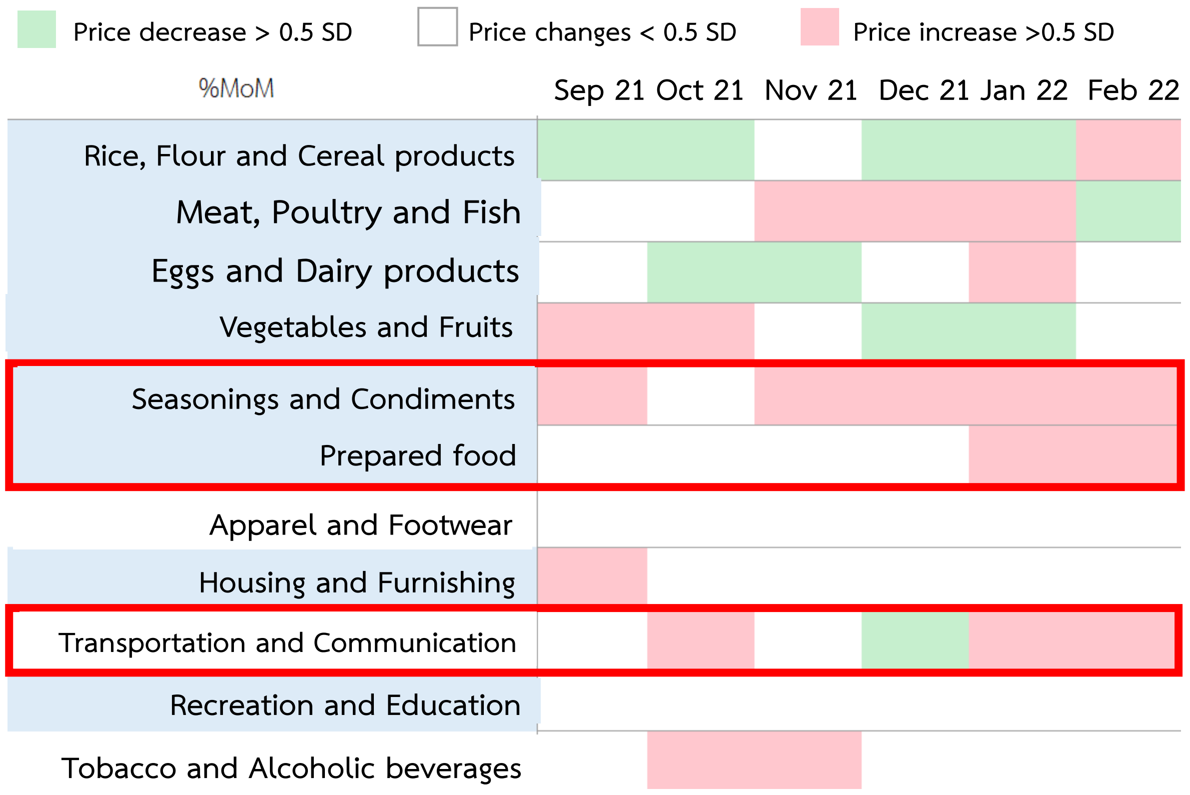
# There are some evidence of repeated price increases but the share of goods and services whose prices rose for three consecutive months have not increased by much.

## Ratio of goods and services with repeated price increases




**Source:** Ministry of Commerce, calculated by the Bank of Thailand

## Nature of repeated price increases for each goods and services (%MoM)




**Note:** Tobacco and Alcoholic beverages category gradually increase prices in Oct and Nov following the increase in tobacco taxes

**Source:** Ministry of Commerce, calculated by the Bank of Thailand

Headline inflation is expected to average 4.9% in 2022 and 1.7% in 2023. Headline inflation will likely be higher than 5% in the second and third quarters of 2022 mainly due to energy prices and cost passthrough to food prices. Headline inflation will subsequently decline to the target range in 2023, partly because energy prices are unlikely to increase further.

## Headline inflation forecast

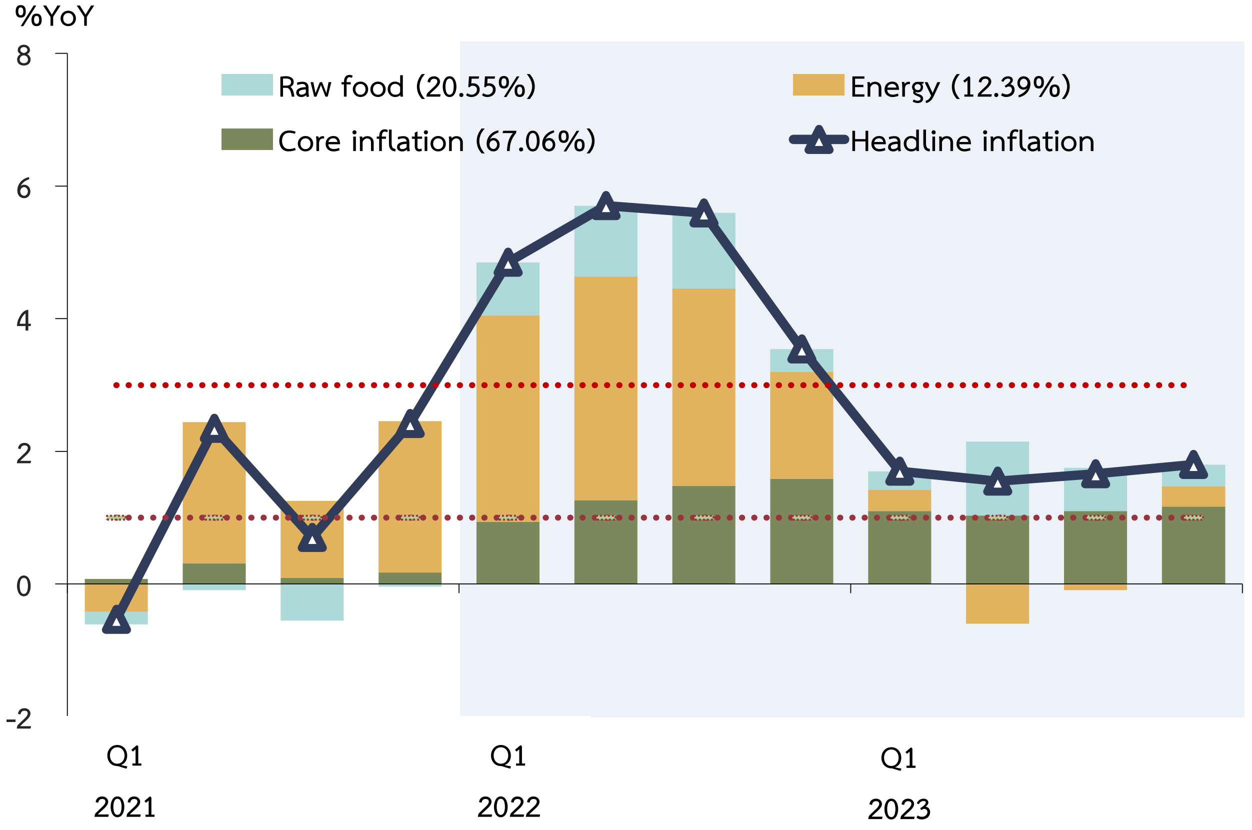
| | 2022 | 2023 |
|---|---|---|
| Headline inflation | **4.9%** (1.7%) | **1.7%** (1.4%) |
| Core inflation | **2.0%** (0.4%) | **1.7%** (0.7%) |

**Rising inflation is mainly due to** cost-push inflation. Meanwhile, demand-pull inflation remain muted as income has just started to recover.

**Note:** ( ) Previous forecasts from Monetary Policy Report December 2021

**Source:** Ministry of Commerce, BOT forecast

## Contribution to headline inflation




**Note:** ( ) is the weight in headline inflation basket

**Source:** Bank of Thailand

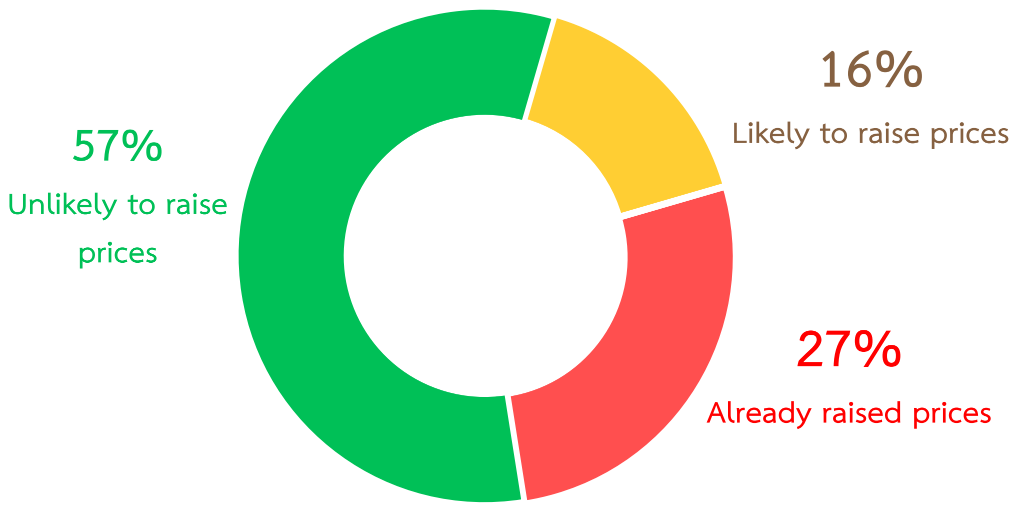
# Looking ahead, the key factors behind rising inflation are energy and commodity prices which would be mainly affected by the Russia-Ukraine conflict and sanctions against Russia.

| | Rising global commodity prices | Affected goods: Direct | Affected goods: Indirect | Impact on headline inflation |
|---|---|---|---|---|
| Energy category | Crude oil and LNG | Oil, electricity, cooking gas | • Transportation costs<br>• Production costs | ⬆⬆⬆ |
| Food category | Chemical fertilizers | Vegetable, Fruits | Prepared food | ⬆⬆ |
| | Corn, wheat, and other grains | Meat (from animal feed prices) | | |
| | Sunflower oil / Cottonseed oil | Vegetable oil | | |
| Other categories and costs | Metal and other ores | Household goods | Automobiles, communication devices (from semiconductor prices) | ⬆ |
| | International shipping | Imported goods | | |

## Most businesses are still absorbing the higher costs but may gradually pass on more of the costs to the consumers going forward.

### Businesses' views on price adjustment over the next 1 year

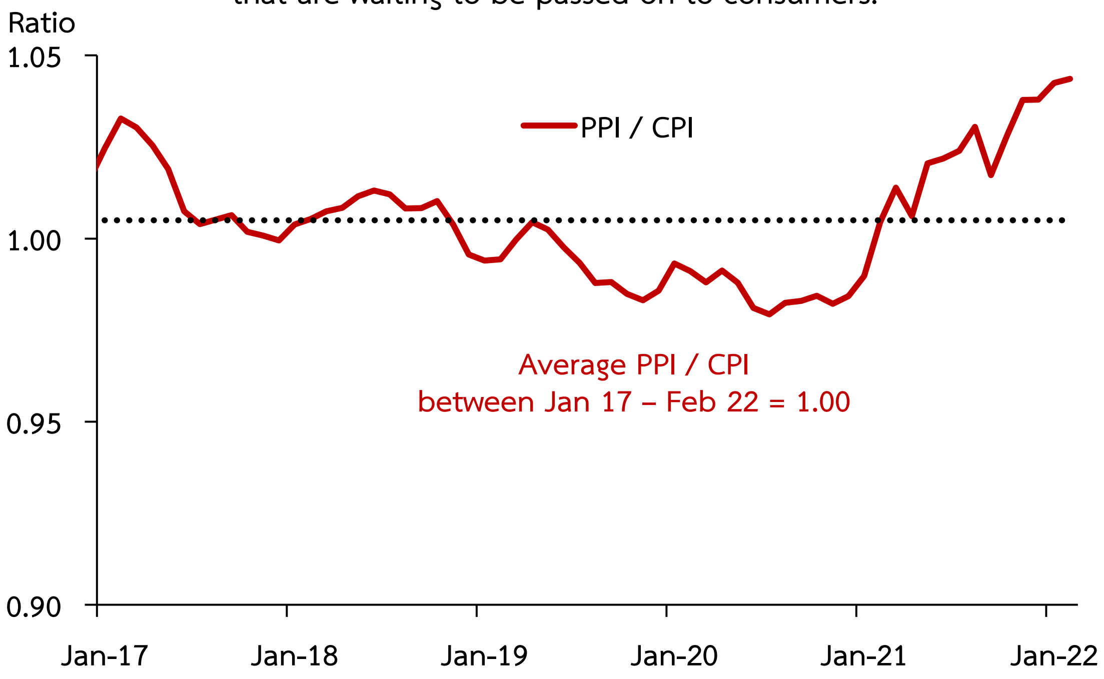
57% of businesses are unlikely to raise prices within 1 year. However, it is still necessary to monitor increases in input prices which may be larger than expected.




