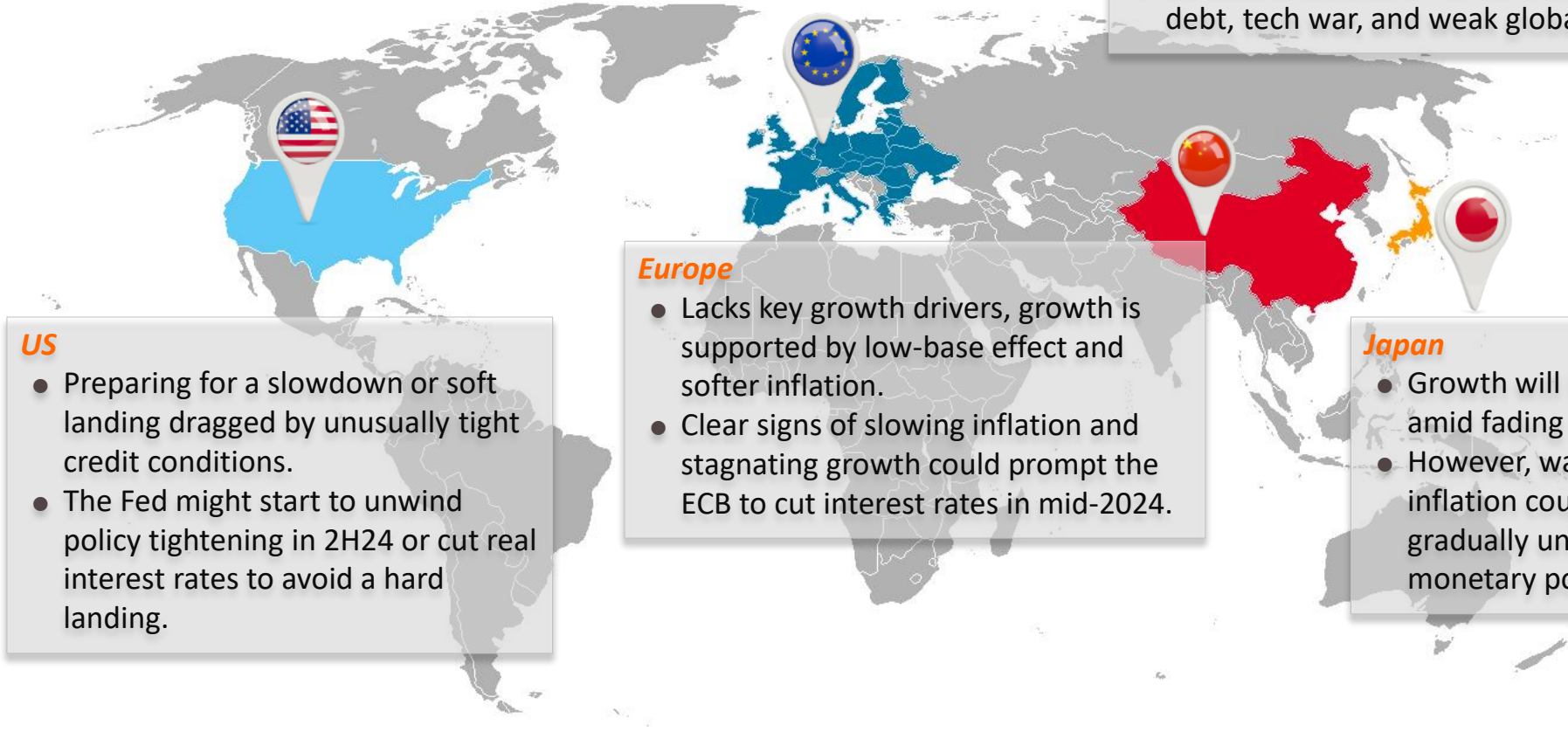

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Economic
Outlook 2024
November 2023
Krungsri Research

Global: Diverging growth prospects amid cyclical slowdown and structural challenges



China

- Economic stimulus meet structural headwinds.
- Short-term rebound in policy support.
- Structural slowdown amid the property crisis, high debt, tech war, and weak global demand.

US

- Preparing for a slowdown or soft landing dragged by unusually tight credit conditions.
- The Fed might start to unwind policy tightening in 2H24 or cut real interest rates to avoid a hard landing.

Europe

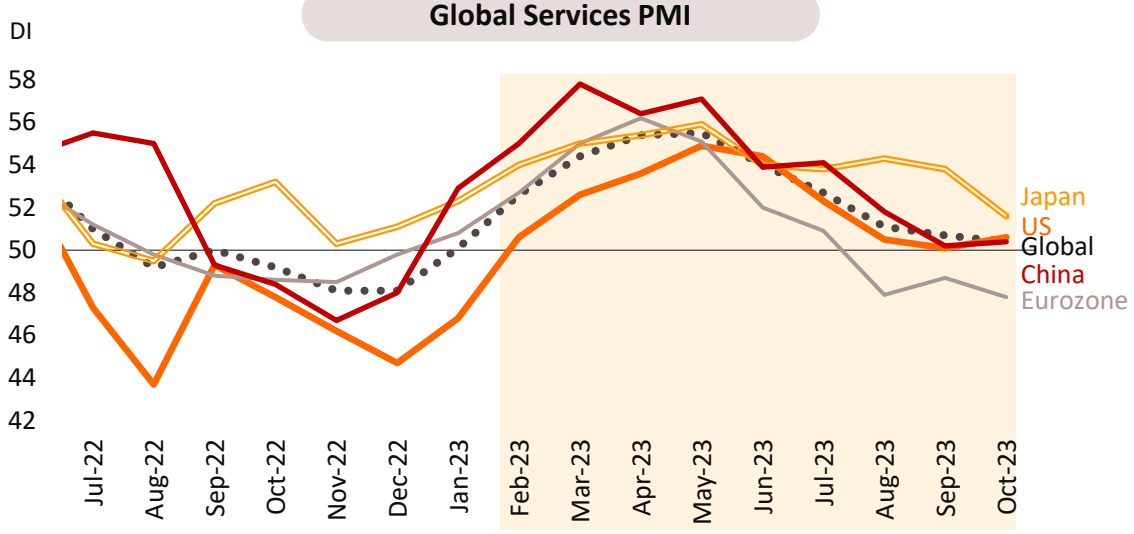
- Lacks key growth drivers, growth is supported by low-base effect and softer inflation.
- Clear signs of slowing inflation and stagnating growth could prompt the ECB to cut interest rates in mid-2024.

Japan

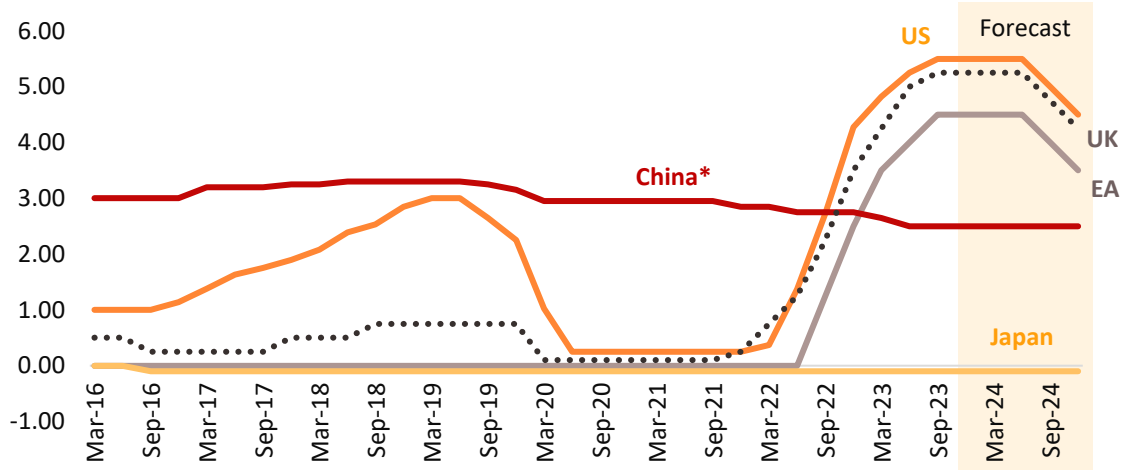
- Growth will lose momentum amid fading reopening tailwinds.
- However, wage hike and high inflation could prompt the BOJ to gradually unwind ultra-loose monetary policy in 1H24.

Global growth loses momentum amid fading post-covid recovery tailwinds, tighter monetary policies, and less fiscal support

Global Services PMI

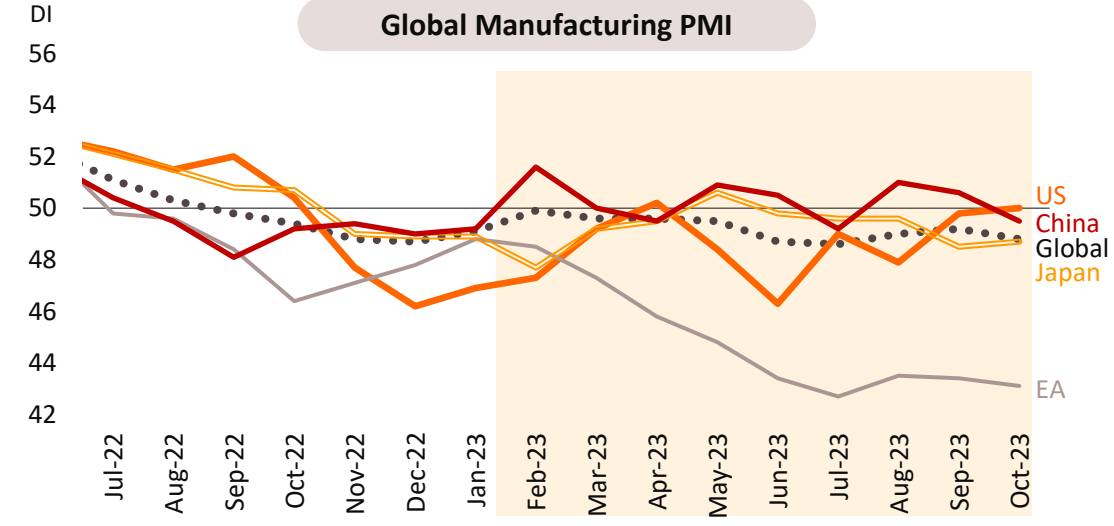


Policy Interest Rates (%)

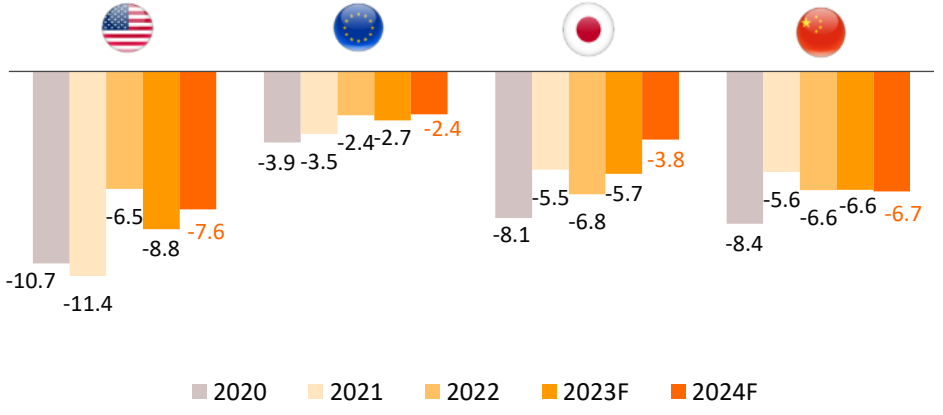


Note: *1-year best lending rate

Global Manufacturing PMI



Fiscal Deficit Projections 2024 (% of GDP)

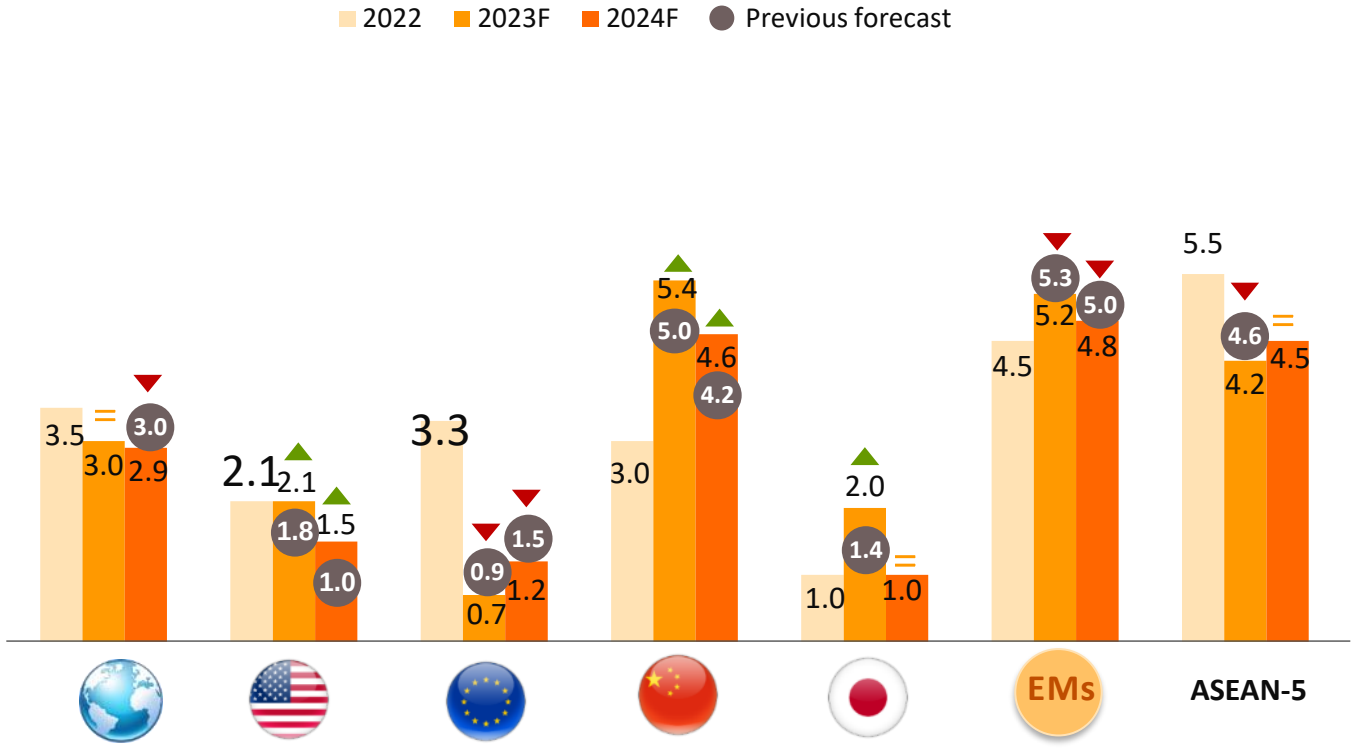


Source: S&P global, Capital Economics, Bloomberg, Krungsri Research

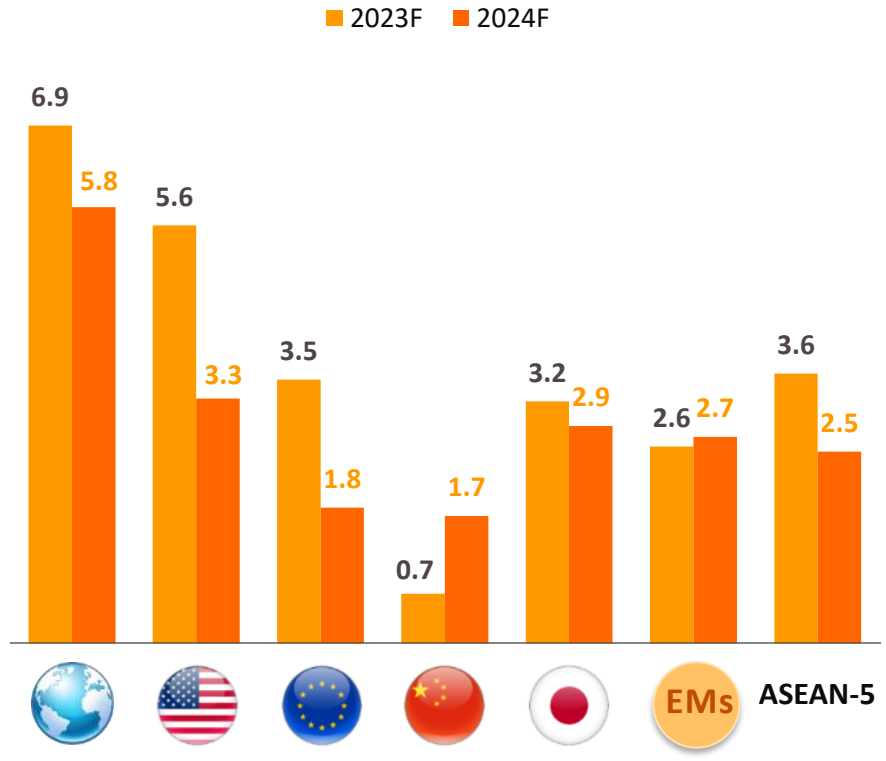
Slow global recovery with greater regional divergence, challenging to return to pre-covid output trends; policy tightening will ease inflation but bite growth

The IMF projects global economic growth will decelerate from 3.5% in 2022 to 3.0% in 2023 and 2.9% in 2024, below the historical average of 3.8% over 2000-2019. Growth in advanced economies is expected to slow from 2.6% in 2022 to 1.5% in 2023 and 1.4% in 2024. Growth in emerging markets and developing economies are projected to edge down from 4.1% in 2022 to 4.0% in both 2023 and 2024. Despite signs of resilience earlier this year, economic activity is still below the IMF's pre-pandemic projections (in January 2020). Several forces are holding back recovery, including long-term consequences of the pandemic, the war in Ukraine, and increasing geo-economic fragmentation. Other forces are cyclical, including the effects of monetary policy tightening, withdrawal of fiscal support amid high debt levels, and extreme weather.

Economic growth projections for global and major economies (%)



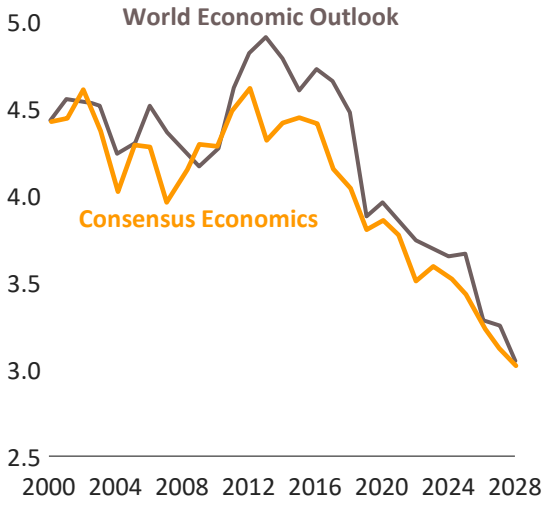
Inflation projections (%)



Source: IMF, World Economic Outlook (October 2023), except China's growth projected in November 2023

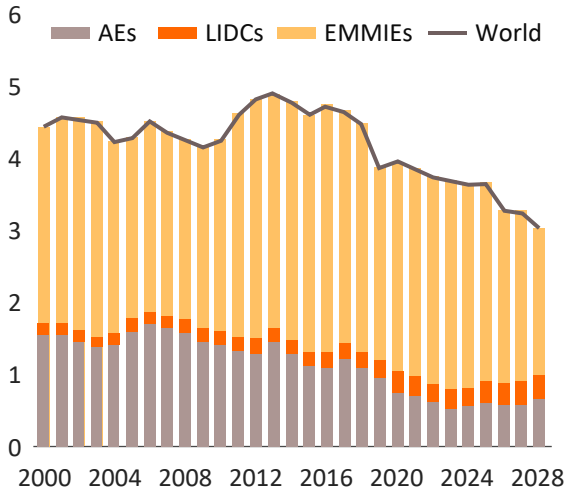
Global medium-term growth projections are the weakest since 1990 amid structural headwinds; EMDEs need longer period to half the income per capita gap with AEs

Global 5-Year-Ahead Growth Projections (%)



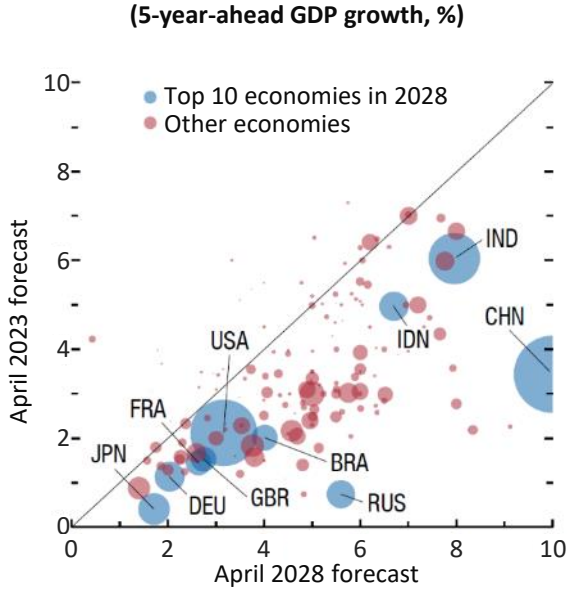
Note: The predicted variable is real GDP growth. The years on the horizontal axis refer to the year for which a forecast is made, using the April World Economic Outlook (WEO) 5-years ago. For example, the 2028 forecast is based on April 2023 WEO. The red line is the mean for Consensus Economic forecasts.

Country Group: 5-Year-Ahead Growth Projections (%)



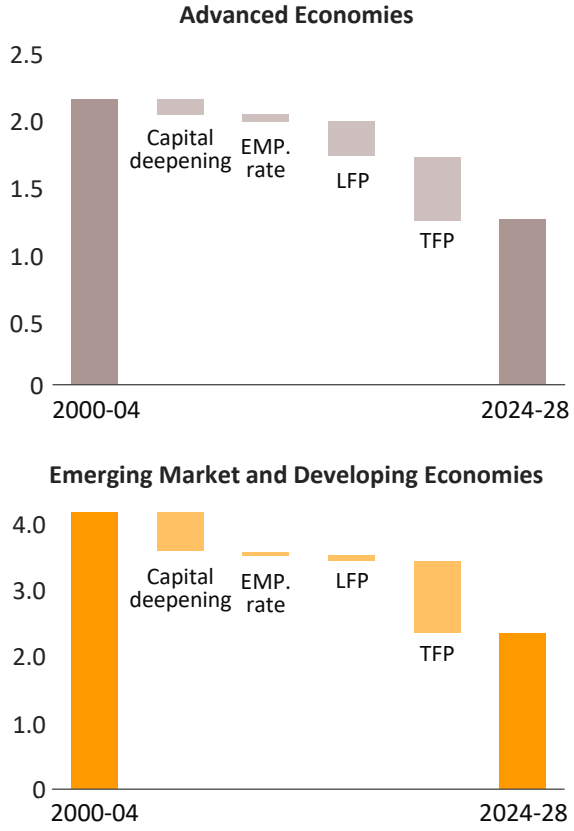
Note: The predicted variable is real GDP growth. The years on the horizontal axis refer to the year for which forecast is made using the April World Economic Outlook (WEO) 5-years ago. For example, 2028 forecast is based on April 2023 WEO.
AEs = advanced economies; EMMIEs = emerging market and middle-income economies; LIDCs = low-income developing countries.

Projected Growth Deceleration in the Largest Economies



Note: The predicted variable is real GDP growth. Bubble size indicates GDP in purchasing-power-parity international dollars for 2028. Data labels in the figure use International Organization for Standardization (ISO) country codes.

Per Capita Growth Forecast Decomposition (%)



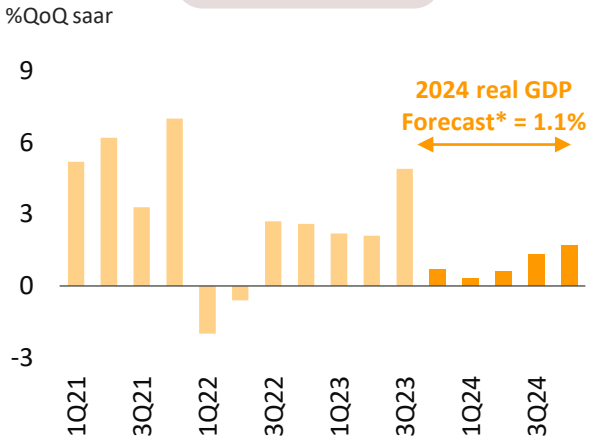
Note: The light red and blue bars represent the contributions, in ppt changes, to the total reduction in per capita growth between 2000–04 and 2024–28.
EMP. = employment; LFP = labor force participation; TFP = total factor productivity.

Source: IMF, World Economic Outlook (October 2023)

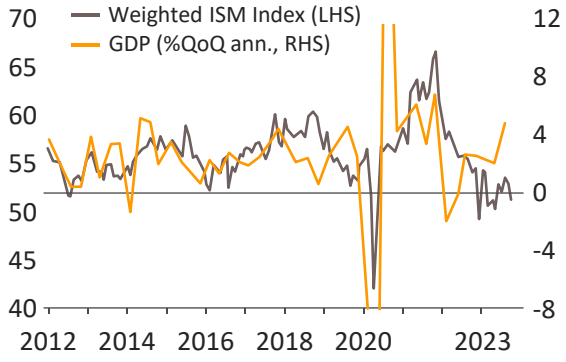
US: Preparing for a soft landing dragged by unusually tight credit conditions

Economic growth in the US rebounded to +5.2% QoQ saar in 3Q23 from 2.1% in 1Q23 and 2.1% in 2Q23. **Looking ahead, US economic growth is projected to decelerate to only 1.5% in 2024 from 2.1% in 2023.** The ISM Activity Survey suggests the economy would stagnate. Several factors, such as **fading reopening benefits, fewer stimulus measures, and significantly higher interest rates,** would have knock-on effects on financial markets, household wealth, consumer spending, and business investment. As a primary driver of the US economy, **private consumption growth is anticipated to slow down** due to a sharp drop in excess savings and slower income growth. Despite some signs of improvement, banks remain tight with lending, which could lead to **a decline in investment growth.** In the labor market**, job growth is experiencing a cyclical slowdown** though robust employment in the government and healthcare sectors might ease fears of a severe economic downturn.

