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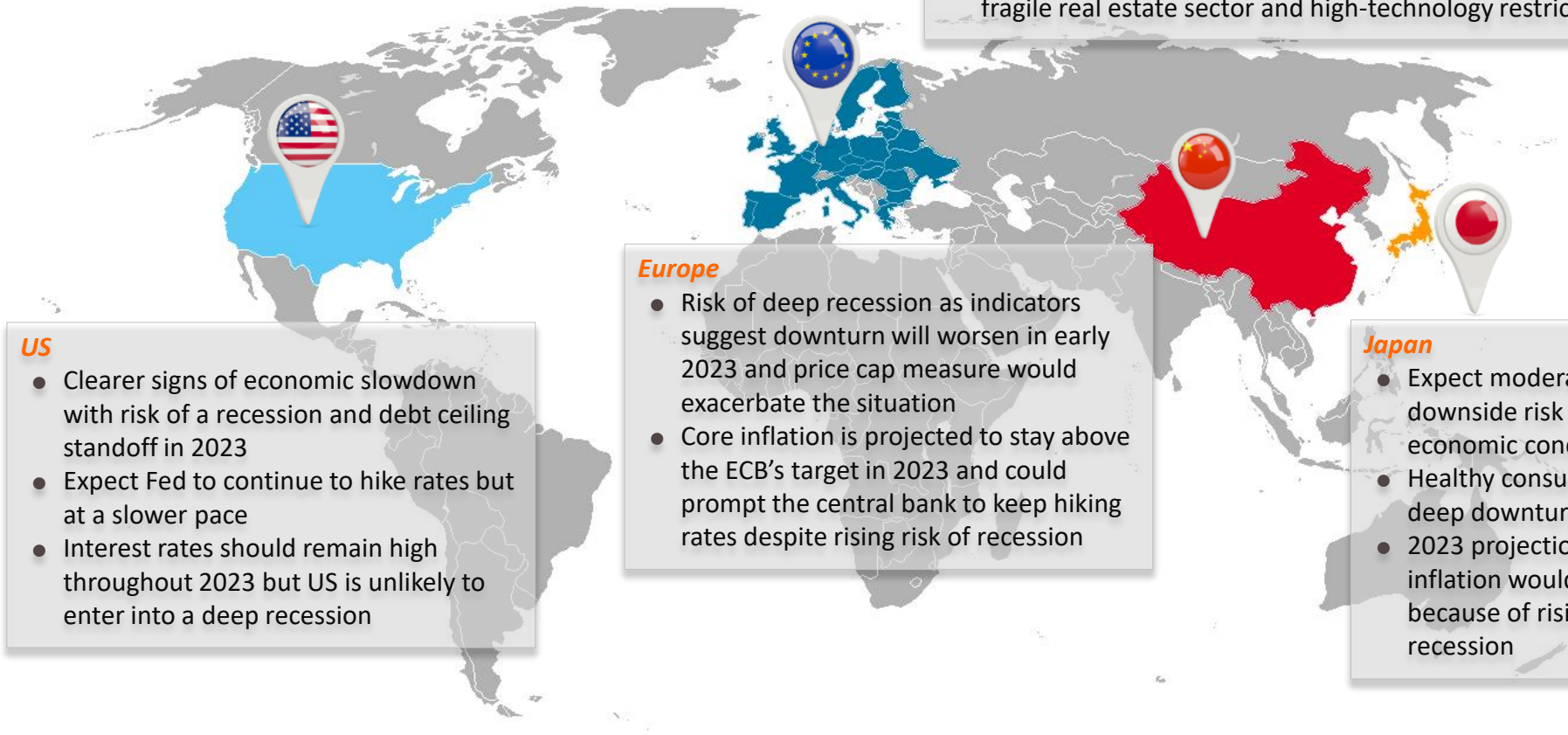
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Economic Outlook 2023

November 2022

Krungsri Research

Global: Economic growth decelerates amid deglobalization



China

- Sporadic surge in Covid-19 cases will hamper economic recovery
- Growth trajectory will depend on a significant shift in Zero-Covid policy and government spending
- However, medium-term economic growth will be constrained by a fragile real estate sector and high-technology restrictions

US

- Clearer signs of economic slowdown with risk of a recession and debt ceiling standoff in 2023
- Expect Fed to continue to hike rates but at a slower pace
- Interest rates should remain high throughout 2023 but US is unlikely to enter into a deep recession

Europe

- Risk of deep recession as indicators suggest downturn will worsen in early 2023 and price cap measure would exacerbate the situation
- Core inflation is projected to stay above the ECB's target in 2023 and could prompt the central bank to keep hiking rates despite rising risk of recession

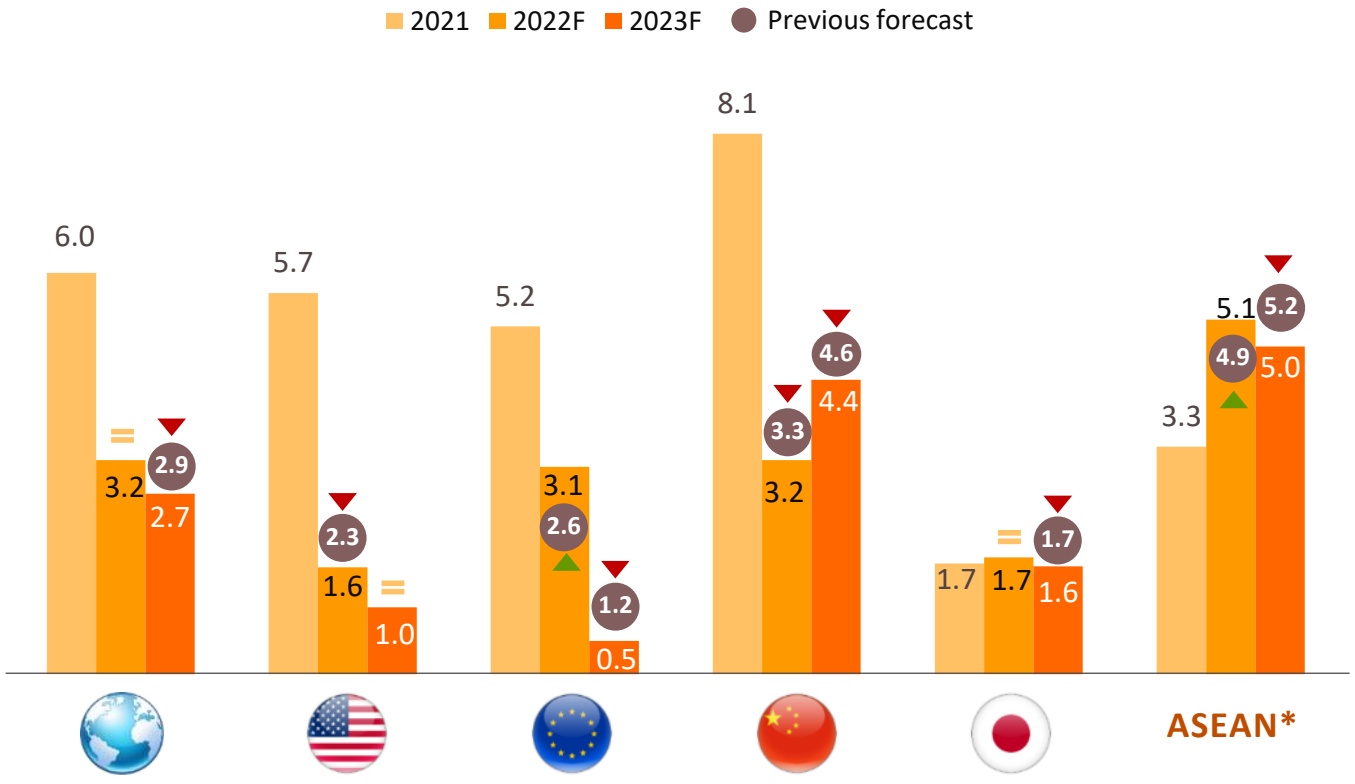
Japan

- Expect moderate growth but larger downside risk due to worsening global economic condition.
- Healthy consumption should prevent a deep downturn
- 2023 projection: No policy shift as inflation would slow down again because of rising risk of a global recession

Economic growth in major countries is expected to slow down with higher risk of recession; IMF indicates global growth could be weaker than projected

Global economic growth will slow down from 3.2% in 2022 to 2.7% in 2023 (0.2 percentage point below July forecast), according to the projection by the International Monetary Fund (IMF) in October. There is a 25% probability that 2023 growth could fall below 2%. More than a third of the global economy will contract this year or next. Downside risks remain elevated. In November, the IMF added that the global economic outlook is even gloomier than projected in October, citing the impact of tightening monetary policy triggered by persistently high and broad-based inflation, weak growth momentum in China, and ongoing supply disruptions and food insecurity as a result of Russia's invasion of Ukraine.

Economic growth projections for global and major economies (%)

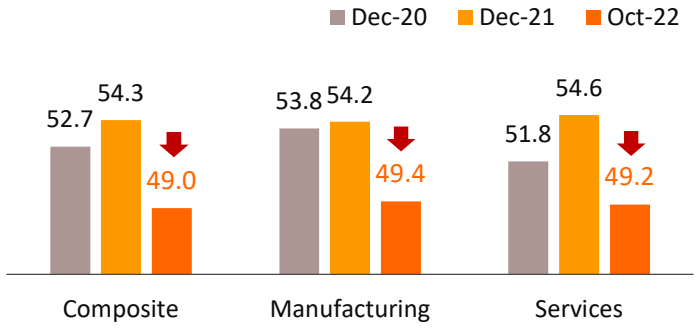


Source: IMF (World Economic Outlook, October 2022), *ASEAN forecast by ADB (Asian Development Outlook, September 2022), Krungsri Research

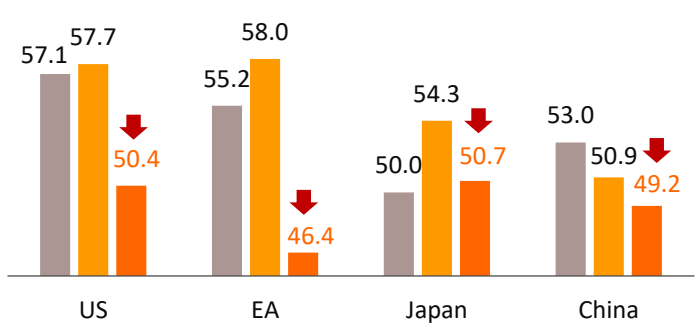
Signs of economic growth decelerating amid unwinding stimulus and tightening monetary policies; deglobalization is imminent given lingering geopolitical conflicts

Global economic activities in both manufacturing and services sectors have slowed down substantially. Easing supply disruption and relaxation of covid containment measures would help to improve activity in some countries but it is unlikely to boost overall global growth. Looking ahead, pent-up demand in advanced economies is fading. Also, global demand and production would be pressured by spillover effects of the extended Russia-Ukraine war, energy crisis, unwinding covid stimulus, and higher interest rates worldwide. Deglobalization is imminent given the physical war, sanctions, tech war, and intensifying geopolitical tension, including risk of US-China decoupling.

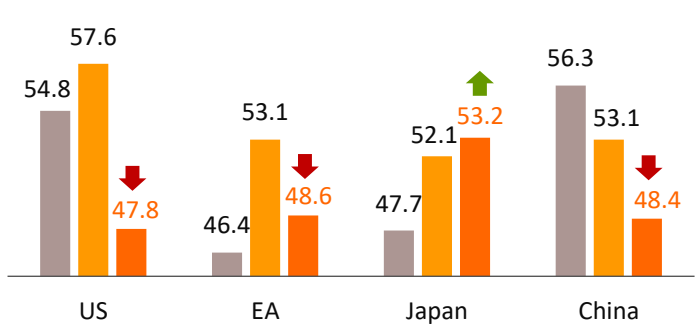
Global PMI



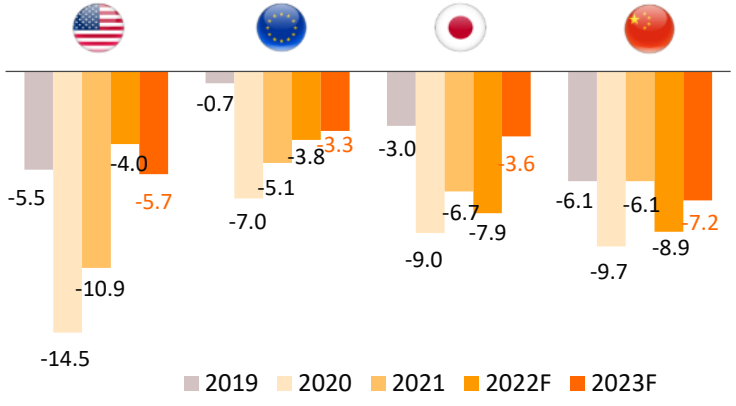
Manufacturing PMI



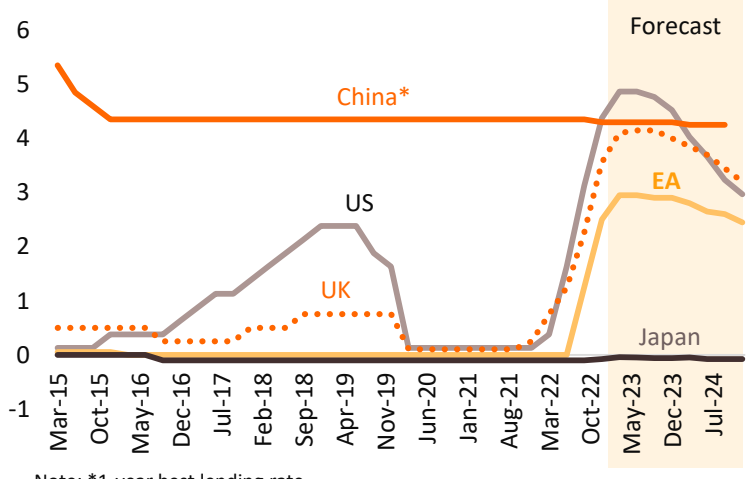
Services PMI



Fiscal deficit projections 2022-2023 (% of GDP)

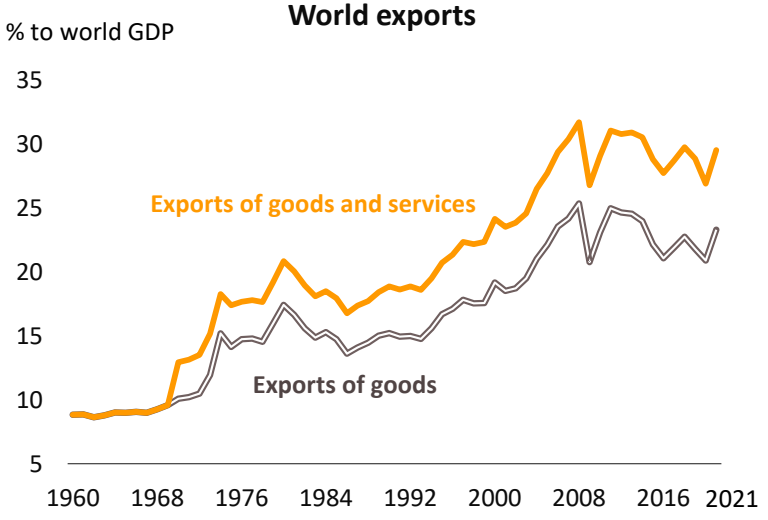


Policy interest rates (%)