**Source:** Survey of large entrepreneurs and SMEs on the impact of COVID-19 between 1 - 23 Feb 22 for 208 items

### Producer Price Index (PPI) to Consumer Price Index (CPI) Ratio

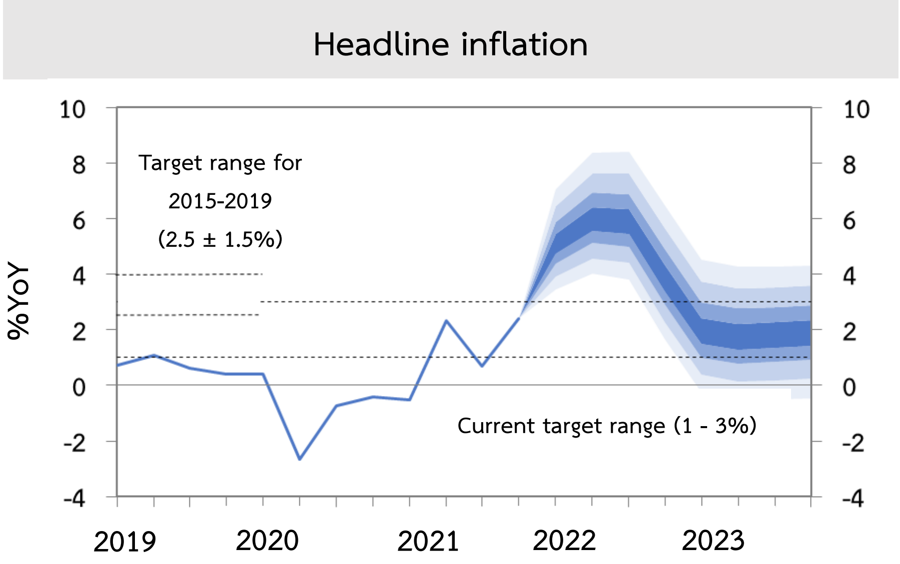
Higher PPI/CPI indicates that there are more input costs that are waiting to be passed on to consumers.

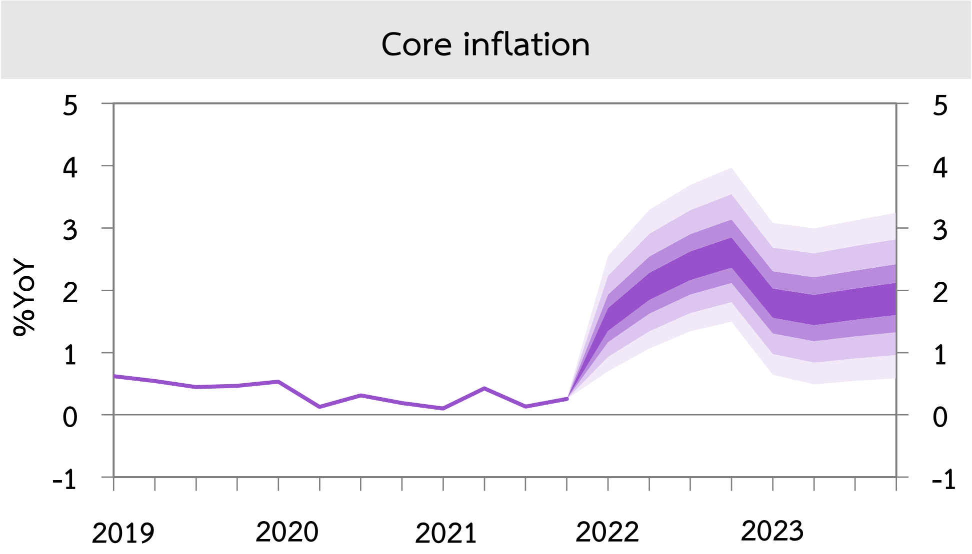



**Source:** Ministry of Commerce, calculated by the Bank of Thailand

Business Intelligence Report:
Insight on price adjustments based on business survey (in Thai)

# Headline inflation might increase from the baseline due to higher-than-expected oil prices and cost passthrough from producers




## Factors that could result in higher inflation than the baseline

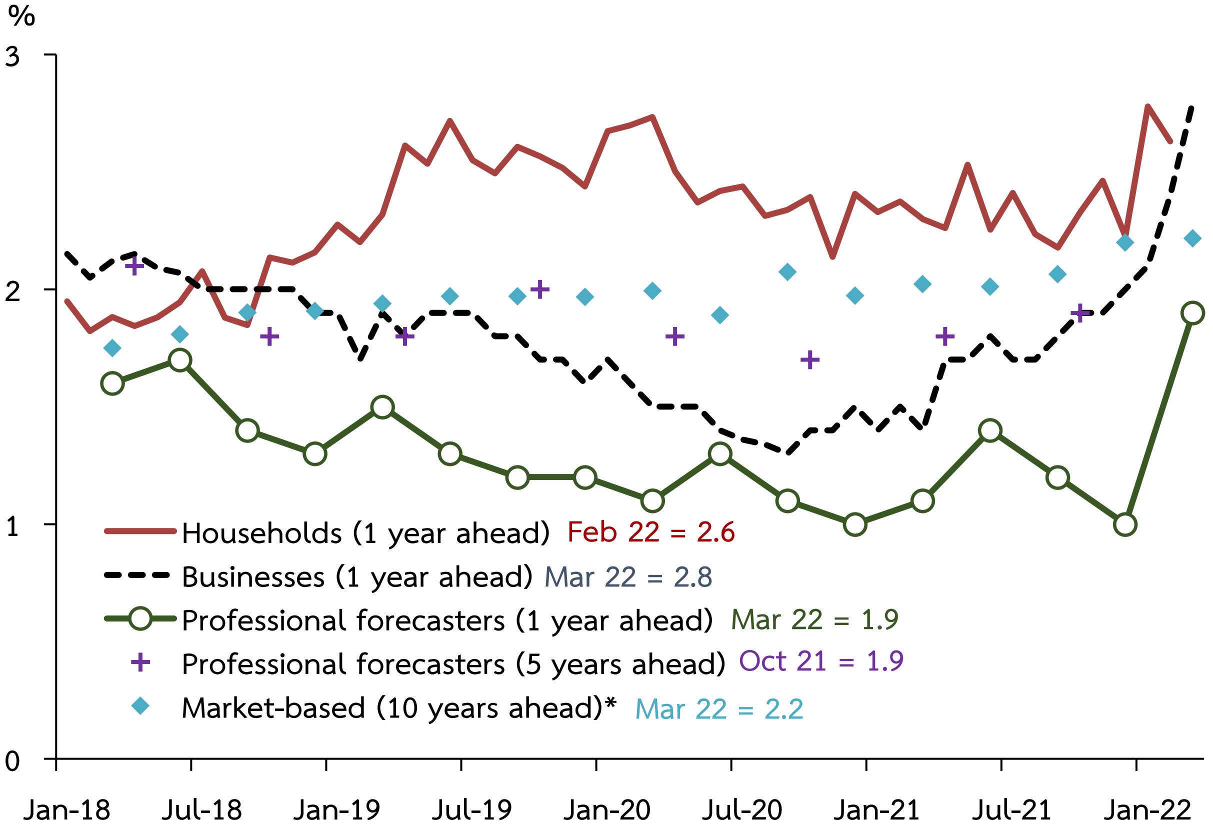
- Businesses might pass on higher costs to consumer more than previously assessed if energy and commodity prices remain elevated for a long time.
- Global supply disruption might turn out to be more severe than previously expected if the Russia-Ukraine conflict spreads to other countries or become drawn-out to the point that it result in shortages of some raw materials.

## Factors that could result in lower inflation than the baseline

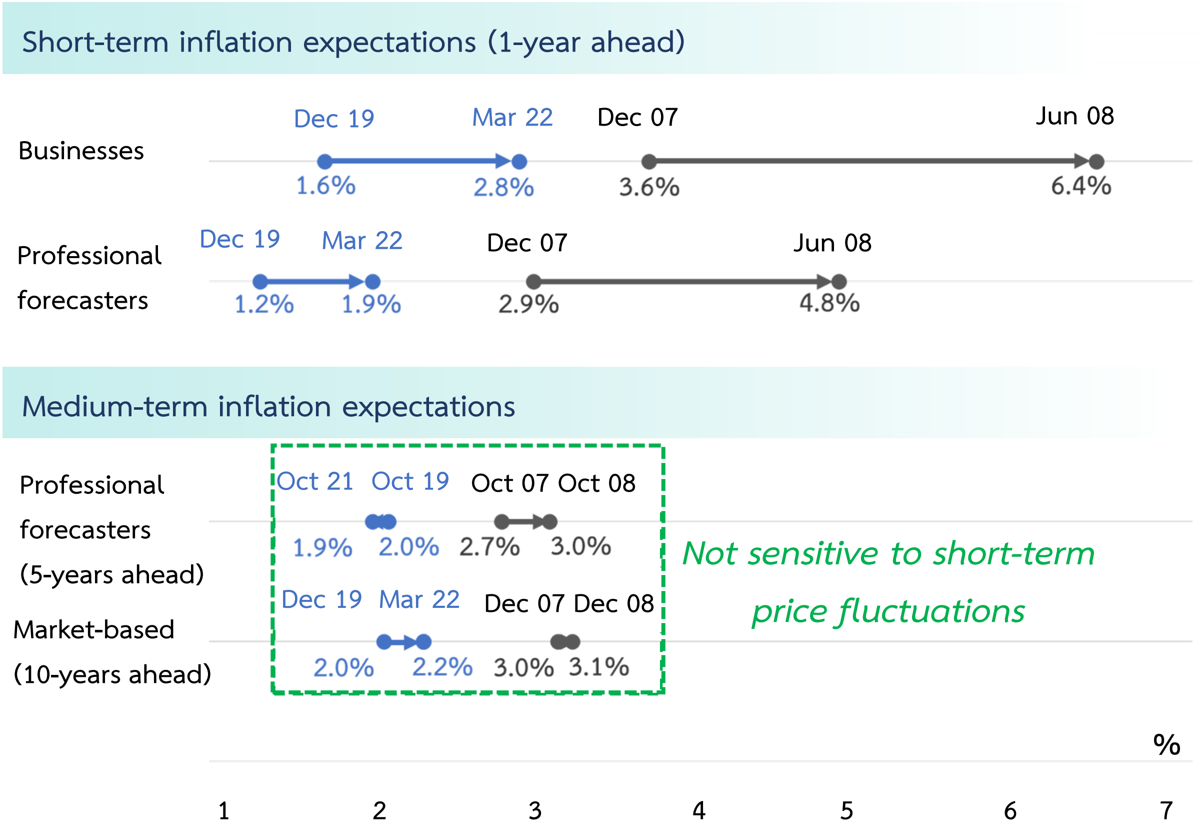
- The economic recovery might turn out to be more sluggish than the baseline forecast hence businesses are unable to raise prices because consumer spending power remains weak.