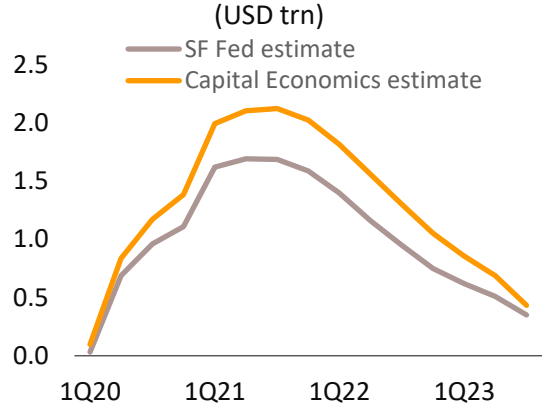
Real GDP



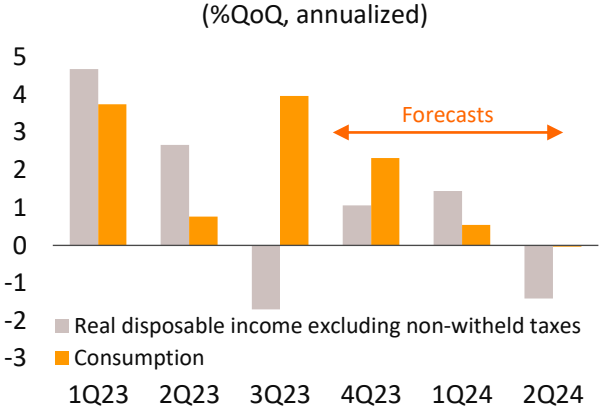
Real GDP & ISM Activity Surveys



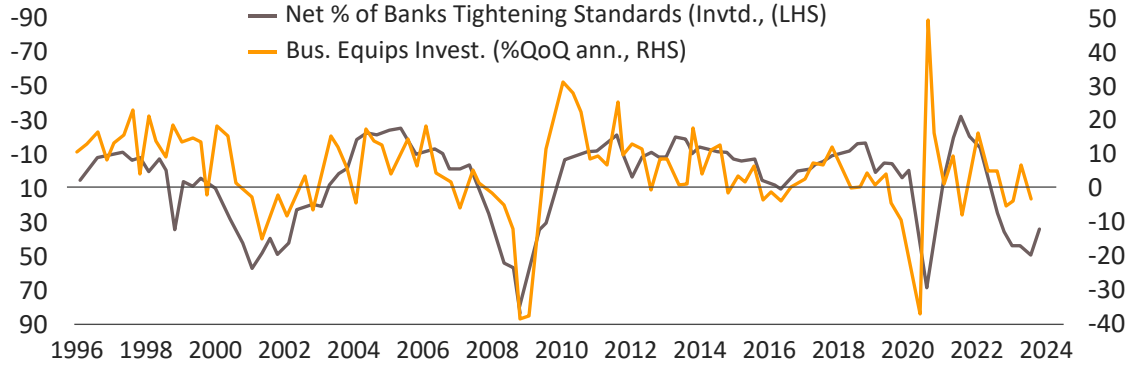
Cumulative Aggregate Excess Savings



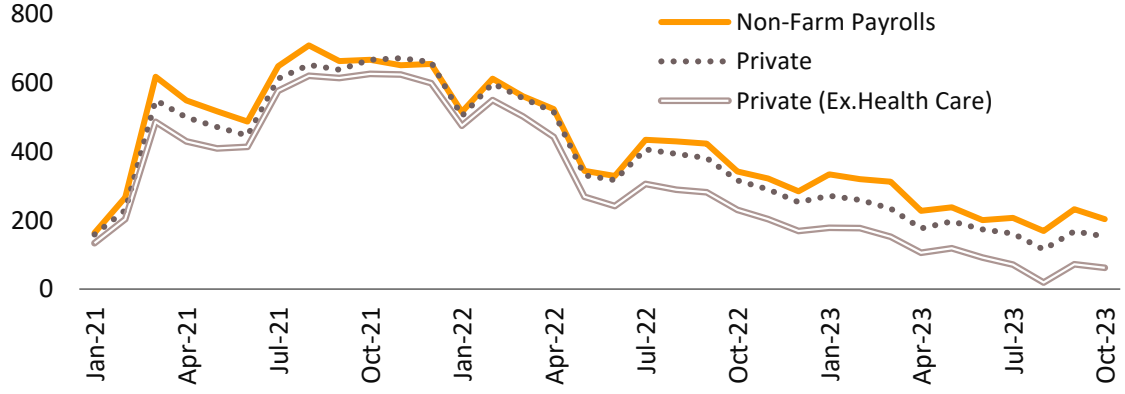
Real Disposable Income & Consumption



Bank Lending Standards & Business Equipment Investment



Monthly Change in Employment (000s, 3-month Average)

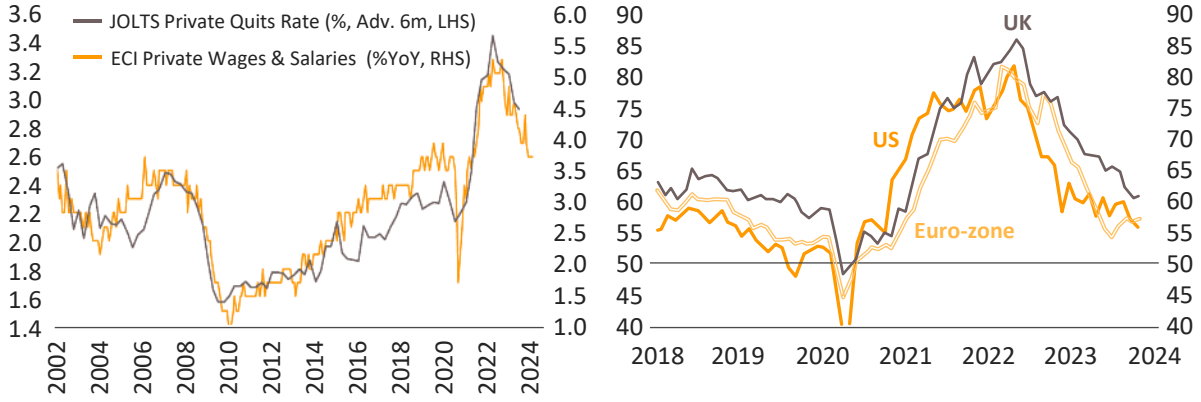


Note: * 2024 forecast by Bloomberg Consensus

Source: Bureau of Economic Analysis (BEA), Bureau of Labor Statistics (BLS), ISM, Capital Economics, CEIC, Bloomberg, Krungsri Research

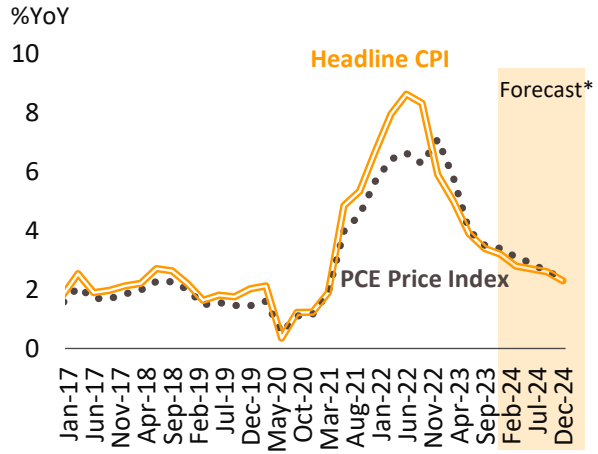
Amid stronger signs of a cyclical slowdown and slower inflation, the Fed might start to unwind policy tightening in 2H24 or reduce real interest rates to prevent a hard landing

Wage growth & Voluntary Job Quits

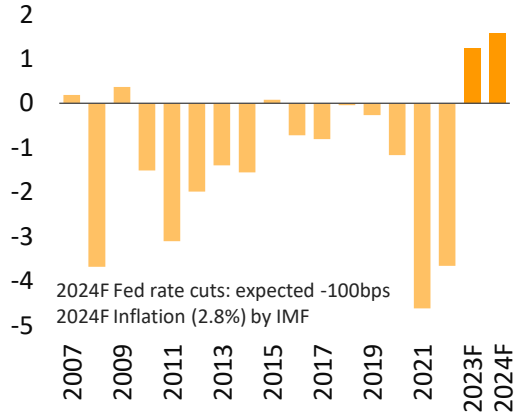


Input Prices (Composite PMI-sub index)

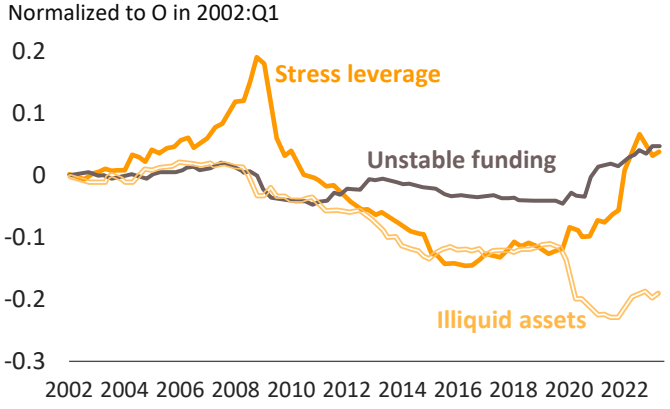
Inflation indicators



Real policy interest rate (%)



Banking System: Decomposition of Run Vulnerability Index (New York Fed)



New York Fed's study suggests **a moderate increase in systemic vulnerability** compared to the low levels of the previous 10 years.

However, **systemic vulnerability remains below the *high* levels preceding the 2008 crisis,** especially because the largest banks had smaller exposure to capital shortfalls, fire sales, liquidity mismatches, and run risk, compared to smaller institutions.

Source: "Banking System Vulnerability: 2023 Update," Federal Reserve Bank of New York Liberty Street Economics (November 6, 2023)

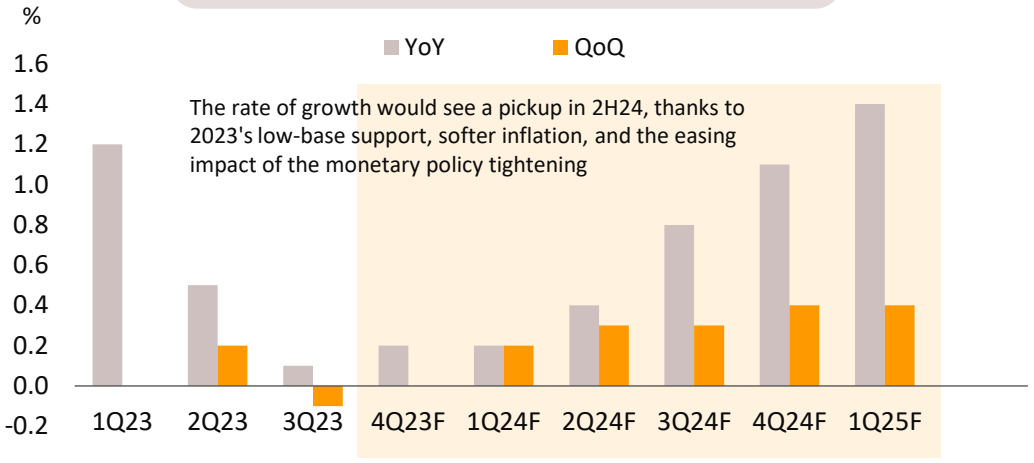
Krungsri Research's view

- **Downward pressure on wage and prices amid the economic slowdown would prompt the Fed to conclude the current rate hike cycle to prevent excessive tightening of monetary policy.** We expect the Fed funds rate to remain at 5.25-5.50% in 1H24 and drop to 4.25-4.50% by end-2024.
- **The US economy would experience a slowdown as well as softening inflation, which would raise real interest rates or tighten monetary policy.** A sharper drop in voluntary quits suggests wage growth would continue to decelerate. US input price index also show signs of falling prices (faster than in Eurozone and the UK).
- **On recession risks,** there are more negative signs such as weak ISM activity data and a weaker labor market, and possibly weaker consumption and investment growth as excess savings are exhausted and real interest rates rise.
- **However, there is minimal risk of a severe recession in the US** as (i) wage growth remains positive; (ii) household net wealth has surged at a record pace of 37% from 2019-22; and (iii) banking sector remains resilient, reflected by the Banking System Vulnerability index which show low vulnerability of the banking system despite the index rising recently. All these factors could cushion future shocks.

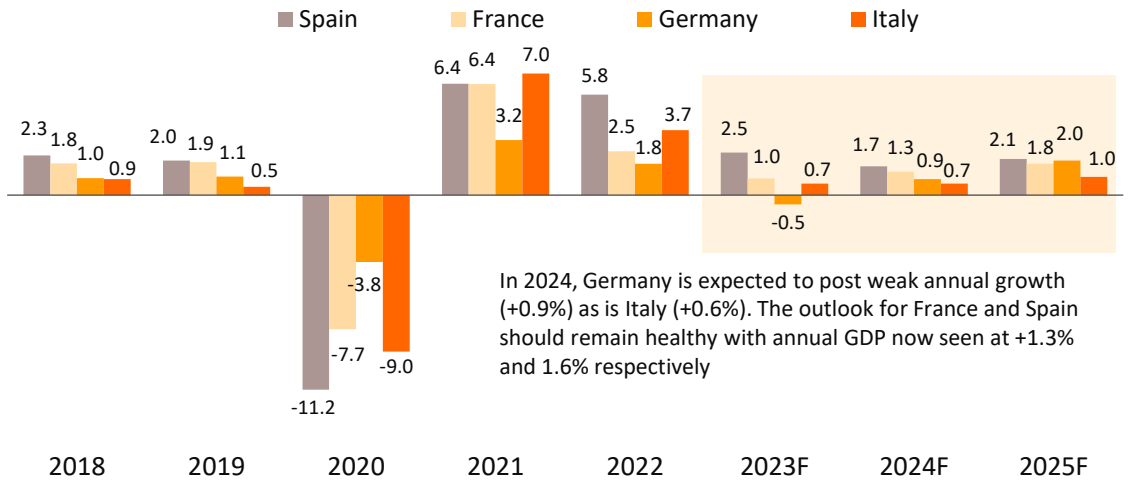
Note: * 2024 forecast by Bloomberg Consensus
Source: BLS, S&P Global, New York Fed, Capital Economics, Bloomberg, CEIC, Krungsri Research

Eurozone: Absence of key growth drivers but low-base effect and softer inflation will support growth in 2H24

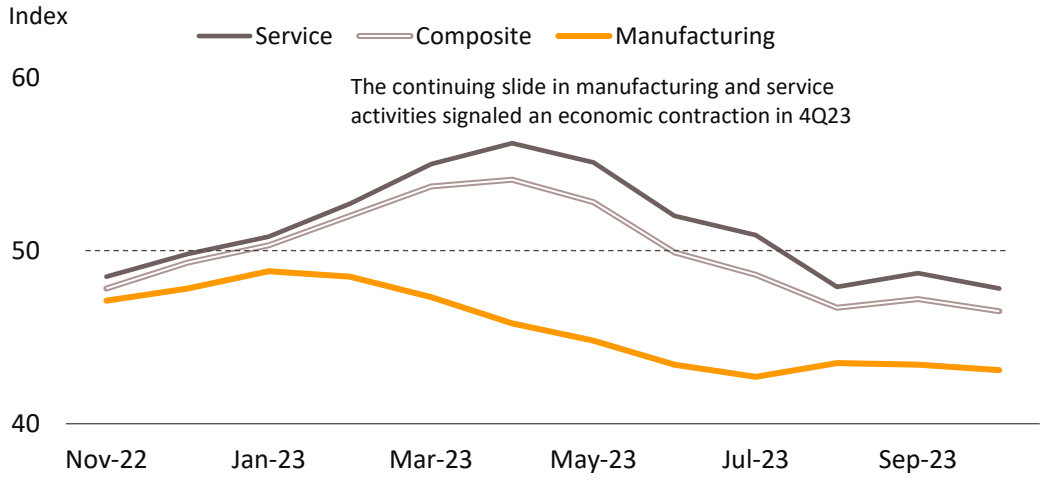
Real GDP Growth Forecast (%YoY, %QoQ)



Real GDP Growth by Countries (%YoY)



PMI Index



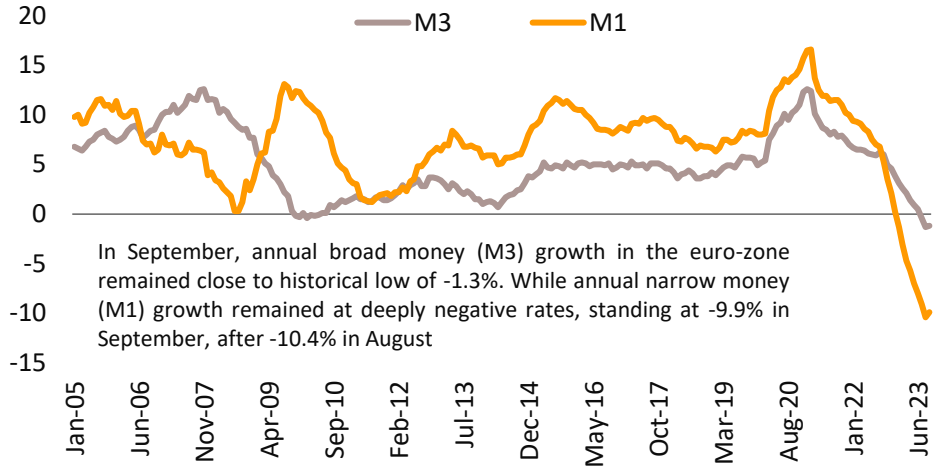
Krungsri Research's view

- **The Eurozone could be the first major region to slip into a recession in 4Q23, and the recession could extend to early 2024.** This is premised on weakening private consumption and investment, uncertainty about latest wars and their potential risk to the global economy (price stability, trade channels). There could be downside risks in 2024 if the wars escalate.
  - The IMF project Eurozone economy would expand by 0.7% in 2023 and a stronger 1.2% in 2024, supported by low-base effects and softer inflation.
  - In 2024, Germany is expected to post weak annual growth (+0.9%), as would Italy (+0.6%). The outlook for France and Spain remain healthy with annual GDP at +1.3% and 1.6%, respectively.
- **Growth would pick up in Eurozone in 2H24, compared to a slowdown in other advanced economies,** thanks to the low-base in 2023, softer inflation, and easing impact of monetary policy tightening in 2H24; that would push up inflation-adjusted income and lift consumption spending. However, high interest rates would drag investment and consumption. And exports could be volatile with weaker growth at key trading partners especially China which accounts for over 50% of Eurozone exports by value**. Hence, the Eurozone economy will remain weak 2024, and possibly even experience a recession in 1Q24**.

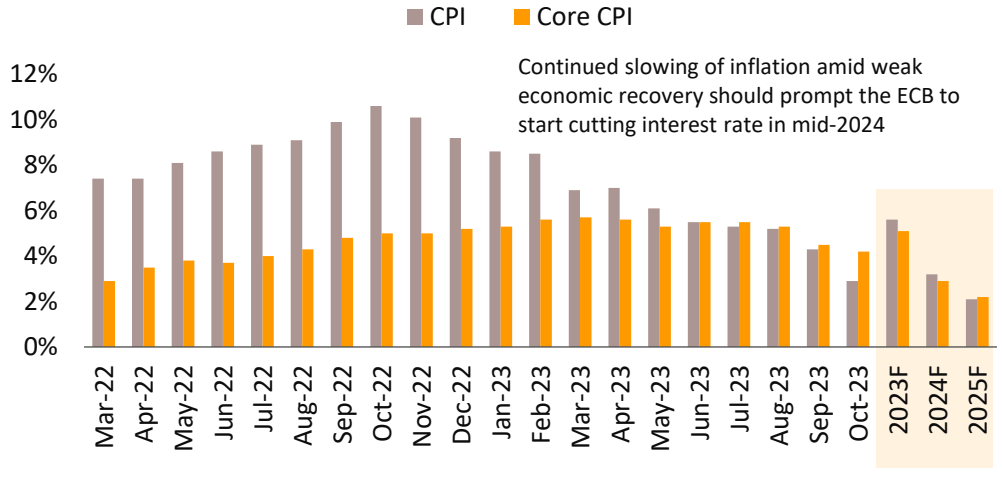
Source: ECB, CEIC, BLS, investing.com, Eurostat, Bloomberg, Krungsri Research

Sub-par growth and easing inflation might prompt Eurozone to cut rates in mid-2024

Money Supply Growth (%YoY)

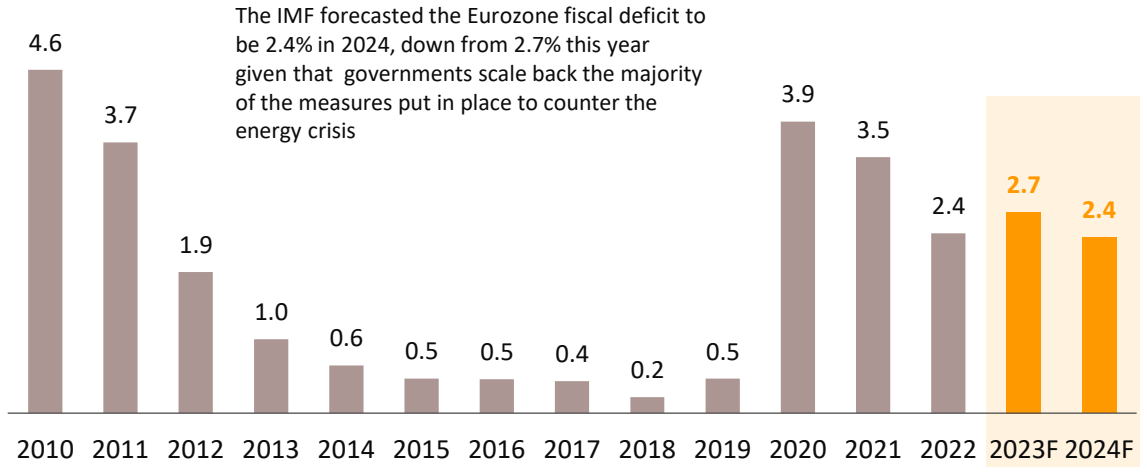


CPI and Core CPI (%YoY)



Source: ECB, CEIC, BLS, investing.com, Eurostat, Bloomberg, Krungsri Research

Government Fiscal Deficit (% to GDP)

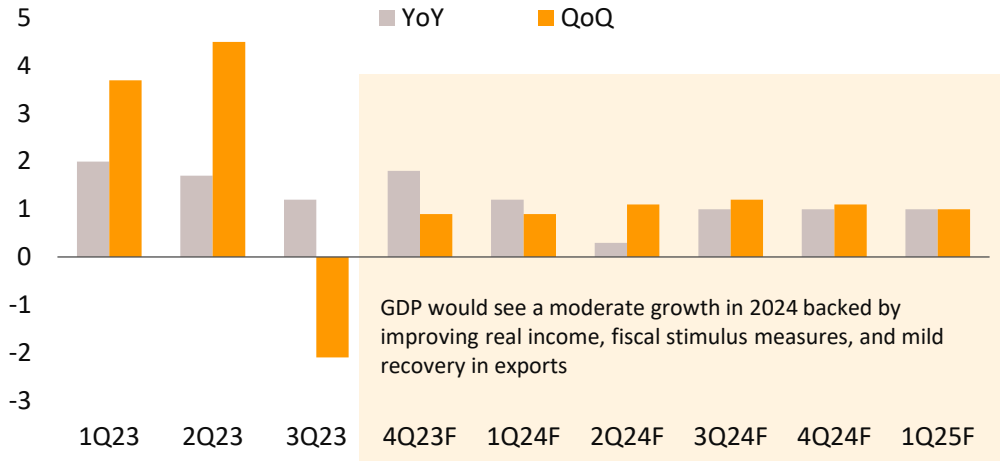


Krungsri Research's view

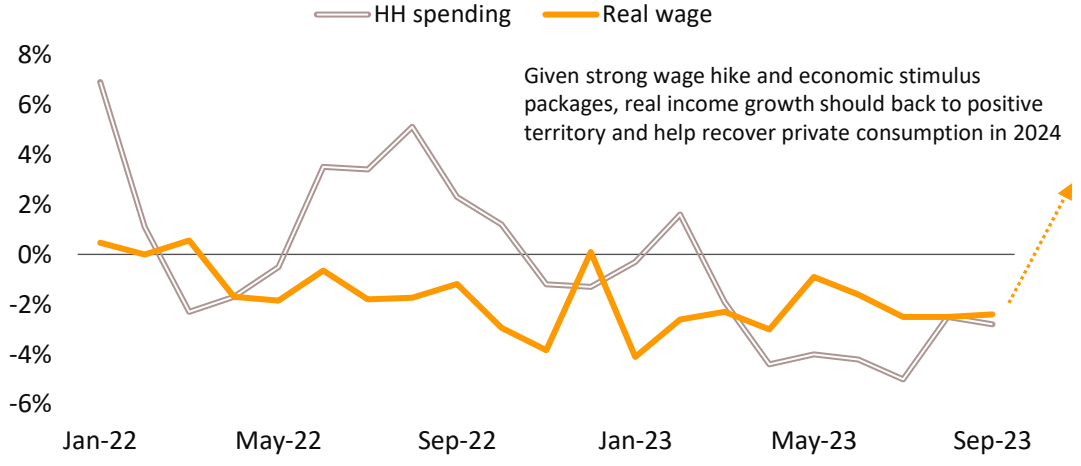
- **Slower growth in credit and money supply in response to tightening monetary policy, including possibly more restrictive fiscal stance, would lead to a weak recovery in 2024**. The most visible signs are: (i) shifting out of money deposits; (ii) quantitative tightening; and (iii) weak demand for credit, money supply - which is considered a measure of economic activity. Meanwhile, we expect fiscal stance to be slightly restrictive next year as governments scale back the majority of measures introduced to counter the energy crisis, after three years of significantly loose stance to deal with the COVID-19 pandemic.
  - In September, annual growth of broad money (M3) growth in the Eurozone remained close to historical low of -1.3%.
  - While, annual growth of narrow money (M1) remained in deep negative territory, at -9.9% in September following -10.4% in August.
- **Labor market will not be resilient for long as a further slowdown in economic activities would reduce employment. The s**hrinking money supply suggests economic activity is likely to slow and inflationary pressures would cool down. We expect a downturn in both employment and wage growth soon, following weaker output and money supply growth. This also suggests inflation would continue head down towards the 2% target by late-2024.
- **Last rate hike had probably passed since October**. Given easing inflation and sub-par growth projections for next year, we expect the ECB to start cutting key policy rate in mid-2024, from a high of 4.00% this year to 3.00% in 2024, to boost the economy. But QT program is likely to continue during the period of monetary policy normalization.