Note: *1-year best lending rate

World exports



Source: IMF, World Bank, IHS Markit, Bloomberg, Krungsri Research

Conflicts between the US and China are fragmented through several channels, heightening risks to trade, inflation, economic growth and financial markets

Poor relations between the US and China worsened by…

Russia-Ukraine war
escalating geopolitical tensions

Visit of US House of Representatives speaker to Taiwan

US CHIPS and Science Act
- US expects to make it more competitive
- China *"firmly opposed"* the bill, saying it is reminiscent of a *"Cold War mentality."*

US chip export controls
- To slow China's progress in artificial intelligence and super computers
- To make it harder for China to manufacture advanced semiconductors

Fragmentation within major economies via several channels

- Trade flows
- Investment & financial flows
- People: Employment, migration, travel, education
- Energy, Idea, R&D
- Payment system, digital assets, global currency reserve
- Military, violence, supply disruption

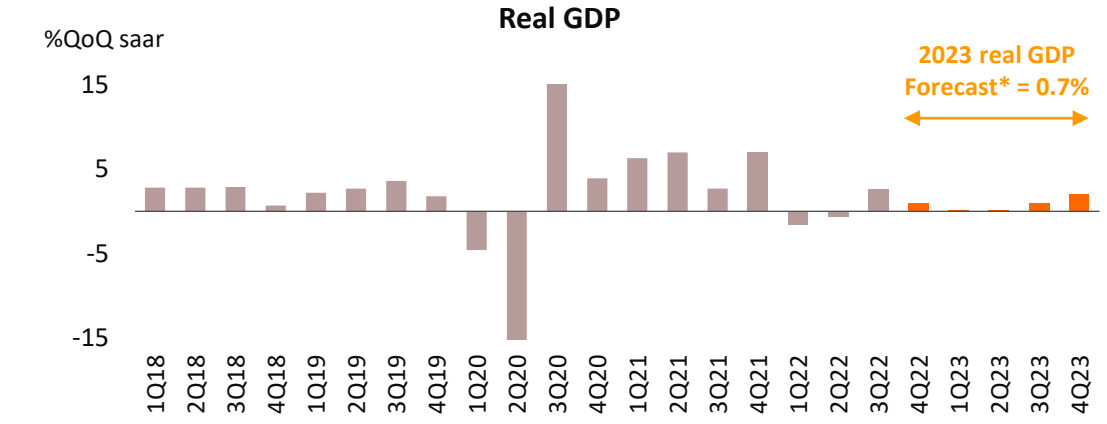
Effects of decoupling and deglobalization on global economy

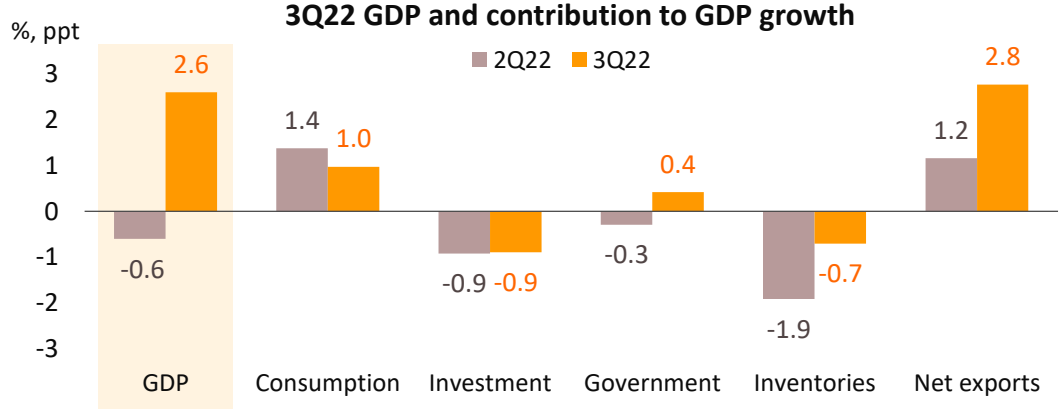
- Barriers in trade, investment, financial flows
- Disrupt international trade and investment
- Global supply chains will be disrupted, such as in semiconductor industry
- Innovation loss and reduction in resource productivity
- Upward pressure on production costs, prices and inflation
- Downside risks to economic growth
- More volatility in global financial markets
- Rising uncertainty

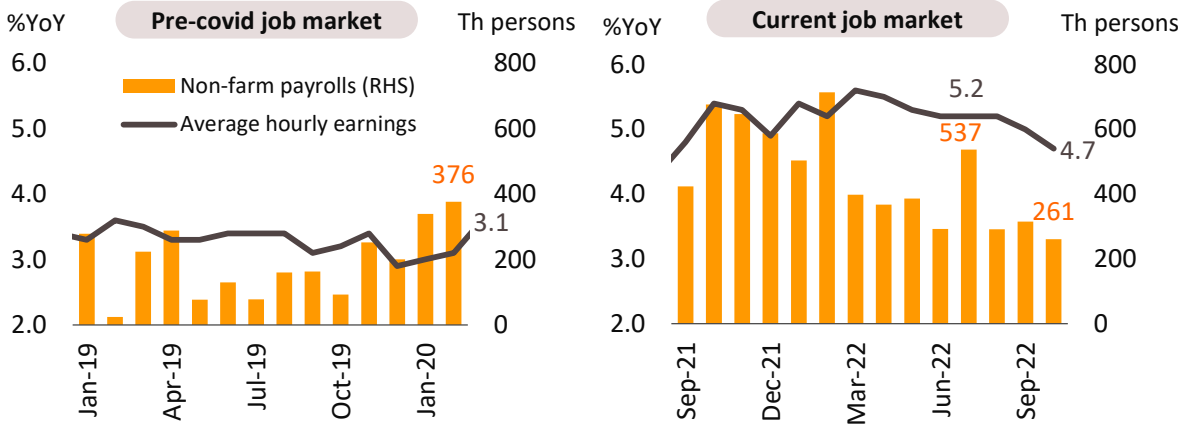
Source: US Bureau of Economic Analysis, The Strategist, Financial Times, Bloomberg, Krungsri Research

US: Clearer signs of economic slowdown with risk of recession and debt ceiling standoff in 2023; tight labor market could put upward pressure on wages and prices

US economic growth rebounded to +2.6% QoQ saar in 3Q22 after two quarters of modest contraction, but it was mainly boosted by large contribution from net exports, which is not sustainable. More importantly, in 3Q, consumer spending posted the second-lowest growth during the pandemic recovery period and business investment contracted amid rising interest rates. **Looking ahead, US economic growth is projected to decelerate to only 0.7% in 2023 from 1.9% in 2022, with higher risk of recession in 2H23.** In addition to fading reopening effects and waning stimulus measures, the sharply higher and high interest rates in 2023 would have knock-on effects on financial markets, wealth, consumer spending and business investment. Slowing global growth would also weigh on US exports. **After the mid-term election, given a split Congress, the biggest risk is a debt ceiling standoff,** said the MLIV survey. 63% of retail investors and a still-large 48% of professional investors think a debt standoff will be as bad or worse than the one in 2011, according to Bloomberg. **For the labor market, job growth has started to slow and could turn negative in 2023** due to a weaker outlook for economic conditions and a correction in the housing market. However, **the labor market remains tight, which could put upward pressure on wages and prices in the near future.**







Note: * 2023 forecast by Federal Reserve Bank of Philadelphia

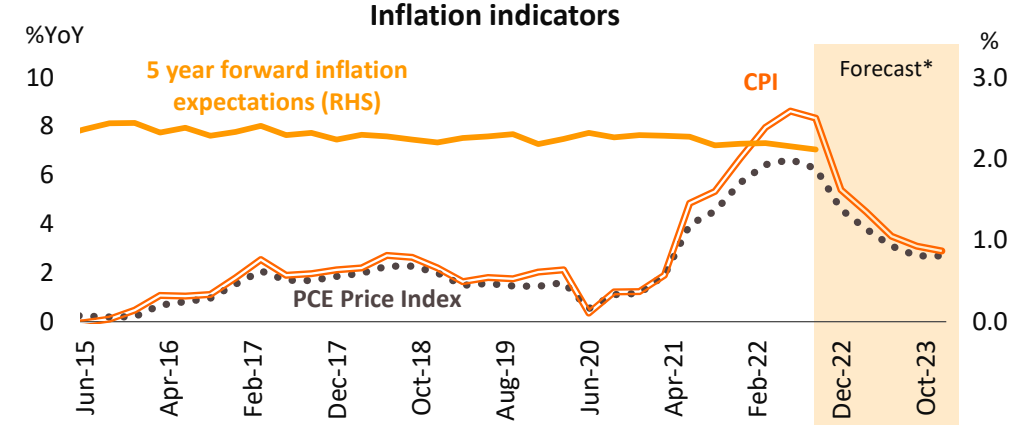
Source: Bureau of Economic Analysis (BEA), Bloomberg, Bureau of Labor Statistics (BLS), MLIV survey, MUFG, CEIC, Krungsri Research

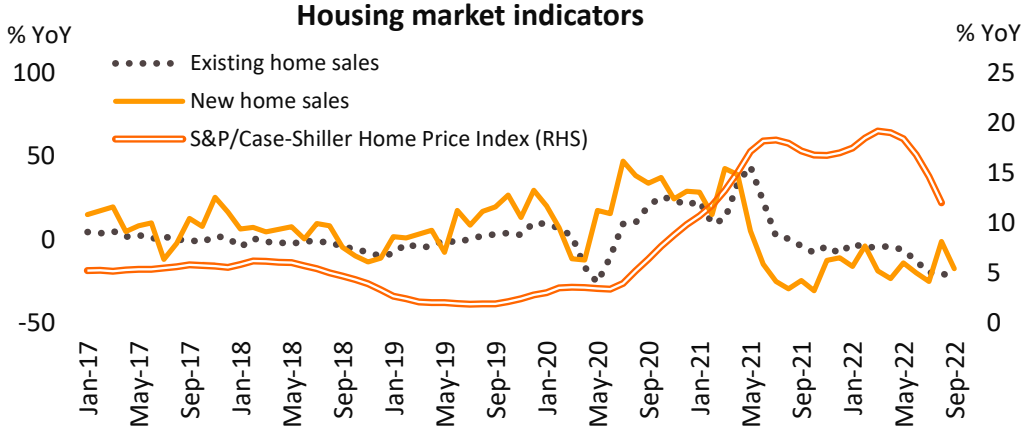
Post mid-term election: Potential impact of split votes on legislative packages

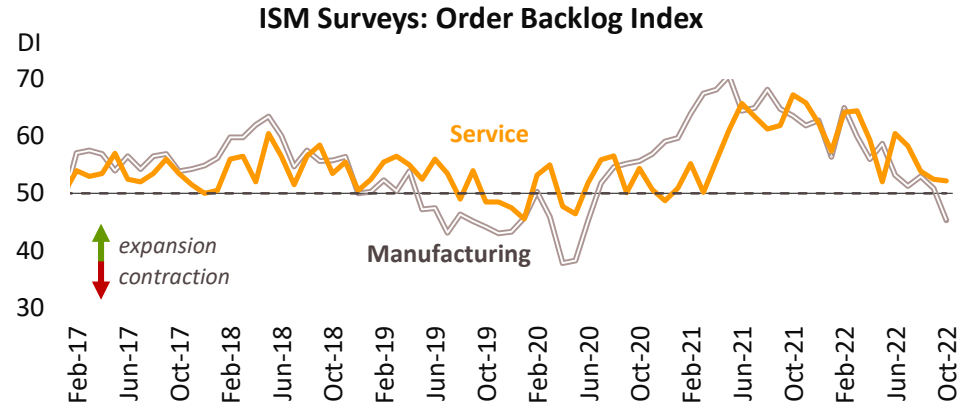
Key issues	Large legislative packages challenged by a divided government
Debt ceiling and fiscal position	• Likely: Gridlock on raising the federal debt ceiling and government funding in 2023 • Unlikely: Increase corporate tax rate
Economic legislation	• Unlikely: Large fiscal stimulus to boost economic growth even in a recession • Unlikely: Additional clean energy subsidies
US-China tension and deglobalization trend	• Likely: "Tough on China" legislation • Unlikely: Rollback existing China tariff • Unlikely: Join new/large global trade agreements
Russia-Ukraine war	• Likely: Continued support for Ukraine (financial, arms)

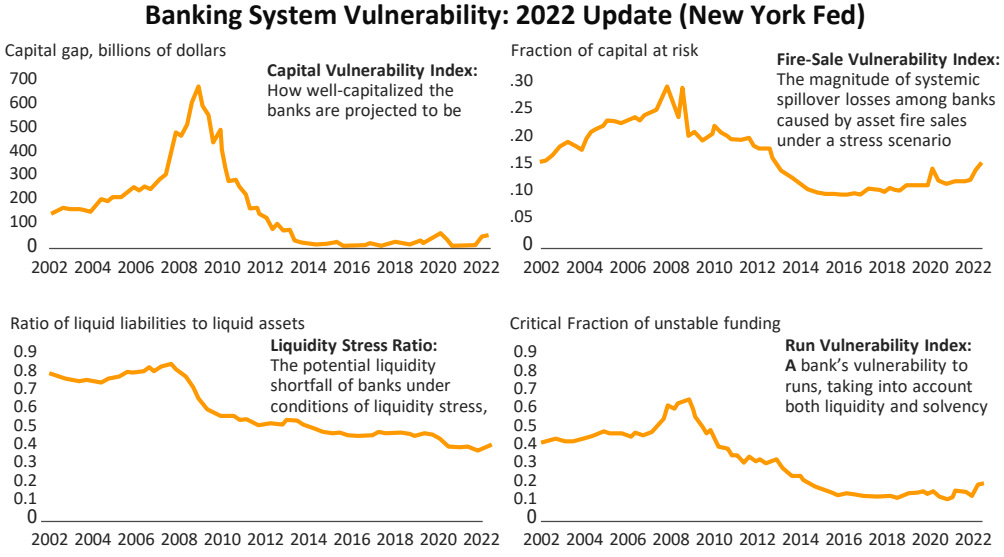
Expect Fed to continue to hike rates but at a slower pace; interest rates should remain high throughout 2023 but the US is unlikely to experience a deep recession

Upward pressure on wage and prices amid economic expansion and rising domestic spending would prompt the US FOMC to raise interest rates further to prevent entrenched inflation. We expect the Fed funds rate to rise to around 5% by end-1Q23 and to stay at that level the rest of 2023. Pace of rate hikes is likely to be less aggressive from now on given signs of recession and easing inflation. Headline inflation is expected to drop below 4% in 2Q23 but it is unlikely to reach the Fed's 2% target by end-2023. **On recession risks, there are more negative signs such as a drop in the Order Backlog Index to contraction zone and a sharp fall in both new and existing home sales,** which could have negative spillover effects on other sectors. However, there is minimal risk of a deep recession in the US because: (i) consumption remains robust with steady real wage growth despite higher inflation as consumer prices had risen by 15% from pre-pandemic level but wages have increased by 14% in the same period, almost matching inflation. Wages of non-supervisory workers (over 80% of labor force) also rose by 16%. (ii) Household net wealth is 30% higher than pre-pandemic level; and (iii) banking sector remains resilient, indicated by Banking System Vulnerability index, which showed the low vulnerability of the banking system despite the recent increase. Overall, although it is difficult to avoid a recession, those factors could be a cushion against shocks.