# Inflation expectations of businesses and professional forecasters (1-year ahead) edged up while medium-term inflation expectations remain well-anchored within the target range of 1-3% and are not influenced by short-term price fluctuations

## Inflation expectation




## Changes in inflation expectations during 2007-2008 and 2019-2022




**Note**: *Estimated with affine term structure model using yield curve and macro variables.

**Source:** 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' GDP growth (% YoY)2/ | 5.6 | 3.6<br>(4.0) | 3.2<br>(3.3) |
| Fed Funds Rate (% year end) | 0.00 – 0.25 | 1.75 – 2.00<br>(0.75-1.00) | 2.50 – 2.75<br>(1.50-1.75) |
| Regional currencies (exc. China) vis-à-vis the U.S. dollar (index)3/ | 153.4 | 156.3<br>(155.1) | 155.8<br>(154.6) |
| Dubai crude oil prices (U.S. dollar per barrel) | 69.4 | 100.0<br>(68.3) | 90.0<br>(69.5) |
| Farm income (% YoY) | 4.0 | 7.5<br>(2.2) | -2.9<br>(1.0) |
| Government consumption at current price (billion baht)1/ | 2,941 | 2,981<br>(2,943) | 2,968<br>(3,001) |
| Public investment at current price (billion baht)1/ | 1,063 | 1,130<br>(1,135) | 1,192<br>(1,166) |

Note: 1/Assumptions include loans for economic and social development under Section 22 in Public Debt Management Act, B.E. 2548 (2005)

2/Weighted by each trading partner's share in Thailand's total exports

3/Increasing index represents depreciation, decreasing index represents appreciation

* Outturns

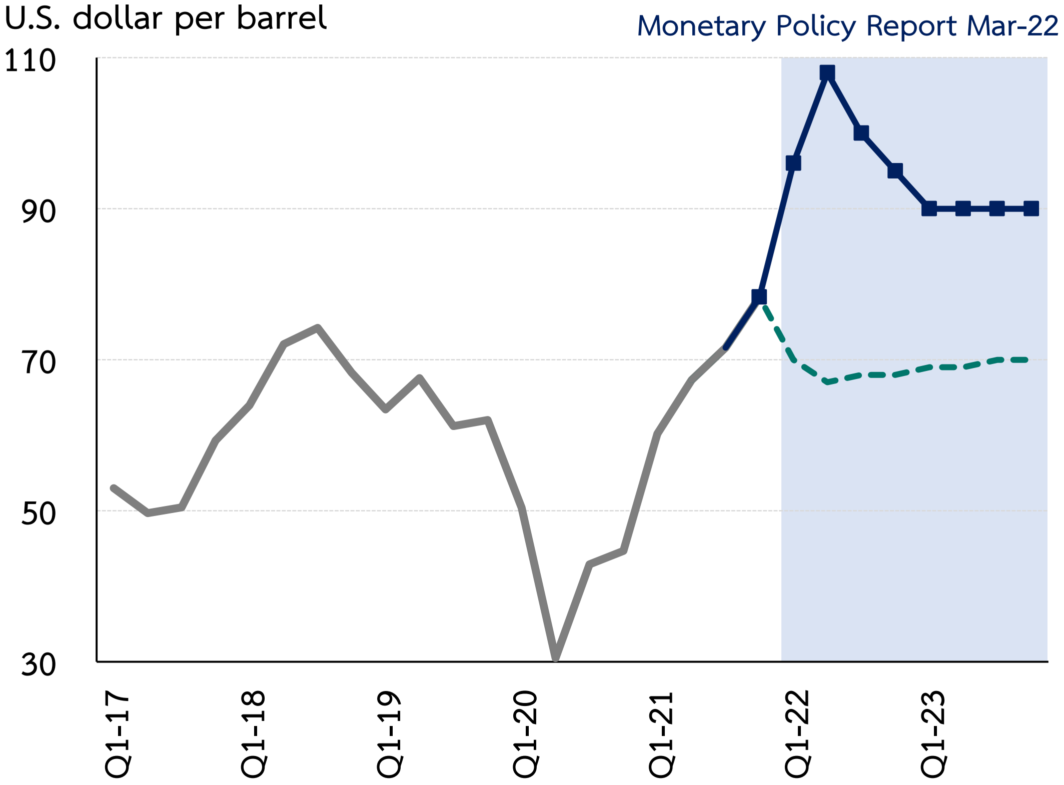
( ) Monetary Policy Report December 2021

- **Trading partner economies'** growth is revised down throughout the forecast period due to the Russia-Ukraine conflict resulting in higher energy and commodity prices which impact economic recovery, especially for advanced economies.
- **The Federal Funds Rate** is expected to be raised a total of 7 times in 2022 (at 25 bps per hike) in response to rising inflationary pressure and the strong economic recovery.
- **Regional currencies (excluding the Chinese yuan)** would depreciate throughout the forecast period due to the Fed's faster policy rate hikes and QE Tapering.
- **Dubai crude oil prices** would be higher throughout the forecast period, especially in the first quarter of 2022 given tighter oil market conditions as a result of the Russia-Ukraine conflict.
- **Farm income (excluding government support measures)** would be higher in 2022 before declining 2023 due to temporary increase in prices as a result of supply shortage of goods such as pork and other meat products, rubber, corn, palm, and sugar cane. However, price increases would partly be due to higher cultivation costs such as fertilizers hence farm income would not increase much overall.
- **Public spending at current prices** for 2022 is revised up on account of government consumption spending on public health. For 2023, the share of current spending is shifted towards investment spending.

# Assumptions for Dubai crude oil prices

Dubai crude oil prices are expected to rise due to concerns that the Russia-Ukraine conflict and sanctions against Russia would result in supply shortages.

Projected Dubai crude oil prices




| U.S. dollar per barrel | 2021* | 2022 | 2023 |
|---|---|---|---|
| Dubai crude oil prices (annual average) | 69.4 | 100.0 | 90.0 |

Note: *Outturns
Source: BOT forecast

Dubai crude oil prices in the first quarter of 2022 would increase sharply due to

- Lower-than-expected oil supply
  - The Russia-Ukraine conflict and sanctions against Russia have impacted investor confidence and are expected to result in crude oil output from Russia declining as much as 2.5-3.5 million barrel per day.
  - Oil production increase by some OPEC+ members is delayed. OPEC+ members maintains the same production increase agreement. Oil supply from US producers is lower than expected.
- **Continued recovery in oil demand** as concerns over the COVID-19 pandemic subsides.

Dubai crude oil prices forecasts for both 2022 and 2023 are revised up on account of the Russia-Ukraine conflict which would result in a tightening of global crude oil supply. However, it is expected that prices would gradually decrease in the latter half of 2022 if the Russia-Ukraine conflict starts to unwind. It is also expected that oil supply from OPEC+ and the US would gradually increase.

Risks to Dubai crude oil prices forecasts are tilted to the upside

Upside risks: **The Russia-Ukraine conflict** may be more severe, widespread, and drawn-out than expected. The sanctions against Russia might also be escalated to the point that it further impact Russia’s energy exports.

Downside risks: **The outbreak of new COVID-19 variants** might negatively impact oil demand. **Oil supply from Iranian oil producers might increase** if the nuclear agreement with the US is reached.

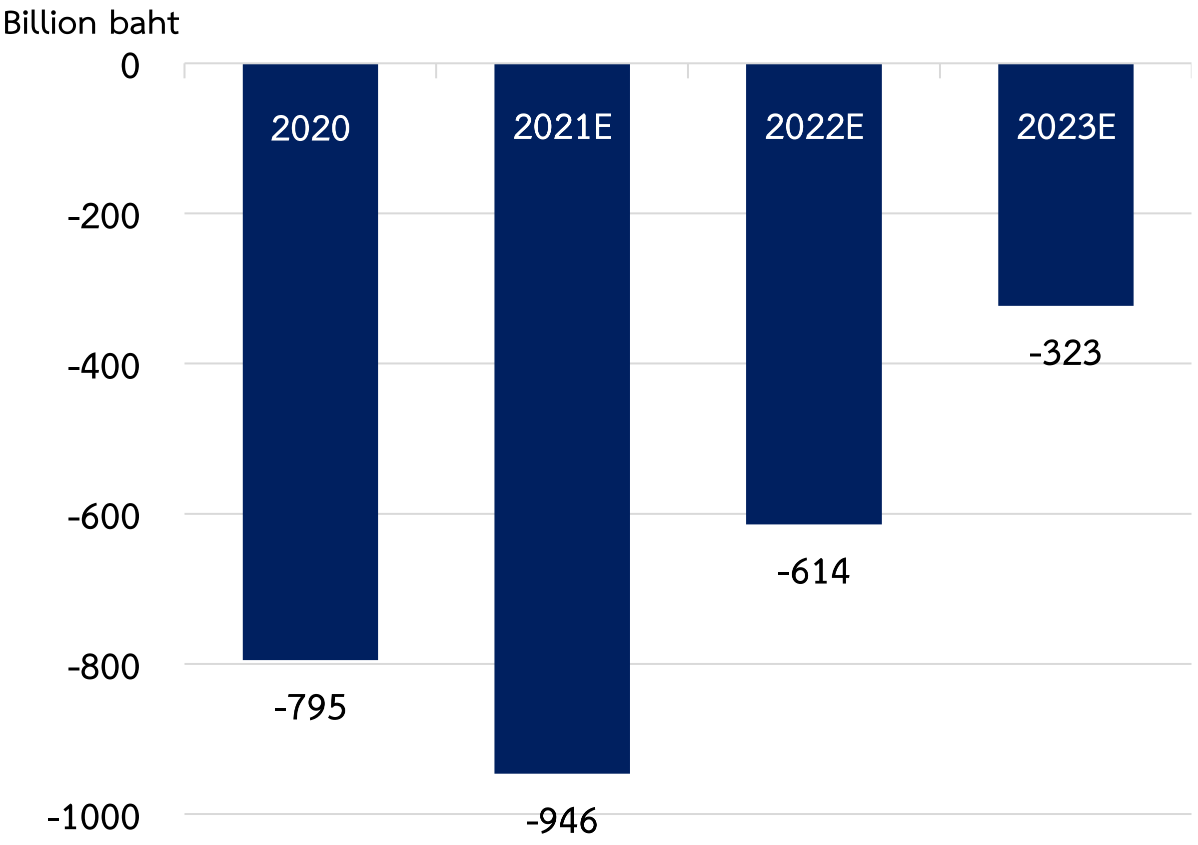
# Special Issue 3

## The 2-year anniversary of COVID-19: How much has the Thai labor market recovered?

Over the next 1-2 years, labor market conditions in Thailand would gradually improve in tandem with the overall economic recovery. However, **improvements in labor market conditions would likely be fragile and not broad-based** as reflected in non-farm income, which is expected to remain below pre-COVID levels in 2022 and 2023 (Chart 1) especially for those who are self-employed and workers in the service sector. This is due to both the slow recovery of the tourism sector, adaptation by both businesses and workers amidst large degrees of economic uncertainties, and demand-supply mismatches in the labor market. Details of these factors are as follow:

(1) Slow recovery of the tourism sector **would impact the income recovery of the self-employed as well as wages and employment of workers in tourism-related services.** While the latest BOT forecast projects foreign tourists arrival to be 5.6 million persons in 2022 and 19 million persons in 2023, those figures are only about half of the arrival seen during pre-COVID periods at 40 million persons. Furthermore, the recovery of the tourism sector remain highly uncertain and would be mainly be determined by the developments of the COVID-19 pandemic. As a result, the recovery in income and employment of both groups of workers is also highly uncertain.