Japan: Fading reopening effects could dampen GDP growth in 2024 but improving real income and recovery in some export sectors would limit downside

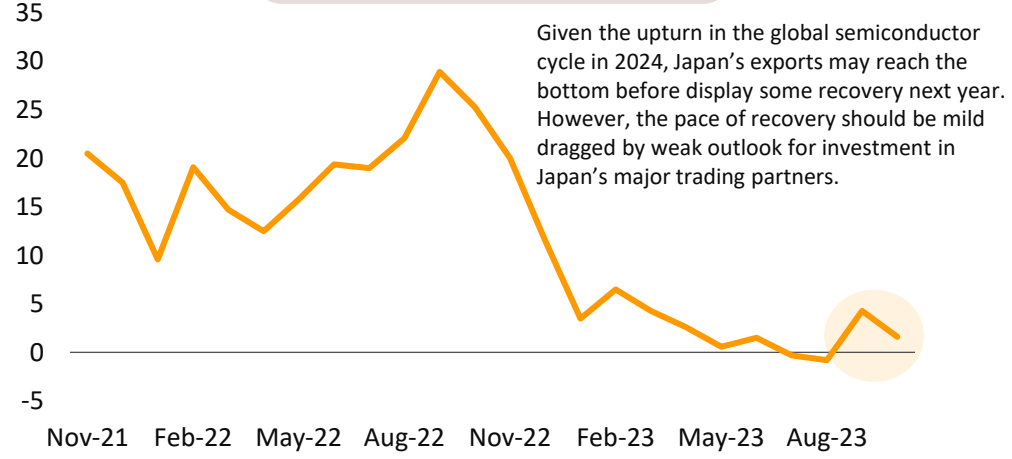
Real GDP Growth Forecast (%YoY, %QoQ)



Real Wage Growth & Household Spending (%YoY)



Export Growth (%YoY)



Source: Japan's Cabinet Office, BOJ, CEIC, investing.com, Bloomberg, Krungsri Research

Krungsri Research's view

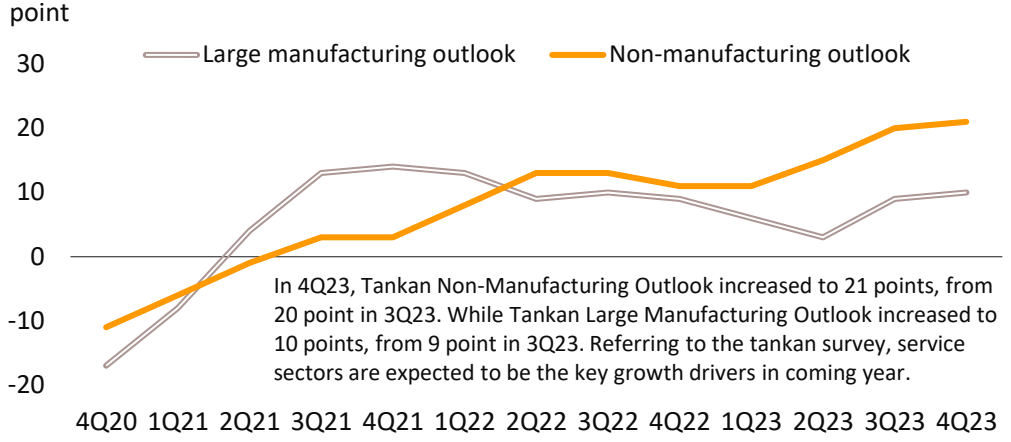
- **The IMF expects Japan's economy to grow by 1.0% in 2024, decelerating from 2.0% in 2023 when the economy benefited from reopening:** however, improving real income growth (smaller negative) and fiscal stimulus packages should support consumption. In 2024, private consumption would be backed by a recovery in real income with the *Shunto* spring wage negotiations expected to result in a 2.5% hike in base pay. On November 2, the government introduced an economic stimulus package to boost growth and help households hit by inflation. However, there would be only a mild boost to GDP growth next year as most are medium-to-long term stimulus measures.
  - The Japanese Trade Union Confederation (Rengo) has demanded for *"5 percent or higher"* wage hike at the next *shunto*, including regular pay raises.
  - In November, Japan's cabinet approved an economic stimulus package, including long-term project-related funds and private-sector financing, valued at ¥37.4 trillion (6.4% of GDP).
- **Expect a mild recovery in exports.** Given the upturn in the global semiconductor cycle in 2024 following production cuts and better sales of front-end equipment, Japan's exports should see a mild recovery as most products exported from Japan are related to the semiconductor industry such as cars and parts, electrical equipment, and machinery, which account for more than 50% of Japan's total exports. Despite that, we remain cautious of Japan's exports as anticipated weak investment in Japan's major trading partners, like China, US, and Europe, would limit recovery in overall external demand in 2024.

Strong wage growth and rising consumption could prompt the BOJ to unwind ultra-loose monetary policy in 2024

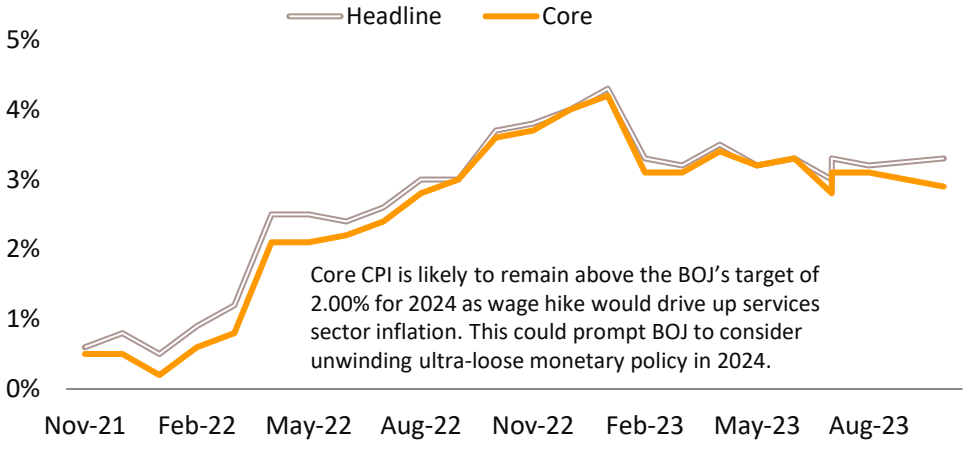
Tourist Arrivals: Monthly (million)



Tankan Survey Index



National CPI and Core CPI (%YoY)



Source: Japan's Cabinet Office, BOJ, CEIC, investing.com, Bloomberg, Krungsri Research

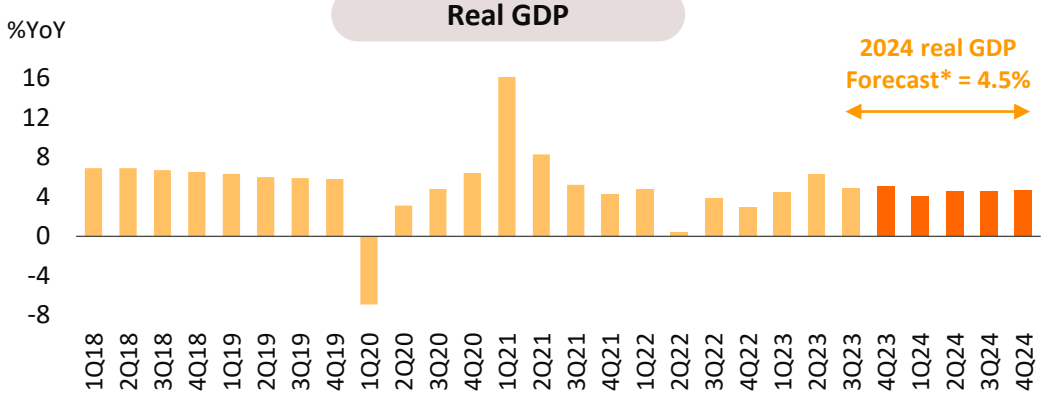
Krungsri Research's view

- **Reopening tailwinds are fade.** Foreign tourist arrivals in Japan reached 2.5 million in October, at close to 95% of pre-COVID level. Average hotel occupancy rate has recovered to 2019 average but there are concerns a shortage of labor and accommodation facilities in high-occupancy metropolitan areas could prevent the sector from meeting soaring demand. Hence, we expect smaller contribution from tourism to Japan's GDP in 2024, premised on foreign arrivals facing capacity constraints going forward.
- **Strong appetite for capex will support recovery.** Despite sluggish global demand, a central bank survey suggests corporate appetite for structural capex would remain strong in Q4 due to falling raw material costs, and the need for ongoing investment in environmental and digital areas. These suggest there are conditions for a continued economic recovery. The latest Tankan Survey suggests the services sectors would be the key growth drivers in 2024, supported by recovering consumption and government stimulus measures. And, the government would review the progress of tax and regulatory reforms to help the nation exit deflation and address falling birth rates in fiscal year 2024 in order to develop medium-term economic and fiscal programs.
- **Strong wage growth in 2024 could prompt the BOJ to unwind ultra-loose monetary policy.** The latest *Shunto* is expected to conclude with a 2.5% hike in base pay. That might give the BOJ confidence to expect inflation to remain high enough to meet its 2% target - as wage hike would trigger inflation in the services sector. Hence, the BOJ might pivot away from unusual monetary stimulus by ending its negative interest rate policy (NIRP) and possibly expanding the 10-year yield curve control (YCC) from 1.0% to 1.25% by 2Q24.

China: Economic stimulus meet structural headwinds; temporary rebound and partial recovery with additional policy supports

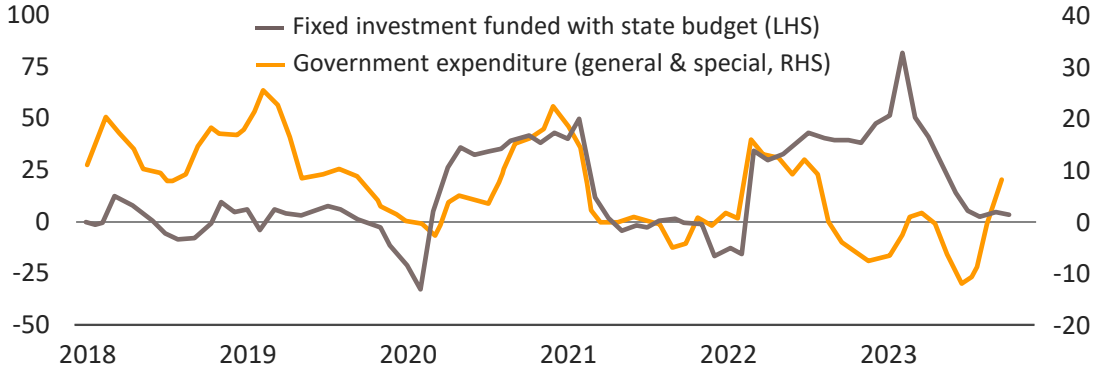
China's economy expanded faster-than-expected in 3Q23, by 4.9% YoY. On a quarter-by-quarter basis, GDP growth also accelerated to 1.3% in 3Q23 from 0.5% in 2Q23. Looking ahead, stimulus measures are likely to lead to a modest cyclical recovery in late-2023 or early-2024, but fading reopening tailwinds and structural headwinds are expected to cause economic growth to decelerate to 4.6% in 2024 from an estimated 5.4% in 2023. **We expect China to experience a near-term rebound given the following: (i) government spending would start to rise again following** the recent push to accelerate bond issuance, and **(ii) improving consumer spending,** as reflected by retail sales growth which accelerated to a 5-month high of 7.6% in October. **However, key indicators still point to a fragile economy, and we see only a partial recovery due to the following:** (i) sluggish real estate sector, reflected in the -0.38% drop in new house prices, the sharpest drop in 8 years; (ii) sluggish investment growth as, for the first 10 months of 2023, investment in fixed assets rose only 2.9%, investment in real estate tumbled 9.3%, and FDI inflows fell 9.4%; (iii) external demand remains weak with exports falling for the 6th month in October, by 6.4% despite a surge in exports of automobiles; and (iv) **although unemployment is lower than before, shorter working hours suggest economic growth could slow down again in the periods ahead.**

Real GDP

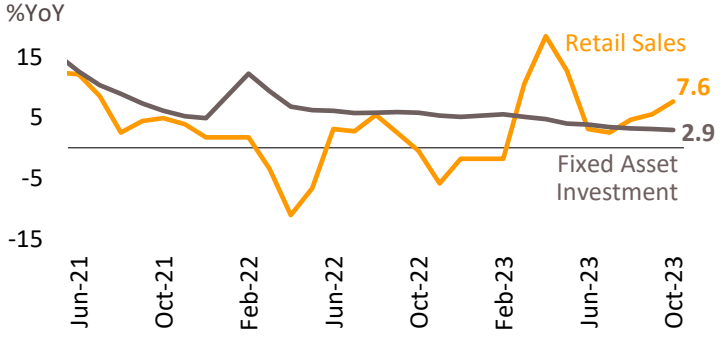


Note: * forecast by Bloomberg Consensus

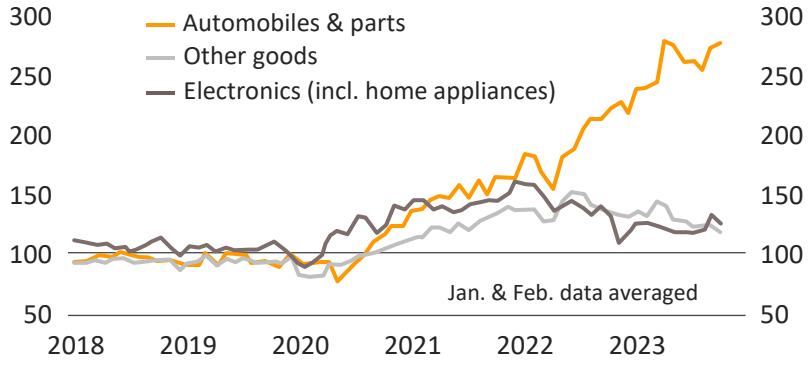
Fiscal Outlays (3m % y/y)



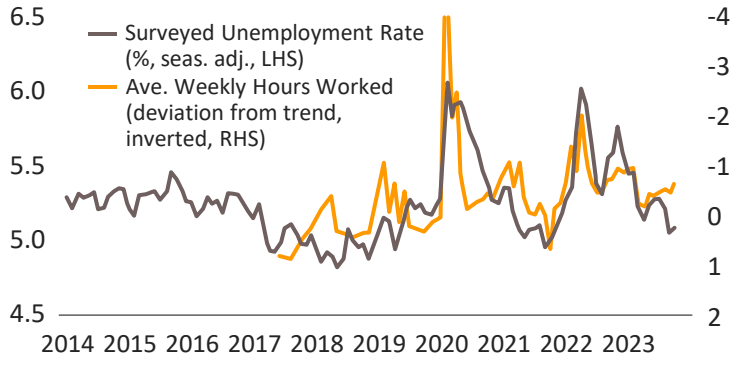
Retail Sales and Fixed Asset Investment



China's Exports (USD, Dec 2019=100, seas. adj.)



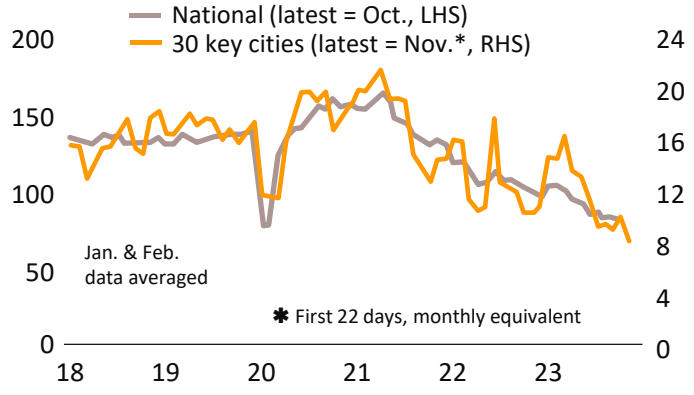
Unemployment Rate and Hours Worked



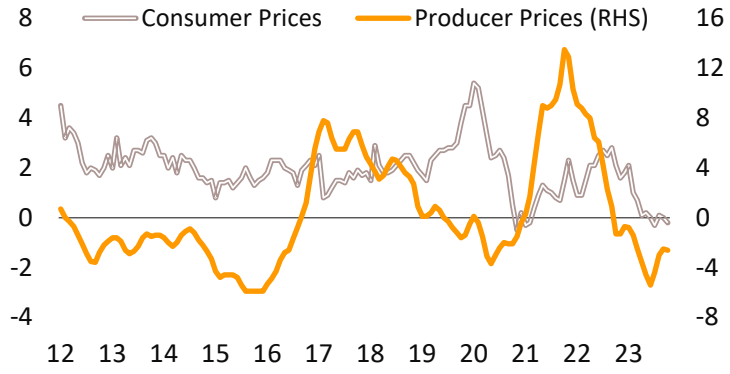
Source: National Bureau of Statistics, CEIC, Bloomberg, Reuters, Capital Economics, Krungsri Research

With fading reopening tailwinds, we see a structural slowdown amid the property crisis, high debt levels, US-China tension, and weak global demand

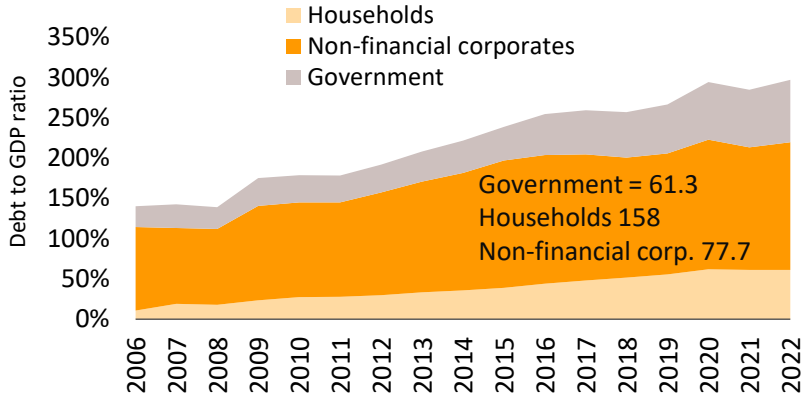
New Home Sales (mn sqm, seas. adj.)



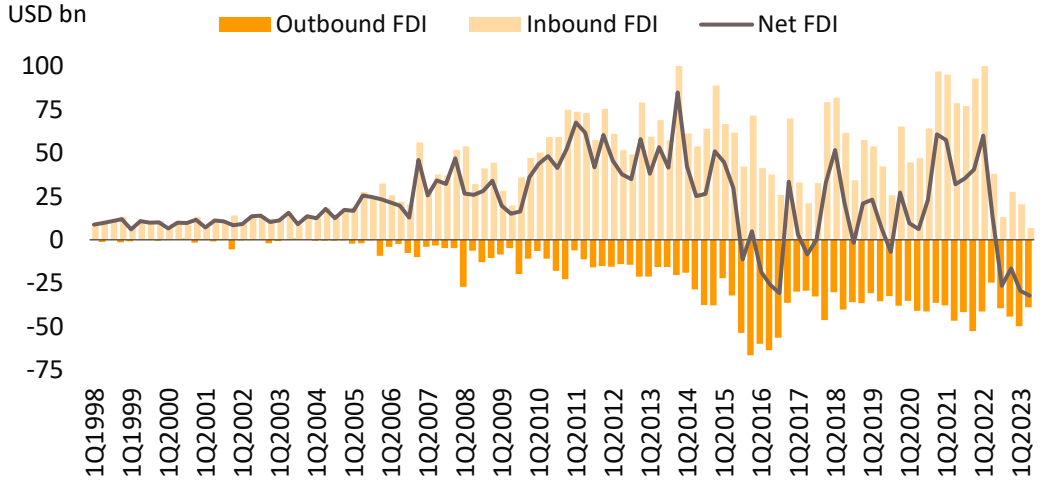
Consumer & Producer Prices (% YoY)



Credit to the nonfinancial sector (% of GDP) of China's GDP from 2006 to 2022, by debtor



Foreign Direct Investment in China slumps to lowest since 1998



Source: National Bureau of Statistics, SAFE, Financial Times, Capital Economics, Statista, CEIC, Bloomberg, Krungsri Research

Krungsri Research's view

- **Despite more policy support and signs of recovery, a rebound in China's economic growth might not be sustainable because of several hurdles, including fading reopening tailwinds, weak global demand, ongoing property crisis, and structural headwinds (such as high debt level, US-China tension, and risk of Japanification).**
- **The property crisis could continue to dampen growth in 2024 though China marked a major shift in policy with plans to provide liquidity to developers.** This implies the authorities want to stimulate *housing supply* or support work on unfinished projects. China had earlier attempted to boost *housing demand* by cutting mortgage rates, reducing down payments, and instituting tax cuts. However, the **positive effects would take longer to materialize. It remains to be seen what the consequences of taking on more risk will be for banks.**
- **There is concern over deflation in China or Japanification risk, as inflation remains close to zero. Similarities with Japan** include an aging population, shrinking working-age population, high debt, housing market correction, and slower growth ahead with deflation risk. **Differences** include China's larger domestic market with potential for growth, and government control of asset & liability.
- **Foreign Direct Investment (FDI) in China is at its lowest since 1998.** That could have been triggered by foreign firms declining to reinvest their earnings and selling of their existing investment. This would raise concerns over China's growth prospects, the property crisis, and US-China tension (including diversifying the supply chain). Slower FDI would hurt liquidity in the business sector and also affect economic growth in the longer term.

Thailand: Krungsri Research Forecast

Krungsri Research Forecast		2021	2022	2023F		2024F**
				Previous	Latest	
GDP growth	YoY (%)	1.5	2.6	2.8	2.5 ▼	3.4
Private Consumption Expenditure	YoY (%)	0.6	6.3	5.2	7.1 ▲	3.3
Government Consumption Expenditure	YoY (%)	3.7	0.2	-4.3	-4.3	1.5
Private Investment	YoY (%)	3.0	5.1	2.0	2.0	3.5
Public Investment	YoY (%)	3.4	-4.9	1.1	-1.0 ▼	3.0
Nominal Exports in USD (f.o.b.)*	YoY (%)	19.2	5.4	-1.5	-1.5	2.5
Nominal Imports in USD (f.o.b.)*	YoY (%)	27.7	14.0	-0.6	-2.1 ▼	4.5
Current Account Balance	USD, bn	-10.6	-14.7	5.5	5.5	7.8
Tourist Arrivals	Mn, persons	0.4	11.2	28.5	27.7 ▼	35.6
Headline Inflation	YoY (%)	1.2	6.1	1.7	1.3 ▼	2.0
Policy Interest rate (end of period)	(%)	0.50	1.25	2.50	2.50	2.50
Dubai crude price - period average	USD/bbl	69	96	82	83 ▲	87

** 2024 projection excluding Digital Wallet Scheme

Note: * base on BOT data
Source: NESDC, BOT, MOC, MOTS, Bloomberg, Krungsri Research

Thailand: Lagged cyclical recovery with uneven and uncertain growth in 2024

- **Economic expansion is on the horizon, propelled by recovering public expenditure, policy supports, improving tourism activity, and rising employment. However, external headwinds, tighter financial conditions and drought could curtail overall growth in economic activity.**
- **Tourism: On track to recovery** facilitated by the Visa-Free scheme and improving supply headwinds.
- **Consumption: Poised for expansion** thanks to rising employment and stimulus efforts, but that could be limited by drought, high debt, and decade-high interest rates.
- **Investment: Boost from rising services activity and higher public spending,** but this might be capped by external challenges and sluggish manufacturing growth.
- **Government policy: Emphasis on consumer spending** and tourism activity **amid lingering uncertainty.**
- **Exports: Technical rebound and diverging growth**, driven by easing supply disruptions, disinflation, and low-base effect; overall outlook is dampened by sub-par global growth.
- **MPC** is expected to address financial stability concerns by holding policy rate at a decade high, simultaneously supporting the economic growth trajectory.
- **Risks & Challenges:** Risk of excessive monetary tightening, smaller fiscal buffer, China's economic slowdown, geo-economic fragmentation, drought impact, fading reopening tailwinds, and domestic structural headwinds (e.g. high household debt, high public debt, demographic challenges, weaker competitiveness)

Tailwinds

- **Recovery in tourism sector and employment**
- **Higher public spending and policy supports (stimulus measures, EEC, infrastructure project)**
- **Easing supply disruption and softening inflation**
- **Food security and gains in agricultural sector**
- **Regionalization, ASEAN dynamism, FDI movement**
- **Thailand's sound economic fundamentals (high foreign reserves, relatively low external debt, and resilient banking sector)**

Headwinds

- **Sub-par global growth and volatile financial markets amid tightening financial conditions**
- **Geo-economic fragmentation amid war, geopolitical tension and US-China decoupling**
- **Impact of drought (El Nino)**
- **Higher borrowing costs amid high household debt**
- **Domestic political risk and uncertain policy**
- **Structural problems, e.g., demographics, labor shortage, weaker competitiveness, climate change (such as PM2.5)**

Source: Krungsri Research

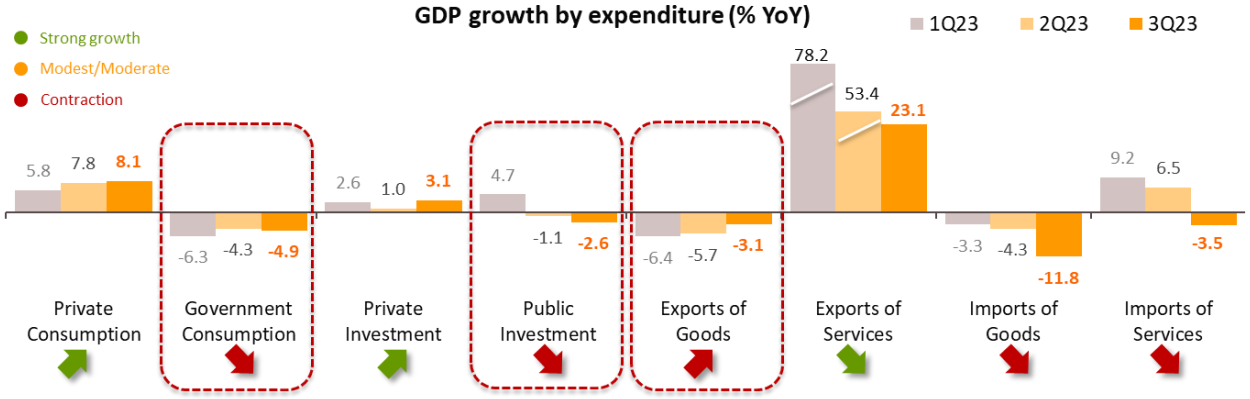
3Q23 GDP growth slows to +1.5% YoY from +1.8% in 2Q, due to slower public spending, weak exports and stock depletion; we revised down economic growth projections

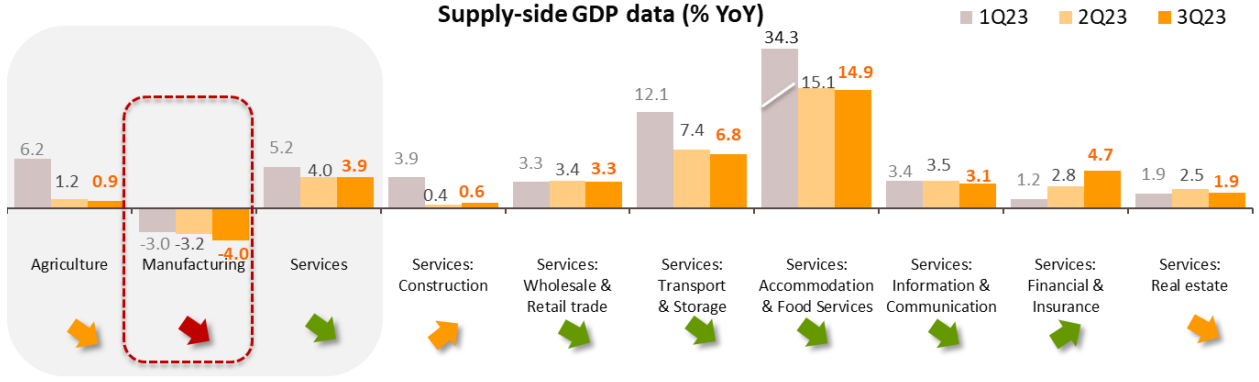
Slowing 3Q23 growth mainly due to

- Reduced **public spending on** healthcare related to Covid
- Lower **public investment** following uncertainty during the government formation period
- Weak **goods exports**
- Plunging **inventories (-219.7 %YoY in 3Q23)**