Note: * 2023 forecast by Federal Reserve Bank of Philadelphia

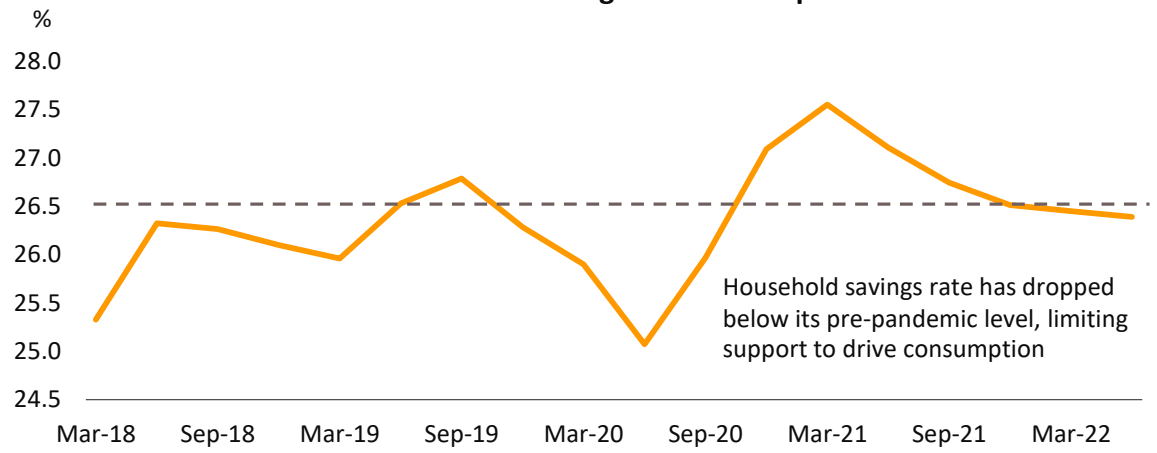
Source: BLS, Philadelphia Fed, Institute for Supply Management (ISM), Census Bureau, New York Fed, Bloomberg, Krungsri Research

Eurozone: Risk of deep recession as indicators suggest downturn will worsen in early 2023 and price cap measure would exacerbate the situation

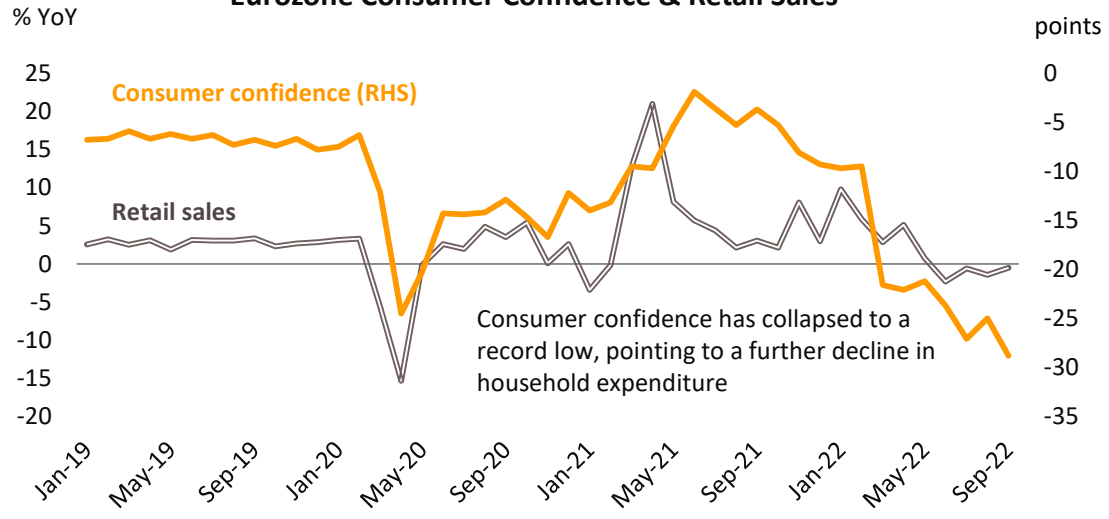
Eurozone Government Debt to GDP



Household Savings Rate in Europe



Eurozone Consumer Confidence & Retail Sales



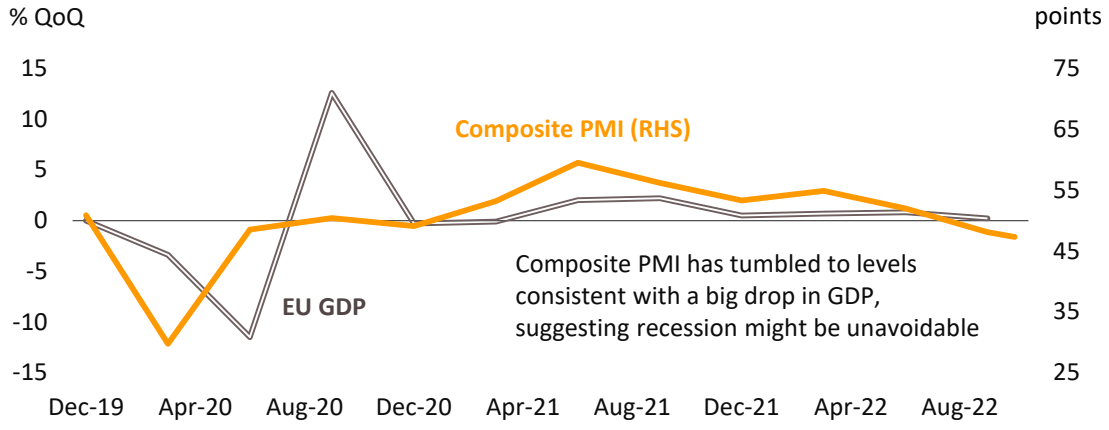
Source: ECB, Eurostat, Bloomberg, CEIC, WTO, Krungsri Research

Krungsri Research's view

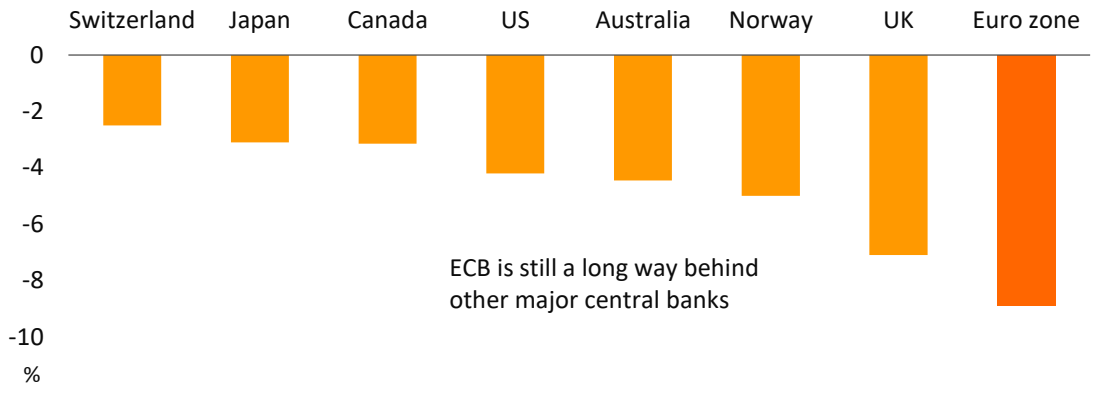
- **Europe might not be able to avoid a deep recession as all indicators suggest the downturn will worsen in early 2023.** (i) Consumer confidence has collapsed to a record low, implying a further decline in household expenditure, (ii) Limited support from household savings to drive consumption, (iii) Manufacturing PMI has been below-50 (contraction zone) since July this year, suggesting a further slowdown in business investment ahead. In addition, the extremely tight labor market along with Europe's ongoing energy crisis **will generate persistent inflation that could prompt the ECB to keep the current tightening pace throughout next year**. Meanwhile, higher interest rates could also weaken economic growth.
- **Along with the Europe import ban, G7 countries are set to impose a price cap on Russian seaborne crude oil by early December,** by blocking shippers and insurers from providing services for tankers carrying Russian crude if the oil was sold above the capped price. The objective is to limit Moscow's revenues from the sale of oil and reduce its ability to finance the Ukraine invasion. However, there are concerns **the price cap measure could worsen the global energy crisis if Russia retaliates by banning all energy exports to countries which implement the price cap;** that would push energy prices even higher. In addition, India and China, the major importers of Russian oil, are unlikely to participate in the scheme, which suggests the price cap might not be effective in practice.
- Growth is expected to return next spring as inflation starts to ease along with lower energy prices, but given severe headwinds such as tighter financing conditions, a weaker external environment, and lower household purchasing power; **economic recovery would remain weak.**

Core inflation is projected to stay above the ECB's target in 2023 and could prompt the central bank to keep hiking rates despite rising risk of recession

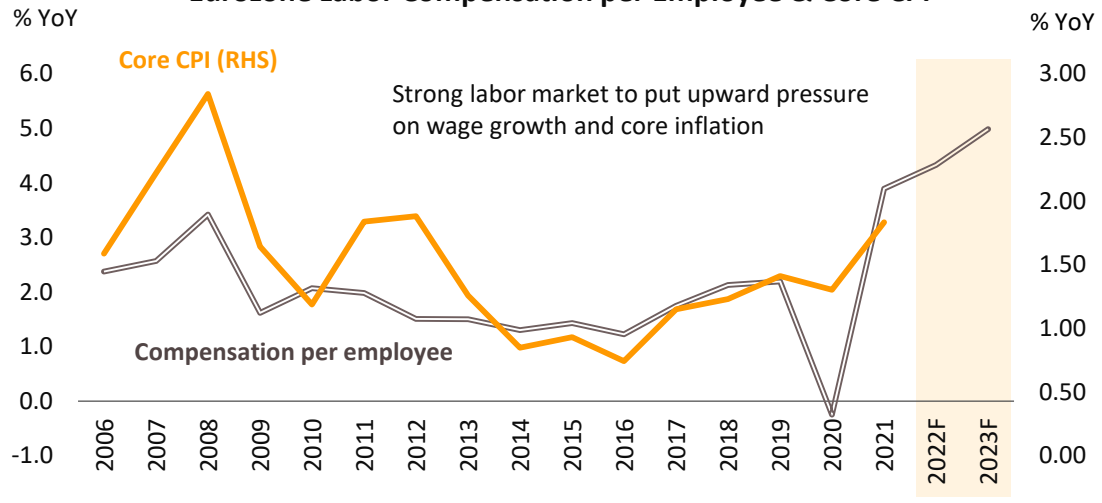
Eurozone Composite PMI & GDP



Real Interest Rate (Policy Rate minus Headline CPI, %)



Eurozone Labor Compensation per Employee & Core CPI



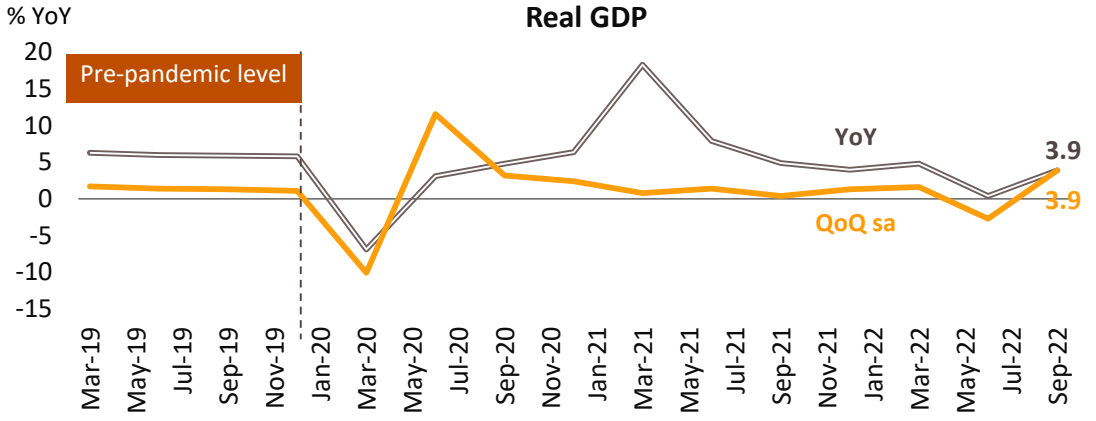
Source: ECB, Eurostat, Bloomberg, CEIC, WTO, Krungsri Research