Chart 1: Projected income gap for non-farm workers in 2019




**Note:** E = estimated

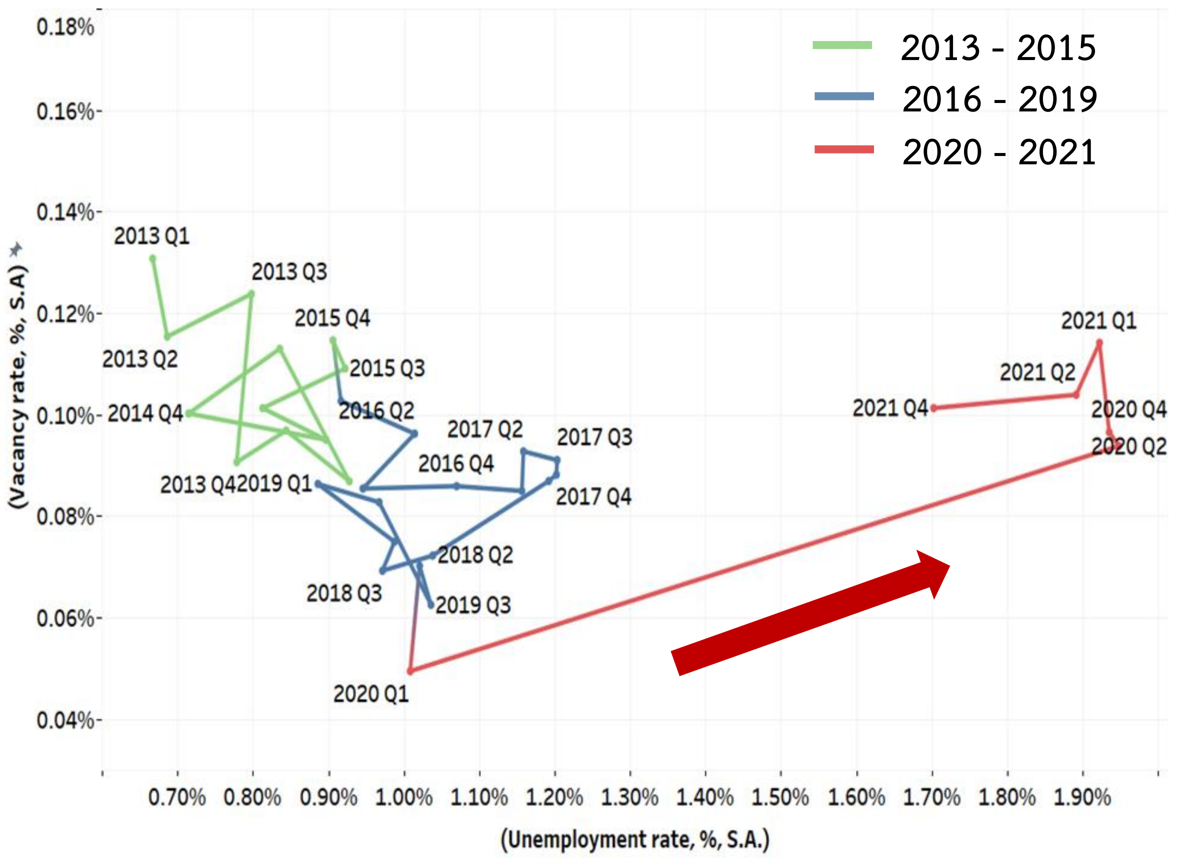
**Source:** Labor Force Survey and Economic and Social Conditions Survey conducted by the National Statistical Office of Thailand, calculated by the Bank of Thailand

(2) Businesses adapted **by hiring less workers while COVID-19 uncertainties remain, resulting in less new hirings.** It is expected that businesses, especially tourism-related services, would adapt by keeping labor costs down at least until there are no uncertainties related to COVID-19. Employers do so by increasing the number of working hours instead of hiring more workers. If there is a need to hire more workers, the employers would hire part-time workers instead of full-time workers because they are more flexible and less expensive. This is reflected in the employment figures in the fourth quarter of 2021 where employment in the service sector grew only about 1 percent from the third quarter even though the government had already relaxed containment measures and started permitting foreign tourists into the country. Meanwhile, employment in hotel businesses grew by about 10% but most of these were part-time workers. As a result, the ratio of part-time to full-time workers increased from 16% to 18% in the third quarter of 2021. In addition, investment by manufacturing businesses have mostly been in automation to replace manual labor and thus did not contribute much to the number of new hiring.

(3) Workers adapted **to the outbreak of COVID-19 as some workers decided to move back home or to work in the informal sector. As such, the recovery in income has been limited and remain below pre-COVID levels.** Currently, around 1.7 million workers have moved back to their home provinces are still reluctant to return to economic areas such as Bangkok and Phuket. This is due to many reasons such as uncertainties pertaining to the COVID-19 outbreak, wages being insufficient to cover living costs, and age limitations preventing workers from returning to the labor force. It is expected that most workers would move to the informal sector where productivity and labor income are low such as agriculture and self-employment. Workers who are out of jobs and have not yet returned home might also transition to the informal sector as well. This is reflected in the number workers in the agricultural sector and the self-employed in the fourth quarter of 2021 which increased by 5% and 4%, respectively, from pre-COVID levels. Meanwhile, workers in non-agricultural sectors declined by about 2%.

**Looking ahead, it is expected that some of the workers who returned back to their home provinces would return to work in economic areas if the sector they previously worked in has clearly recovered. Meanwhile, some of those workers might have returned back home permanently,** especially the elderly and those with the capital or land ownership for starting a new career or a local farm. The income of this particular group of workers would likely remain below pre-COVID levels.

Chart 2: Relationship between unemployment and job vacancy rate (Beveridge Curve)

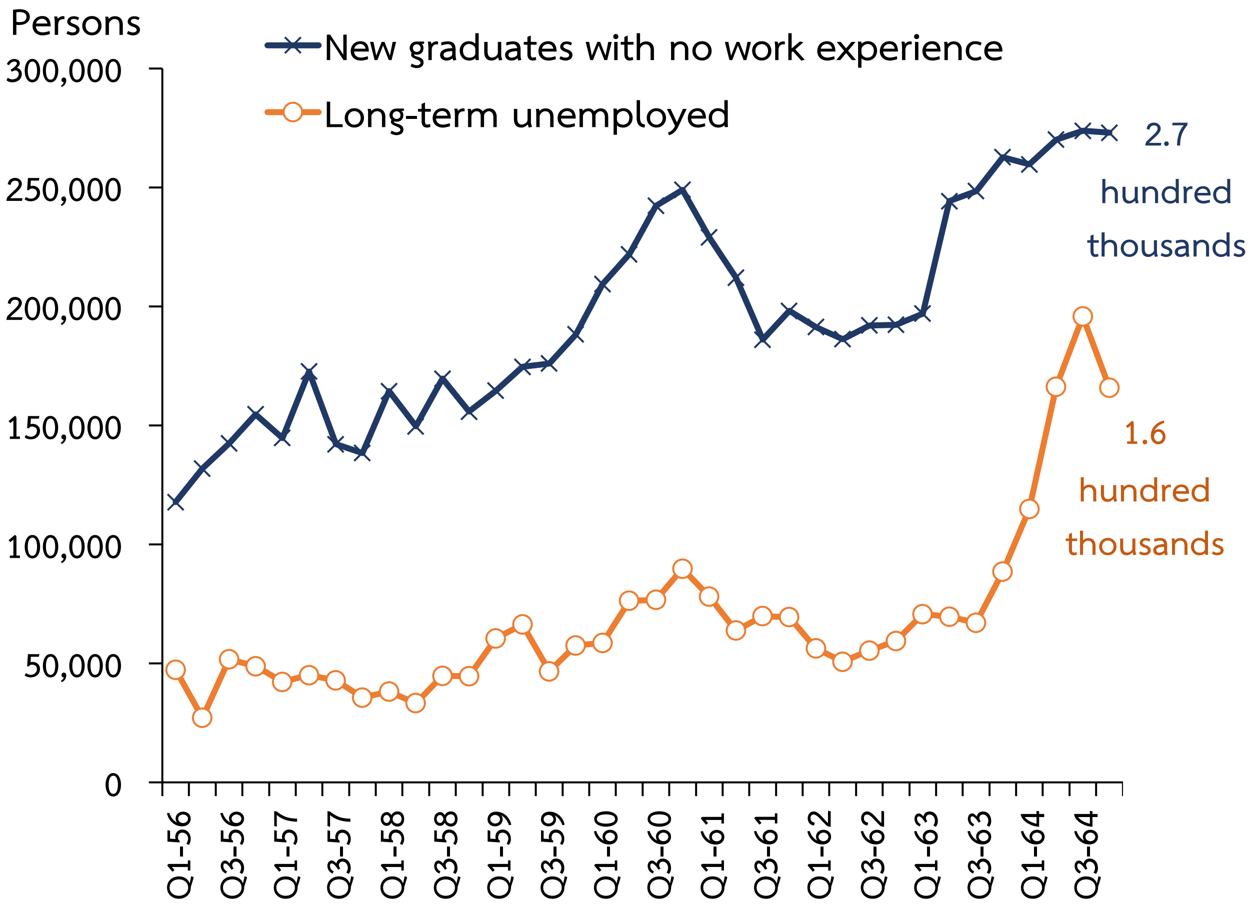



**Source:** Labor Force Survey by the National Statistical Office of Thailand, calculated and estimated by the Bank of Thailand

(4) Demand-supply mismatches in the labor market **especially between the qualifications of the unemployed and the needs of the employers.** Labor market data in 2021 indicates that some employers still need to hire additional employees as the number job vacancies did not decline (Chart 2). Some sectors were still hiring and likely to employ more workers to replace migrant workers who returned home. Meanwhile, workers found it more difficult to get a job as reflected in the number of long-term unemployment (workers who have been looking for a job for more than 1 year) which rose significantly (Chart 3) from 60,000 to 160,000 persons in the fourth quarter of 2021. The number of those who are unemployed and never had a job before also increased to 270,000 persons, a number of which were new graduates who mostly hold a bachelors' degree. However, employers were looking for workers who do not have such high level of education.

The Beveridge curve represents the relationship between the unemployment rate and the vacancy rate which typically has negative correlations. During periods of economic slowdown, for instance, unemployment rate would increase while the vacancy rate would decrease. **However, if the unemployment rate increases significantly while the vacancy rate is largely unchanged (Beveridge curve shifted to the right), it indicates that there may be structural problems in the labor market preventing workers from taking up those job vacancies.** In the second quarter of 2020, the Beveridge curve for the Thai labor market shifted to the right. This reflected the demand-supply mismatches in the Thai labor market whereby most job vacancies were for factory workers which do not require high level of education and were previously filled by migrant workers, and thus was not attractive to those currently unemployed.

Chart 3: Unemployment rate (seasonally adjusted)




**Note:** Long-term unemployment refers to those who were unemployed for more than one year, both previously employed and new graduates.

**Source:** Labor Force Survey conducted by the National Statistical Office of Thailand, calculated and estimated by the Bank of Thailand

**In summary, the recovery of wages over the next 1-2 years would be held back by many factors.** The slow recovery of the tourism sector would result in the slower recovery in wages of the self-employed and those in the service sector compared to other occupations. Meanwhile, adaptation by both employers and the employees amidst high economic uncertainties due to the COVID-19 outbreak, and demand-supply mismatches in the labor market would both weigh on the recovery in employment and wages as well. As such, it would be necessary to closely monitor the recovery in labor market given its significant implications for private consumption and the overall economic recovery, as well as financial stability going forward.