Main drivers were

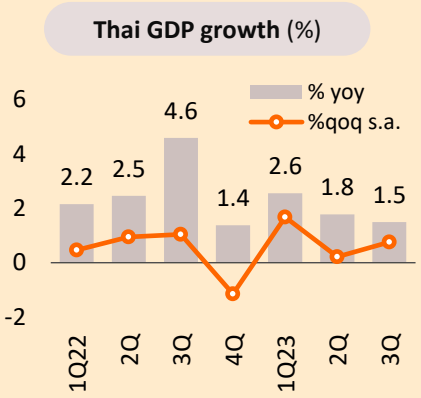
- Private consumption
- Private investment
- Tourism (exports of services)





Source: NESDC, Krungsri Research

	% YoY	
	2Q23	3Q23
GDP	**1.8**	**1.5**
Private consumption	7.8	**8.1**
Public consumption	-4.3	**-4.9**
Private investment	1.0	**3.1**
Public investment	-1.1	**-2.6**
Inventories	-1577.8	**-219.7**
Export growth	-5.6	**-2.0**
Import growth	-5.0	**-10.7**



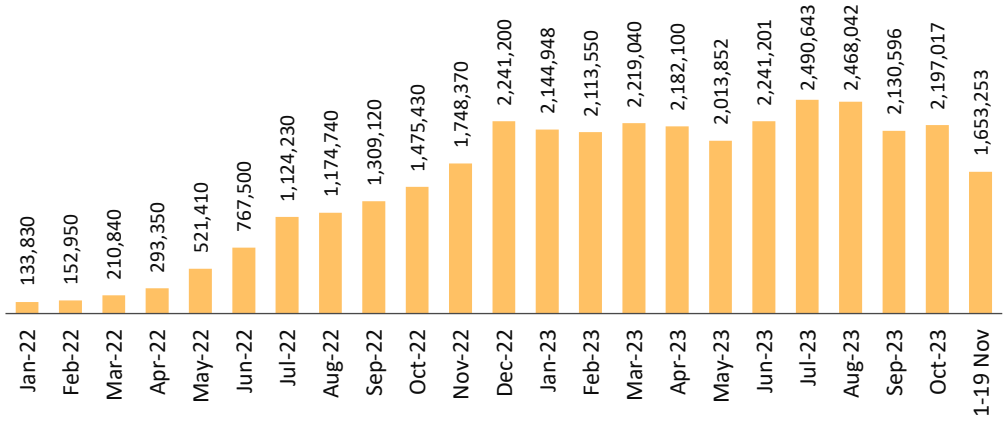
Krungsri Research's view

- Thailand's GDP growth decelerated to 1.5% YoY in 3Q23, missing both our expectation (+2.0%) and median consensus estimate (+2.4%).
- For the first 9 months of this year, Thai GDP grew by only 1.9%. However, **economic growth is expected to pick up in 4Q23** driven by (i) policy supports, such as reducing energy and transportation expenses, as well as temporarily suspending debt repayment for farmers, (ii) anticipated improvement in exports in late 2023, (iii) stronger tourism activity during long holidays; and (iv) the low base last year.
- The NESDC has revised down 2023 GDP growth forecast **from 2.7% to 2.5%** and project 2024 GDP growth at **2.7-3.7% (median 3.2%), excluding the Digital Wallet Scheme.**
- **We also revised down 2023 GDP growth forecast to +2.5% from +2.8% previously**.
- **For 2024, we trimmed GDP growth projection from +3.6% to +3.4%, excluding the Digital Wallet Scheme, to reflect disappointing 3Q23 GDP growth and slower-than-expected foreign tourist arrivals.**
- **We expect Thailand's economic growth to rebound in 2024** driven by: (i) a temporary surge in public spending following delays in approving Budget Bill for FY2024 (Oct 2023-Sep 2024), (ii) stronger growth in the tourism sector facilitated by the Visa-Free scheme, and (iii) higher consumption spurred by rising employment and stimulus measures such as E-Refund program.

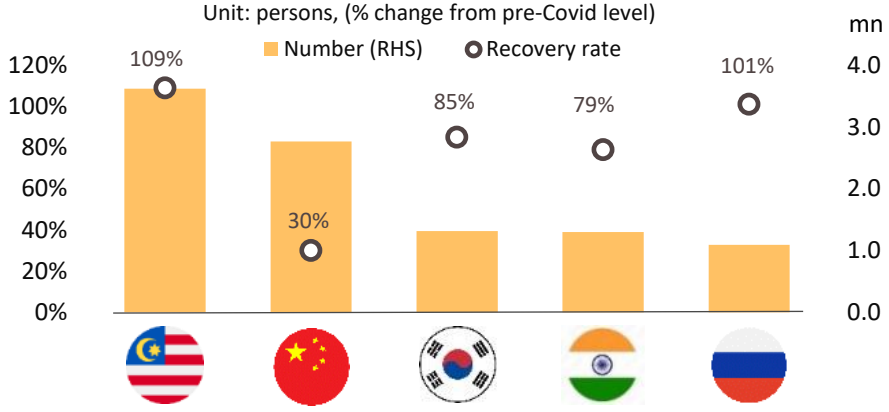
Tourism sector: On track to recovery facilitated by Visa-Free scheme and easing supply headwinds

In the first 10 months of 2023, tourist arrivals reached 22.2 mn (68% of pre-Covid level) and generated THB954 bn receipts (60% of pre-Covid level). Arrivals from Malaysia, Russia, South Korea and India reached 79-109% of pre-pandemic levels. Chinese tourists are returning slowly, at only 30% of pre-Covid level. Looking at the rest of this year and the first half of next year, we expect Thailand to expand the Visa-Free program to cover tourists from India and Taiwan, in addition to those from China and Kazakhstan, as well as extend visa-free stays for Russian tourists from 30 days to 90 days. Coupled with easing supply-side issues, **we expect foreign tourist arrivals to reach 35.6 mn in 2024 from 27.7 mn in 2023.**

Foreign tourist arrivals reached 23.9 mn during 1 Jan-19 Nov 23



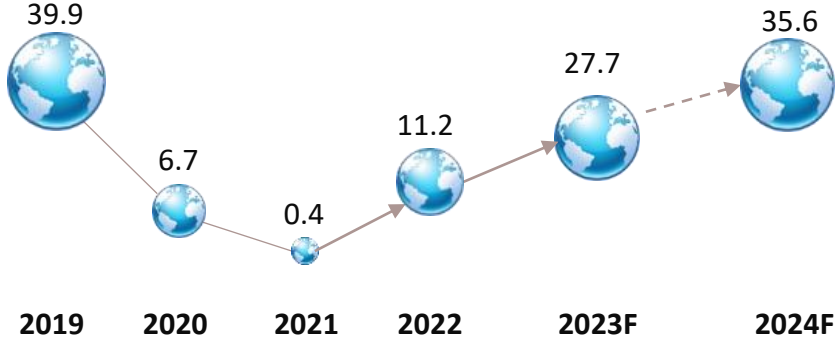
Top 5 tourist arrivals by country (Jan- Oct 2023)



Visa-Free Scheme

Country	Effective date	Details
China, Kazakhstan	25 Sep'23- 29 Feb'24	VISA exemption scheme and stay for 30 days
Russia	1 Nov'23 – 30 Apr'24	VISA exemption scheme and stay for 90 days
India, Taiwan	10 Nov'23- 10 May'24	VISA exemption scheme and stay for 30 days

Forecast for foreign tourist arrivals (mn persons)



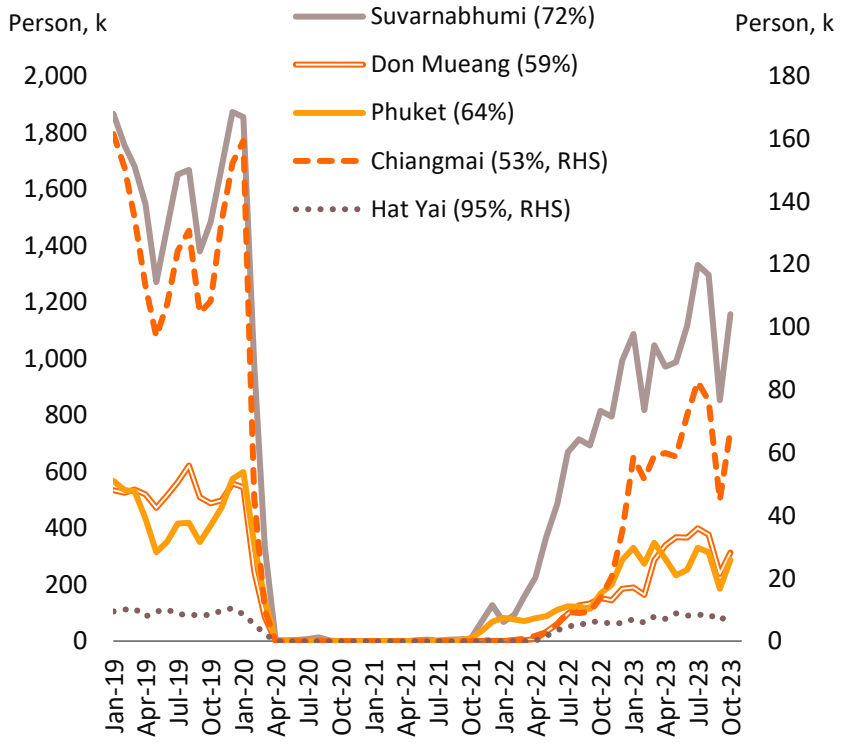
Source: MOTS, CEIC, Krungsri Research

Slow recovery in arrivals from China but data show more arrivals from other countries during peak season

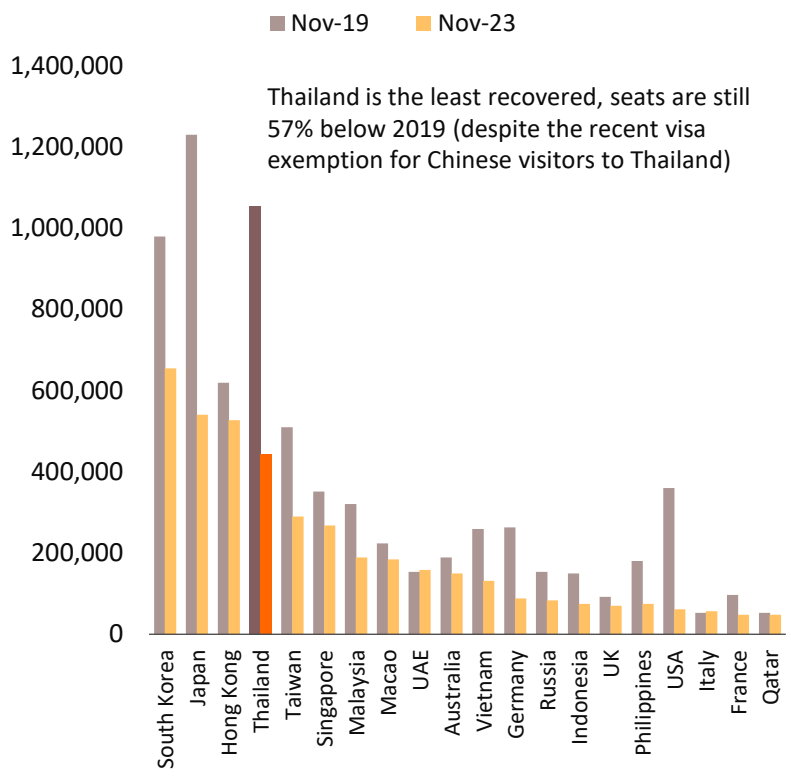
The tourism sector has yet to return to pre-pandemic level. Passenger throughput at five of Thailand's major airports are below pre-covid levels, including Suvarnabhumi Airport at 75% of pre-Covid level, Phuket at 64%, and Don Mueang at 59%. **Chinese tourist arrivals is far below pre-pandemic level with** airline seats from China to Thailand in November this year at only 57% of that in the same month in 2019. The number of flights from China to Thailand in the winter of 2023 (November 2023- February 2024) is 41% fewer than in the winter of 2019. However, arrivals from other countries are improving during the peak season.

Visitor Arrivals at 5 Airports

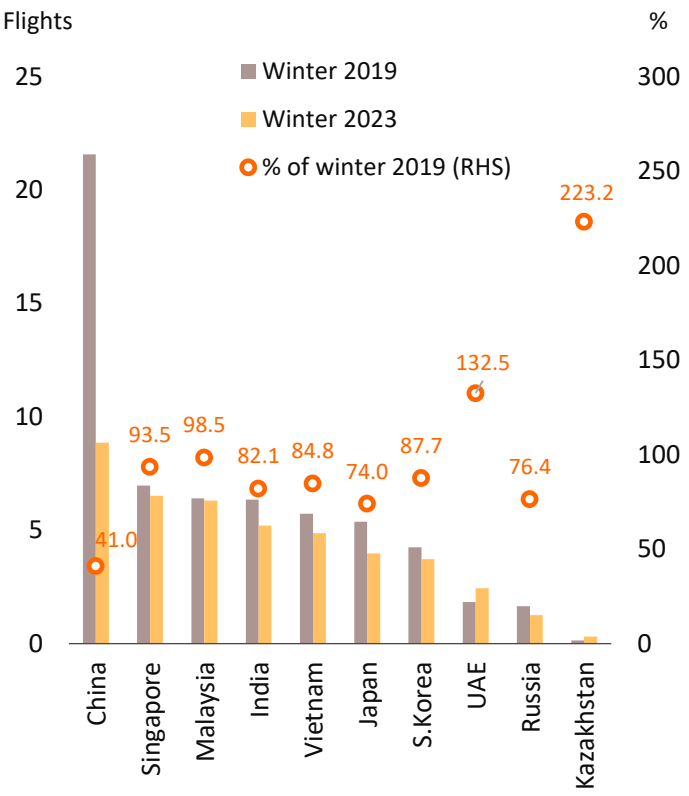
(%) compare with 2019 (pre-pandemic level)



Recovery of China's Top 20 International Markets Since 2019 (by seats)



Number of Flights to Thailand

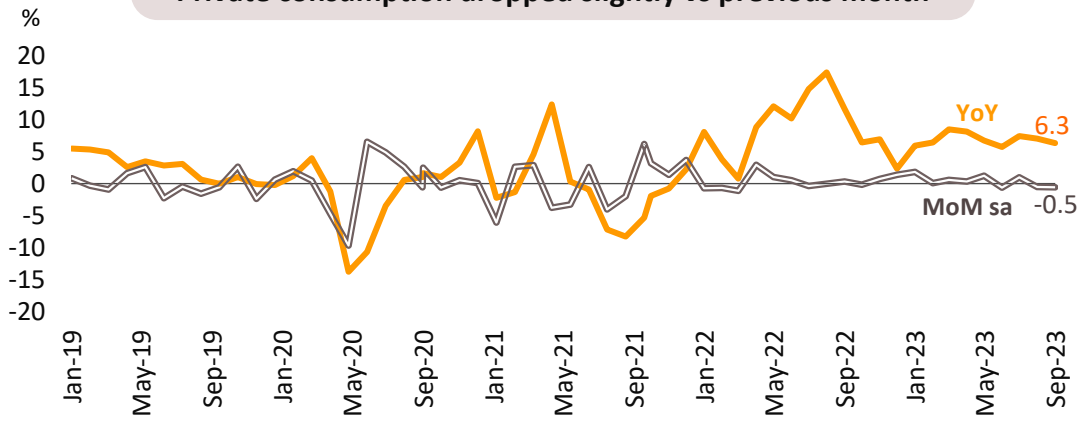


Source: OAG Aviation, The Civil Aviation Authority of Thailand (CAAT), CEIC, Krungsri Research

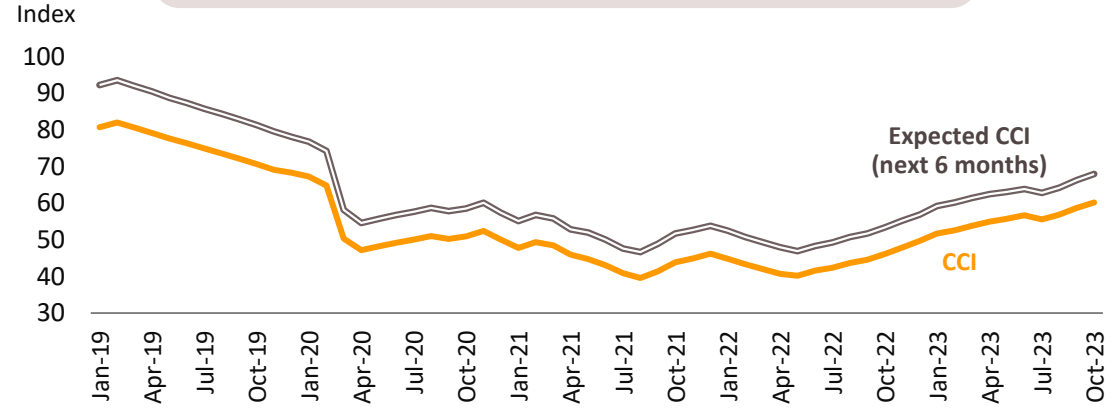
Private consumption will rise along with recovering services activity, employment, and real wage

Despite anticipating a slowdown after unusually strong growth in 2023 triggered by pent-up demand, **private consumption should continue to grow in 2024** supported by (i) the continued recovery in tourism activity; (ii) rising confidence, with the Consumer Confidence Index (CCI) hitting a 44-month high in October (highest since March 2020), (iii) stronger labor market as employment in most sectors is higher than before the pandemic, led by the tourism sector (8% share of total employment and 10% above pre-covid level) and trade (17% share and 9% above pre-covid level). Real wage has also exceeded pre-pandemic level, both overall and in most sectors led by the construction sector (5% share of total employment) and agricultural sector (31%). In addition, consumption could be boosted by stimulus measures in 2024 such as E-Refund program and debt suspension for farmers.

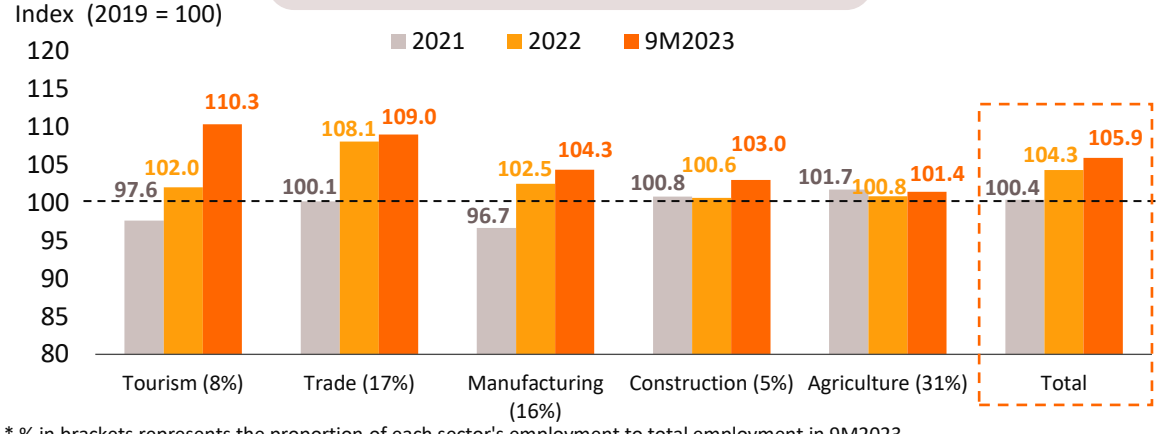
Private consumption dropped slightly vs previous month



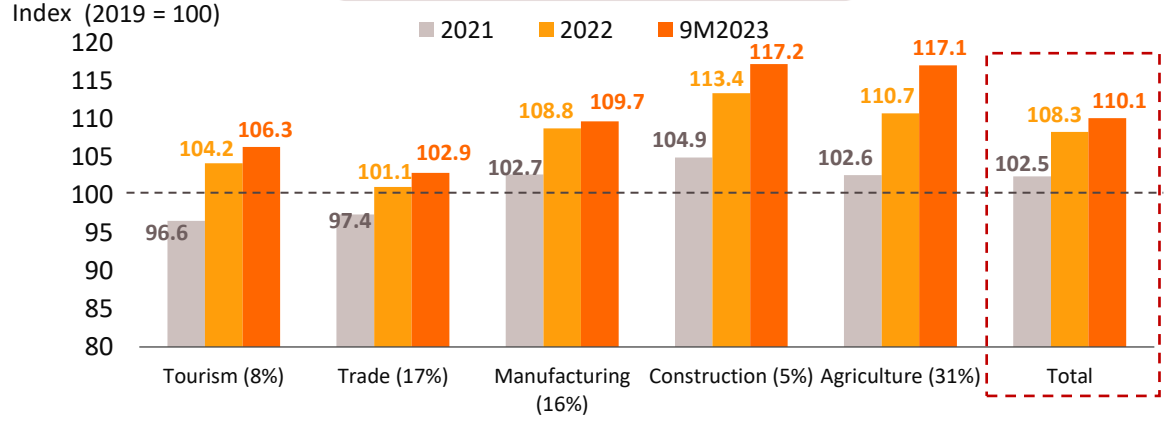
Consumer Confidence Index reached a 44-month high



Employment index in major sectors



Real wage index in major sectors



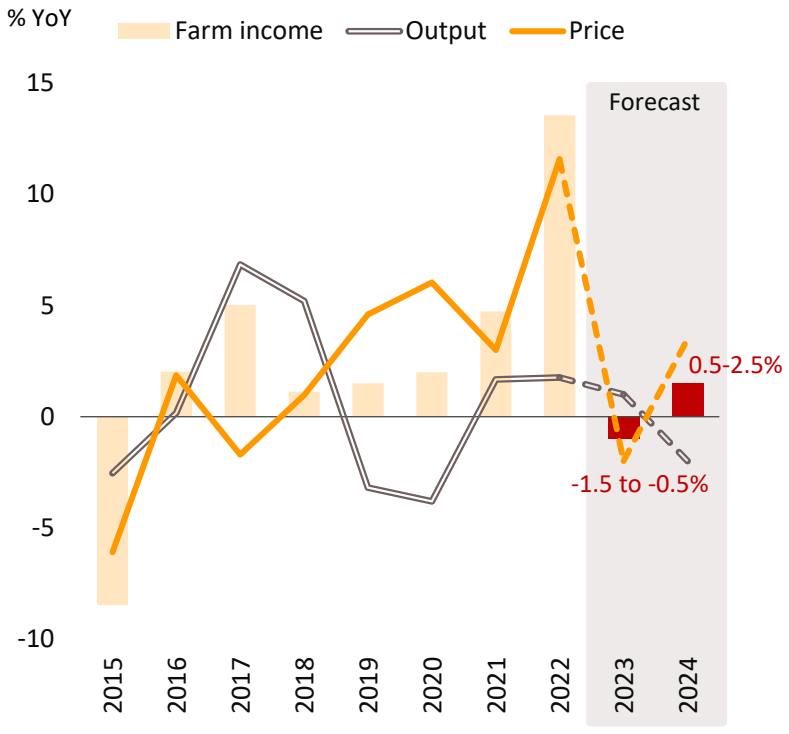
* % in brackets represents the proportion of each sector's employment to total employment in 9M2023.