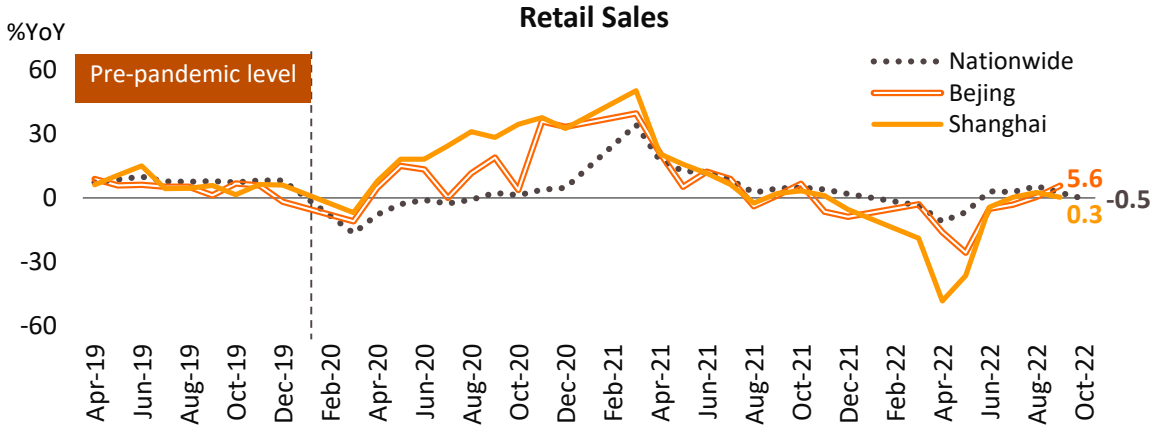
Krungsri Research's view

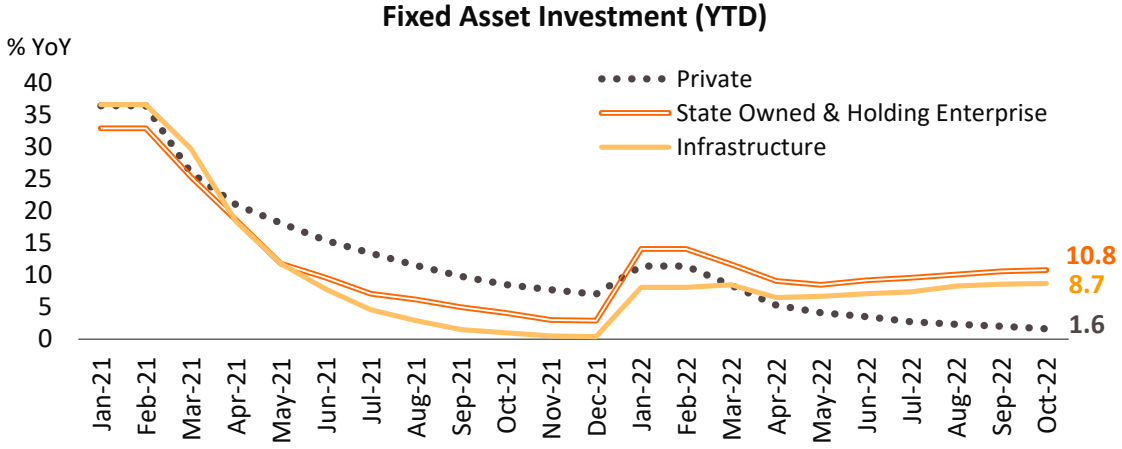
- Even if Europe has managed to refill its natural gas storage of over 95% of capacity, including importing more LNG from other countries, that inventory is only sufficient to get by this winter and would be depleted by spring 2023. **That means Europe might find it challenging to secure enough new supply to reach 90% of capacity by October next year to meet demand in the next winter season**. To address the energy crisis, the European Commission has considered both short-term emergency policies to help consumers and long-term structural reforms of electricity markets to reduce dependence on Russian gas. **However, the benefits of long-term structural reform might only be visible four years down the road, from 2026**.
- The economy of EU countries which fiscal positions are on the periphery, especially Italy, remain fragile. With Debt/GDP ratios more than 10% higher, those economies seem more constrained than before the outbreak of Covid-19 in 2020. **Hence, the major concerns for the EU in 2023 are rising interest rates and the prospect of a recession**.
- In terms of interest rates, the ECB is still way behind other major central banks. Eurozone's real interest rates remain in deeper negative zone than in most comparable countries. **Moreover, a tight labor market would put upward pressure on wage growth and core inflation will stay well above the ECB's 2% target for 2023 and prompt the central bank to keep hiking rates despite risk of stagflation or a recession.** Meanwhile, details on quantitative tightening (QT) remains uncertain until the key principles are released at the ECB meeting in December 2022.
- Against this backdrop, we expect the ECB to stay aggressive with rate hikes. **Deposit rates could reach 3.00% in the first half of 2023 and stay at that level throughout the year**.

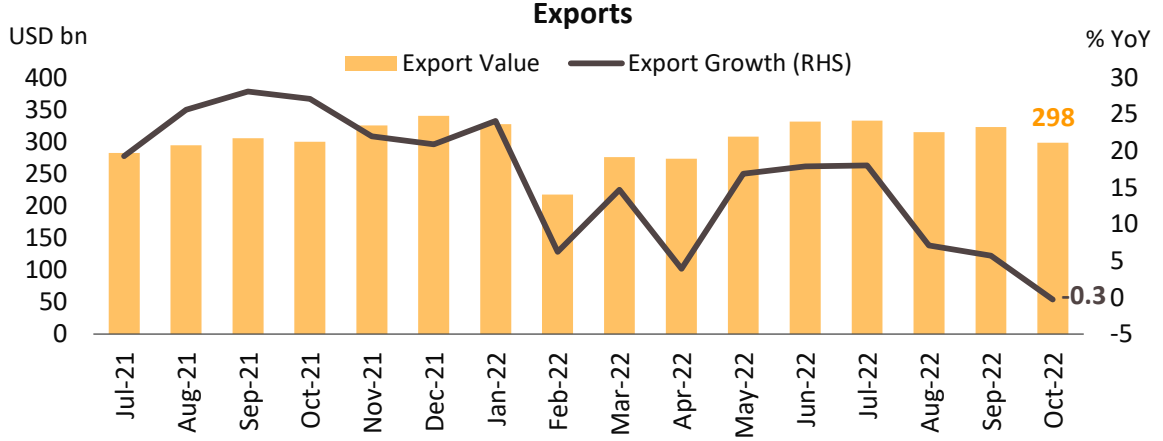
China: Sporadic surge in Covid-19 cases will hamper economic recovery; growth trajectory will depend on a significant shift in its Zero-Covid policy and government spending

The Chinese economy grew faster than expected in Q3, thanks to a rebound in consumer spending and a steady increase in public investment. However, this positive trend might not be sustainable as new Covid-19 cases has been rising since October to a 6-month high in November. The lockdown in major cities had reduced retail sales by 0.5% YoY in October. **Other major economic engines show no apparent signs of improvement**: (i) private investment has been growing at a slower pace since March and is likely to remain weak in 2023 given the struggling property sector; (ii) exports fell 0.3% YoY in October, and we project sluggish growth in 2023 premised on weakening global demand. **We still expect China to relax its Zero-Covid policy by spring (2Q23)**, implying there would not be a sustainable recovery in household consumption until 2H23. **The government recently signaled a gradual shift by refining its Covid-19 rules**, including shorter quarantine period for the close-contact group, limiting the number of people affected by stringent mobility restrictions, and suspending daily mass testing in many districts. In addition, there are plans to increase infrastructure spending in the next few years, especially in crucial areas such as renewable energy, transportation, and data centers. **Therefore, economic growth will improve in 2H23 and be fueled primarily by domestic consumption and public investment, albeit slower than pre-pandemic levels.**





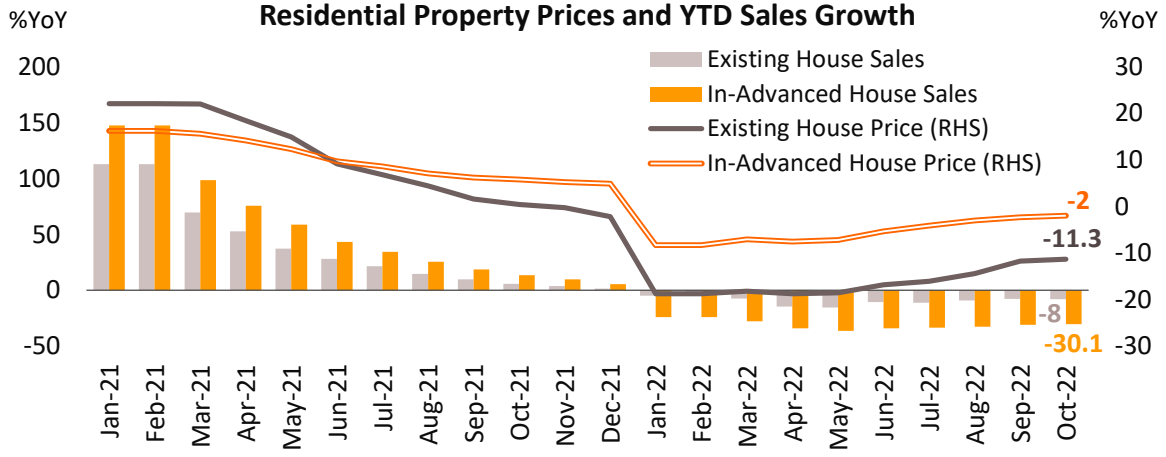


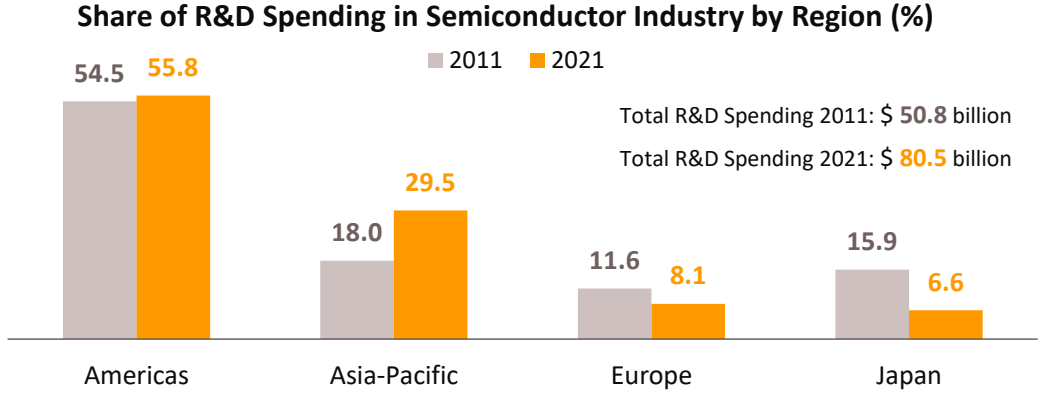


Source: National Bureau of Statistics, CEIC, Bloomberg, Reuters, Krungsri Research

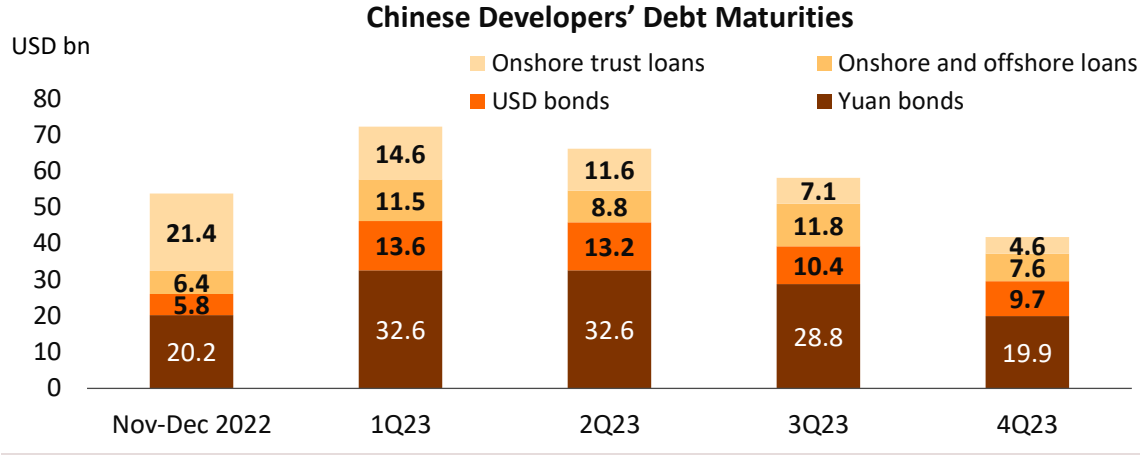
However, medium-term economic growth will be constrained by a fragile real estate sector and high-technology restrictions

Even with the easing Zero-Covid policy, economic growth in the next few years will not match pre-pandemic level because of the property slump and high-technology restrictions. In the property sector, housing sales and prices have been falling since January. With declining revenues and a $238 billion debt maturing next year, developers' ability to repay remain constrained. Thus, new rescue packages are recently issued to improve their liquidity. **We expect these measures to delay a property sector meltdown in the short term, but the medium-term impact on economic growth remains worrying.** Furthermore, the Chinese semiconductor industry still relies heavily on U.S. high technology. In 2021, U.S. firms dominated 46.3% of the global and 49.9% of the Chinese semiconductor market. R&D spending by American firms also remain by far the highest in the world at 55.8%. Thus, U.S. restrictions on high-technology exports will harm China's competitiveness in this industry. **In the short term, we expect sales of U.S. and Chinese high-technology companies to drop significantly while domestic sales of chip-making machines would rise temporarily.** However, according to Bernstein, domestic suppliers can only meet 15% of Chinese chipmakers demand this year. **In the medium term, Chinese companies will find it increasingly challenging to achieve a technological breakthrough. We also expect a slowdown in investments in chip-making tools due to a lack of some irreplaceable U.S. tools and domestic suppliers' technology lagging behind their U.S. counterparts**. According to Jefferies, China will invest $18 billion in chip-making equipment in 2024, down from the $26 billion previous forecast. **Overall, Barclays estimated the restrictions could cost up to 0.6% of China's GDP and will rise to 3% if lower-end semiconductors and other countries' supplies are entangled.**





Source: National Bureau of Statistics, CEIC, Bloomberg, Financial Times, IC Insights, Krungsri Research



Summary of Property Sector Rescue Measures and U.S. Technology Restrictions

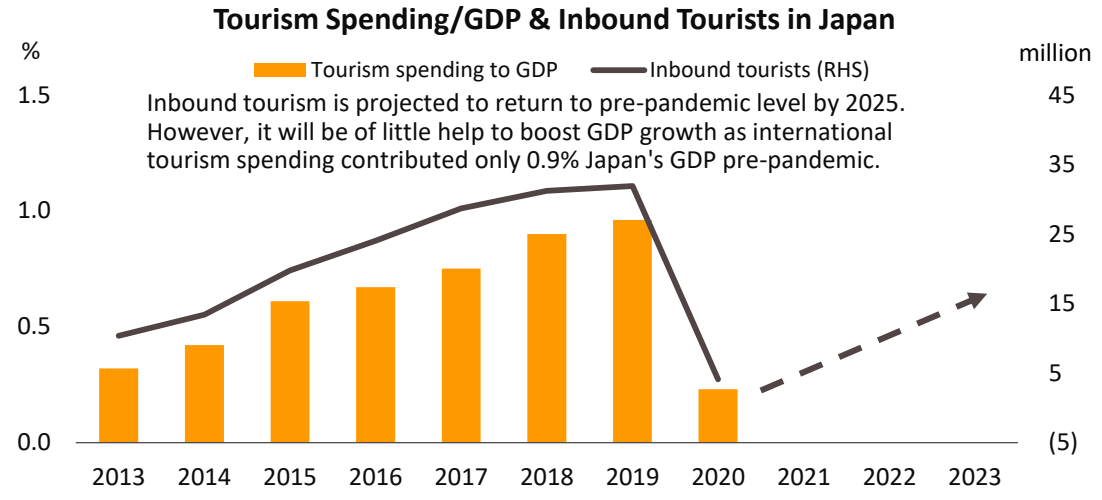
Property Sector Rescue Measures (November), aims to improve developers' liquidity, boost consumer confidence, and increase housing demand. The key measures include …

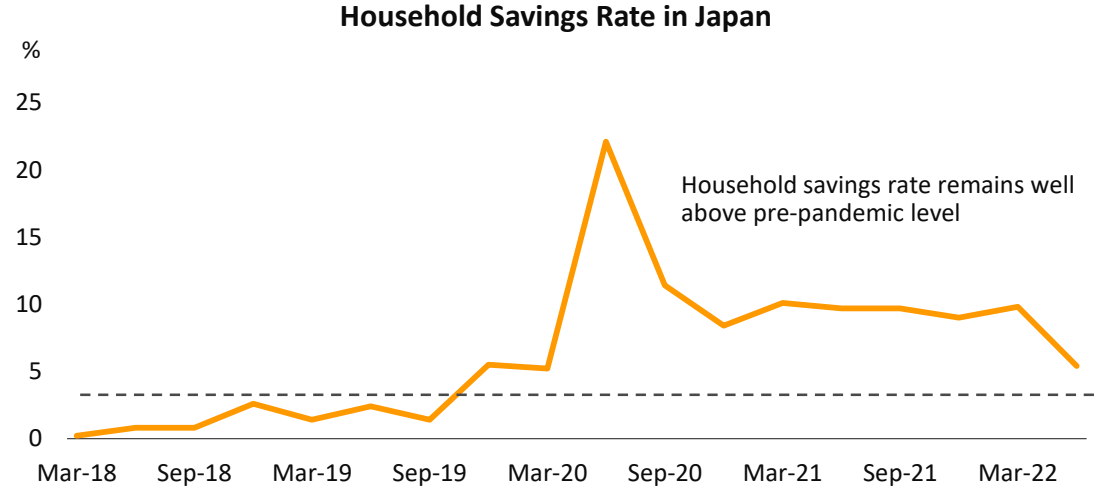
- Extend loans and trust borrowings due within the next six months by a year
- Extend deadline for lenders to cap property sector loans and mortgage ratios
- Lower payment thresholds and mortgage rates
- Policy banks to grant special loans