Return to Labor Market page

# Special Issue 4

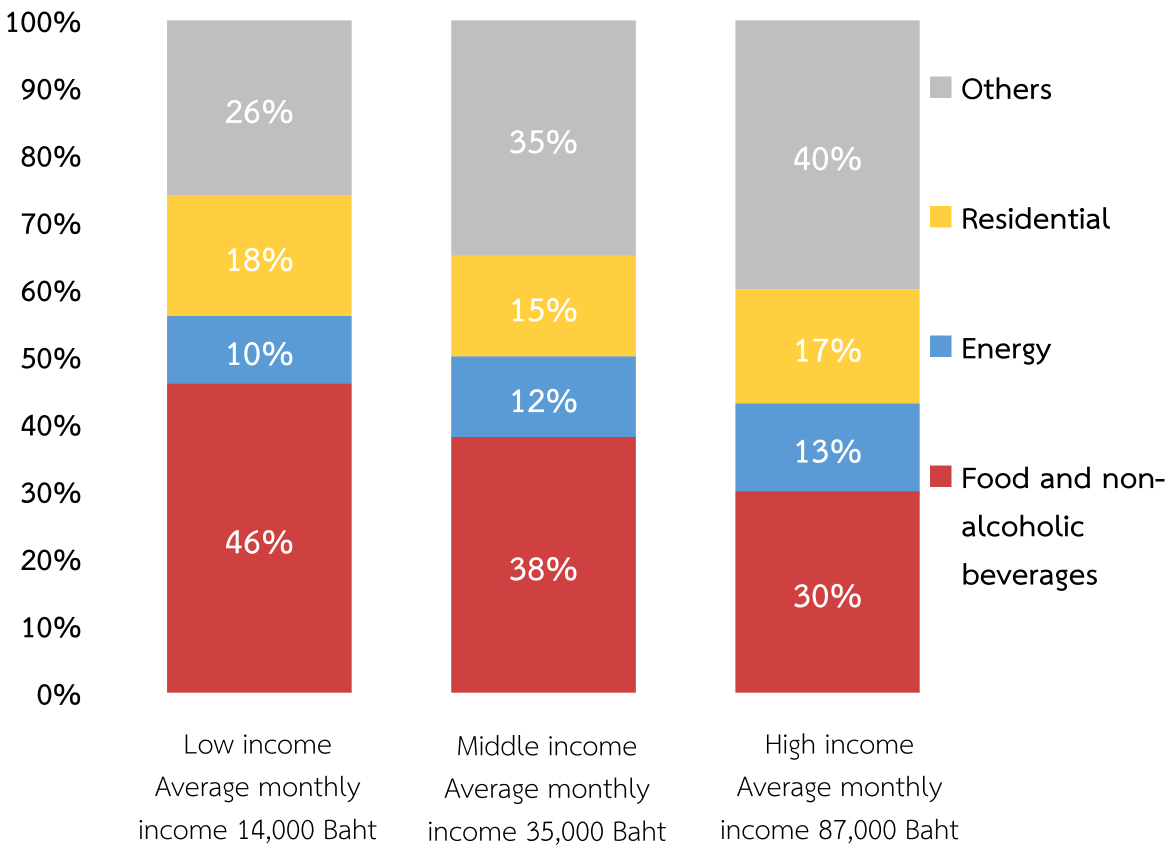
## Impact of inflation on households across different income groups

Overall, the Thai economy is gradually recovering from its trough in 2020 and headline inflation is rising due to cost-push pressures. Detailed analysis shows that the recovery remains uneven across sectors and that the impact of rising inflation is also uneven between people of different income groups (double K-shaped recovery).

In the recent period, inflation in Thailand rose sharply, especially in energy and food prices which saw a much larger increase compared to other goods with price increases for both fresh food and prepared food. **While higher inflation would impact the cost of living for the whole population, the severity of the impact would vary across different households depending on their spending structure.** For instance, households who spends a large share of their income on energy and food would be more affected in comparison.

An analysis of household socio-economic data found that **low-income households would face higher living costs from spending on food more so than high-income households. This is because the share of spending on food and non-alcoholic beverages among low-income households is as high as 46% of total spending, while the share of those same spending among high-income households is less than 30%.** Meanwhile, the impact of higher energy prices is not so different between the two income groups. The share of energy spending for low-income households and high-income households are similar at 10% and 13% of total spending, respectively (Chart 1).

Chart 1: Proportion of expenditure basket for each income group (proportions as of 2021)




**Source:** Household socio-economic survey conducted by the National Statistical Office of Thailand, calculated by the Bank of Thailand

**Low-income households also face challenges stemming from elevated debt levels and their income not having fully recovered yet.** About two-thirds of low-income households are indebted (Chart 2). Most low-income households are also self-employed or working in the service sectors which were directly impacted by the outbreak of COVID-19 and thus wages are recovering more slowly than other occupations.

All of the aforementioned factors hinder household purchasing power, especially low-income households which make up a large share of Thailand's population (60%) and account for one-third of total consumption spending (Chart 3). Not only do those factors affect the cost of living and quality of life of low-income households, they might also hold back private consumption and the overall economic recovery in the period ahead.

Chart 2: Proportions of household debt for each income group

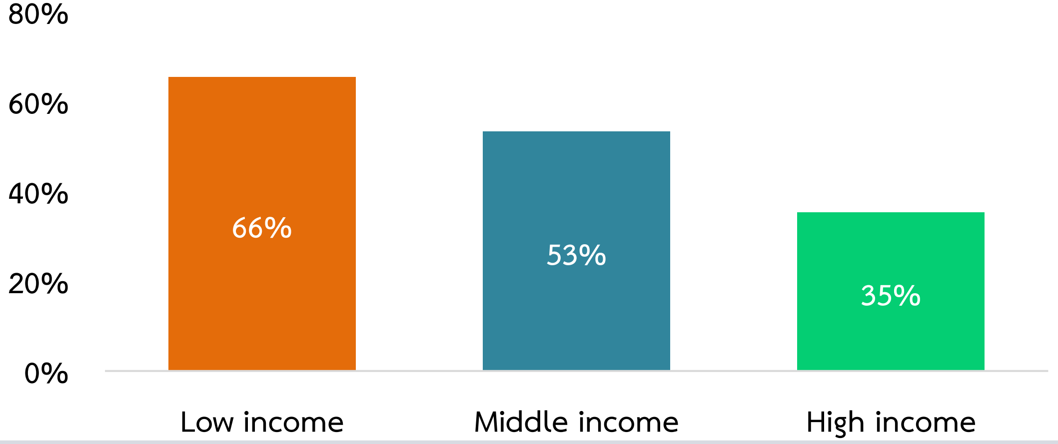
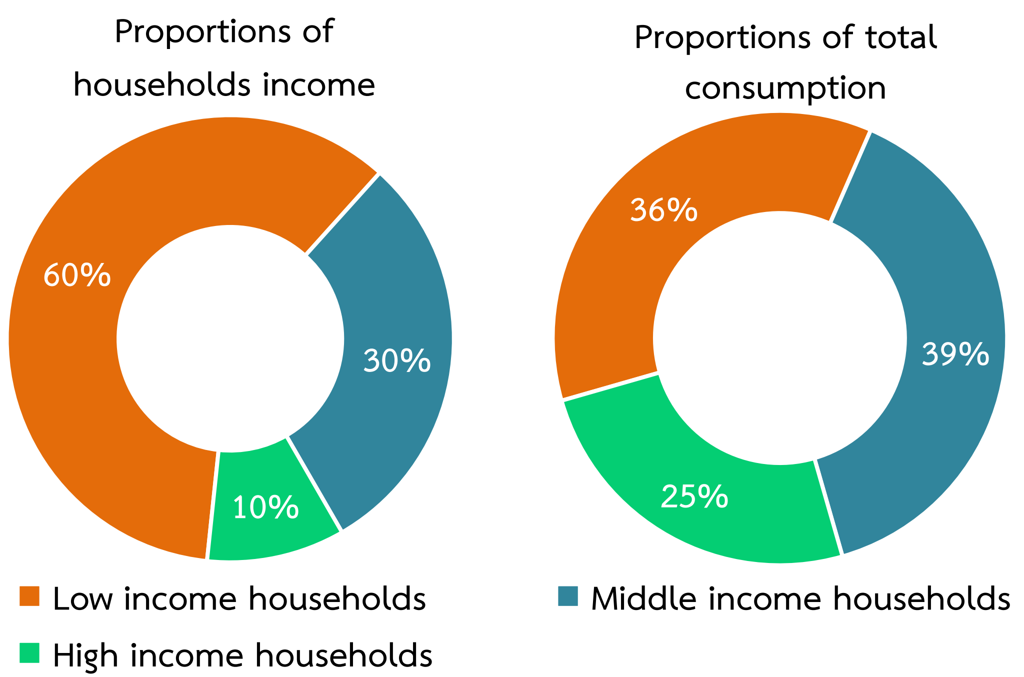



Chart 3: Proportions of households and consumption of each income group




**Note:** Household income are categorized by the 60th and 90th percentile, with low income households categorized according to the definition set by the Ministry of Commerce.

**Source**: Household socio-economic survey conducted by the National Statistical Office of Thailand, calculated by the Bank of Thailand

Return to latest inflation developments page

# 4. Monetary Policy Decision

# Monetary Policy Decision: Summary of Key Considerations

### Monetary Policy

The MPC voted to maintain the policy rate at 0.5% to support a continued economic recovery

### Financial conditions

Financial conditions remain accommodative overall, but have tightened due to heightened global financial market volatility recently.

### Financial stability

Pockets of vulnerability remain, namely those pertaining to the balance sheets of households and businesses that continue to have high levels of debt.


### Financial and fiscal measures

Measures should be well-targeted with financial and credit measures focusing on distributing liquidity and easing debt burden, and fiscal measures focusing on easing the cost of living and creating income.

# Monetary policy: the MPC voted to maintain the policy rate to support the continuity of the economic recovery.

| MPC Meeting No. 1/2022 (9 Feb 2022) | MPC Meeting No. 2/2022 (30 March 2022) |
|---|---|

MPC voted unanimously

To maintain the policy rate at **0.50%**

The Thai Economy **will continue to expand despite the impact from sanctions imposed on Russia** through higher energy and commodity prices as well as a slow down in external demand. Meanwhile, the impact of the Omicron variant outbreak on economic activities is expected to be more contained than previous waves.

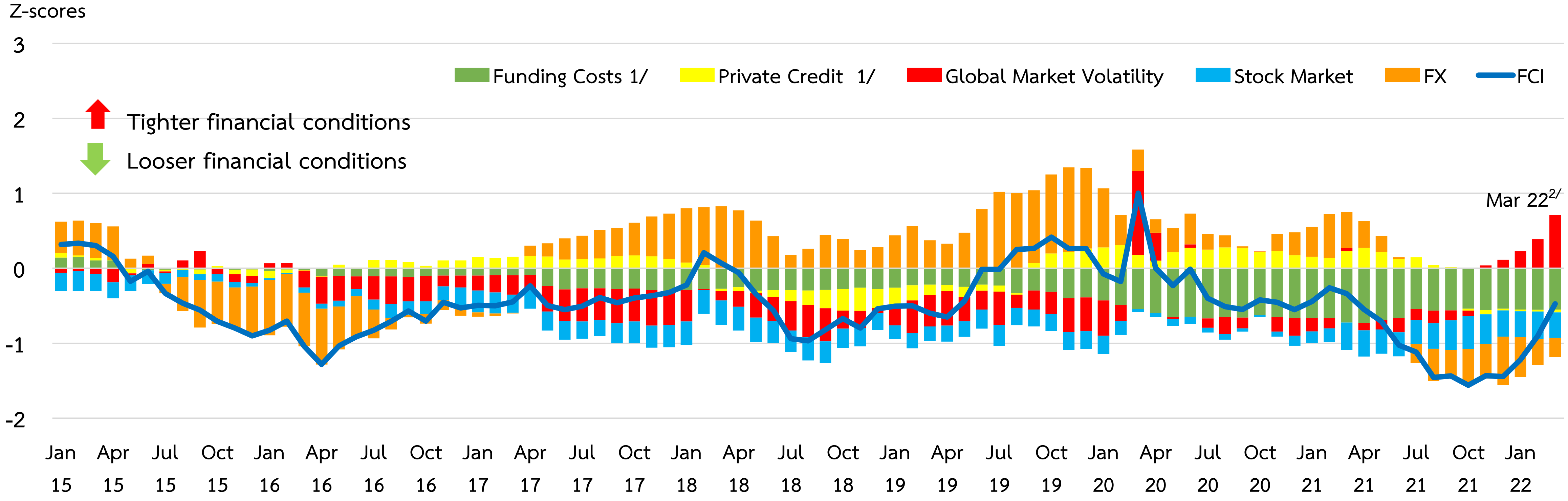
Headline inflation **for the full year 2022 is expected to exceed the target range mainly due to energy prices.** It is expected that headline inflation will peak in the second and third quarters of 2022 before gradually declining into the target range in early 2023 given that energy and food prices are unlikely to rise further. The recent pickup in inflation were mainly a result of supply-side pressure, while demand-pull inflationary pressure remained low in line with wages which had just started to recover.

Financial stability remains sound overall **but household and businesses are still fragile due to elevated debt levels which would hinder economic growth in the period ahead.** Therefore it is deemed necessary to push forth the implementation of debt restructuring measures that takes into consideration the debt repayment capacity of retail borrowers in the long–run in order to provide a more sustainable solution for the indebted.