Source: CEIC, BOT, University of the Thai Chamber of Commerce (UTCC), NSO, Krungsri Research

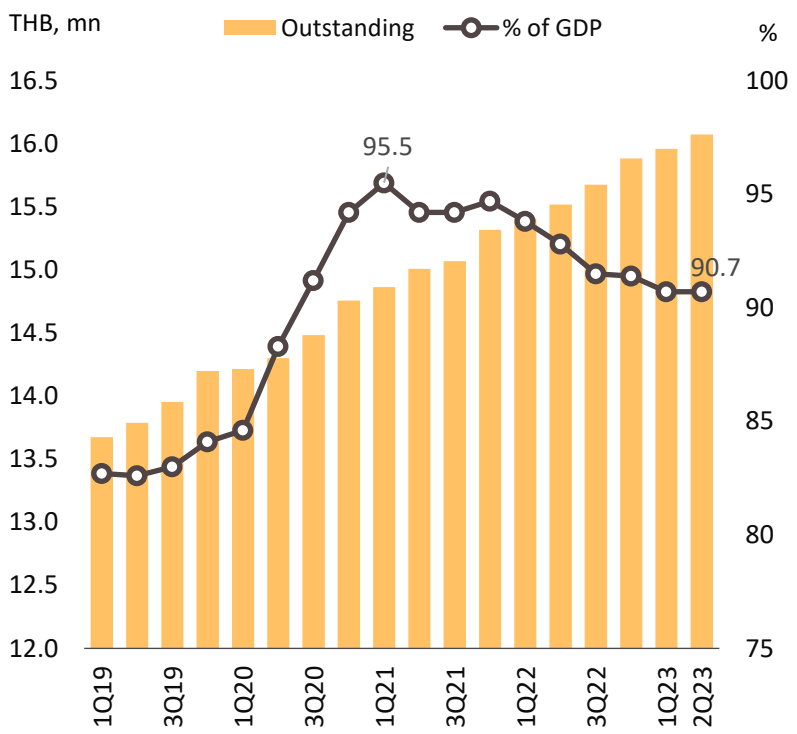
However, consumption growth could be capped by drought, high debt level, and decade-high interest rates

Farm income is expected to edge up by 0.5-2.5% in 2024 led by projected higher farm prices, driven by global demand for food security amid concerns over drought impact and geopolitical conflicts. Overall domestic farm output is expected to fall in 2024 as more severe drought conditions could reduce farmers' income. Additionally, household debt remained high at 16.07 trillion baht at end-2Q23, rising 3.6% YoY. **Household Debt-to-GDP ratio remained high at 90.7%, close to that in the previous quarter**. We observed the rising household debt is led by personal and vehicle HP loans. **Slow growth in farm income and elevated household debt levels, compounded by decade-high interest rates, could cap household consumption growth in 2024.**

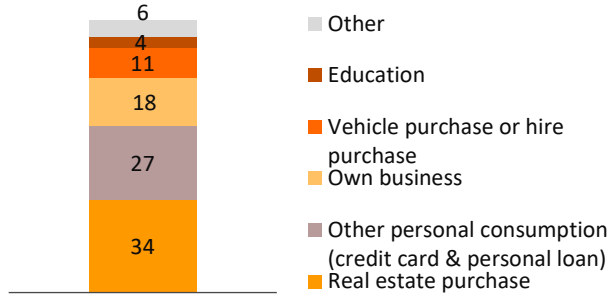
Farm income is rising but at a lower pace



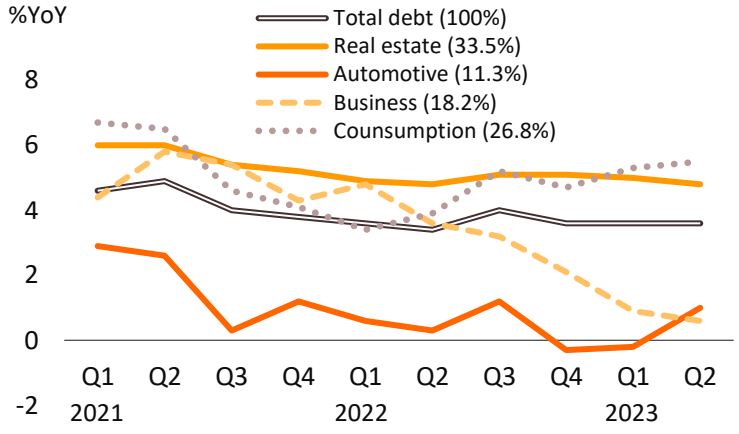
Household debt remained high at 90.7% of GDP in 2Q23



Structure of household debt (%)



Debt's growth by each sectors

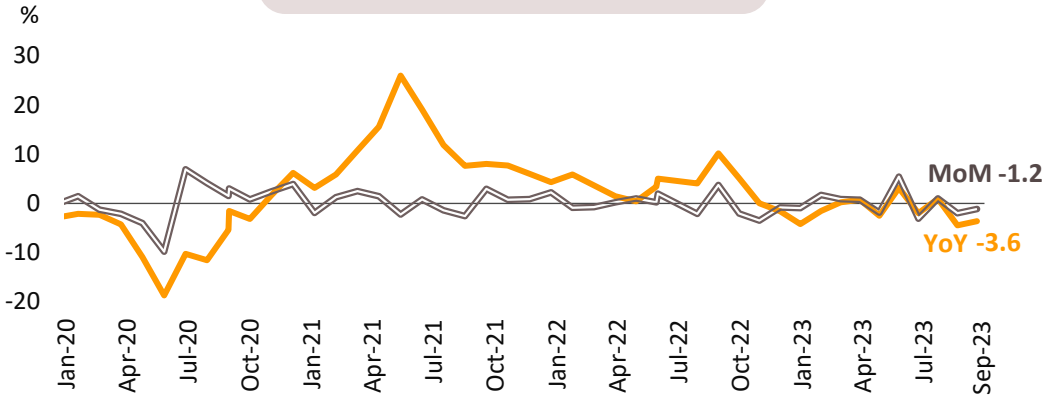


Source: OAE, BOT, CEIC, Krungsri Research

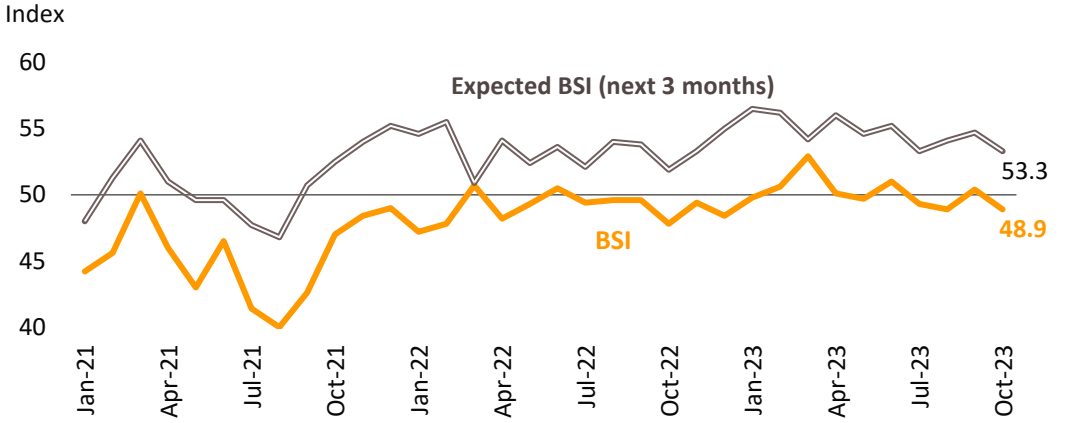
Private investment: Boost from stronger services activity and public spending, but constrained by external challenges and sluggish manufacturing growth

Private investment is projected to improve YoY in 2024, supported by (i) recovering tourism and domestic activities, reflected by rising Services Production Index (SPI); (ii) measures to boost investment in targeted industries, such as initiatives to enhance the EV (electric vehicle) industry in Phase II (EV 3.5) in 2024-2027; and (iii) accelerating infrastructure investment, covering both existing and new projects. Notably, the total value of public-private partnership (PPP) projects approved in fiscal year 2023 was THB98.8 bn, a whopping 112.7% increase from the previous year. **However, some private investment is still being capped by** weak business sentiment and sluggish industrial production influenced by slow growth in global manufacturing activity.

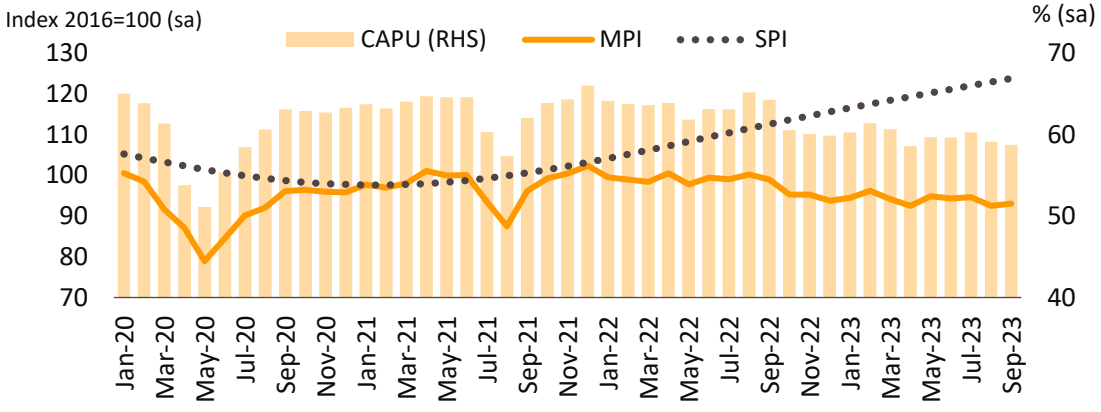
Private Investment Index



Business Sentiment Index still showing signs of weakness



Services Production Index (SPI), Manufacturing Production Index (MPI) and Capacity Utilization (CapU)



Manufacturing Production Index

Manufacturing Production (%YoY)*	Weight	2021												2022												2023									
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
All industry	100.0%																																		
Food & Beverages	20.3%																																		
Automotive	13.8%																																		
Petroleum	9.5%																																		
Chemicals	9.1%																																		
Rubbers & Plastics	8.8%																																		
Cement & Construction	5.5%																																		
IC & Semiconductors	5.5%																																		
Electrical Appliances	3.8%																																		
Textiles & Apparels	3.5%																																		
HDD	3.4%																																		

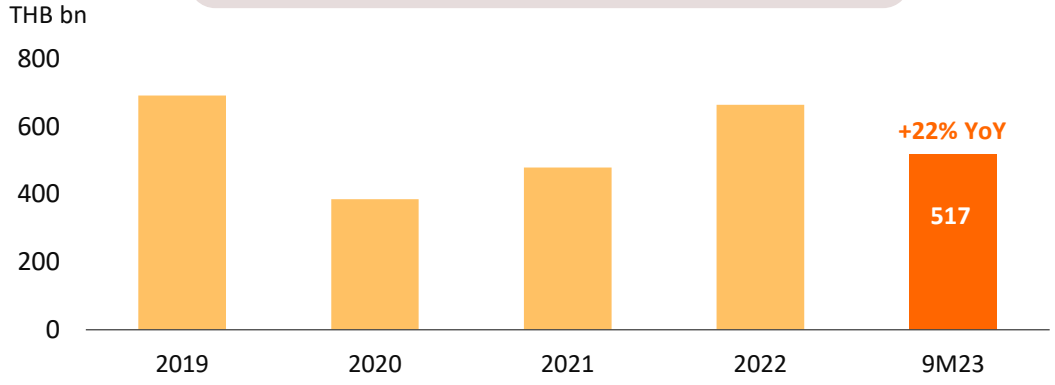
**Green > 0%, Red < 0% / Darker green (red) indicates stronger (weaker) momentum*

Source: BOT, Krungsri Research

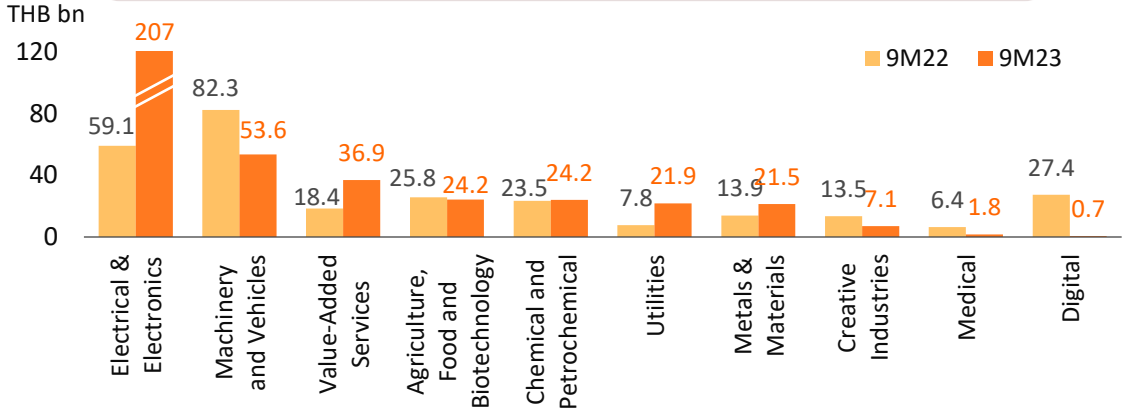
More applications for BOI incentives, could encourage investment in certain sectors

In the first nine months of 2023, the Board of Investment (BOI) received applications for investment incentives for 1,555 projects (+31% YoY) with a total investment value of THB516.80 bn (+22% YoY). The three industries with the highest investments were **Electrical & Electronics, Agriculture and Food Processing, and Automotive & Parts.** Foreign direct investment (FDI) applications for BOI incentives rose by 48% to 910 projects valued at THB399 bn (+43%), led by China, Singapore and Japan. The top industries which attracted FDI include **Electrical & Electronics and Machinery & Vehicles.** For FDI in targeted industries, there were 511 projects (+57%) with a total investment of THB303 bn (+39%). The industries with the highest investment value were Smart Electronics and Next-Generation Automotive. **In the Eastern Economic Corridor (EEC),** there were 522 projects (+54%) with a total investment of THB232bn (-4%), led by investments in Electrical & Electronics. There were FDI applications for 433 projects (+80%), with a total investment of THB217 bn (+31%). **In terms of issuing investment incentive certificates**, the BOI has approved 1,299 projects (+18% YoY) with a total investment value of THB 335 bn, close to 2022 level. This is a promising sign for domestic investment in key industrial sectors over the next 1-2 years, which should help to support economic recovery ahead.

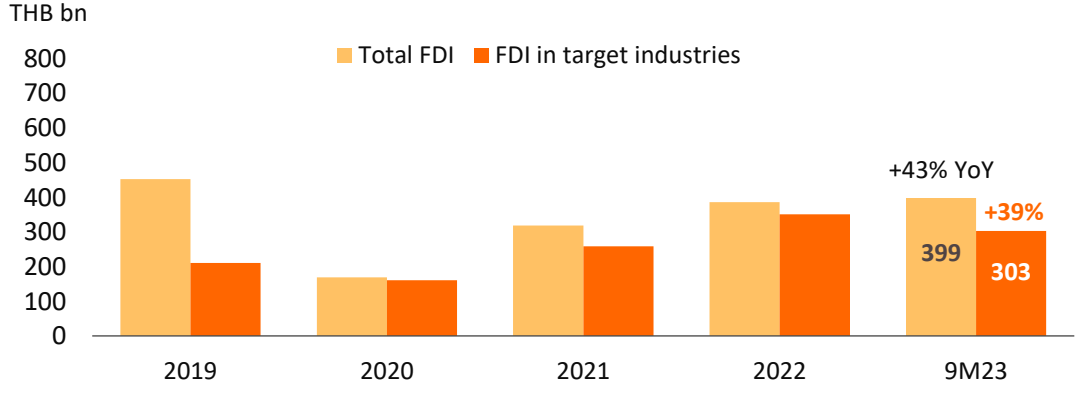
Total Applications for BOI Investment Incentives



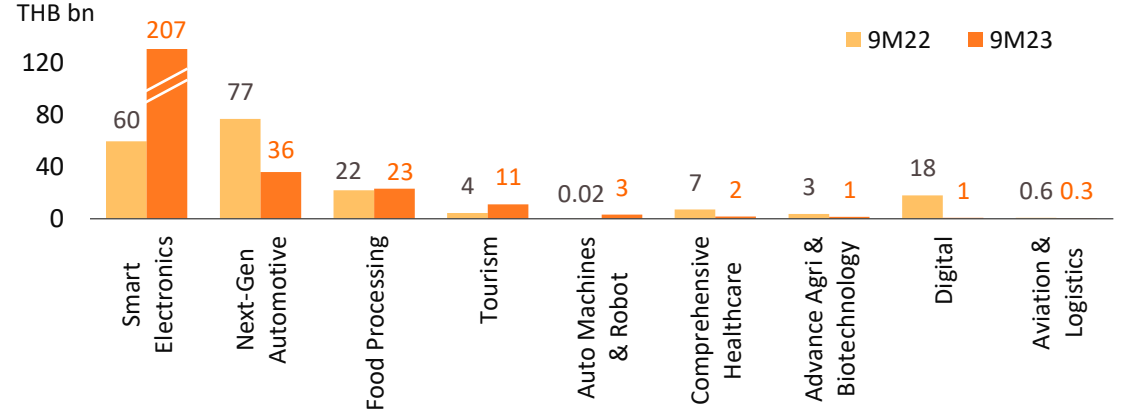
Total FDI Applications for BOI Investment Incentives (by sector)



FDI Applications for BOI Investment Incentives



FDI Applications in Target Industries for BOI Investment Incentives



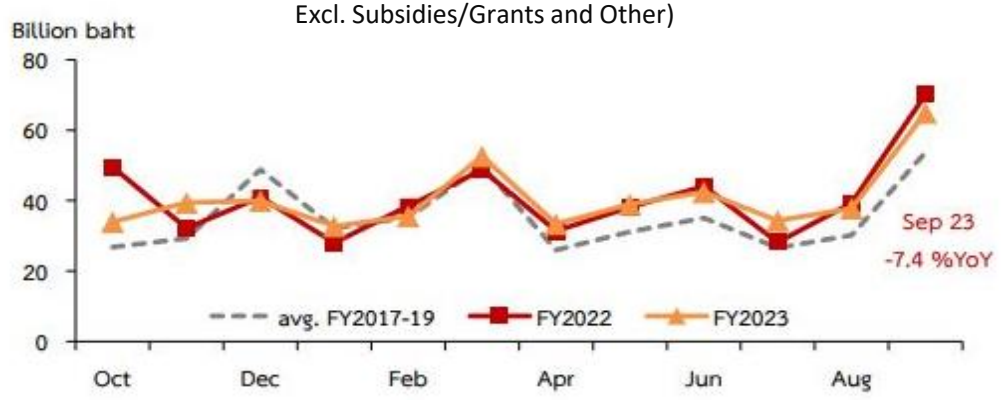
Source: BOI, Krungsri Research

Public spending could rebound and push up GDP growth after FY2024 Budget Bill comes into effect in 2Q24

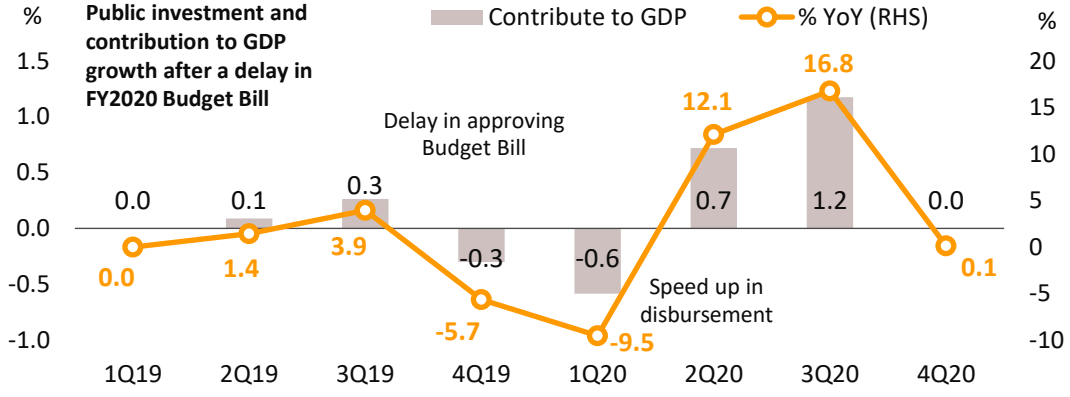
The delayed preparation and approval of the Budget Bill for FY2024 (October 2023-September 2024) would limit budget disbursements in the last quarter of 2023 and first quarter of 2024. However, once it is approved in about the second quarter of 2024, disbursements are likely to accelerate and lift GDP growth (similar to the disbursement pattern observed after 2019 general election). Additionally, the market expects investments in mega infrastructure projects – existing and new - to accelerate from 2Q24. Under the 2023-2027 action plan, the government would accelerate the double-track railway project (Phase 1 and 2) and EEC-related projects such as Laem Chabang Port Project Phase 3, and the high-speed rail project to connect three airports (construction is expected to start in 2024).

Central Government Capital Expenditure

Excl. Subsidies/Grants and Other)



Public investment will accelerate after delays in approving FY2024 Budget Bill



Source: Comptroller General's Department, Fiscal Policy Office, BOT, NESDC, Krungsri Research

Megaprojects under the Action Plan - Thailand's Logistics Development (2023-2027)*

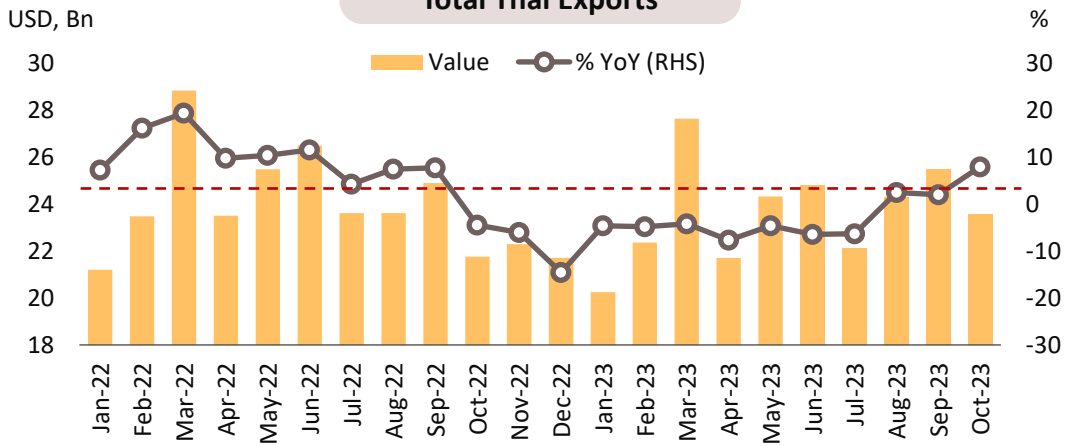
Project	Total value (THB mn)	Timeline (plan)	Progress
1) Double Track, Phase 1			
- Lopburi - Pak Nam Pho	24,722	2018-2024	In progress
- Mab Kabao - Jira Junction	27,454	2018-2026	In progress
2) Double Track, Phase 2			
- Khon Kaen - Nong Khai	29,748	2023-2027	Not yet started
- Jira Junction- Ubon Ratchathani	37,527	2023-2027	Not yet started
- Pak Nam Pho -Den Chai	62,860	2023-2027	Not yet started
- Den Chai - Chiang Mai	56,838	2023-2027	Not yet started
- Chumphon- Surat Thani	24,294	2023-2027	Not yet started
- Surat Thani - Hat Yai - Song Khla	57,375	2023-2027	Not yet started
- Hat Yai - Padang Besar	6,661	2023-2028	Not yet started
3) High-speed Rail			
- Connecting three airports, Phase 1 (Don Mueang - Suvarnabhumi - Utapao)	168,718	2022-2028	In progress
- Connecting regions, Phase 1 (Bangkok - Nakhon Ratchasima)	179,412	2018-2027	In progress
4) Laem Chabang Port, Phase 3 (Inpart of Port Authority of of Thailand's investment	110,000	2023-2027	In progress
5) National Highway Network	165,193	2023-2027	In progress
6) Enhancing Airport Capacity to Connect Transportation Networks	16,578	2023-2029	In progress

Note: *Action Plan for Thailand's Logistics Development 2023-2027, Ministry of Transport
Source: Office of Transport and Traffic Policy and Planning.

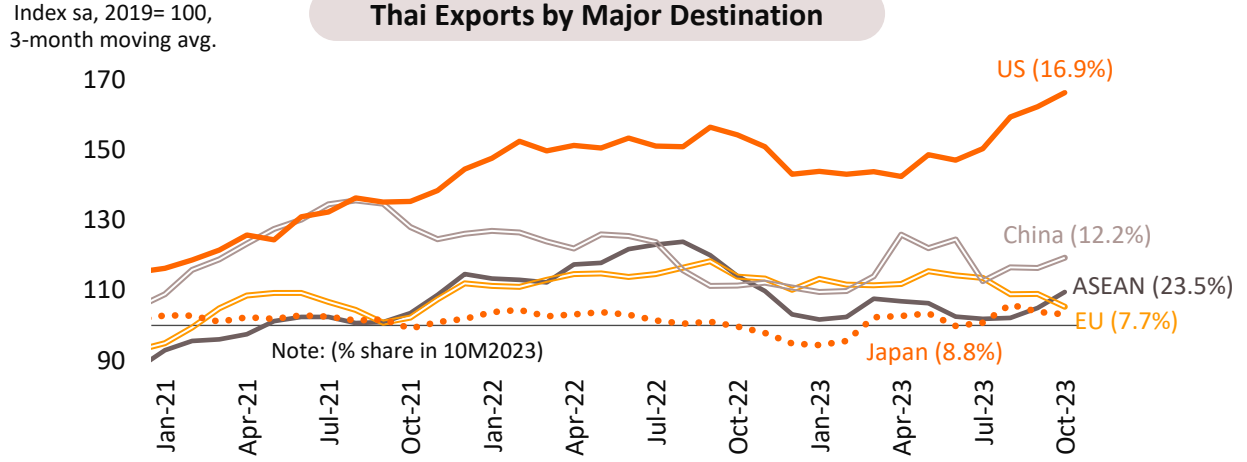
Exports: Technical rebound and diverging growth across sectors and countries; prospects dampened by sub-par global economic growth

Thai exports are expected to grow by a modest 2.5% in 2024, compared to -1.5% in 2023. There are more visible signs of exports improving in the latter half of 2023, surpassing growth in other major exporting countries in Asia. We expect the momentum to continue into 2024, in line with a pick-up in world trade volume and rising demand for Electrical & Electronic (E&E) products starting in the second half of 2023 supported by the growing importance of the digital world.