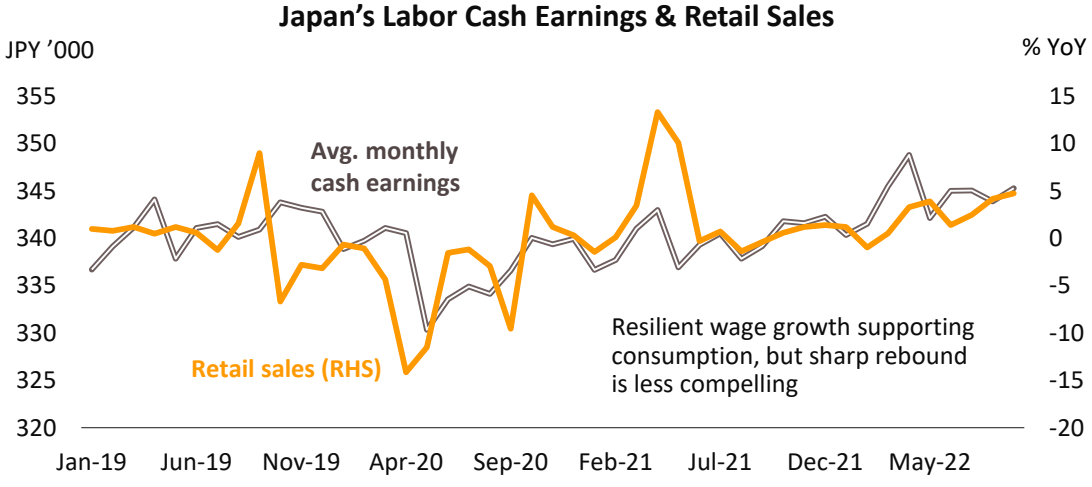
U.S. Technology Restrictions (October)

- U.S. entities are prohibited from exporting high-technology chipsets, machinery, and equipment to China, such as advanced chips of more than 14nm or, in some cases, 16nm, NAND memory chips with 128 layers or more, and DRAM memory chips with 18 nm half-pitch or less.
- U.S. personnel cannot engage in Chinese production facilities or development without a license.
- 31 Chinese companies have been added to the unverified list; they can be blacklisted if concerns about using U.S. technology for illegitimate purposes are not addressed within 60 days.

Japan: Expect moderate growth but larger downside risk due to worsening global economic condition, but healthy consumption should prevent a deep downturn





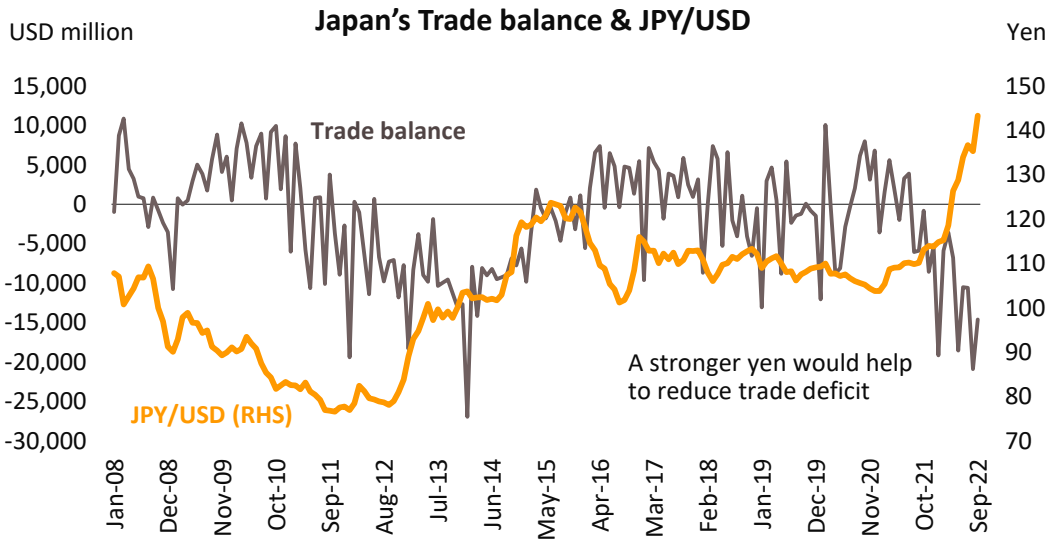


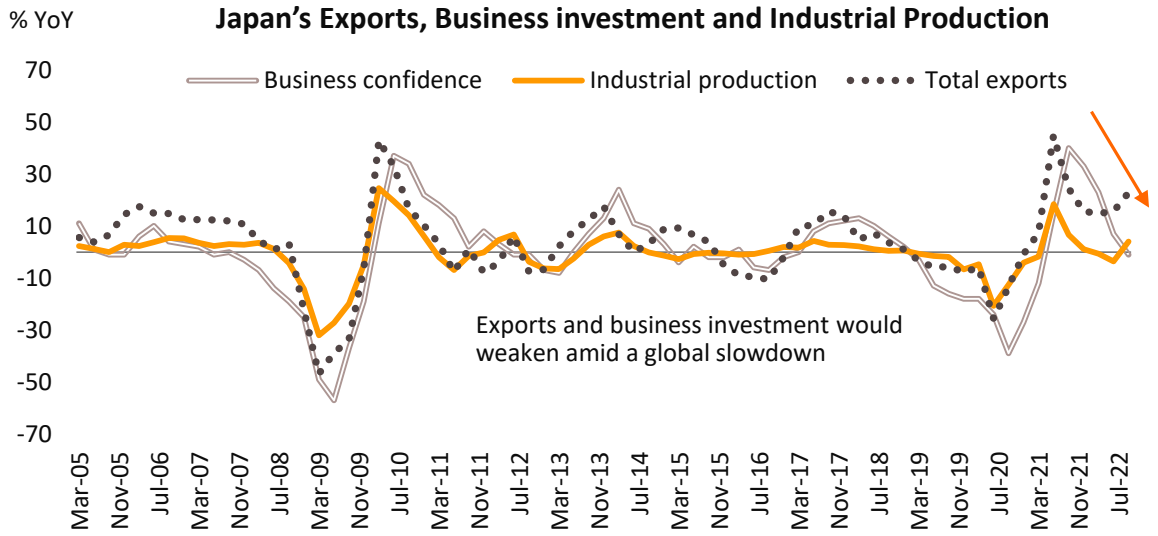
Source: Japan's Cabinet Office, BOJ, CEIC, Bloomberg, WTO, Krungsri Research

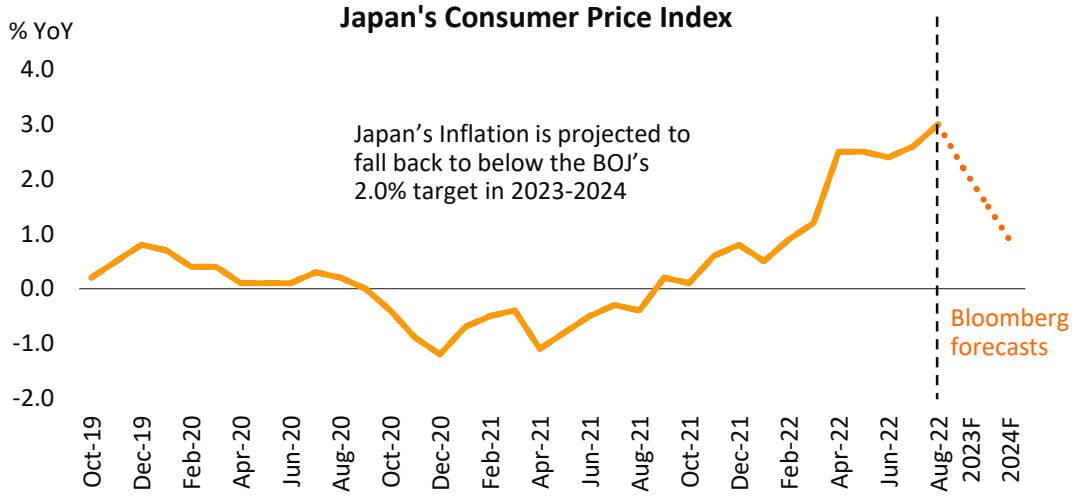
Krungsri Research's view

- We expect Japan's economy to grow at a moderate pace in 2023 but there is larger downside risk as the downturn in its overseas trading partners' economies would dampen exports and business investment, the main drivers of Japan's economy. However**, the anticipated pick-up in private consumption after lifting containment measures coupled with high household savings rate would buffer Japan's economy from a deep downturn.**
- A strong rebound in work hours and wage growth driven by high inflation and reopening effects should help to support consumption in 2023. However, recovery might not be as strong as hoped given inflation has started to slow again and weaker corporate profitability would rein in further wage growth, and possibly, bring back Japan's entrenched deflationary mindset. Nonetheless, **households might not be hit severely as savings rate remains well above pre-pandemic level and real income is solid thanks to relatively low inflation compared to other advanced economies**.
- Inbound tourism is expected to recover back to pre-pandemic level by 2025 but **might not boost GDP growth substantially as contribution from international tourism spending was only 0.9% of Japan's GDP** before the pandemic; it fell to 0.2% in 2020 because of travel restrictions. However, there are hopes the improving tourism activity would generate stronger employment and consumption.

2023 projection: No policy shift as inflation would slow down again because of rising risk of a global recession







Source: Japan's Cabinet Office, BOJ, CEIC, WTO, Bloomberg, Krungsri Research

Krungsri Research's view

- Given the easing supply shortage situation, Japan's exports had improved in Q3, evidenced by a pick-up in exports of transport equipment and machinery. Nevertheless, **still-weak output and new export orders amid worsening conditions in its key trading partners' economies suggest exports would slow down further in 2023**.
- To halt the rapid depreciation of the yen, Japan's government has been intervening in the foreign exchange market and spent a record 9.18 trillion yen from September to October 2022. That has reduced Japan's foreign exchange reserve by $43.5 billion. However, **the intervention would have little effect as long as the interest rate differential between the BOJ and the Fed continue to widen, which would fuel a further slide in the yen**.
- **We do not expect a policy shift while Governor Haruhiko Kuroda helms the BOJ but** he will step down from his long-held post next April. However, inflation could drop back to below the BOJ's 2.0% target in 2023 given rising risk of a global recession. Hence, **we expect the BOJ to stick to its ultra-loose monetary policy in the foreseeable future to prevent a recession and to keep inflation stable at within 2%**.

Thailand: Krungsri Research Forecasts for 2022-2023

Krungsri Research Forecast		2021	2022F		2023F
			Previous	Latest	
GDP growth	YoY (%)	1.5	3.1	3.2 ▲	3.6
Private Consumption Expenditure	YoY (%)	0.3	4.7	5.2 ▲	3.4
Government Consumption Expenditure	YoY (%)	3.2	-0.5	-0.5 =	0.6
Private Investment	YoY (%)	3.3	2.8	3.0 ▲	3.8
Public Investment	YoY (%)	3.8	0.2	-1.0 ▼	3.0
Nominal Exports in USD (f.o.b.)*	YoY (%)	19.2	7.5	7.5 =	3.5
Nominal Imports in USD (f.o.b.)*	YoY (%)	23.9	17.0	18.0 ▲	6.0
Current Account Balance	USD, bn	-11.0	-16.5	-17.5 ▼	6.0
Tourist Arrivals	Mn, persons	0.4	10.4	10.4 =	22.7
Headline Inflation	YoY (%)	1.2	6.1	6.1 =	2.5
Policy Interest rate (end of period)	(%)	0.50	1.25	1.25 =	1.75
Dubai crude price - period average	USD/bbl	69.0	98.0	98.0 =	82.0

Note: * Based on BOT data

Source: NESDC, BOT, MOC, MOTS, Bloomberg, Krungsri Research

Thailand: Recovery is underway but there are hurdles

- **Key drivers would be recovering tourism, growing household spending, rising investment, and improving employment. Rising external headwinds, tighter financial conditions, and unwinding policy supports will limit growth of economic activity.**
- Tourism is the key engine to drive economic growth and continues to recover, albeit still weaker than pre-pandemic level
- Overall consumption could grow modestly following improving employment; spending by low-income earners is still weak
- Business investment would be lifted by the recovery in domestic activity and FDI inflows despite pressure from slower exports
- Thai exports would decelerate along with the global economic slowdown but the impact could be less than peers
- MPC will raise policy rate gradually given early phase of economic recovery and easing of inflationary pressure
- **Risks & Challenges:** Extended Russia-Ukraine crisis, tighter-than-expected financial conditions, uncertainty over Covid-19 policy and property crisis in China, risk of tech war amid rising geopolitical tension, and domestic political risk

Tailwinds

- **Reopening tailwinds in several countries, including Thailand**
- **Recovery in tourism sector and employment**
- **Substitution effect, especially in food and agricultural product, due to Russia-Ukraine crisis**
- **Easing supply disruption, improving FDI and further investment in infrastructure projects**
- **Domestic policy supports for target groups**
- **Benefit from regionalization and sound external stability**

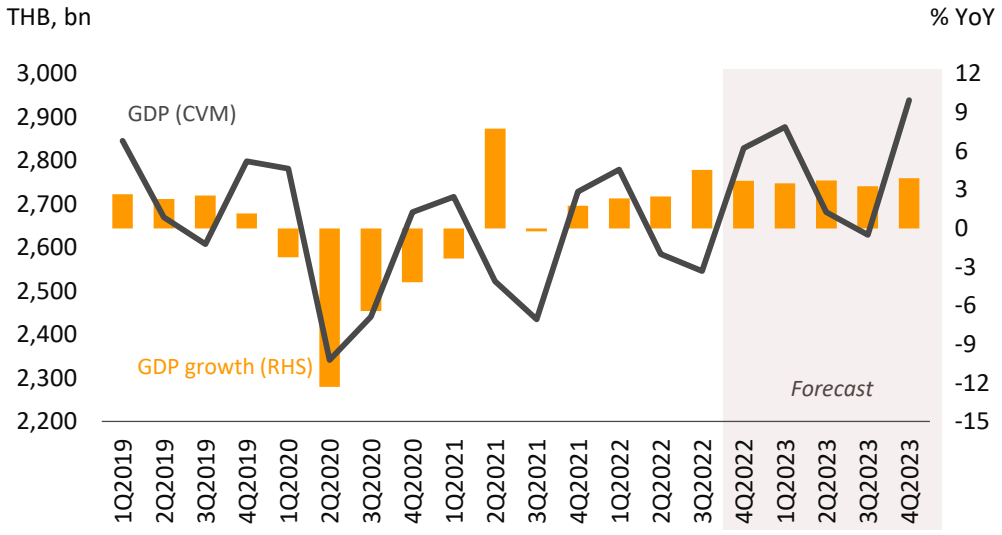
Headwinds

- **Global economic slowdown with extended war, deglobalization, and strict Covid policy in China**
- **Unwinding fiscal stimulus and higher interest rates**
- **Volatile financial markets amid uncertainty over policy rate hikes and inflation risk**
- **Crisis legacies (such as debt) could limit spending**
- **Domestic political risk and uncertainty over policy implementation after 2023 election**
- **Structural problems, including low competitiveness in some sectors**