The MPC continues to place emphasis on the economic recovery in deliberating policy decisions. The MPC will continue to monitor factors that would affect the growth and inflation outlook including global energy and commodity prices, higher cost pass-through, and geopolitical tensions that could become more widespread and lead to more uncertainties going forward. **The MPC stands ready to deploy additional appropriate monetary policy tools if necessary.**

# Financial conditions remain accommodative overall, but have tightened due to heightened global financial market volatility recently

## Financial Conditions Index: FCI




Notes:

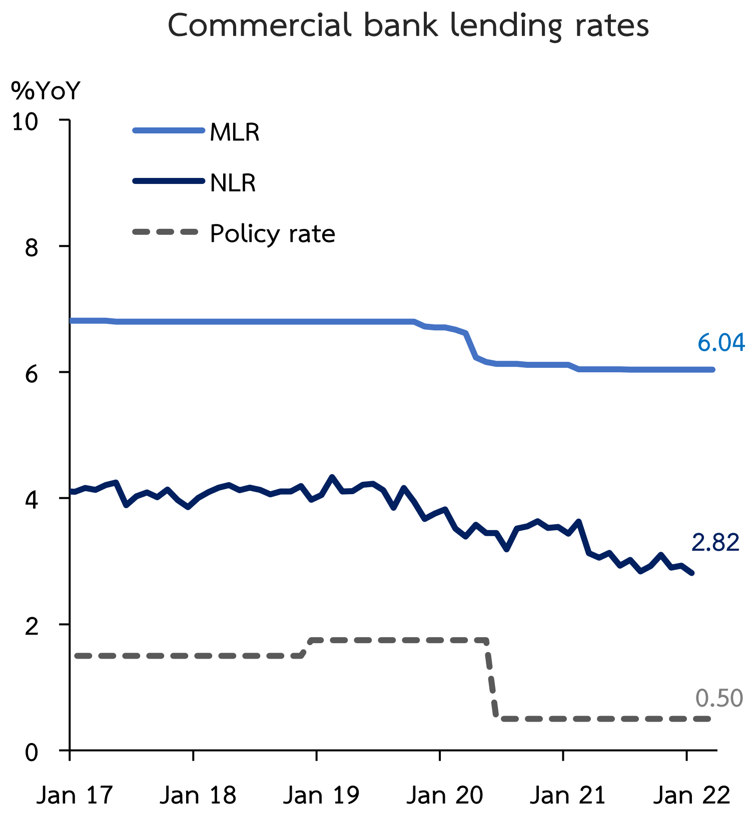
FCI is calculated using first principal components of both FX and non-FX financial condition indicators which are weighted by their respective sizes of accumulated impulse response on real GDP (%yoy) over 8 quarters using VAR(2) model. For funding costs and private credit categories, weights of each variable are adjusted according to its proportion in total 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 be equal to the previous month's data.

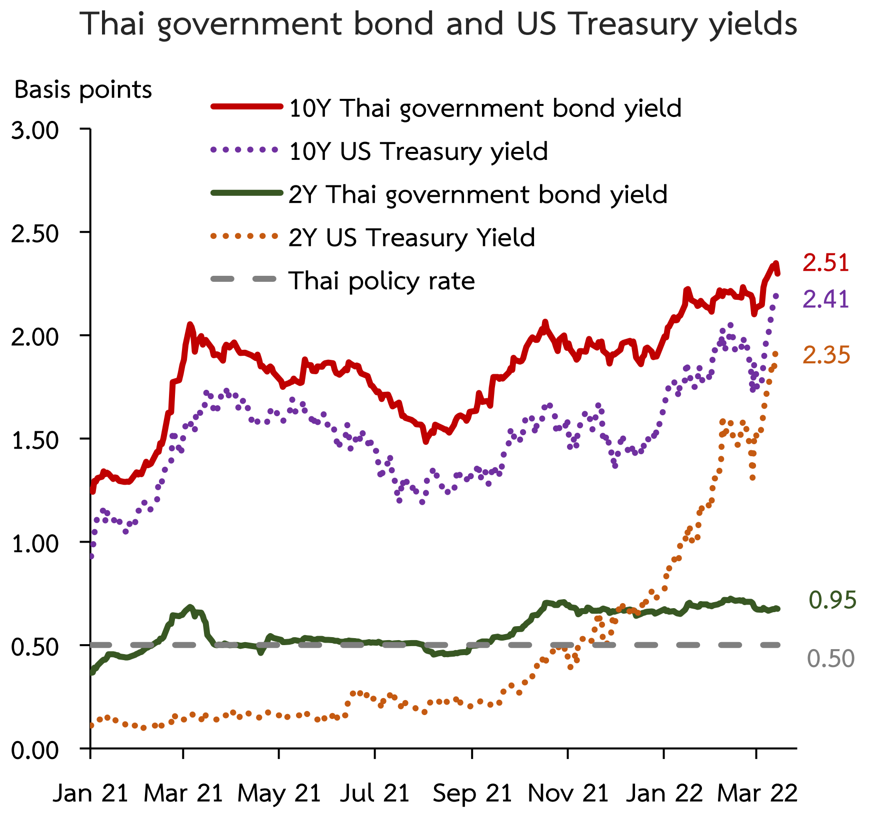
2/ Average of data points up until 17 Mar 22

Source: Bank of Thailand

# Private sector financing costs through both credit and the bond market remain low. Long-term government bond yields edged up but had limited impact on businesses' ability to obtain financing.




Note:
1/Monthly average of 13 commercial banks (data as of 21 Dec 2021) as TMB Bank and Thanachart Bank completed the merger on 5 July 2021 and rebranded under TMB Thanachart Bank (ttb)
2/New Loan Rate (NLR) (Data as of Jan 2022)
Source: BOT



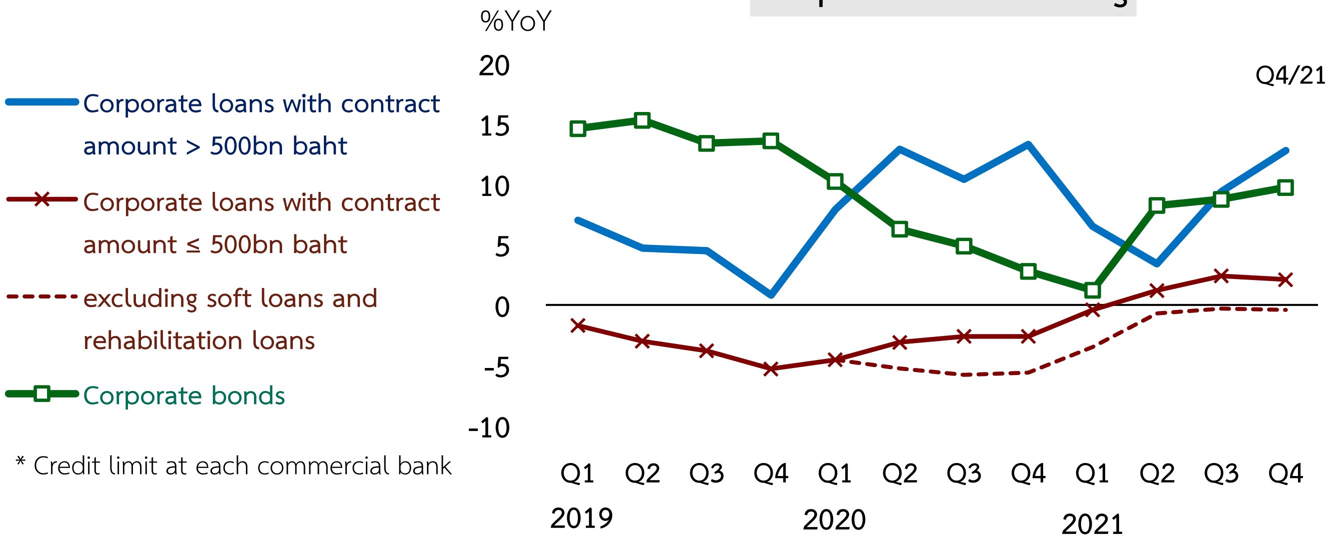

Sources: Thai BMA, Federal Reserve Economic Data (FRED)
(Data as of 29 Mar 2022)

**Private sector financing costs through both credit and the bond market remain low. The minimum loan rate (MLR)** offered by commercial banks remain below pre-COVID levels. Meanwhile, **new loan rates (NLR)** as of January 2022 declined slightly from the previous month, especially for loan contracts larger than 100 million baht for businesses in utilities, hotels, passenger transportation, and commerce sectors.

**Short-term Thai government bond yields** remain close to the policy rate and did not move in tandem with US Treasury yields. Meanwhile, **long-term government bond yields** increased from the previous quarter, in line with movements in its US and regional counterparts. The increase is attributable to expected hikes in the Federal Funds Rate which might happen sooner and faster than expected, as well as rising inflation due to higher energy and commodity prices. However, **higher long-term government bond yields would have limited impact on businesses** because most corporate bonds issued have maturity of less than 5 years.

Businesses are still able to obtain financing with support from accommodative monetary policy as well as financial and credit measures. Looking ahead, it is expected that businesses would still continue to seek out more financing as the economy continues to recover.

Corporate fundraising




* Credit limit at each commercial bank

Source: Bank of Thailand

**In the fourth quarter of 2021, large corporates (credit limit > 500 million baht) were still able to obtain financing**. Corporate loans grew across many sectors, especially manufacturing and commerce partly because these sectors are linked to exports and the outlook for exports has improved. Corporate bond issuance also expanded with most issuers being businesses in the manufacturing, media and communication. These issuances were mainly driven by the need to roll-over existing debt and the need for more working capital.

**SME loans (credit limit ≤ 500 million baht) saw continued improvements** supported mainly by the soft loan facility. Businesses that received financial assistance from the facility were mostly businesses in commerce and manufacturing sectors.

**For the first quarter of 2022**,** it is expected that credit demand would continue to grow across all sectors given financing needs for working capital purposes, exports, and investment in fixed capital which are in line with the ongoing economic recovery.

## Progress of the Soft Loan Facility and Asset Warehousing Program as of 21 March 2022

| | | |
|---|---|---|
| Soft Loan Facility | Approved amount 161 bn. baht | Number of recipients 49,209 |
| Asset Warehousing | Value of assets transferred 41 bn. baht | Number of recipients 309 |

Source: Bank of Thailand

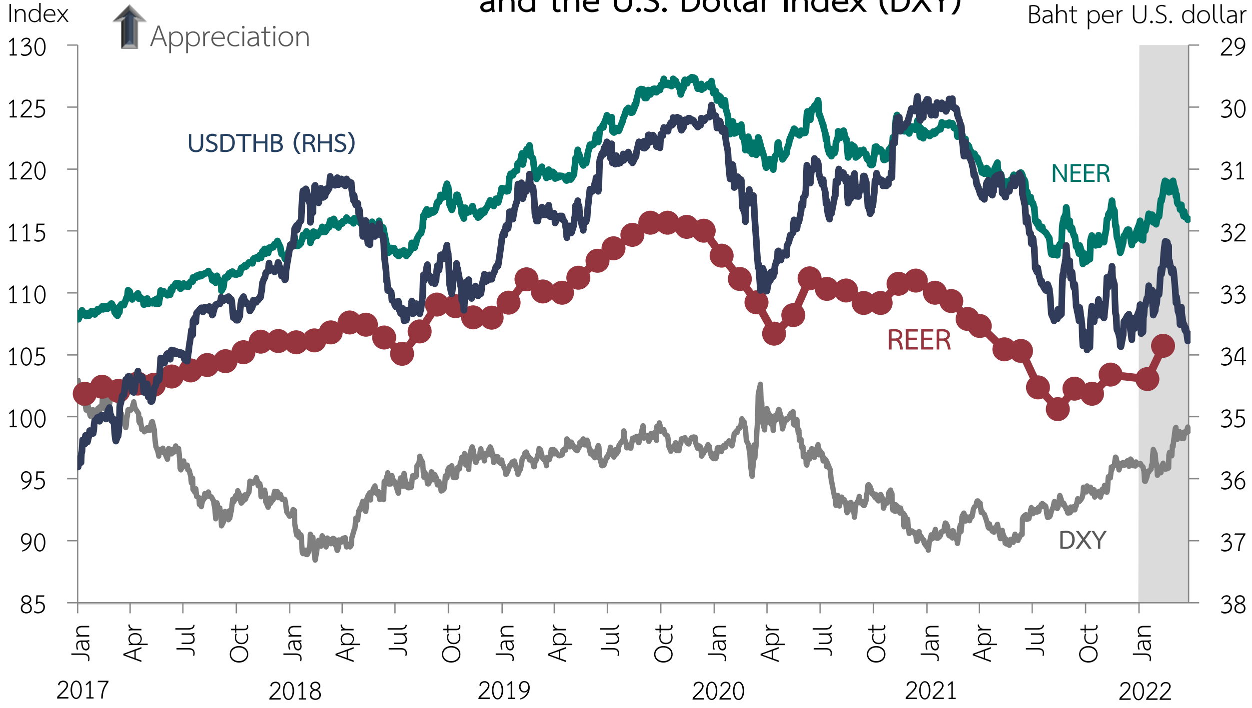
** Report on Credit Conditions Q4/2021 and Outlook for Q1/2022

Latest data on BOT's debt assistance programs (in Thai)

## The baht appreciated in the early parts of Q1/2022 on account of the recovery of the tourism sector and subsequently depreciated after the Russia-Ukraine conflict erupted.