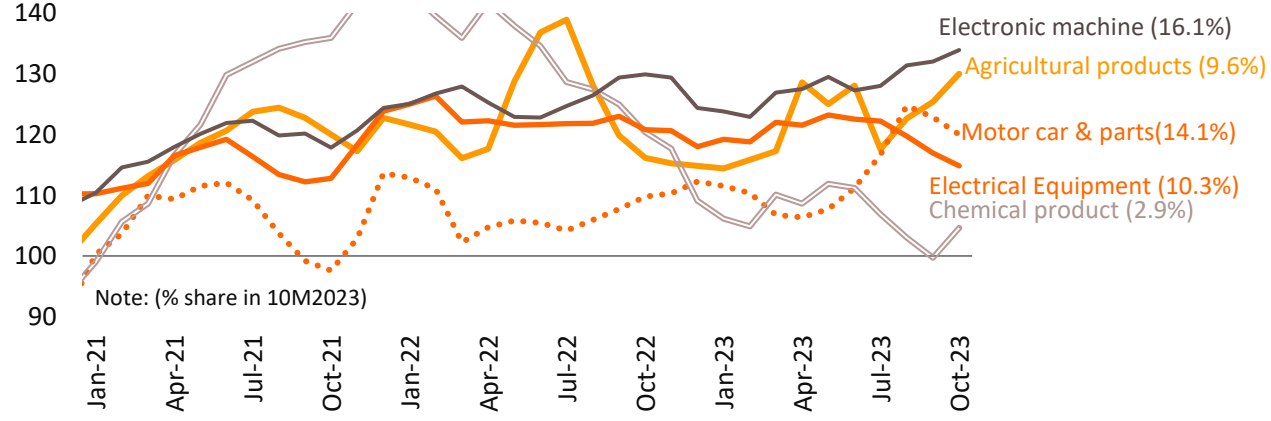
Total Thai Exports



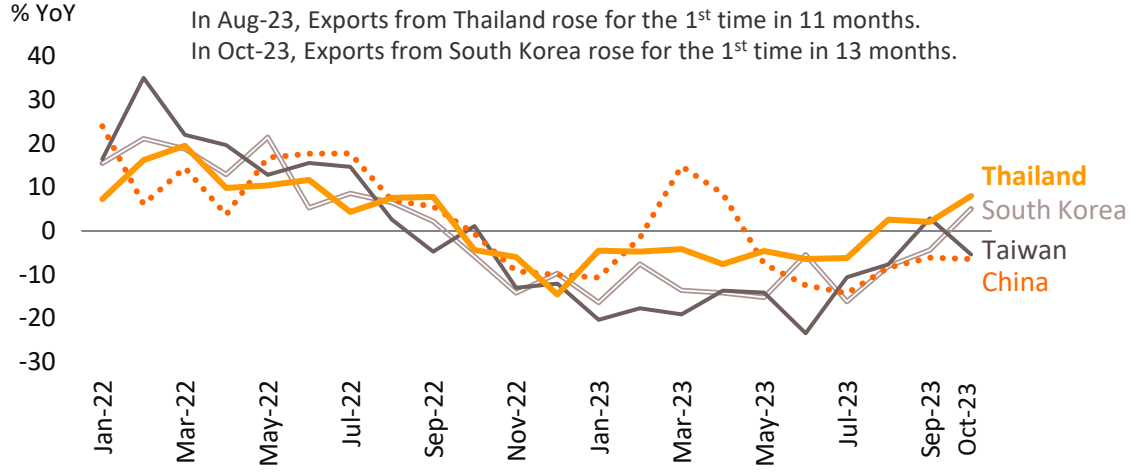
Thai Exports by Major Destination



Thai Exports by Major Product



Major Asian Countries' Exports

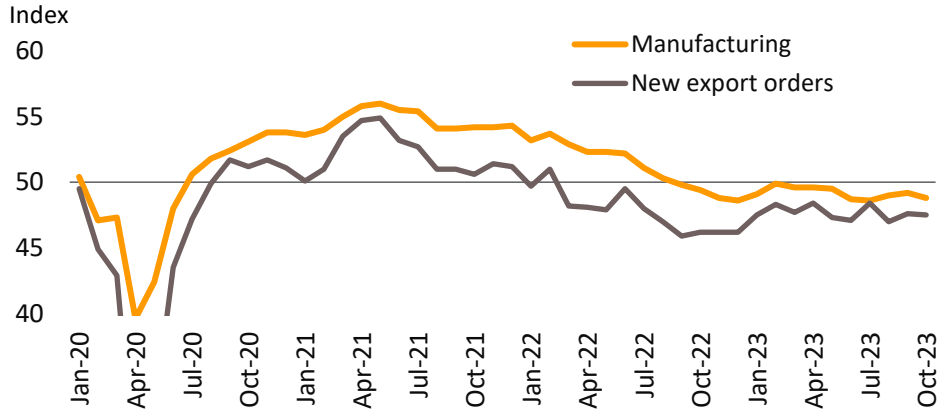


Source: MOC, CEIC, Krungsri Research

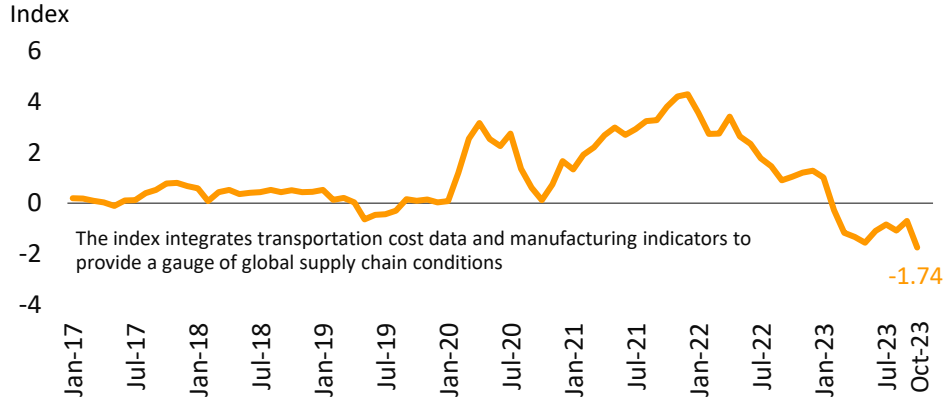
Exports to be driven by easing supply disruption, stable global growth, and low base

Although the global manufacturing sector and new export orders remain weak (index below-50), exports will be supported by easing supply chain disruptions. The Global Supply Chain Pressure Index (GSCPI) has dropped to a multi-year low of -1.74 in October from -0.70 in September. Furthermore, the International Monetary Fund (IMF) expects the global economy to continue to grow amid easing inflationary pressure in 2024. **The World Trade Organization (WTO) also projects global trade volume would grow by 3.3% in 2024, compared to 3.2% in the previous forecast and 0.8% in 2023,** supported by demand for machinery and consumer durables which should recover when economic growth stabilizes.

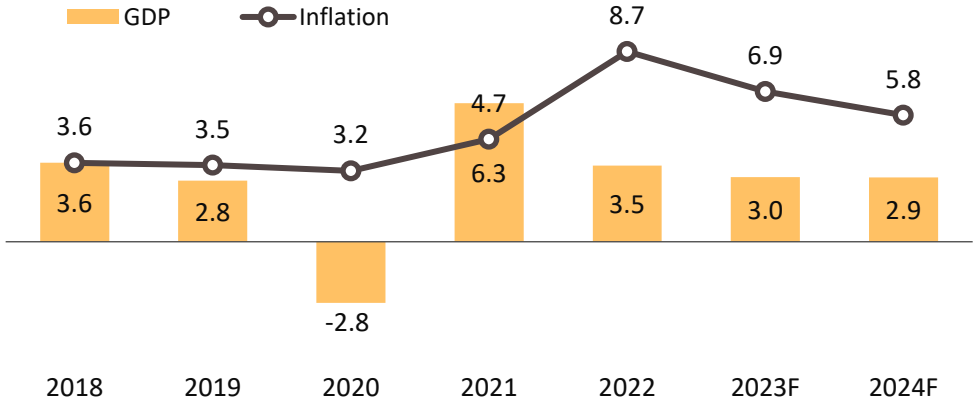
Global Manufacturing PMI and New Export Orders



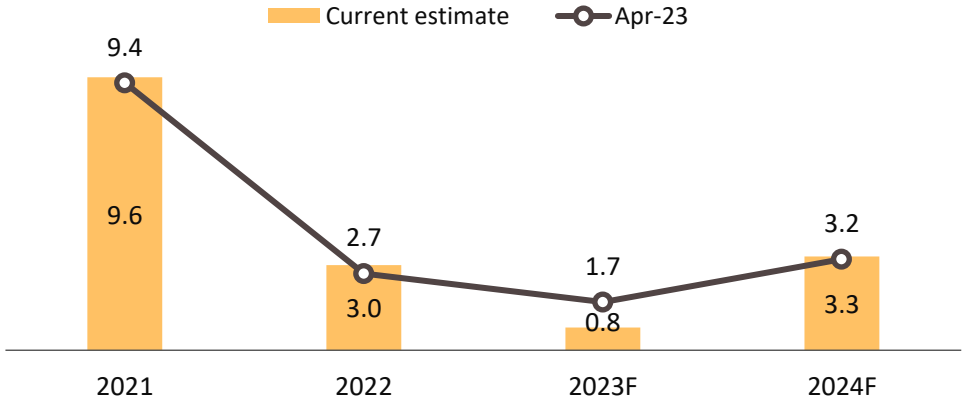
Global Supply Chain Pressure Index (GSCPI)



World GDP Growth and Inflation (IMF)



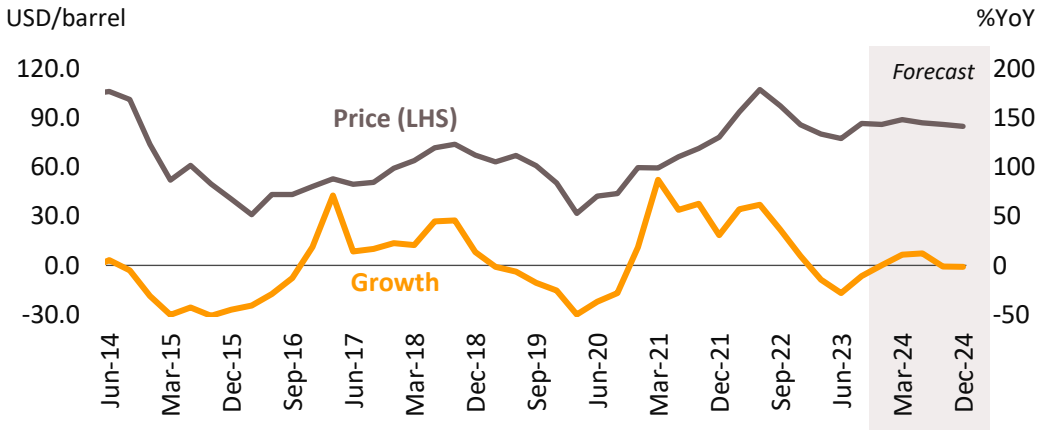
World Merchandise Trade Volume Growth (WTO)



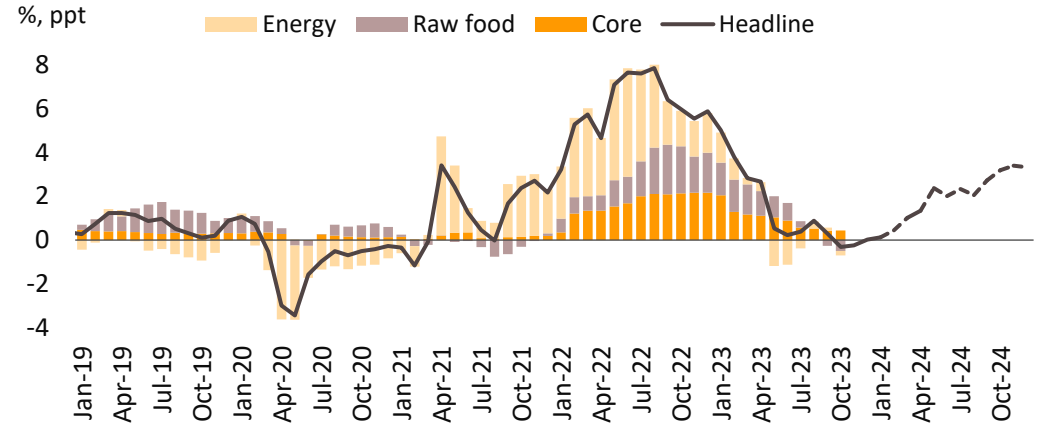
Source: WTO, IMF, CEIC, Krungsri Research

Inflation pressure capped by energy subsidy policies and limited demand-pull pressure; balanced risks as cost-push factors could be offset by extended energy subsidies

Dubai Oil Price (% Increase)



Thai Inflation Projection



Source: MOC, BOT, EIA, Bloomberg, Krungsri Research

Krungsri Research's view

- Headline inflation has eased from a peak of over 7% in August 2022 to an estimated 1.3% in 2023, mainly due to the government's energy subsidy policies. Raw food prices also fell, thanks to favorable weather. The softer core inflation suggests a reduction in cost-pass-through effect and subdued demand-pull pressures.
- **Looking forward, headline inflation is expected to pick up moderately to 2.0% in 2024.** We expect core inflation to remain weak with limited demand-side inflationary pressures.
- Inflation could see balanced risks as cost-push factors might be offset by extended energy subsidies. Cost-push factors include a possible increase in crude oil and other commodity prices, which form key agricultural input costs, as well as minimum wage hikes. However, the government might extend energy subsidies to ease inflationary pressure.

Upside factors

- **Higher energy prices triggered by** rising geopolitical tensions
- **Increasingly volatile raw food prices and key input costs due to El Niño**
- **More pronounced effects of minimum wage hikes**

Downside factors

- **Extension of energy subsidy policies**
- **Lower commodity prices driven by weaker global growth**

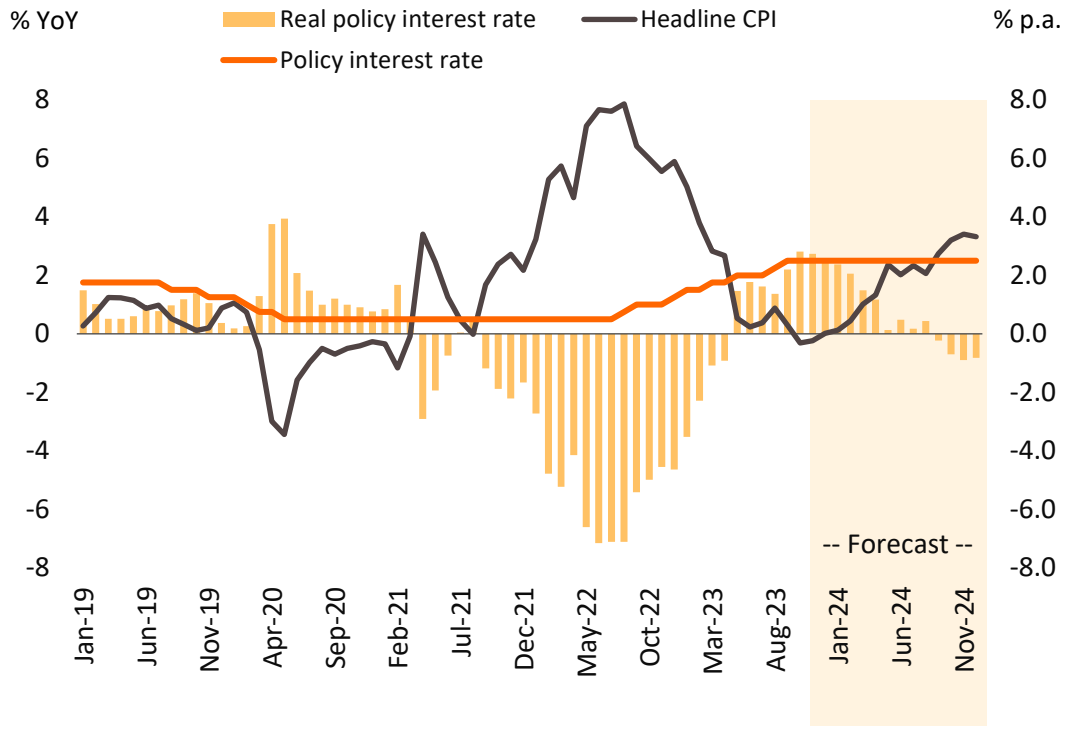
Sensitivity analysis: Government policies and inflation

Policy		Details	Impact on 2024 inflation
Energy subsidy policies *(assuming their extension throughout 2024)*	**Electricity fee**	From 4.45 to 3.99 baht/unit	-0.42 ppt
	Diesel price	From 32.99 to 30 baht/liter	-0.08 ppt
	Benzene price	Reduce by 2.5 baht/liter	-0.10 ppt
Minimum wage hike *(tentatively effective by Jan 1, 2024)*		Increase by 10% nationwide	+0.6 ppt

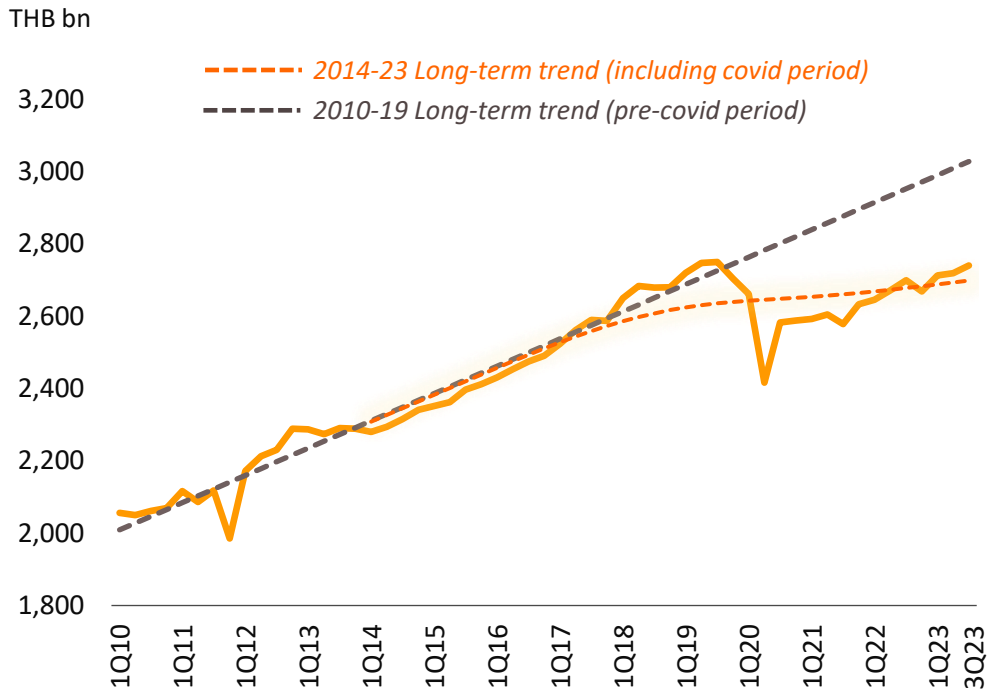
Expect MPC to keep policy rate at a 10-year high to address financial stability concerns while supporting economic growth

We expect the MPC to keep policy interest rate at 2.50% in 2024, premised on the following: (i) the MPC believes current interest rate is appropriate to support sustainable long-term growth; (ii) real policy rate has risen to positive territory; and (iii) the BOT expects Thailand's economic growth to rebound in 2024. Economic activity is also gradually returning to long-term trend, supported by economic stimulus measures. Despite potential rate cuts by the world's major central banks in 2H24, Thailand is unlikely to join the fray as headline inflation is expected to increase and remain within the BOT's target range in 2024, albeit possibly briefly exceeding its upper target range in late-2024 (due to the low base in 2023). **We expect the MPC to keep policy interest rate at a decade-high to allow room to absorb uncertainties and risks in the foreseeable future.**

Real policy interest rate has turned positive since May



Thailand's GDP Trends

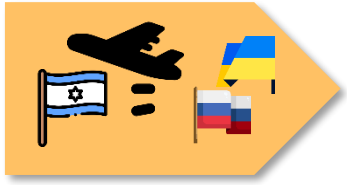


Source: BOT,NESDC, Krungsri Research

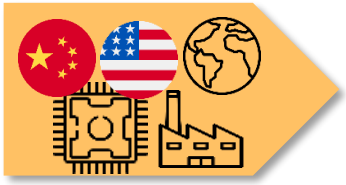
Risks & Challenges



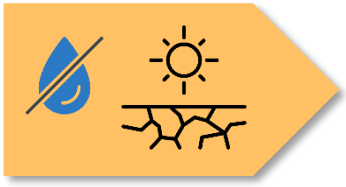
Risk of global recession amid excessive policy tightening



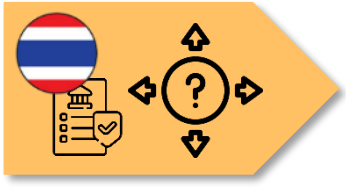
Intensifying geopolitical tensions



Spillover effect of property crisis in China and risk of tech war



Risk of severe drought (El Niño)



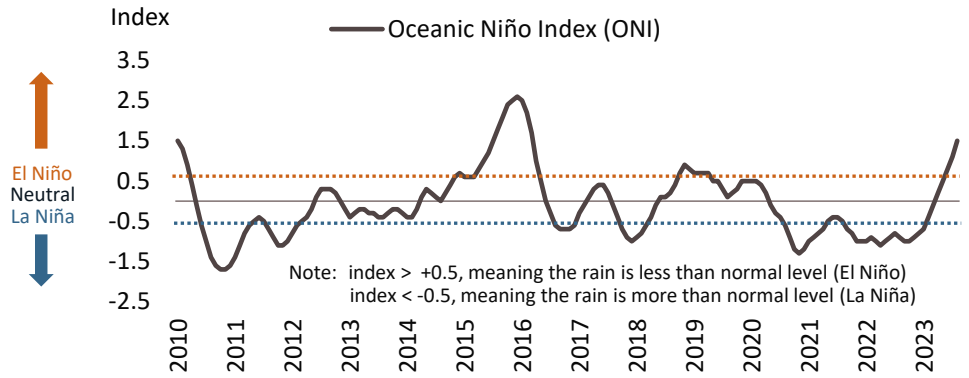
Policy uncertainty and political risk in Thailand

Source: Krungsri Research

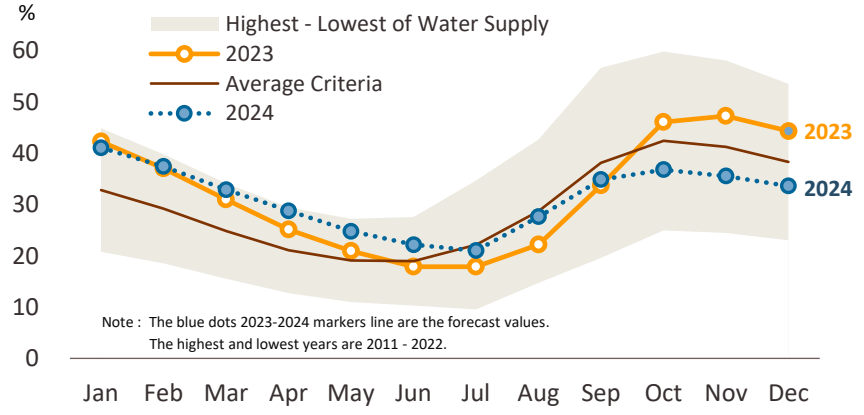
Expect drought to hurt farm output in 2H23, worsen in 2024

The emergence of El Niño conditions have started to affect the climate in Thailand, but the full effect will manifest in 2024 and 2025 as the country experiences higher temperatures. The delayed onset of seasonal rains would cause below-average precipitation across the country. In 2023, the effects would be most visible on output of crops that are sensitive to water shortage, such as off-season rice and cassava. In 2024 and 2025, the impact will expand to include other major crops, including sugarcane, corn, fruits, and forestry goods. In some cases, the effects could be worse for downstream industries than upstream suppliers. **In our baseline case, overall drought-related losses are expected to reach THB 50 bn or 0.29% of GDP; it could reach THB 78 bn or 0.45% of GDP if the drought is more severe than expected in 2024 and 2025.**

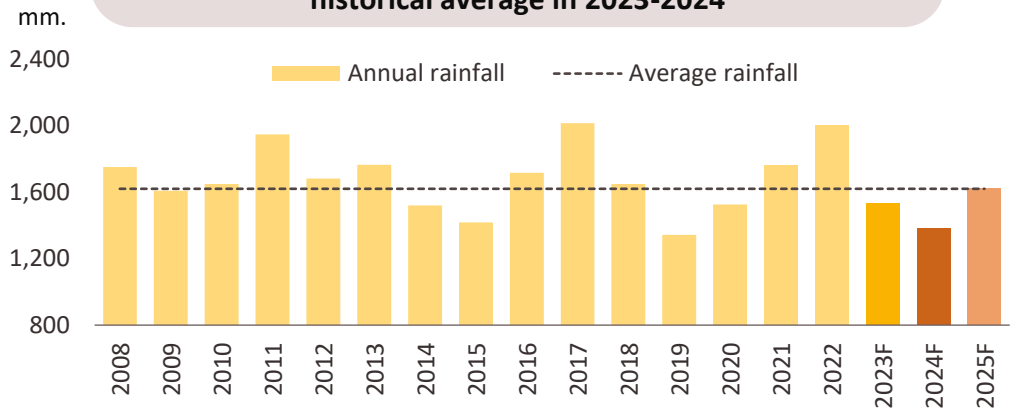
Oceanic indices show signs of El Nino



% of usable water supply in Thailand



Annual rainfall in Thailand is expected to drop below historical average in 2023-2024



Projection of drought-induced economic losses

Scenario of Drought Risk	Best Case Rainfall Drop 5-7%	Base Case Rainfall Drop 10-12%	Worst Case Rainfall Drop 15-20%
Likelihood in 2024	High	Medium	Low
Likelihood in 2025	Low	Medium	High
Economic loss (Million Baht)	**22,077**	**50,174**	**77,837**
As percent of GDP	**0.13**	**0.29**	**0.45**

Source: National Oceanic and Atmospheric Administration, Thaiwater, Thailand Meteorological Department, Krungsri Research

Digital Wallet scheme: PM clarifies conditions and funding sources, but the proposed THB500bn loan bill to fund the scheme is facing legal challenges

Update of Digital Wallet Scheme

	Original scheme	Revised scheme
Target group/ total cost	Every Thai citizen aged 16 and over, covering **56mn persons,** costing **THB560bn**	**Proposed eligibility criteria:** Exclude individuals earning over THB70,000 a month or with deposits of over THB500,000, leaving **50mn** eligible persons, costing **THB500bn**
Area for spending	Spend at shops within **4-kilometre radius** of registered address	Expand spending area **to "within the district"** of registered address
Start date	**February 2024**	Expect to launch handout in **May 2024,** and it will end in **April 2027.**
Condition		The handout can be used to buy **food and consumer goods only.** It **cannot be used to buy** goods online, cigarettes, liquor, cash vouchers, diamonds, gems or gold; and **cannot be used to pay off** debts or pay for water or electricity bills, fuel, natural gas or tuition fees.
Sources of funds	National budget and borrowing from SOEs	**Loan bill worth an estimated THB500 bn**

Note: For those who do not receive the digital wallet scheme, they can join the E-Refund project that offers rebates on personal income tax for purchase of goods worth up to THB50,000, starting Jan 2024.