Source: Krungsri Research

2023 Outlook: Economic activity is likely to exceed pre-pandemic level in 2023 but recovery is still in the early phase

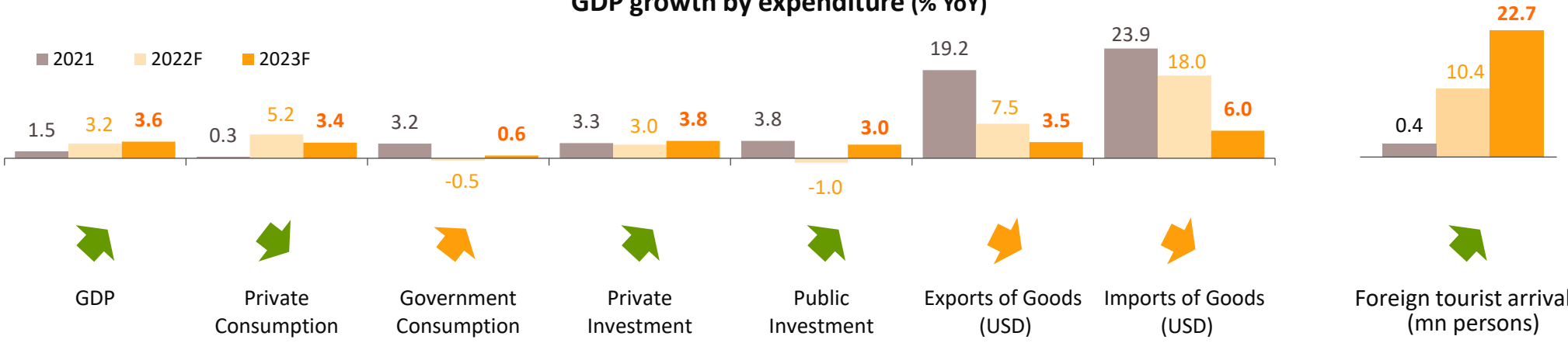
Thai GDP Data Forecast (4Q22-4Q23)



Krungsri Research's view

- We have fine-tuned our full-year 2022 GDP growth forecast to 3.2%, from 3.1% in the previous forecast, to reflect better-than-expected reopening effects which supported private consumption and business investment. 3Q22 GDP growth has also accelerated from 2.5% YoY in 2Q22 to 4.5%, slightly higher than our 4.3% estimate.
- *We expect 2023 Thai GDP to exceed pre-pandemic level with full-year growth at +3.6%. Tourist arrivals would surge in 2023 on reopening effect after facing a lockdown for more than 2 quarters in 2022. Higher employment would support household spending despite fading pent-up demand. Business investment would gain momentum supported by recovering domestic activity and FDI. Thai exports would decelerate in line with the global slowdown but could see less impact than peers.*
- *Fiscal stimulus would be smaller but still conducive to support economic recovery. Pace of policy rate hikes is likely to be milder than peers given Thai economic recovery is still in the early phase and inflation pressure is easing.*

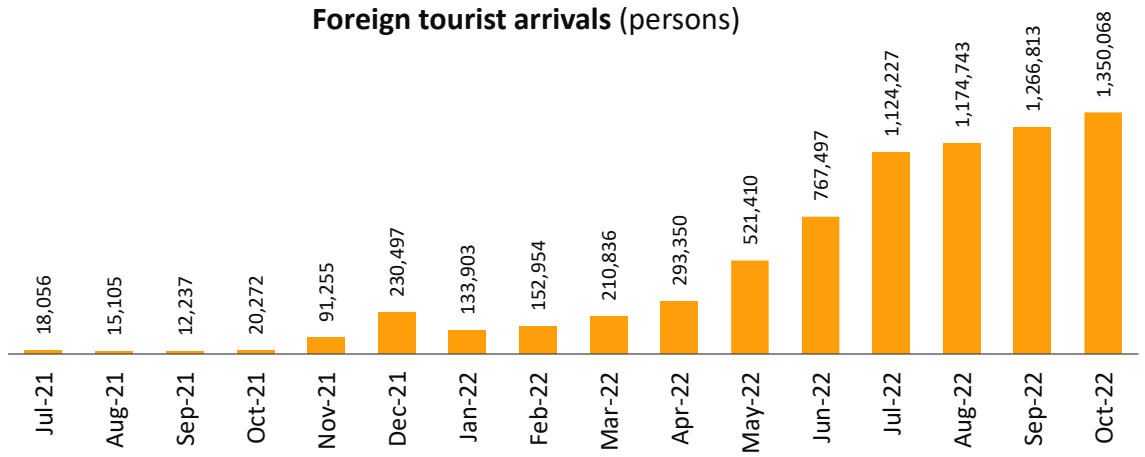
GDP growth by expenditure (% YoY)



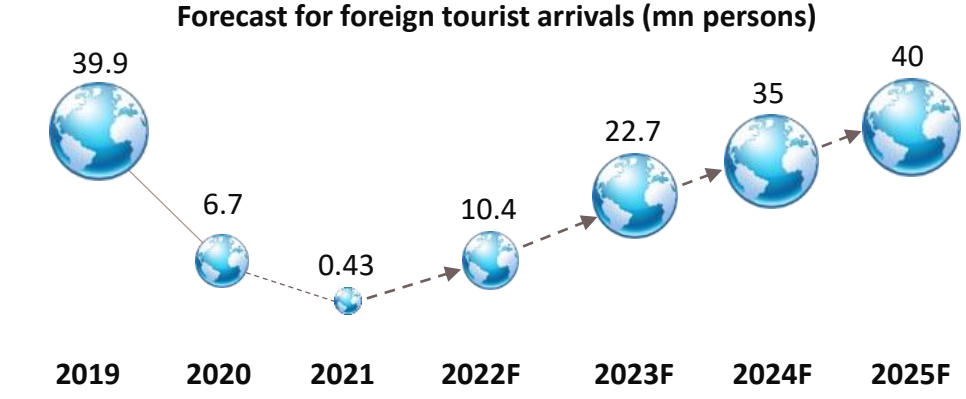
Source: NESDC,Krungsri Research

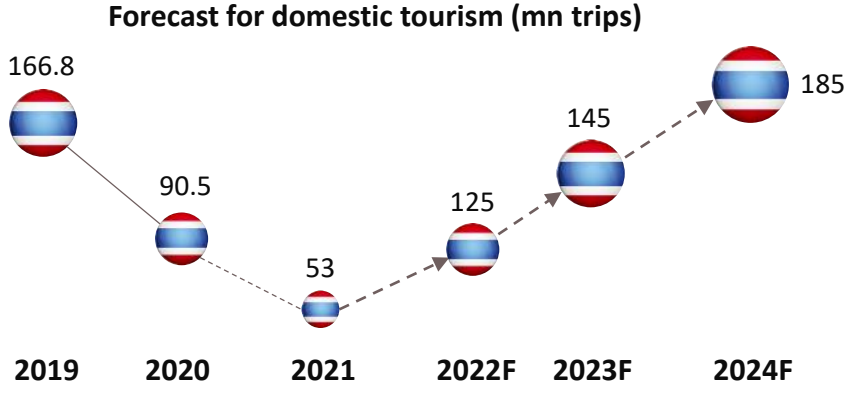
Tourism: Key economic growth engine continues to recover but is still below pre-pandemic level

Tourism sector has been gaining momentum. Foreign tourist arrivals had reached 46,000 per day by late October and reached 1.35 mn in the month. In the first 10 months of this year, it reached 7.04 mn and generated THB254 bn in tourism receipts vs THB1.9 trn in 2019 (pre-pandemic). This was led by tourists from Malaysia, India, Singapore, Laos, and Vietnam**. For the rest of this year, foreign tourist arrivals is expected to continue to rise driven by the peak tourist season. It is projected to rise to 10.4 mn this year and to 22.7 mn in 2023,** bolstered by reopening of most countries and pent-up demand for tourism after almost 3-year lockdown. The strongest improvements would be seen in short-haul destinations in Asian countries. Chinese tourists would start to return from mid-2023. Within Thailand, domestic tourism activity will continue to improve to reach 125 mn trips in 2022 and 145 mn trips in 2023. It is projected to exceed pre-pandemic level in 2024, a year before inbound tourism.









Sources: MOTS, Krungsri Research

Higher flight capacity to Thailand suggests more foreign tourists ahead, bucking the slowing global growth trend

Data from the OAG projects weekly average flight seats to Thailand during winter 2022-2023 (Oct 2022-Mar 2023) would be 70% higher than during summer 2022 (Apr-Sep 2022). Most passengers would be from Asian countries. Departure flights from Singapore and India marked the biggest seat capacity. In addition, historical data show low correlation (0.34) between global economic growth and foreign tourist arrivals, suggesting slower economic growth in 2023 would have only a small impact on foreign tourist arrivals in Thailand. In 2019 (pre-pandemic), foreign tourist receipts reached almost 12% of GDP; which is high in Asia and suggests the Thai economy would benefit more than other Asian countries from a recovery in tourism.

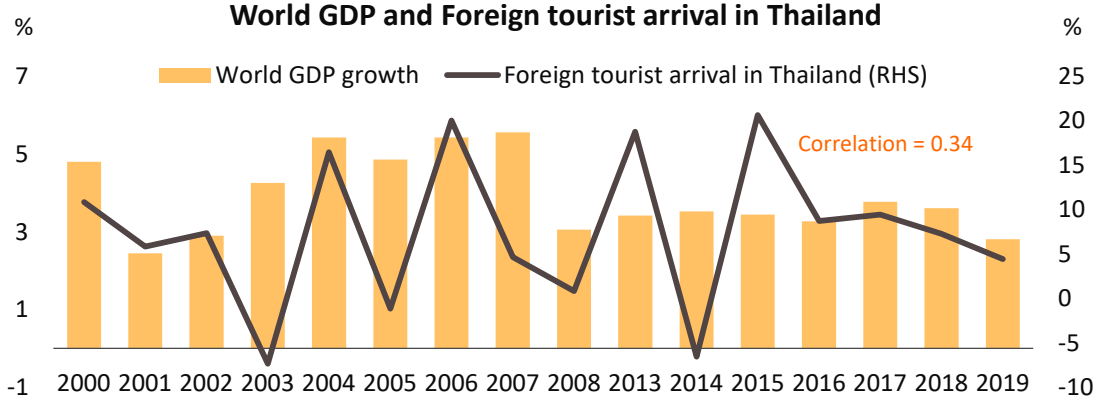
International flight seats to Thailand by region

Region	Summer 2022 1/ Seats/Week	Winter 2022-23 2/ Seats/Week	Growth (%)
Asia: South East Asia	131,619	211,744	60.9%
Asia : North East Asia	69,205	175,588	153.7%
Asia : South Asia	46,958	66,877	42.4%
Europe : Western Europe	35,718	56,354	57.8%
Middle East	34,501	44,900	30.1%
Southwest Pacific	8,582	13,150	53.2%
Africa : Eastern Africa	2,100	2,414	15.0%
Asia : Central Asia	522	1,589	204.4%
North America	-	922	
Grand total	**329,288**	**573,538**	**74.2%**

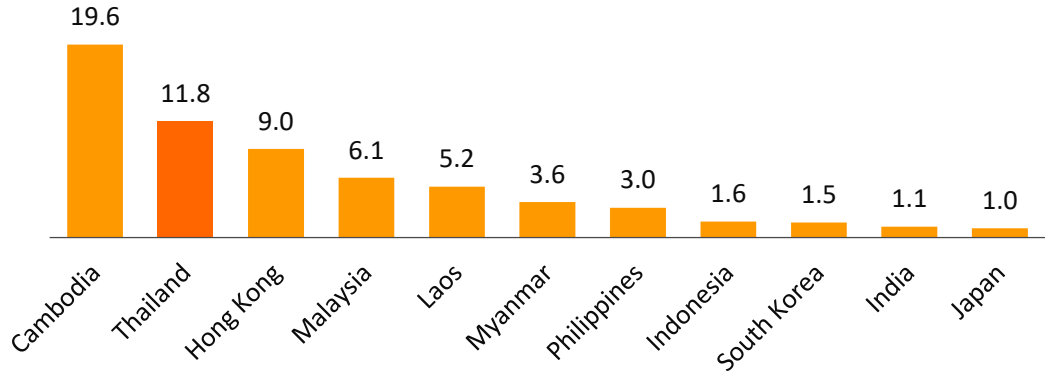
International flight seats to Thailand by country

Country	Winter 2022-23 2/ Seats/Week	Growth (%)
Singapore	53,389	37.1%
India	51,380	39.9%
Hong Kong	47.049	317.2%
Malaysia	42,013	83.0%
Japan	40,467	94.2%
Viet Nam	39,660	51.9%
South Korea	29,594	67.9%
Taiwan	28,715	119.5%
China	21,434	237.1%
Cambodia	21,353	47.8%

World GDP and Foreign tourist arrival in Thailand



Foreign tourism revenue / GDP in 2019

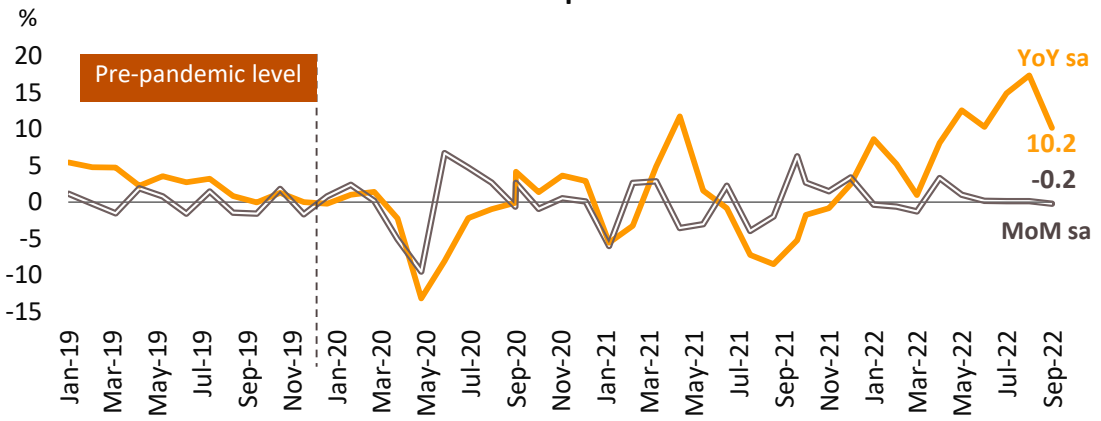


Note: 1/ During Apr'22-Sep'22, 2/ During Oct'22-Mar'23
Sources: OAG, ATTA Thailand, World Bank, Krungsri Research