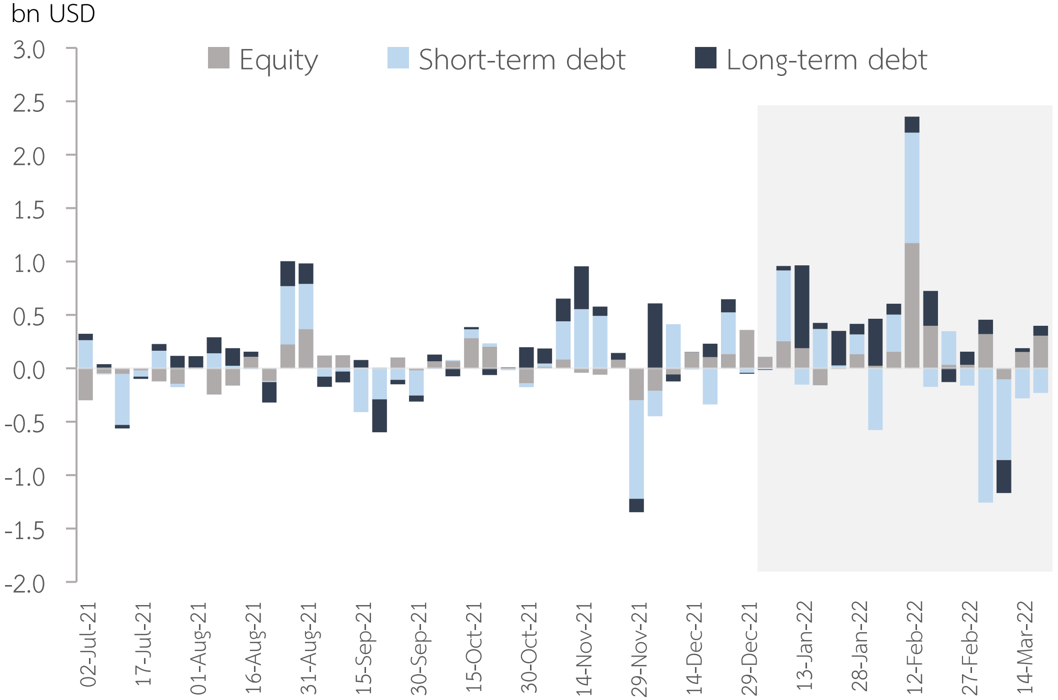
- **In the first quarter of 2022, the baht averaged 33.05 baht per U.S. dollar, an appreciation of 1% from the previous quarter. The baht's movements during this period have also been volatile due to increased uncertainties.** The baht appreciated in the early parts of the quarter as confidence improved over the opening of Thailand's borders to foreign tourists under the Test & Go program, which eased investors concerns and led to capital flows returning to Thai financial markets. However, the baht depreciated sharply in March due to (1) the Russia-Ukraine conflict which escalated and is likely to be drawn out and (2) faster-than-expected policy rate hikes by major central banks.
- **The nominal effective exchange rate (NEER) averaged 116.8**, a 1.9% appreciation from the previous quarter mainly due to the depreciation of the euro and the ruble.

Baht per U.S. dollar (USDTHB), Nominal Effective Exchange Rate (NEER), and the U.S. Dollar Index (DXY)




Sources: Bank of Thailand, Bloomberg and Refinitiv (data as of 29 March 2022)

Capital flows into Thai securities (weekly)

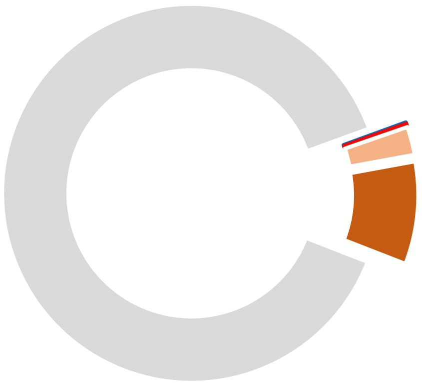



Source: ThaiBMA and Bloomberg Note: weekly data is complied from trading days in each week

Risks pertaining to heightened global financial market volatility have increased but the impact of the Russia-Ukraine conflict on Thai financial markets has been limited so far. This is because not many Thai mutual funds invest in the Russian market and the risk of capital reversals from Thailand remains low.

**Thai Foreign Investment Funds (FIF) have limited investment in Russian and European markets. There is also no evidence of mass unit redemptions that should be of concern thus far.**

FIF Portfolio (AUM)



| | % of total FIF | AUM (Mn.THB) |
|---|---|---|
| RU stock | 0.1% | 1,395 |
| RU FI | 0.2% | 2,268 |
| EU FI | 2% | 32,262 |
| EU Stock | 9% | 117,561 |
| Others | 89% | |

Source: Morningstar (data as of 17 March 2022)

**Risk of capital reversals from Thai financial markets remains low because of low non-resident participation in the market.**

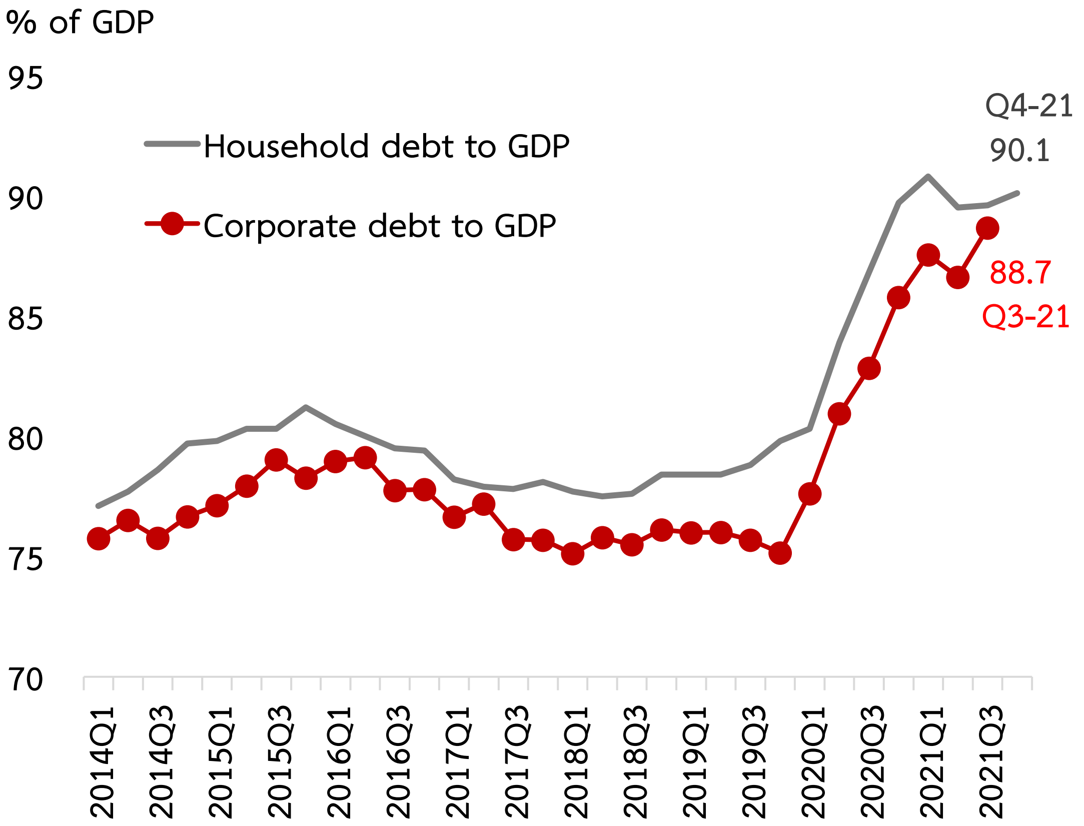
| Risks to Thai financial market | Share of non-resident participation |
|---|---|
| Stock market | Low: Non-residents make up 27% of total investment value in the Thai stock market. |
| Bond market | Low: Non-residents make up 10% of total investment in the Thai bond market. |
| Rollover risk for external debt | Limited rollover risk: External debt maturing within 1 year account for less than 1% of total value of debt instruments in the market. |
| US dollar liquidity | Limited: Outstanding US dollar swap with European commercial banks account for only 6% of total swap outstanding* |

Note: *Outstanding amount as of end-February 2022

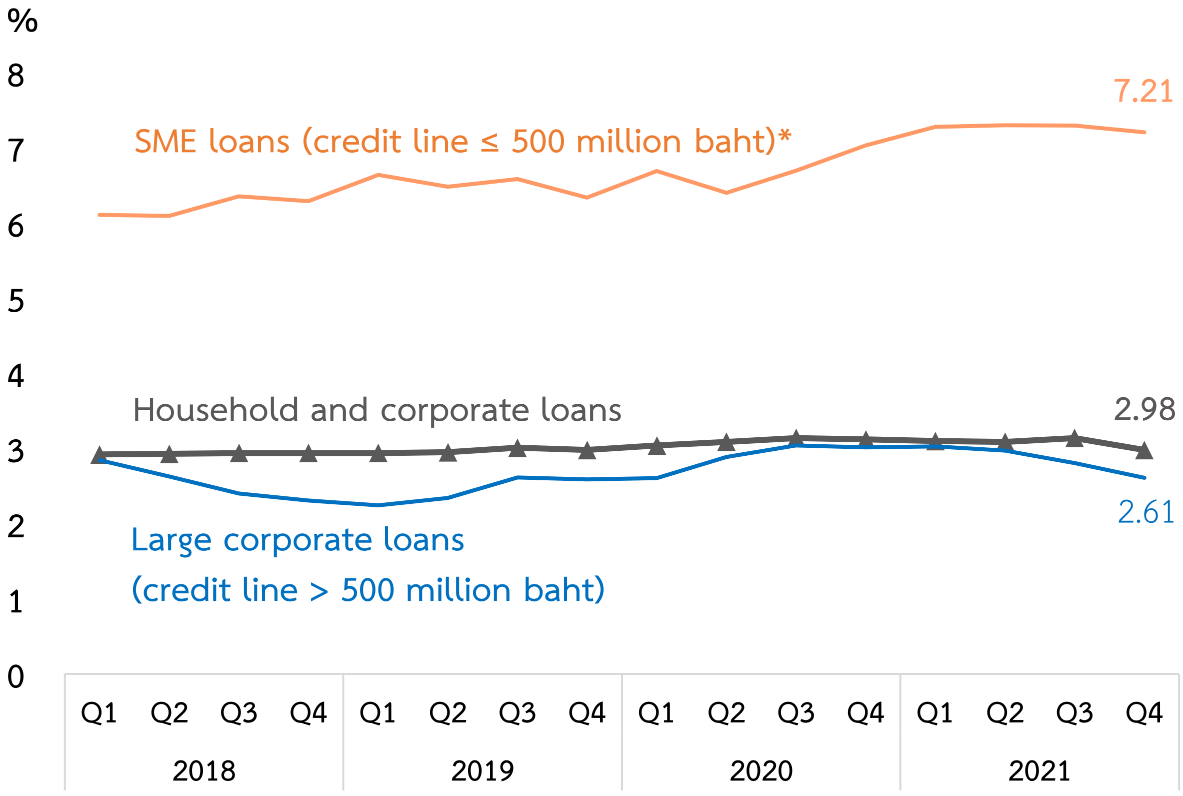
Source: compiled by BOT

Balance sheets of households and businesses remain fragile as reflected in their high debt-to-income ratios. It is therefore necessary to push forth the implementation of debt restructuring measures that bring about a sustainable solution to debt problems by taking into consideration the debtors' repayment capacity over the longer-term.