Timeline to approve THB500bn loan bill

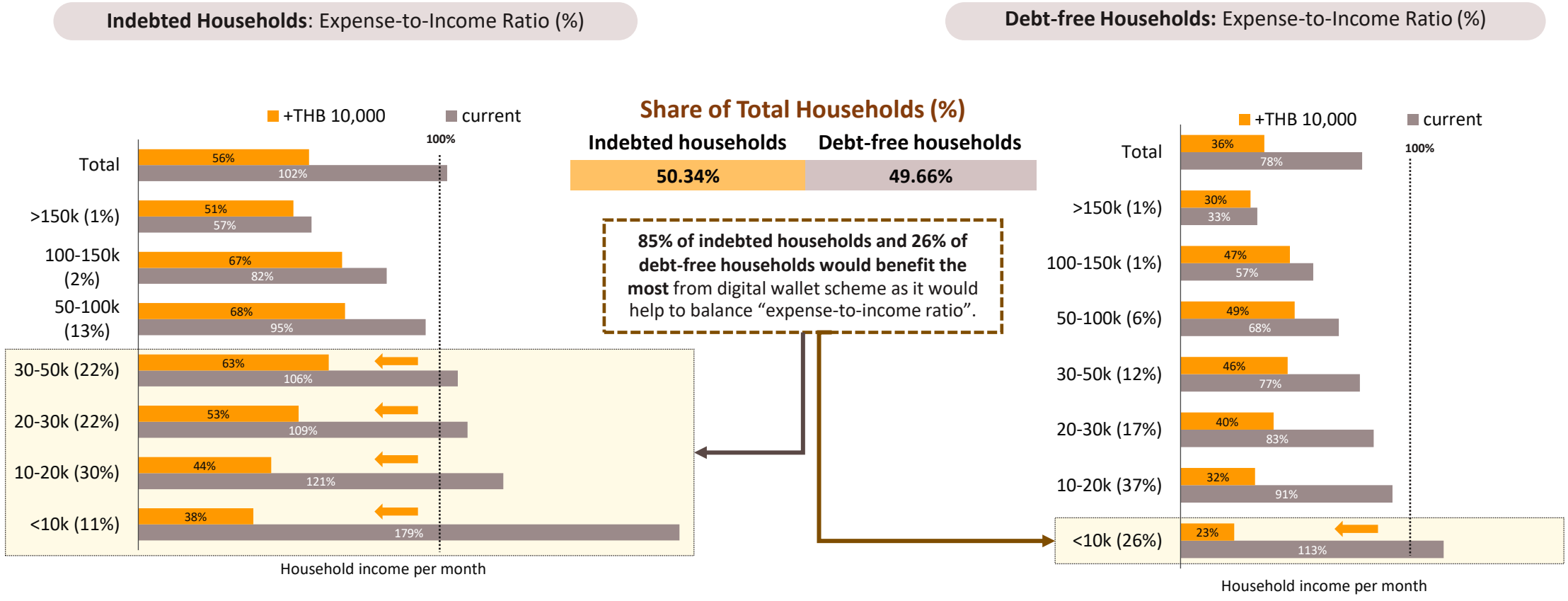
On November 13, an activist (petitioner Srisuwan Janya) asked the Ombudsman to seek **a Constitutional Court ruling on the legality of the government's plan to borrow THB500bn** to fund its election-policy digital wallet handout. He said the constitution and State Fiscal and Financial Disciplines Act **prohibited the government from passing a law for any borrowing for political gain, or for any non-urgent issue.**

By end-2023	**A loan bill has to be vetted by the Council of State** **State Fiscal and Financial Disciplines Act, B.E.2561(2018); Section 53:** *"The making of loans by the Government otherwise than provided in the law on public debt administration is permissible, provided that the Ministry of Finance shall do so only by virtue of the law specifically enacted and **only in the case where there occurs a need for action to be taken urgently and continually for resolving critical problems of the country**, where annual appropriations cannot be fixed in due time"*
By early 2024	**Submission for consideration by the Parliament** before the law is enacted, must pass through **both houses and** include three readings, and may involve **the Constitutional Court**. **Possible legal challenges: The bill could be invalidated by the Constitutional Court on the basis the scheme is not urgent enough to justify such a huge loan.**
May 2024	**Publication in the Royal Gazette, effective date**

Source: Local Media, Krungsri Research

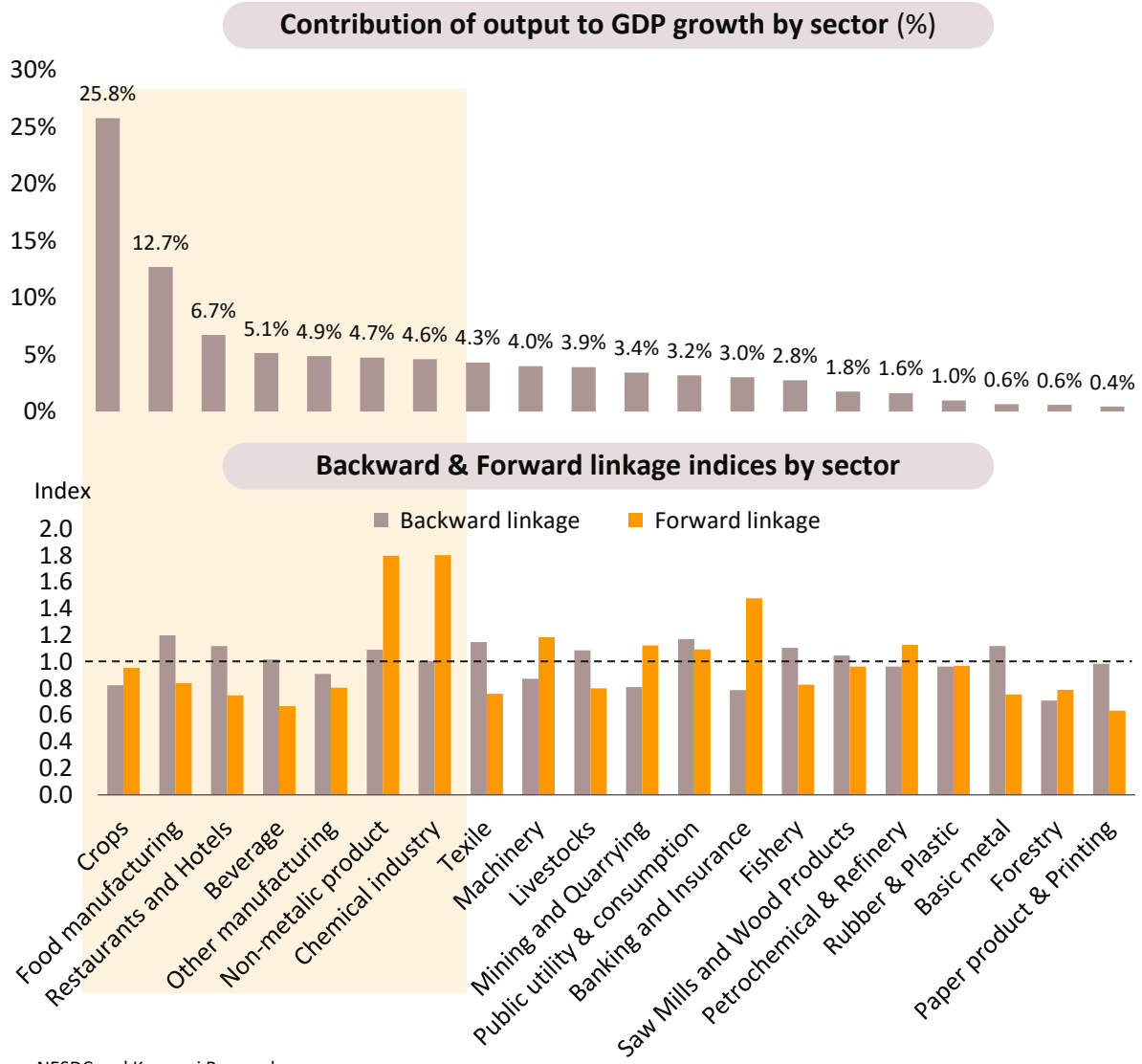
Digital wallet scheme can boost purchasing power of low-income households and stimulate the economy significantly, but the effects might last only a year

According to the NSO, data suggest indebted households with monthly income below THB50,000 and debt-free households with monthly income below THB10,000 have weak purchasing power as total expenses including debt repayments exceed their income. **The THB10,000 digital cash wallet scheme which could be implemented in 2024, could boost household purchasing power significantly. It will benefit those under financial stress (85% of indebted households and 26% of debt-free households), by reducing *expense-to-income ratio* to below 100%.** However, it would have minimal impact on households with high monthly income (more than THB50,000 for indebted households) and debt-free households (except those with monthly income below THB10,000) because these groups have very low marginal propensity to consume (MPC).



Source: NSO, NESDC, Krungsri Research

Digital Wallet supply-side analysis: Crop sector will be largest beneficiary but has low forward and backward linkages



Source: NESDC and Krungsri Research

- **Supply-side analysis.** The crop sector is expected to account for 26% of incremental output (or GDP). Contribution from the non-agricultural sector would be approximately 70%, led by food manufacturing (12.7%), restaurants & hotels (6.7%), beverages (5.1%), and other manufacturing categories (4.9%).
- To present a clearer picture, we refer to "backward and forward linkages" to detail the position of each sector in the supply chain. Sectors with high backward linkages indicate a strong connection with upstream industries, while those with high forward linkages suggest a significant connection to downstream industries.
- Our analysis of the digital wallet scheme suggests **Crop sector** would be the largest beneficiary, but its forward and backward linkages are low compared to other sectors. Meanwhile, **Food Manufacturing and Restaurants & Hotels** would see the second- and third-largest shares, respectively, though they have **substantial backward linkages to other sectors.** The strong forward linkages include non-metallic products and the chemical industry, but these sectors will see smaller gains from this scheme.

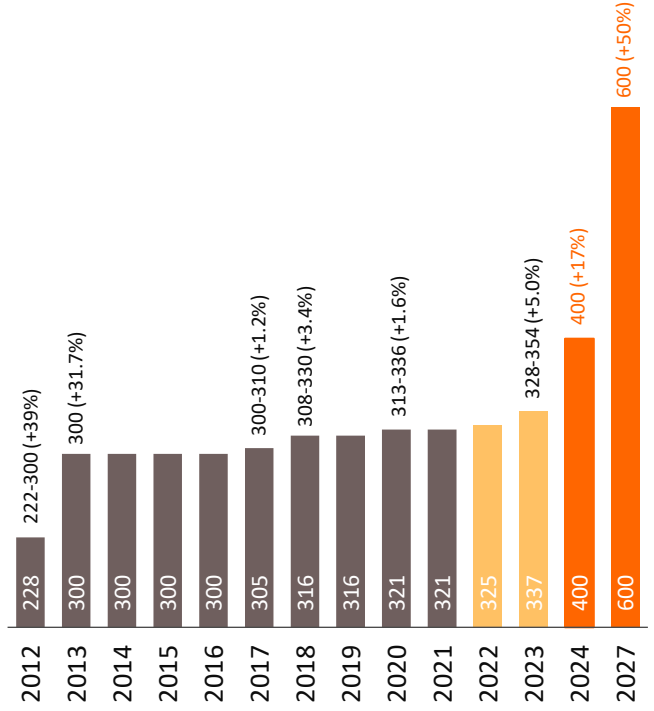
Notes: (*) Forward Multiplier > Backward Multiplier: Upstream industry
Backward Multiplier > Forward Multiplier: Downstream industry

(**) index > 1: when specific sector final demand changes one unit, the change of the total outputs of all sectors will increase more than one unit
index < 1: when specific sector final demand changes one unit, the change of the total outputs of all sectors will increase less than one unit

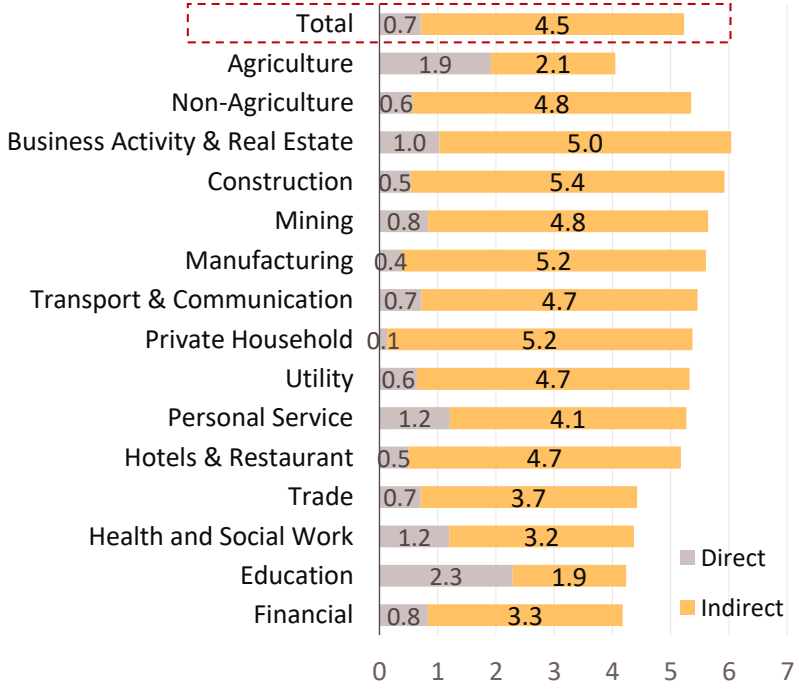
If Thailand hikes minimum wage by 18.7% to THB 400/day as proposed, that could lift inflation by about 1%; however, historical trends indicate a more muted effect

- If minimum wage is increased to THB 400 per day nationwide (from THB 337 currently) starting January 2024, the impact on production costs (PPI) would be +5.2%, comprising 0.7% direct effect and 4.5% indirect effect. Sectors that would be hurt most are business activity & real estate, construction, mining and manufacturing. Given the long-run pass-through from PPI to CPI, the total effect of a 18.7% hike in minimum wage hike on CPI would be around 1%. Looking ahead, the government plans to raise minimum wage to THB 600 per day by 2027. If implemented, there would be a significant impact on inflation.
- However, historical data suggest the actual impact might be smaller; the previous minimum wage hike (by 32% from THB 228 to THB 300 nationwide) had minimal impact on inflation. **One of the reasons often cited is strong competition in the business sector in Thailand. The other factor that could mitigate the impact on inflation is a smaller share of labor earning minimum wage (from 25% in 2012 to 15% in 2022). The government also claimed the minimum wage hike might be rolled out in phases by region and/or skill level.**

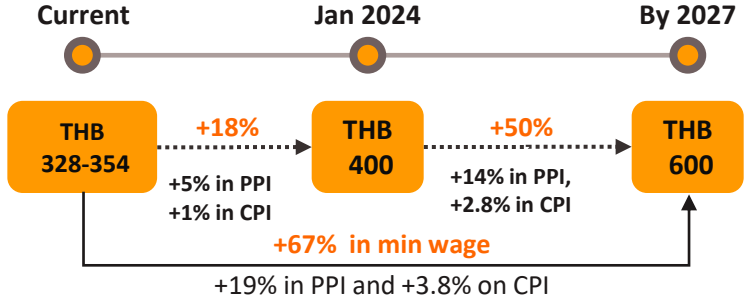
Average minimum wage (THB/Day)



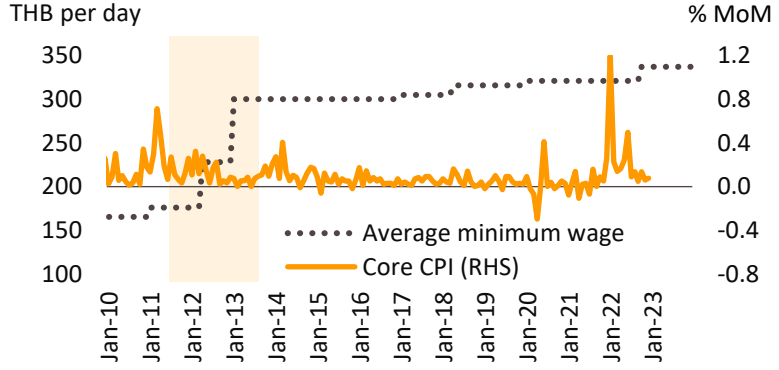
Estimated increase in production cost from 18.7% hike in minimum wage hike[1/] (%)



Timeline and impact on inflation[2/]



Minimum wage hikes and changes in core CPI



Source: Ministry of Labor, Ministry of Commerce, NESDC, and Krungsri Research

Note: 1/ Direct and indirect effects based on Input-Output model analysis
2/ Long-run pass-through from PPI to headline CPI is approximately 0.2. The regression model used is $\pi_t = c + \pi_{t-1} + \sum_{i=0,1} \Delta PPI_{t-i}$, using monthly data from 2015-2023

Recession risk in the US: Data show, after the first rate cut, it usually takes 5-6 quarters to fall into an economic recession

Oil Price Shock

The peak of interest rate

Start cutting interest rate 6 quarters before recession

recession

	Q1/1988	Q2/1988	Q3/1988	Q4/1988	Q1/1989	Q2/1989	Q3/1989	Q4/1989	Q1/1990	Q2/1990	Q3/1990	Q4/1990	Q1/1991	Q2/1991	Q3/1991	Q4/1991	Q1/1992
	-5Q	-4Q	-3Q	-2Q	-1Q	Q0*	+1Q	+2Q	+3Q	+4Q	+5Q	+6Q	+7Q	+8Q	+9Q	+10Q	+11Q
Policy rate (%)	6.83	7.43	8.12	8.68	9.75	9.56	9.06	8.25	8.25	8.25	8.00	7.00	6.00	6.74	5.60	4.90	4.70
Retail Sales (y/y)	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Unemployment (%)	5.70	5.47	5.47	5.33	5.20	5.23	5.23	5.37	5.30	5.33	5.70	6.13	6.60	6.83	6.87	7.10	7.37
Core CPI (y/y)	4.33	4.37	4.44	4.52	4.70	4.54	4.44	4.35	4.67	4.83	5.36	5.23	5.49	5.08	4.64	4.44	3.88
GDP growth (y/y)	4.24	4.48	4.19	3.8	4.32	3.75	3.91	2.74	2.82	2.41	1.73	0.6	-0.95	-0.54	-0.10	1.17	2.86
GDP growth (q/q)	2.1	5.4	2.4	5.4	4.1	3.1	3	0.8	4.4	1.5	0.3	-3.6	-1.9	3.10	1.90	1.80	4.80

Global Financial Crisis

The peak of interest rate

Start cutting interest rate 5 quarters before recession

recession

	Q4/2005	Q1/2006	Q2/2006	Q3/2006	Q4/2006	Q1/2007	Q2/2007	Q3/2007	Q4/2007	Q1/2008	Q2/2008	Q3/2008	Q4/2008	Q1/2009	Q2/2009	Q3/2009	Q4/2009
	-7Q	-6Q	-5Q	-4Q	-3Q	-2Q	-1Q	Q0*	+1Q	+2Q	+3Q	+4Q	+5Q	+6Q	+7Q	+8Q	+9Q
Policy rate (%)	4.09	4.75	5.25	5.25	5.25	5.25	5.25	4.75	4.25	2.25	2.00	2.00	0.25	0.16	0.22	0.07	0.05
Retail Sales (y/y)	5.28	7.24	5.81	4.17	3.52	3.18	3.19	2.78	4.35	3.24	1.66	0.25	-8.78	-11.45	-10.77	-8.15	0.81
Unemployment (%)	4.97	4.73	4.63	4.63	4.43	4.50	4.50	4.67	4.80	5.00	5.33	6.00	6.87	8.27	9.30	9.63	9.93
Core CPI (y/y)	2.12	2.09	2.46	2.82	2.64	2.61	2.27	2.16	2.31	2.36	2.33	2.51	1.99	1.74	1.82	1.49	1.74
GDP growth (y/y)	4.83	4.23	5.24	3.97	2.9	2.2	0.99	0.49	0.17	1.33	1.32	2.14	1.99	-3.28	-4.00	-3.14	0.08
GDP growth (q/q)	2.2	5.5	1	0.6	3.5	1.2	2.5	2.3	2.5	-1.7	2.4	-2.1	-8.5	-5.40	-0.50	1.30	3.90

Tech Bubble Burst

The peak of interest rate

Start cutting interest rate 2 quarters before contraction

contraction

contraction

	Q3/1998	Q4/1998	Q1/1999	Q2/1999	Q3/1999	Q4/1999	Q1/2000	Q2/2000	Q3/2000	Q4/2000	Q1/2001	Q2/2001	Q3/2001	Q4/2001	Q1/2002	Q2/2002	Q3/2002
	-8Q	-7Q	-6Q	-5Q	-4Q	-3Q	-2Q	-1Q	Q0*	+1Q	+2Q	+3Q	+4Q	+5Q	+6Q	+7Q	+8Q
Policy rate (%)	6.14	4.07	4.98	5.12	5.51	3.99	6.17	6.86	6.60	5.41	5.29	3.95	2.75	1.52	1.74	1.73	1.85
Retail Sales (y/y)	3.42	5.82	7.83	6.94	9.52	8.47	10.72	7.18	5.53	3.28	1.62	3.55	1.40	4.38	1.92	1.77	4.80
Unemployment (%)	4.53	4.43	4.30	4.27	4.23	4.07	4.03	3.93	4.00	3.90	4.23	4.40	4.83	5.50	5.70	5.83	5.73
Core CPI (y/y)	2.40	2.34	2.19	2.10	2.00	2.02	2.20	2.42	2.56	2.56	2.67	2.62	2.68	2.72	2.53	2.44	2.27
GDP growth (y/y)	4.10	4.88	4.82	4.73	4.80	4.83	4.23	5.24	3.97	2.9	2.2	0.99	0.49	0.17	1.33	1.32	2.14
GDP growth (q/q)	5.30	6.70	3.20	3.30	5.10	6.7	1.5	7.5	0.4	2.4	-1.3	2.5	-1.6	1.1	3.4	2.5	1.6

(*) Note: Q0 = The first Interest rate cut

Source: CEIC, Bloomberg, Krungsri Research

Recession risk in Eurozone: After the first rate cut, it usually takes 1-2 quarters to fall into an economic recession or stagnation

Global Financial Crisis

Cut interest rate in recession period

recession

	Q4/2006	Q1/2007	Q2/2007	Q3/2007	Q4/2007	Q1/2008	Q2/2008	Q3/2008	Q4/2008	Q1/2009	Q2/2009	Q3/2009	Q4/2009	Q1/2010	Q2/2010	Q3/2010	Q4/2010
	-8Q	-7Q	-6Q	-5Q	-4Q	-3Q	-2Q	-1Q	Q0*	+1Q	+2Q	+3Q	+4Q	+5Q	+6Q	+7Q	+8Q
Policy rate (%)	3.50	3.75	4.00	4.00	4.00	4.00	4.00	4.25	2.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Retail Sales (y/y)	3.30	3.03	2.38	2.58	1.26	0.74	-0.07	-0.90	-1.61	-2.85	-2.73	-2.71	-1.36	0.41	0.90	1.36	1.07
Unemployment (%)	8.30	7.90	7.60	7.47	7.33	7.13	7.23	7.30	7.70	8.67	9.20	9.53	9.80	10.10	10.13	10.00	10.03
Core CPI (y/y)	1.74	2.00	2.10	2.20	2.57	2.92	2.93	2.95	2.56	1.95	1.79	1.51	1.32	1.12	1.10	1.20	1.33
GDP growth (y/y)	3.91	3.69	3.16	3.06	2.6	2.44	1.45	0.42	-2.02	-5.38	-5.20	-4.37	-2.16	1.18	2.26	2.37	2.57
GDP growth (q/q)	1.1	0.6	0.7	0.4	0.5	0.5	-0.4	-0.5	-1.8	-3.10	0.00	0.40	0.50	0.40	1.00	0.40	0.60

European Debt Crisis

The peak of interest rate

Start cutting interest rate a quarters before recession

recession

	Q1/2010	Q2/2010	Q3/2010	Q4/2010	Q1/2011	Q2/2011	Q3/2011	Q4/2011	Q1/2012	Q2/2012	Q3/2012	Q4/2012	Q1/2013	Q2/2013	Q3/2013	Q4/2013	Q1/2014
	-7Q	-6Q	-5Q	-4Q	-3Q	-2Q	-1Q	Q0*	+1Q	+2Q	+3Q	+4Q	+5Q	+6Q	+7Q	+8Q	+9Q
Policy rate (%)	1.00	1.00	1.00	1.00	1.00	1.25	1.50	1.00	1.00	1.00	0.75	0.75	0.75	0.50	0.50	0.25	0.25
Retail Sales (y/y)	0.41	0.90	1.36	1.07	-0.03	-0.48	-0.51	-0.92	-0.52	-0.90	-1.00	-1.79	-1.49	-0.77	0.10	1.12	1.37
Unemployment (%)	10.10	10.13	10.00	10.03	9.93	9.90	10.10	10.40	10.70	10.97	11.13	11.47	11.70	11.63	11.50	11.47	11.37
Core CPI (y/y)	1.12	1.10	1.20	1.33	1.45	1.95	1.85	2.10	2.05	1.96	1.84	1.68	1.51	1.25	1.26	1.00	0.97
GDP growth (y/y)	1.18	2.26	2.37	2.57	3.06	2.11	1.81	0.81	-0.28	-0.58	-0.89	-0.93	-1.00	-0.28	0.18	0.94	1.65
GDP growth (q/q)	0.40	1.00	0.40	0.60	0.90	0.00	0.10	-0.40	-0.30	-0.20	-0.10	-0.50	-0.40	0.50	0.30	0.30	0.40

Tech Bubble Burst

The peak of interest rate

Cut interest rate in stagnation period

stagnation

	Q2/1999	Q3/1999	Q4/1999	Q1/2000	Q2/2000	Q3/2000	Q4/2000	Q1/2001	Q2/2001	Q3/2001	Q4/2001	Q1/2002	Q2/2002	Q3/2002	Q4/2002	Q1/2003	Q2/2003
	-8Q	-7Q	-6Q	-5Q	-4Q	-3Q	-2Q	-1Q	Q0*	+1Q	+2Q	+3Q	+4Q	+5Q	+6Q	+7Q	+8Q
Policy rate (%)	2.50	2.50	3.00	3.50	4.25	4.50	4.75	4.75	4.50	3.75	3.25	3.25	3.25	3.25	2.75	2.50	2.50
Retail Sales (y/y)	na	na	na	2.19	3.79	3.81	2.77	3.47	2.11	1.95	1.21	0.11	0.56	1.09	0.83	1.28	0.97
Unemployment (%)	na	na	na	9.70	9.57	9.43	9.30	9.20	9.30	9.30	9.43	9.50	9.60	9.73	9.77	9.80	9.83
Core CPI (y/y)	1.49	1.40	1.33	1.27	1.23	1.29	1.40	1.38	2.02	2.16	2.52	3.11	2.93	2.75	2.49	2.17	2.17
GDP growth (y/y)	2.37	2.87	3.89	4.06	4.56	3.97	3.47	3.15	2.26	1.84	1.29	0.56	1.02	1.27	1.39	1.00	0.56
GDP growth (q/q)	0.50	1.20	1.10	1.20	0.90	0.60	0.60	1.00	0.10	0.10	0.00	0.10	0.50	0.40	0.20	-0.30	0.10

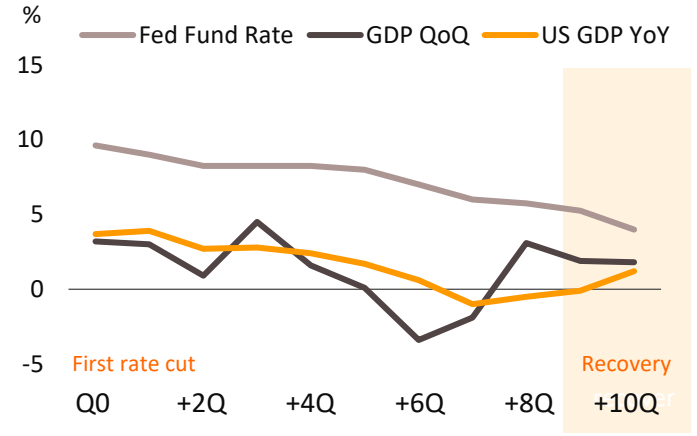
(*) Note: Q0 = The first Interest rate cut

Source: CEIC, Bloomberg, Krungsri Research

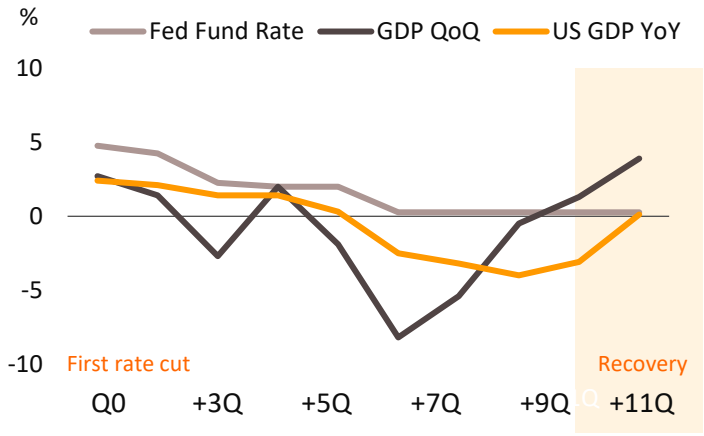
After the first rate cuts, the US and Eurozone took more than 6 quarters to see an economic recovery