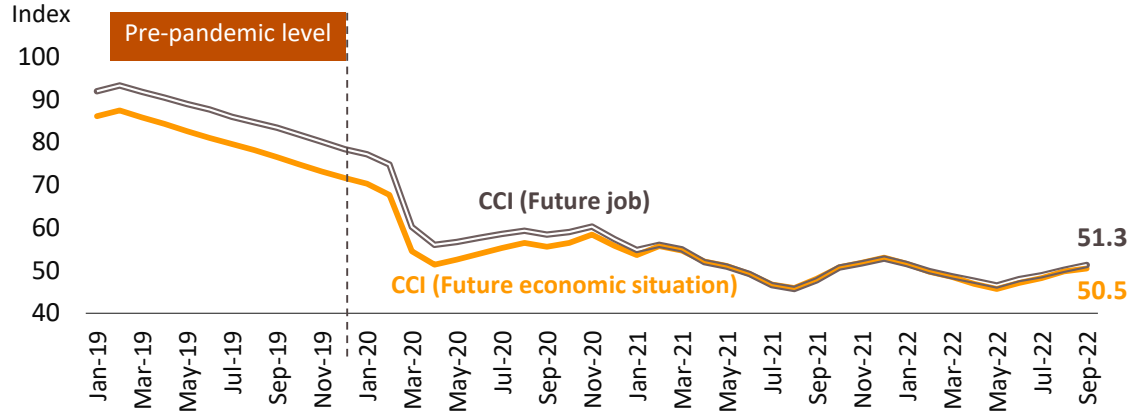
Consumption is projected to rise as employment in major sectors continue to recover

Private consumption is showing signs of improvement. The Private Consumption Index (PCI) has increased sharply year-on-year since the beginning of this year, though the month-on-month change has been relatively small, averaging only 0.25%. The Consumer Confidence Index (CCI) has risen for four months in a row, reflecting rising optimism about the economy and job market despite both being far below pre-pandemic levels. Most major sectors are registering more hiring, noticeably in wholesale/retail trade and manufacturing. The underemployment indices in 3Q22 are 2 to 4 times below their peaks during the height of the pandemic, suggesting income will improve. **Given the country's full reopening since July this year, we project a further recovery in the labor market, especially in tourism and related sectors, which will be the key driver of consumption growth next year.**

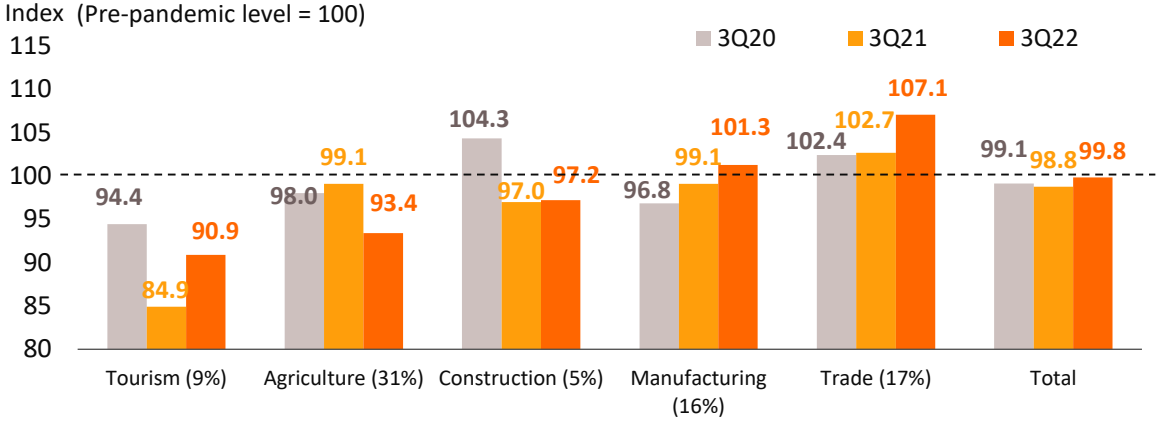
Private Consumption Index



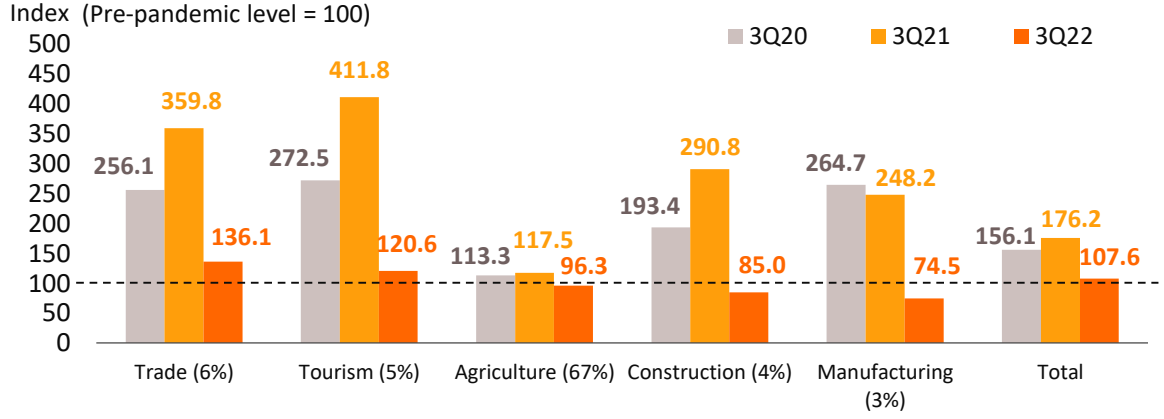
Consumer Confidence Index



Employment Index in Major Sectors



Underemployment Index in Major Sectors



* % in brackets represents the proportion of each sector's employment to total employment in 3Q22.

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

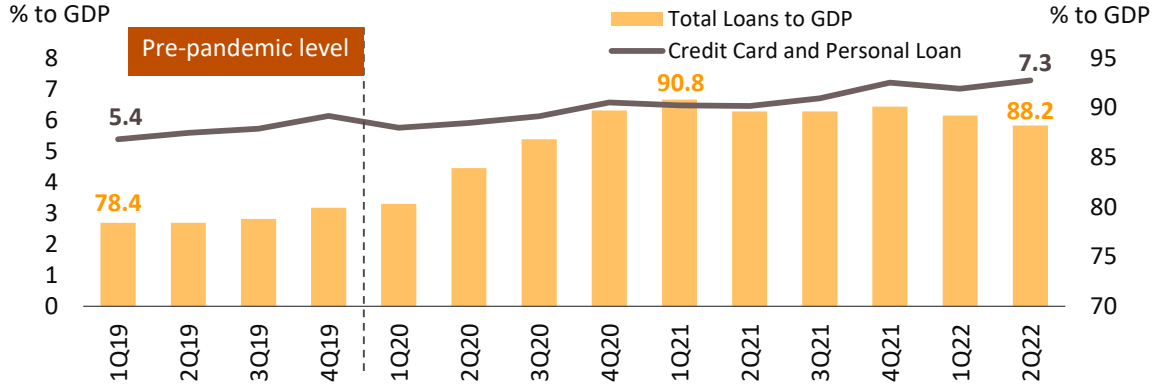
* % in brackets represents the proportion of each sector's underemployment to total underemployment in 3Q22.

** An underemployed person is defined as a person working less than 20 hours per week in agriculture or less than 24 hours per week in other sectors.

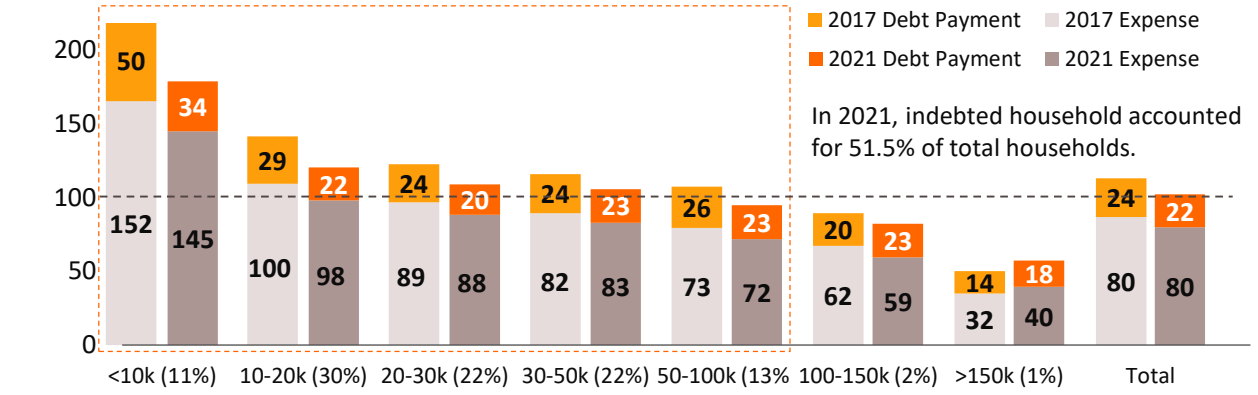
However, consumption by low-income households will be capped by high debt burden, rising interest rates, declining real wages, and reduced government support

Since the first wave of COVID-19 outbreaks in 2Q20, household debt to GDP ratio has surged to a high of 90.8% in 1Q21. Credit card and personal loans to GDP ratio has also risen, reaching 7.3% in 2Q22 compared to pre-pandemic average of 5.7%. **Indebted households earning below 50,000 baht per month will find it difficult to repay debts** as their expenses plus debt repayment would exceed their income, and interest rates have been rising with more rate hikes expected next year. Furthermore, real wage in most major sectors has dropped below pre-pandemic level in 3Q22. Poor households also rely more on non-monetary government subsidies (e.g., the 50-50 co-payment scheme, subsidies for water and electricity bills) than during the pre-COVID-19 period. Therefore, **the anticipated reductions in government assistance will limit spending by low-income households, especially those earning less than 10,000 baht per month.**

Household Loan to GDP Ratio

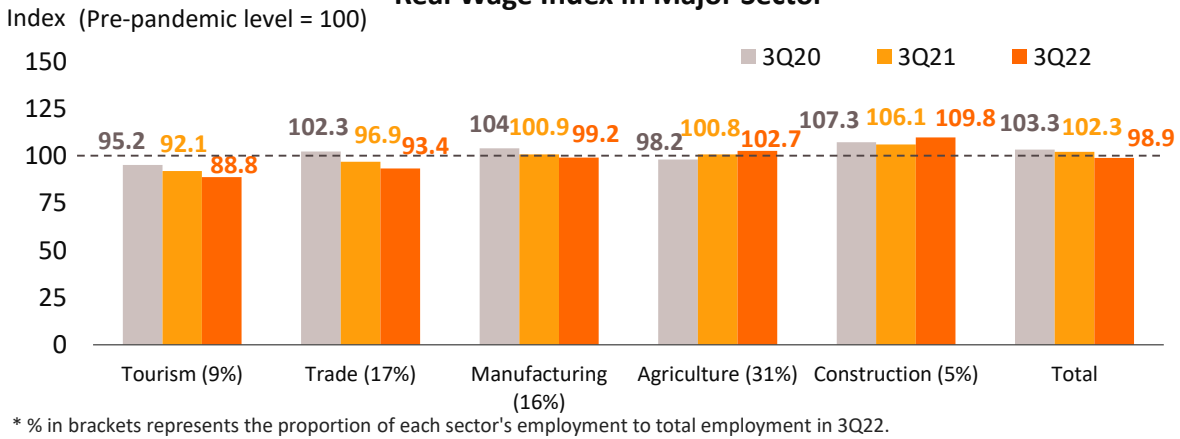


Indebted Household Expense and Debt Payment to Income Ratio



* % in brackets represents the proportion of households in each group to total indebted households in 2021.

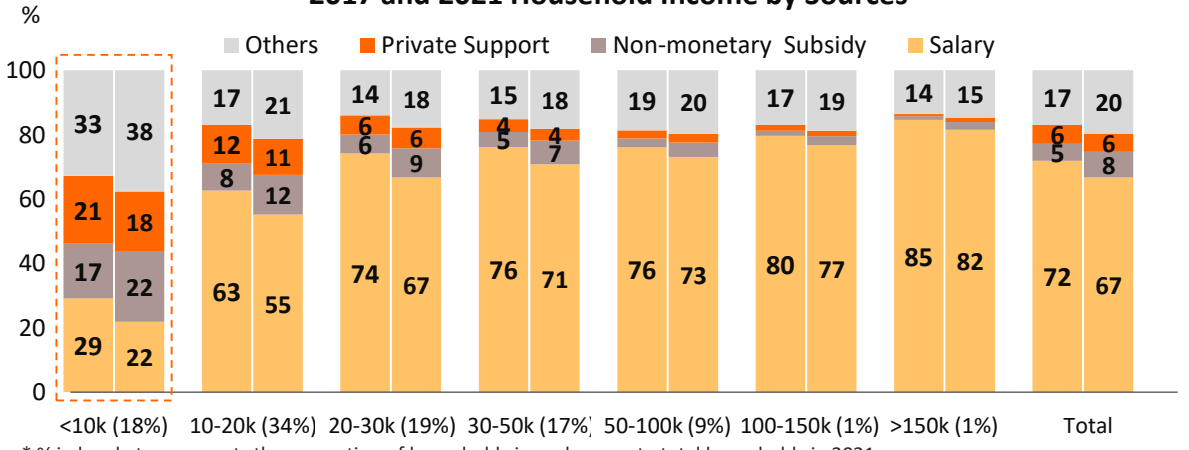
Real Wage Index in Major Sector



* % in brackets represents the proportion of each sector's employment to total employment in 3Q22.

Source: BOT, NSO, CEIC, Krungsri Research

2017 and 2021 Household Income by Sources

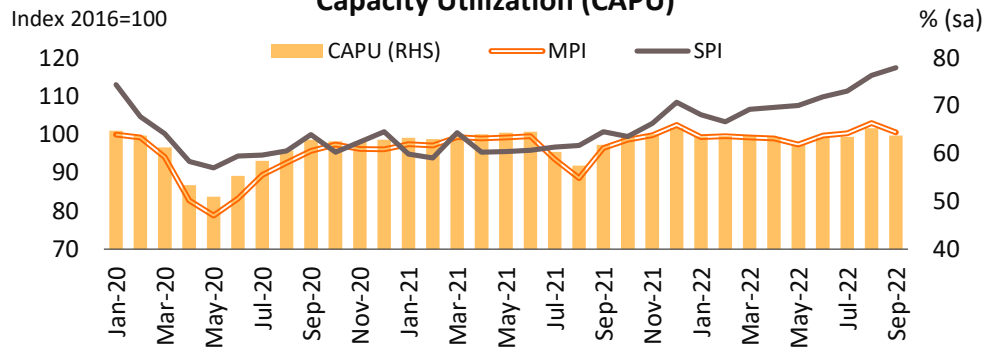


* % in brackets represents the proportion of households in each group to total households in 2021.