### Household debt and corporate debt (% of GDP)




### Commercial banks' non-performing Loan (NPL) ratios




Note: *excluding financial services

Coordination between well-targeted financial and fiscal measures. Financial and credit measures should focus on distributing liquidity and alleviating debt burden, while fiscal measures should focus promoting income recovery and easing the cost of living for vulnerable groups.

## Financial measures

### Solving debt overhang

- Long-term debt relief measures (3 Sep 2021)
- Debt consolidation measures
- Suspension of prepayment penalty fees to support debt refinancing

### Liquidity support

- Soft loan facility
- Asset warehousing
- Other measures by specialized financial institutions (SFIs)

## Fiscal measures

### 10 relief measures between May – Jul 2022

- Additional cash handout of 100 baht per month for government welfare cardholders to subsidize their cooking gas purchase
- Cooking gas relief payment of 100 baht per month for street vendors (hawkers)
- Gasohol relief payment of 250 baht per month for motorcycle taxi drivers
- Maintain retail NGV prices
- Quota to purchase NGV at special price for metered Taxis participating in the program
- Reduced electricity bills between May-Aug 2022 for households that uses less than 300 units of electricity per month
- Maintain diesel price ceiling of 30 baht per liter until April 2022, after which the government will subsidize 50% of the price increase
- Price control on cooking gas between Apr–Jun 2022 to prevent excessive price increase
- Reduced social security contributions for both employers and employees (Section 33) to 1% between May-July 2022
- Reduced social security contributions for insured persons under section 39 to 1.9% and for insured persons under section 40 to 42-180 baht per month.

Source: Government News 22 March 2022

# Data tables

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

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

| Percent | 2020 | 2021 | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2021 Q3 | 2021 Q4 |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP growth | -6.2 | 1.5 | -2.1 | -12.3 | -6.4 | -4.0 | -2.5 | 7.7 | -0.2 | 1.9 |
| Expenditure | | | | | | | | | | |
| Domestic demand | -1.5 | 1.6 | -0.6 | -5.5 | -0.2 | 0.2 | 2.1 | 4.6 | -1.6 | 1.6 |
| Private consumption | -1.0 | 0.3 | 2.7 | -6.6 | -0.6 | 0.8 | -0.3 | 4.7 | -3.2 | 0.3 |
| Private investment | -8.2 | 3.2 | -5.2 | -14.4 | -10.4 | -3.2 | 3.1 | 9.2 | 2.6 | -0.9 |
| Government consumption | 1.4 | 3.2 | -2.4 | 1.5 | 3.7 | 2.4 | 2.2 | 1.0 | 1.5 | 8.1 |
| Public investment | 5.1 | 3.8 | -9.6 | 12.0 | 17.0 | 0.0 | 19.8 | 3.4 | -6.2 | 1.7 |
| Imports of goods and services | -14.1 | 17.9 | -3.4 | -23.6 | -20.8 | -8.4 | 1.0 | 28.7 | 29.5 | 16.6 |
| imports of goods | -10.6 | 18.3 | -1.0 | -19.7 | -17.4 | -3.8 | 4.6 | 29.9 | 28.0 | 14.0 |
| imports of services | -27.8 | 16.2 | -12.4 | -38.2 | -34.6 | -26.4 | -13.4 | 23.6 | 37.1 | 28.8 |
| Exports of goods and services | -19.7 | 10.4 | -5.9 | -28.0 | -23.5 | -21.7 | -10.3 | 28.4 | 12.3 | 17.7 |
| exports of goods | -5.8 | 14.9 | 1.9 | -16.0 | -7.4 | -1.4 | 2.9 | 30.8 | 12.0 | 16.6 |
| exports of services | -61.3 | -22.8 | -27.7 | -69.4 | -74.4 | -76.2 | -62.3 | 4.8 | 14.7 | 30.5 |
| 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 |
| 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 |
| 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 |
| 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 |
| Unemployment rate (%) | 1.7 | 1.9 | 1.0 | 2.0 | 1.9 | 1.9 | 2.0 | 1.9 | 2.3 | 1.6 |
| Unemployment rate, seasonally-adjusted (% | n.a. | n.a. | 1.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.2 | 1.7 |

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

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

| Indicators | 2020 | 2021 | 2020 | | | | 2021 | | | | 2022 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Jan | Feb |
| 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 |
| 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 | 1,685.2 |
| 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 | 12.3 |
| 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 | 19.7 |
| 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 | 6.5 | 6.3 |
| 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 | 115.5 | 117.6 |
| 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 | 103.0 | 105.6 |
| 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 |
| 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 |
| 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 | 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 | 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 | 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 | 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 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 | 2021 Q1 | 2021 Q2 | 2021 Q3 | 2021 Q4 | 2022 Jan | 2022 Feb |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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. |
| 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. |
| 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 | 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 | 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 | 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 | 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 | n.a. | n.a. |
| 4. Non-financial corporate sector[5/] | | | | | | | | | | | | |
| Operating profit margin (OPM) (%) | 6.0 | 7.7 | 6.0 | 4.5 | 6.9 | 7.0 | 8.5 | 7.7 | 7.2 | 7.1 | 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 | n.a. | n.a. |
| Interest coverage ratio (ICR) (times) | 3.7 | 6.7 | 3.7 | 2.6 | 4.3 | 5.1 | 6.5 | 6.3 | 5.9 | 6.9 | n.a. | n.a. |
| Current ratio (times) | 1.6 | 1.7 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.5 | 1.6 | 1.7 | 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 | 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 | 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 | Jan | Feb |
| **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 | 2,693 | 3,895 |
| 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 | 896 | 1,243 |
| Townhouses and commercial buildings | 23,062 | 21,372 | 5,314 | 5,559 | 6,128 | 6,061 | 5,709 | 6,133 | 4,775 | 4,755 | 896 | 1,213 |
| Condominiums | 30,521 | 23,525 | 6,015 | 7,564 | 8,059 | 8,883 | 5,804 | 6,151 | 5,469 | 6,101 | 901 | 1,439 |
| 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 | 7,450 | 8,272 |
| 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 | 1,105 | 748 |
| Townhouses and commercial buildings | 29,370 | 23,709 | 8,132 | 6,046 | 9,396 | 5,796 | 2,765 | 7,492 | 5,597 | 7,855 | 710 | 534 |
| Condominiums | 25,906 | 23,445 | 6,777 | 1,994 | 8,243 | 8,892 | 4,956 | 5,314 | 2,525 | 10,650 | 5,635 | 6,990 |
| 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 | 138.20 | 139.78 |
| Townhouses (including land) | 156.20 | 160.60 | 155.51 | 155.95 | 156.47 | 156.86 | 158.78 | 159.59 | 161.55 | 162.48 | 163.24 | 164.16 |
| Condominiums | 170.08 | 180.37 | 169.94 | 174.24 | 166.40 | 169.76 | 177.18 | 178.79 | 185.40 | 180.10 | 180.26 | 182.29 |
| Land | 163.37 | 177.73 | 159.04 | 162.19 | 165.13 | 167.12 | 171.03 | 172.21 | 179.22 | 188.43 | 185.12 | 182.65 |
| **6. Fiscal sector** | | | | | | | | | | | | |
| Public debt to GDP (%) | 52.0 | 59.6 | 41.8 | 45.9 | 49.5 | 52.0 | 54.4 | 55.3 | 58.3 | 59.6 | 59.9 | 60.2 |
| **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 | 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. |
| 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 | 200.0 | 202.4 |
| Short-term (%) | 39.2 | 37.5 | 36.1 | 36.1 | 36.3 | 39.2 | 38.7 | 38.2 | 37.7 | 37.5 | 37.3 | 37.6 |
| Long-term (%) | 60.8 | 62.5 | 63.9 | 63.9 | 63.7 | 60.8 | 61.3 | 61.8 | 62.3 | 62.5 | 62.7 | 62.4 |
| 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 | 2.6 | 2.7 |

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

| Percent | 2021 | 2022 | | | | 2023 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| > 16 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 14.0-16.0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 |
| 12.0-14.0 | 0 | 0 | 0 | 3 | 1 | 2 | 2 | 3 | 3 |
| 10.0-12.0 | 0 | 0 | 1 | 7 | 2 | 4 | 6 | 6 | 7 |
| 8.0-10.0 | 0 | 0 | 4 | 13 | 4 | 8 | 10 | 10 | 11 |
| 6.0-8.0 | 0 | 1 | 12 | 18 | 9 | 13 | 16 | 16 | 17 |
| 4.0-6.0 | 0 | 11 | 21 | 19 | 16 | 18 | 19 | 19 | 19 |
| 2.0-4.0 | 0 | 32 | 24 | 16 | 22 | 19 | 18 | 19 | 17 |
| 0.0-2.0 | 100 | 31 | 19 | 10 | 19 | 16 | 13 | 12 | 11 |
| (-2.0)-0.0 | 0 | 16 | 11 | 5 | 13 | 10 | 7 | 7 | 6 |
| (-4.0)-(-2.0) | 0 | 6 | 5 | 3 | 7 | 5 | 3 | 3 | 3 |
| (-6.0)-(-4.0) | 0 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | 1 |
| (-8.0)-(-6.0) | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| < -8 | 0 | 0 | 1 | 1 | 3 | 2 | 1 | 1 | 1 |

Table: Probability distribution of headline inflation forecast

| Percent | 2021 | 2022 | | | | 2023 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| > 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9.0-10.0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 8.0-9.0 | 0 | 1 | 6 | 6 | 0 | 0 | 0 | 0 | 0 |
| 7.0-8.0 | 0 | 5 | 15 | 15 | 2 | 0 | 0 | 0 | 0 |
| 6.0-7.0 | 0 | 16 | 26 | 24 | 6 | 0 | 0 | 0 | 0 |
| 5.0-6.0 | 0 | 31 | 29 | 28 | 14 | 2 | 1 | 1 | 2 |
| 4.0-5.0 | 0 | 32 | 17 | 18 | 23 | 7 | 5 | 5 | 6 |
| 3.0-4.0 | 0 | 13 | 4 | 6 | 27 | 15 | 13 | 14 | 15 |
| 2.0-3.0 | 100 | 2 | 1 | 1 | 19 | 24 | 23 | 24 | 24 |
| 1.0-2.0 | 0 | 0 | 0 | 0 | 7 | 26 | 27 | 27 | 26 |
| 0.0-1.0 | 0 | 0 | 0 | 0 | 1 | 17 | 20 | 19 | 18 |
| (-1.0)-0.0 | 0 | 0 | 0 | 0 | 0 | 6 | 8 | 8 | 7 |
| (-2.0)-(-1.0) | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |
| < -2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table: Probability distribution of core inflation forecast

| Percent | 2021 | 2022 | | | | 2023 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| > 5.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5.0-5.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4.5-5.0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 4.0-4.5 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 |
| 3.5-4.0 | 0 | 0 | 2 | 6 | 9 | 1 | 1 | 1 | 2 |
| 3.0-3.5 | 0 | 1 | 7 | 13 | 17 | 5 | 4 | 5 | 6 |
| 2.5-3.0 | 0 | 5 | 17 | 23 | 24 | 12 | 10 | 12 | 13 |
| 2.0-2.5 | 0 | 16 | 26 | 28 | 25 | 21 | 19 | 20 | 21 |
| 1.5-2.0 | 0 | 30 | 28 | 20 | 15 | 26 | 25 | 25 | 24 |
| 1.0-1.5 | 0 | 33 | 15 | 7 | 4 | 21 | 23 | 21 | 19 |
| 0.5-1.0 | 0 | 14 | 4 | 1 | 1 | 10 | 13 | 11 | 10 |
| 0.0-0.5 | 100 | 2 | 0 | 0 | 0 | 3 | 4 | 4 | 3 |
| (-0.5)-0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| < -0.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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