US

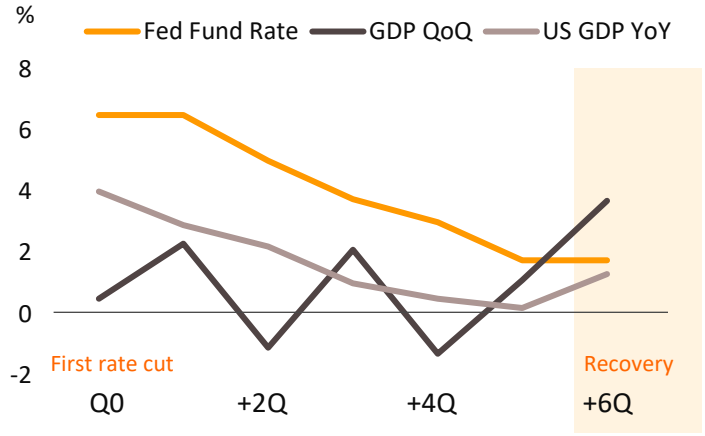
Q2/1989 to Q4/1991



Q3/2007 to Q4/2009

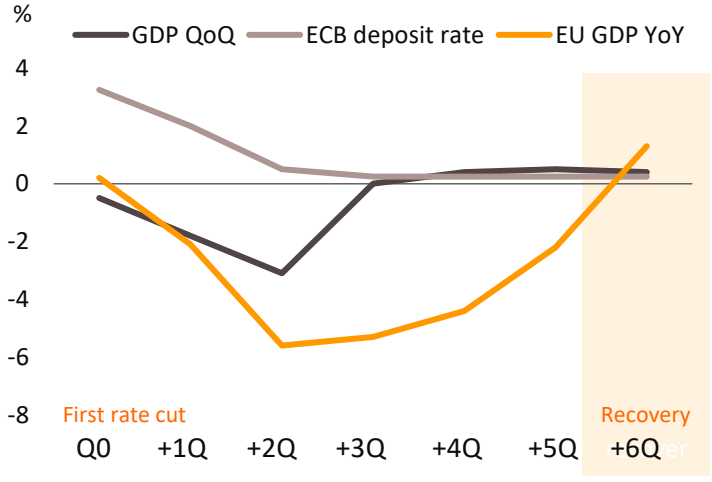


Q3/2000 to Q4/2001

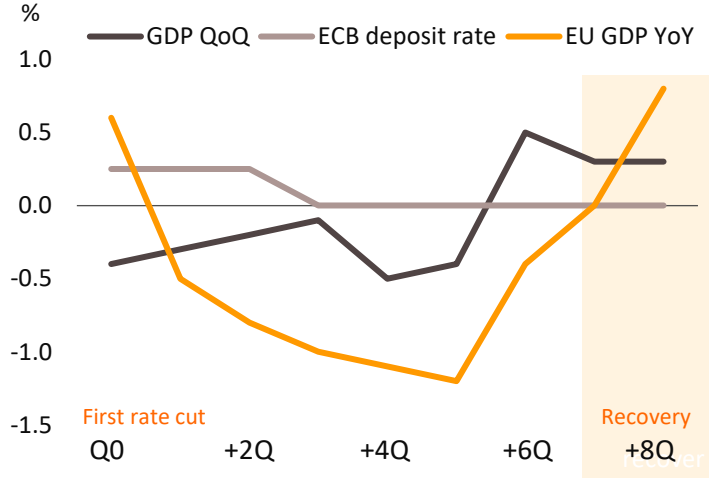


EU

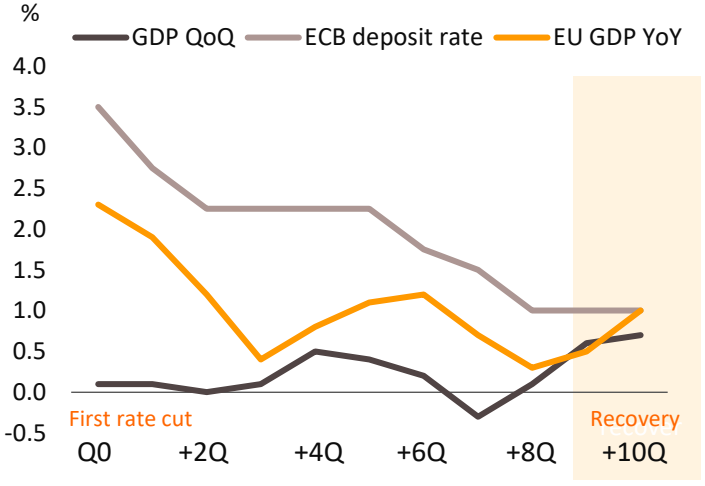
Q3/2008 to Q1/2010



Q4/2011 to Q4/2013



Q2/2001 to Q4/2003



Source: Bloomberg, Krungsri Research

Israel-Hamas war could further weaken an already-slowing global economy

- The IMF has warned that the ongoing conflict will have repercussions on the Middle East and the world economy. **Bloomberg Economics analyzed the conflict under three potential scenarios; a confined war, proxy war, and direct war.** It sees low risk of a direct war, but it is a dangerous scenario. Soaring oil prices (to $150 a barrel) and a sharp drop in prices of risk assets would deal a substantial blow to growth and push inflation a notch higher. It could trigger a global recession with global GDP growth falling to 1.7% in 2024.
- **Unrest in the Middle East could hurt economic activities through three primary channels**: **(i) demand side**, resulting from disruptions to trade, tourism, and investment**; (ii) supply side,** where rising oil prices can lead to higher production costs, inflation, and a subsequent drop in purchasing power and investment. Indirectly, it will also weaken consumer and business sentiment. In the worst case, it could lead to global supply chain disruptions**; (iii) financial markets**, as rising tensions and uncertainties often amplify volatility, leading to risk-off sentiment.
- **The impact on the Thai economy depends on the intensity and duration of the conflict**. **Given the current situation, the primary impact is on the supply side triggered by higher oil prices**. **The impact on financial markets are relatively limited, given Thailand's resilient external stability.** In the worst-case scenario, tighter financial conditions could eventually affect monetary policy and the economy.

Possible conflict scenario

1 Confined war

Hostilities largely confined to Israel and the Palestinian territories



- Ground invasion of Gaza Limited broader regional conflict
- Lower Iranian crude output

2 Proxy war

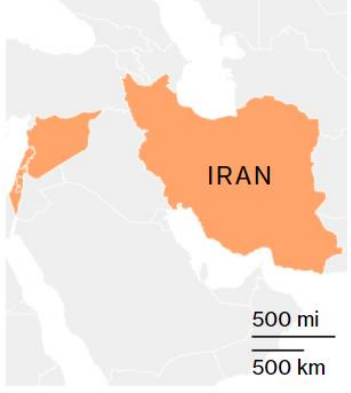
Spill-over to Lebanon and Syria, proxy war between Israel and Iran



- Multifront war in Gaza, West Bank, Lebanon, Syria
- Unrest in wider Middle East

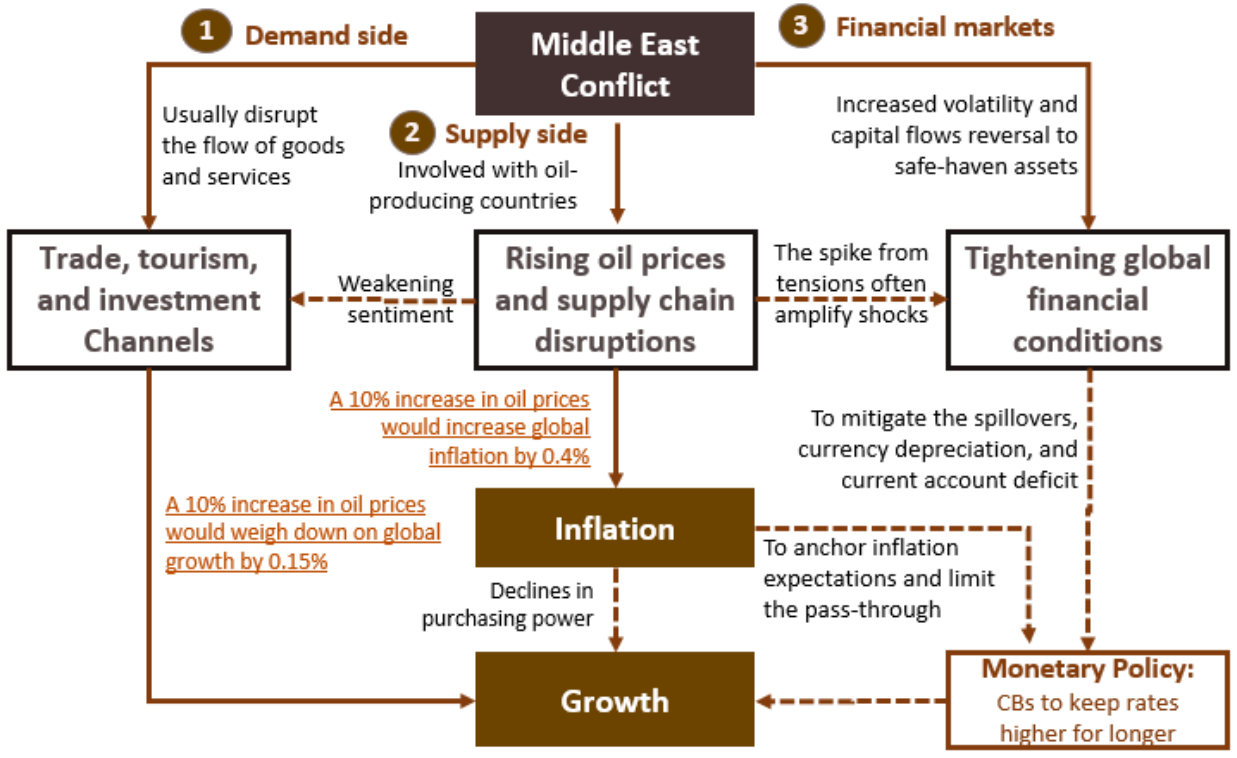
3 Direct war

Military exchanges between regional enemies Israel and Iran



- Israel and Iran in direct conflict
- Unrest in wider Middle East

Links between the conflict and global economy



Source: IMF, Bloomberg Economics, Krungsri Research

In the near-term, Thai government's energy subsidy measures could reduce impact on inflation

- **The Bank of Thailand estimates a 10% increase in oil prices would push up Thai inflation by 0.5 ppt and reduce Thai GDP growth by 0.1 ppt.** Based on our assumption that oil price would average $83/barrel in 2023, inflation could surge by 2.7 ppt and growth could drop by 0.5 ppt in the worst-case scenario.
- **Energy subsidy measures would only mitigate the impact on inflation in the near-term**. Policies effective September to December 2023 include a reduction in electricity price and cutting diesel price. The government has agreed to reduce the price of benzene octane 91 by THB 2.5/liter for three months by lowering excise tax, similar to the approach to cut diesel price. If these policies are extended through to 2024, it could reduce inflation by 0.2-0.6 ppt.

Oil price assumptions and effects on Thailand's growth and inflation by scenario

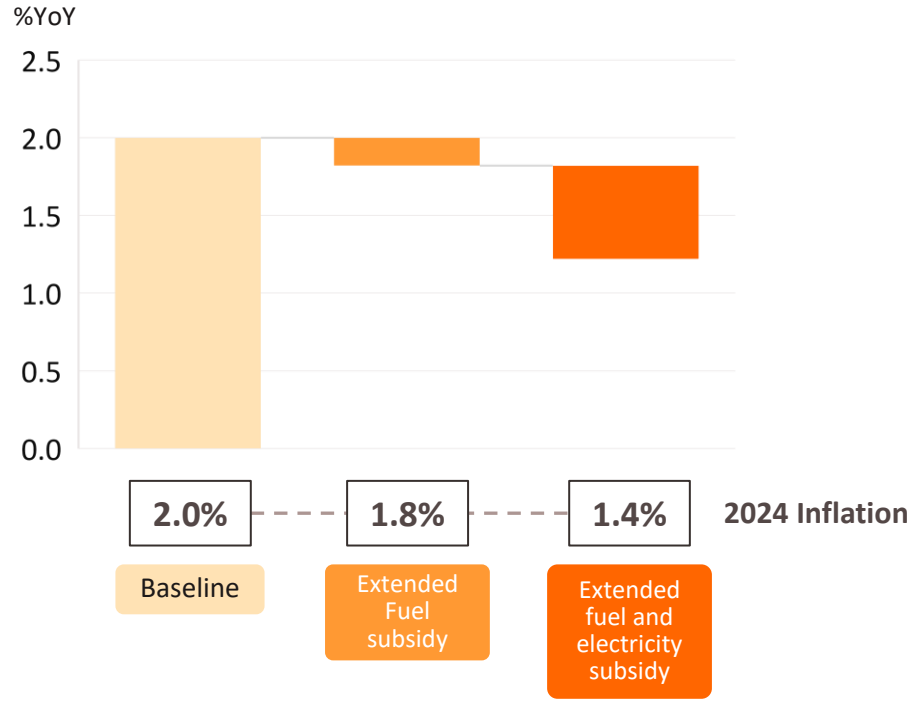
	Scenario	Average oil price in 2024	Increase from 2023 ($83/barrel)	Impact on GDP growth	Impact on Inflation
1	**Confined war**	$85-90/barrel	≤ 7%	▼ ≤ 0.07 ppt	▲ ≤ 0.3 ppt
2	**Proxy war**	$95-100/barrel	13-20%	▼ 0.1-0.2 ppt	▲ 0.6-1 ppt
3	**Direct war**	$110-130/barrel	30-55%	▼ 0.3-0.5 ppt	▲ 1.5-2.7 ppt

Sensitivity analysis: Government's energy subsidy policies and inflation

(assuming extended through to 2024)

Subsidy policy	Details	Impact on inflation in 2024
Electricity fee	From 4.45 to 3.99 baht/unit	-0.42
Diesel price	From 32.99 to 30 baht/liter	-0.08
Benzene price	Reduce by 2.5 baht/liter	-0.10

Energy subsidy policies and estimated impact on inflation in 2024

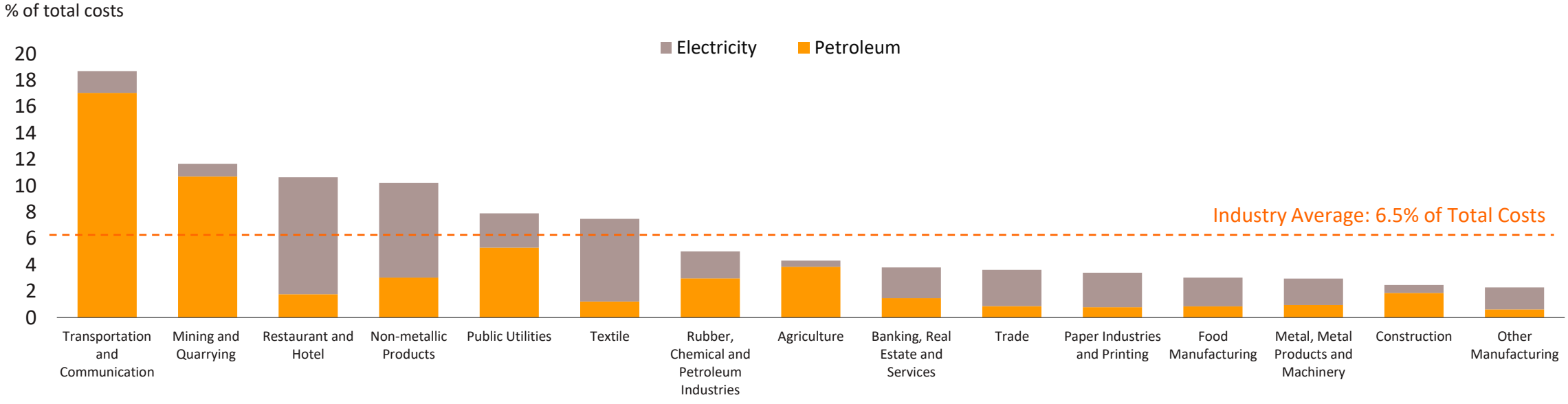


Source: MOC, Bloomberg, and Krungsri Research

Duration of conflicts would determine the impact of higher oil prices on growth; transportation and mining sectors could be heavily affected.

- **Duration of conflicts. Rapidly-fading oil price shocks do not necessarily affect growth. However, persistently-high oil prices will eventually pressure purchasing power and economic activities, even with energy subsidies in place**. It could hurt Thailand indirectly, as weaker activity at trading partners' economies triggered by rising oil prices would hurt Thailand's trade with those countries.
- **Sector analysis. Downstream industries that would be hurt the most by rising oil prices are transportation and mining sectors**, where petroleum costs account for 17% and 10.7% of total costs, respectively. Specifically, petroleum expenses in the rail, water, and air transportation segments exceed 25% of total costs. **If oil prices lead to higher electricity costs, tourism and cement & concrete segments will be hurt more than other sectors** because power costs account for 8.9% and 7.2% of total costs, respectively.

Thailand: Proportion of Petroleum and Electricity Costs by Industry

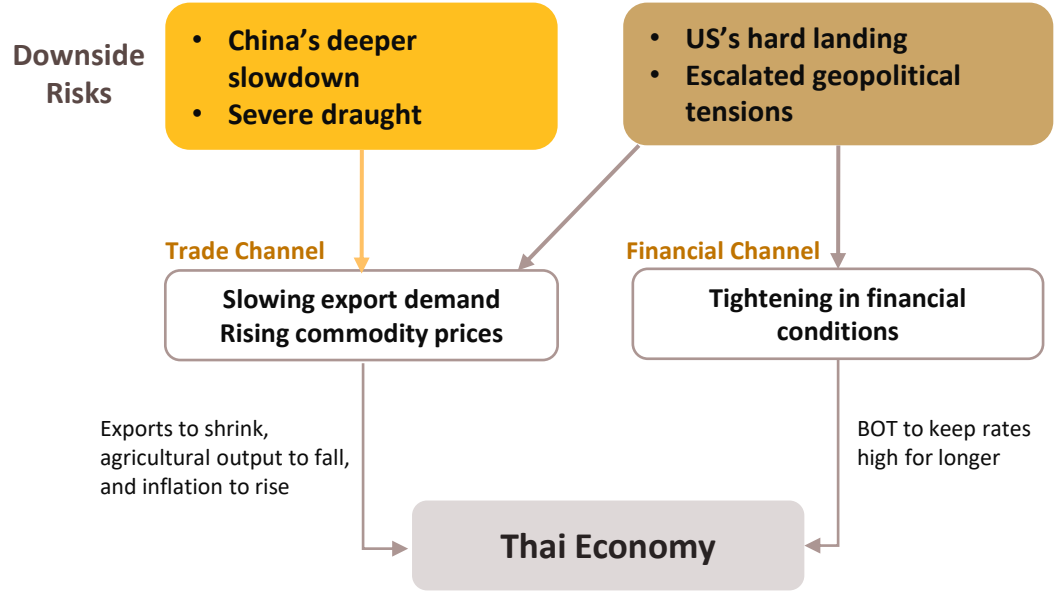


Source: 2015 Input-Output Tables (published by the Office of the National Economic and Social Development Council (NESDC)), Krungsri Research

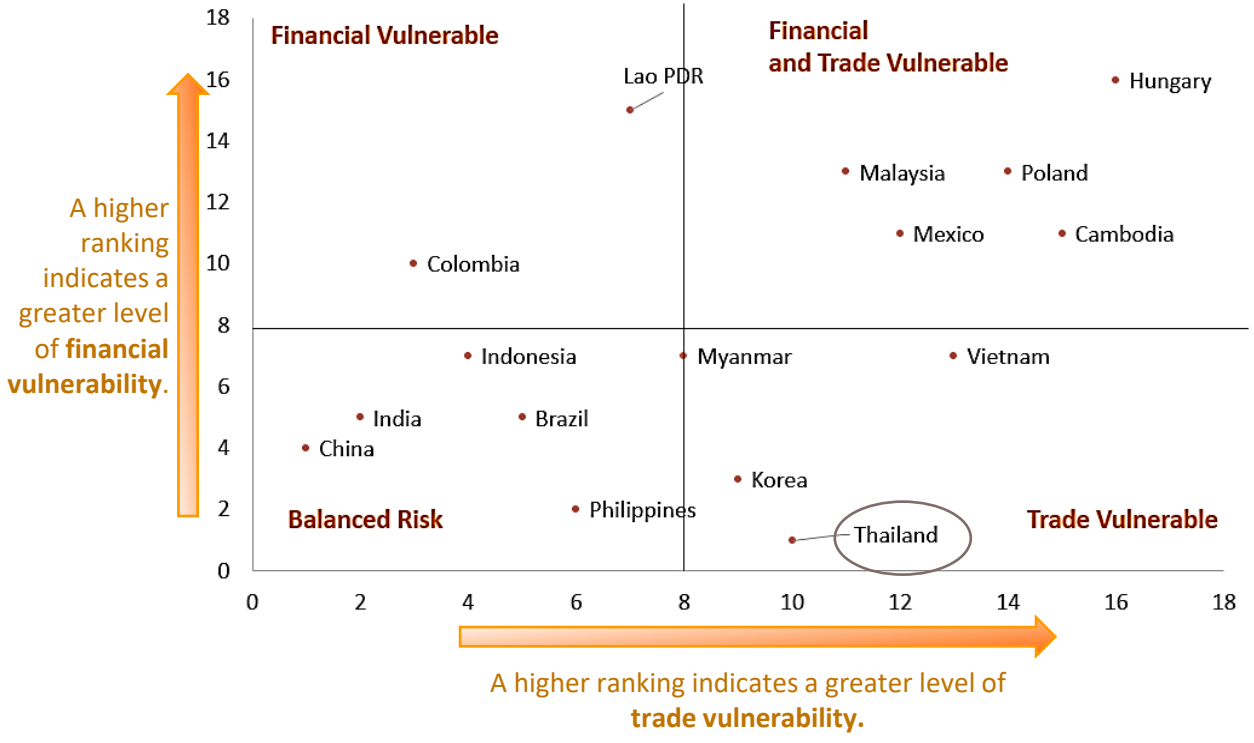
Vulnerability against external shocks: Hard landing and sharper slowdown at key trading partner countries, escalating geopolitical tensions, and severe drought

- **External risks could hurt Thailand's economy through both trade and financial channels.** Risks transmitted through these channels include geopolitical tensions and a hard landing in the US, which could push up commodity prices, tighten financial conditions, and slow down exports. A sharper slowdown in China and severe drought could affect Thailand through the trade channel. A severe drought could cause prices of global key agricultural inputs to surge and reduce agricultural output in Thailand.
- According to EM external vulnerability metrics, **Thailand is more resilient than other emerging and developing countries in terms of external financial stability,** thanks to reasonably low twin deficits and share of short-term debt to total reserves, and ample reserves to cover imports. However, it has relatively high export exposure to the US and China (at 10% and 9% of GDP, respectively) and a high proportion of fuel imports (15% of total imports), which makes **Thailand vulnerable to weaker-than-expected growth in these countries and volatile commodity prices.**

Transmission of Downside Risks

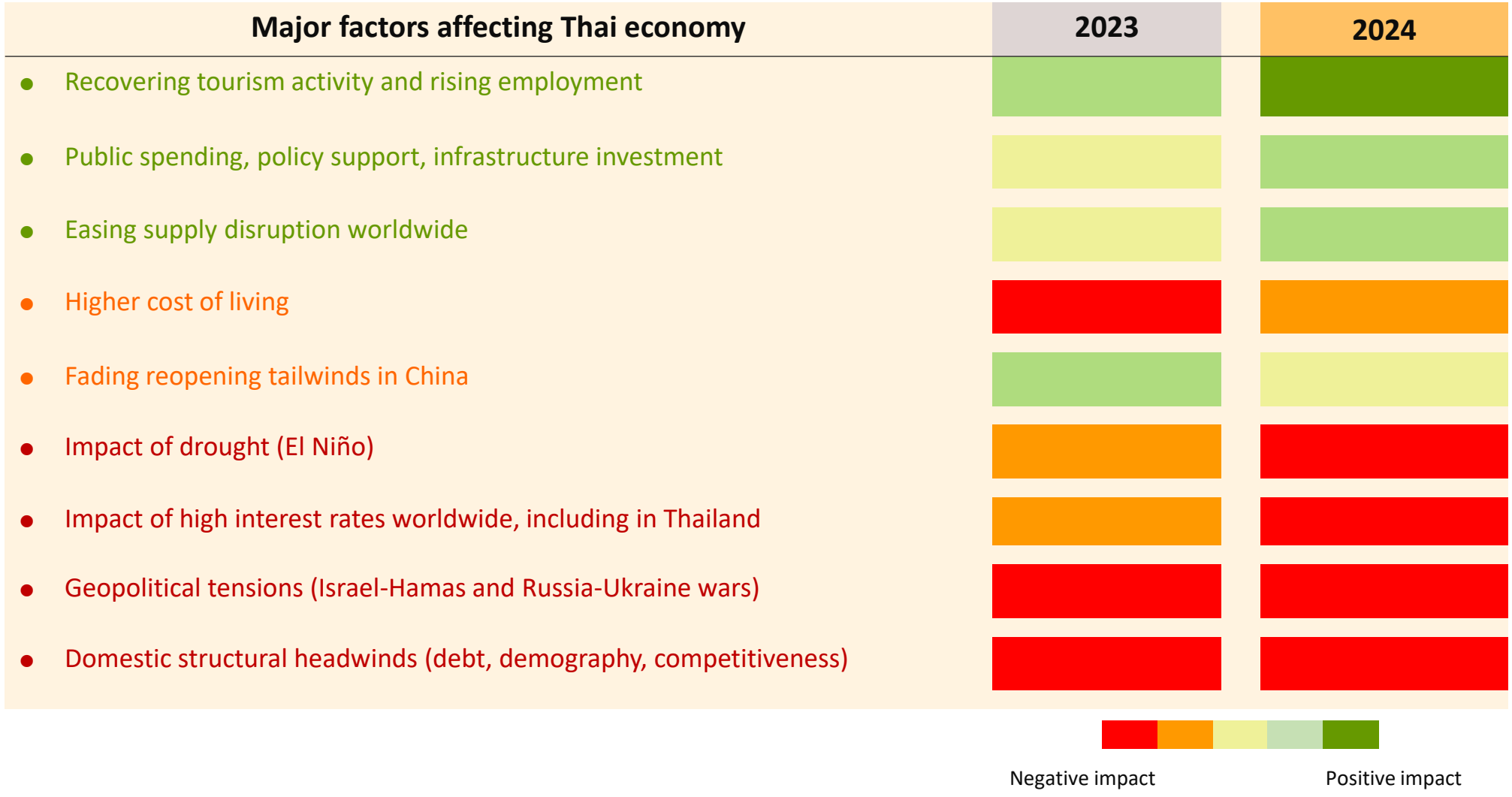


EM External Vulnerability Metrics



Source: World Bank, WTIS, IMF, IIF, CEIC, Krungsri Research

Key factors in 2024: Stronger recovery of tourism activity and higher public spending to fuel growth in 2024, but impact could be capped by drought, debt, and external risks



Source: Krungsri Research

KRUNGSRI RESEARCH

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