Investment is projected to rise driven by improving tourism and economic activities, but could be pressured by a slowdown in the export sector

In the coming period, investment would be boosted by a recovery in tourism and domestic economic activities. September Service Production Index is 4.1% above 2019 (pre-Covid) level led by information and communication industries, real estate activities, and wholesale & retail trade. September Manufacturing Production Index (MPI) is 2.4% below pre-Covid level, but some industries such as IC & semiconductor producers and automakers, have continued to recover. Likewise, production capacity utilization rate has improved; that in automotive, IC & semiconductor, and machinery industries have exceeded pre-Covid levels. Capacity utilization in the medical, electrical appliance, and pharmaceutical industries have recovered to near pre-pandemic levels. **Likewise, firmer domestic demand and recovering tourism activity will boost capacity utilization further and increase investment in these industries and business sectors. Nevertheless, slowing export growth attributed to trading partners' weak economies and rising financial costs weigh on private investment growth**.

Services Production Index, Manufacturing Production Index and Capacity Utilization (CAPU)



Services Production Index

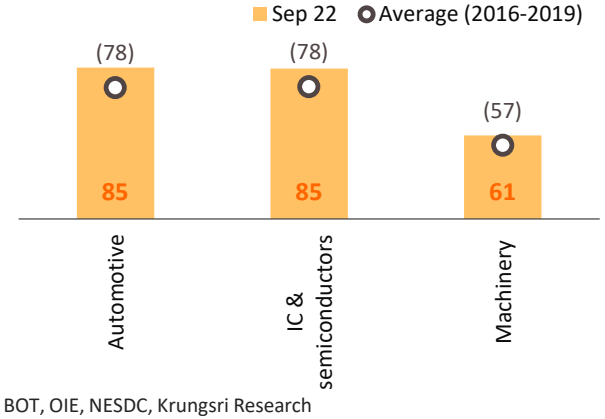
Service Production	Weight	% change from pre-Covid-19		
		Dec-20	Dec-21	Sep-22
All sectors	**100%**	**-10.7**	**-3.9**	**4.1**
Information & Communication	10.3%	16.3	28.5	33.2
Real Estate Activities	7.1%	5.1	32.7	31.3
Wholesale & Retail Trade	26.4%	-6.6	-1.0	8.3
Financial & Insurance	13.9%	8.3	7.8	2.2
Transportation & Storage	8.8%	-34.0	-27.8	-17.0
Accommodation & Food Service	5.9%	-71.9	-66.2	-43.5

Manufacturing Production Index

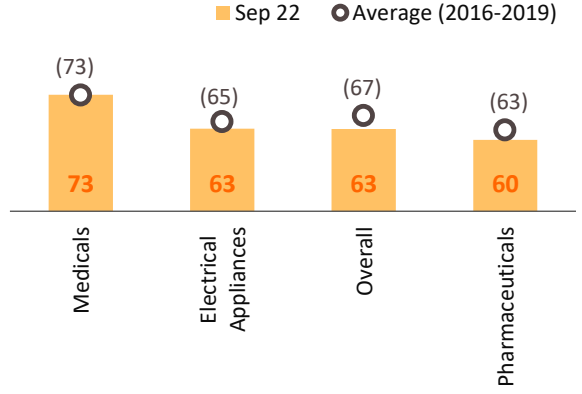
MPI	Weight	% change from pre-Covid-19		
		Dec-20	Dec-21	Sep-22
All industry	**100.0%**	**-6.4**	**-0.4**	**-2.4**
IC & Semiconductors	5.5%	4.6	19.6	30.7
Automotive	13.8%	-14.4	-7.0	6.5
Petroleum	9.5%	-2.9	3.7	0.7
Rubbers & Plastics	8.8%	-3.9	3.4	-3.0
Electrical Appliances	3.8%	-5.9	-10.8	-3.1
Cement & Construction	5.5%	-6.8	-2.7	-8.0
Chemicals	9.1%	-12.3	-4.7	-10.0
Food & Beverages	20.3%	-3.1	5.3	-10.2
Textiles & Apparels	3.5%	-21.2	-18.6	-27.0
HDD	3.4%	10.3	9.9	-27.2

Capacity utilization by sector (Index)

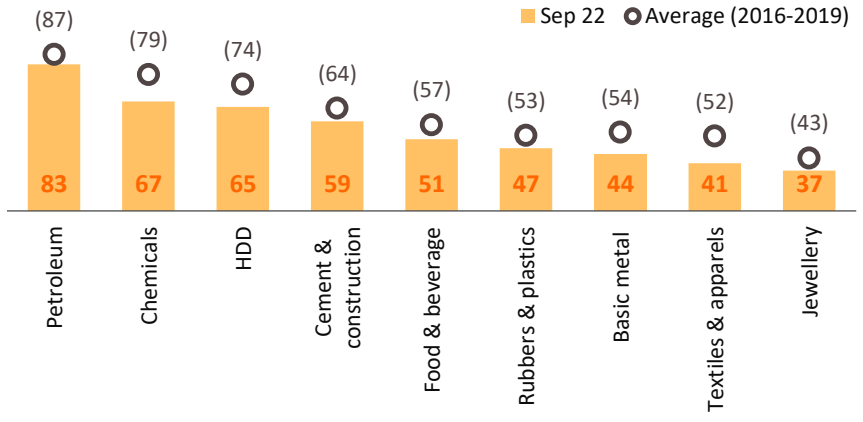
Above pre-COVID level



Approaching pre-COVID level



Below pre-COVID level

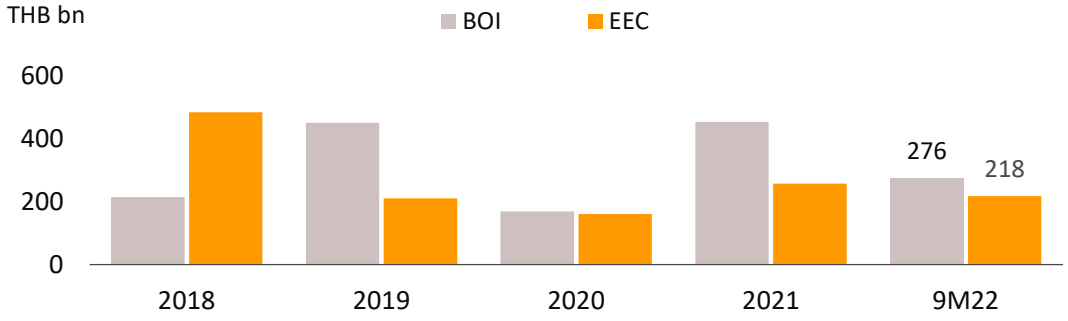


Source: BOT, OIE, NESDC, Krungsri Research

FDI inflow into target industries in the EEC is picking up, notably in next-gen automotive and smart electronics industries

A growing post-pandemic economy and industrial technology transformation will help to attract more investment into Thailand. In 9M22, FDI applications for BOI incentives reached THB 275.7bn; this contracted 24.7% YoY but the figure for Q3 is above the 5-year average. In the period, the biggest investors in Thailand were China (THB 45.0bn), Taiwan (THB 39.3bn), and Japan (THB 37.6bn). Most of the investments from China and Taiwan went to the manufacture of EVs, electrical appliances, and electronics. Within the EEC, FDI applications reached THB 218bn, up 4.9%, with the strongest growth seen in smart electronics and next-generation automotive industries. The BOI has announced a new 5-year investment promotion scheme for 2023-2027 that will include existing measures and new incentives to attract more foreign investment into Thailand.

FDI applications for BOI privileges & projects in the EEC

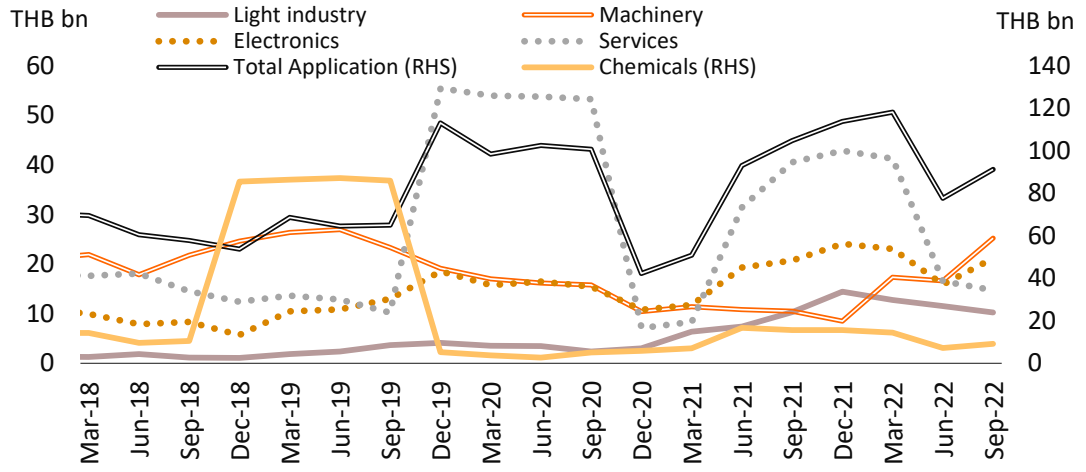


Major new policies under BOI Investment Promotion Measures (2023-2027)

- **Retention & Expansion Program:** Companies which have been granted incentives for at least three projects for the past 15 years, with a combined investment value of not less than THB10 bn (c.$265 mn), and are seeking approval for a new project or expansion project with an investment of at least THB500 mn will be granted special incentives including additional corporate income tax (CIT) exemption for up to 3 years or a 50% CIT reduction for up to 5 years, depending on the type of activity.
- **Relocation Program:** Companies that are relocating their manufacturing and regional headquarters to Thailand will receive additional 3 years of CIT exemption. Those moving their manufacturing and R&D centers will also receive between 1 and 5 years of CIT exemption, depending on the industry. All the CIT exemptions apply only to revenue from the relocated manufacturing activities.
- **Creation of New Industry Categories:** To accelerate the transformation to the new economy, the BOI board has approved the creation of new promoted industry sectors, especially sustainable activities, that will receive special incentives. The new categories include the manufacturing of hydrogen vehicles, the setup of electric vehicle (EV) battery swapping stations, novel food, organic food, etc. On renewable energy, the new types of promoted businesses include hydrogen production and related activities, such as green ammonia, as well as power and steam generation from hydrogen.
- **Advanced Technology Sectors:** Premium incentives will be granted to investments in upstream industries that involve innovation and high technology such as biotech, nanotech, and advanced materials that involve technology transfer and cooperation with Thailand's higher education institutions and research entities. Such projects, classified as "A1+" in the BOI's nomenclature, will be eligible for 10 to 13 years CIT exemption without a cap, depending on the activity. Wafer fabrication has been upgraded to this category and will be eligible for 13 years CIT exemption instead of 10 years.

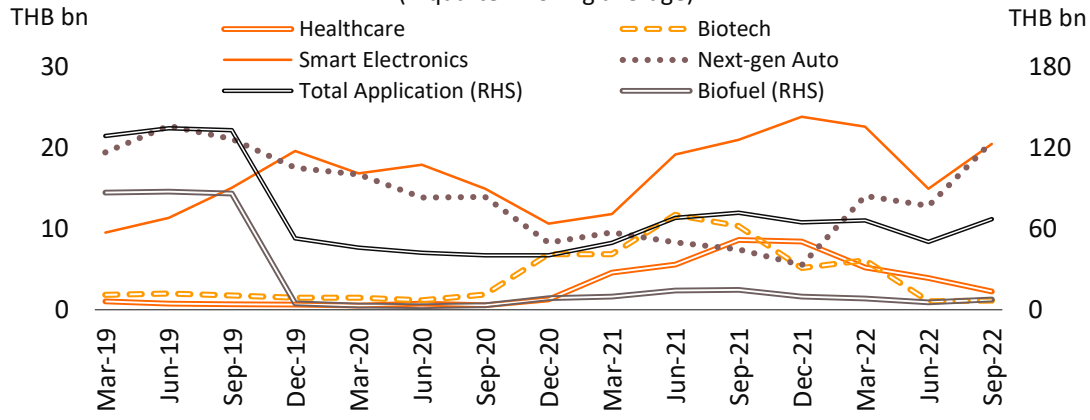
FDI applications for BOI privileges by industry

(4-quarter moving average)



FDI applications for projects in the EEC by industry

(4-quarter moving average)

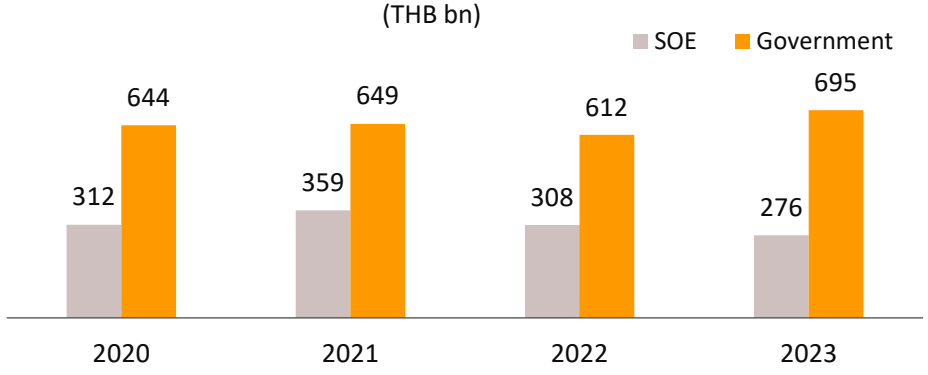


Source: BOI, EEC, Krungsri Research

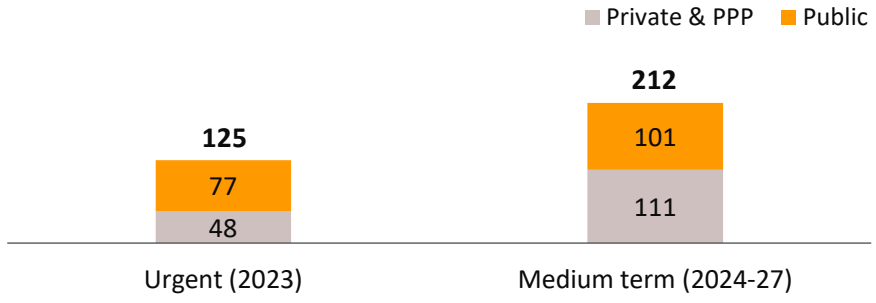
Ongoing public-sector spending on infrastructure will also help to power the economy but progress in many projects remain uncertain

For 2023, central government's allocation for infrastructure spending will rise by 13.6% to THB 695bn. Although investment by state enterprises will drop 10.2% to THB 276bn, overall investment by the public sector will be 5.6% higher from a year earlier. In addition, the urgent action plan for the construction of infrastructure and utilities in the EEC (start in 2023) aims to speed up economic development in the area by allocating THB 125bn for work on 29 projects. Of this,7 private or private-public partnership (PPP) projects carry a total bill of THB 48bn. Over the medium term (2024-2027), work will be undertaken on additional 48 projects with a total value of THB 212bn, of which 9 are private or PPP projects worth THB 111bn. **Public and Private investments are expected to rise in 2023 for ongoing major infrastructure projects,** including the high-speed railway (Bangkok-Nakhon Ratchasima), Bang Pa-In-Nakhon Ratchasima and Bang Yai-Kanchanaburi motorways, and the Rama III-Dao Khanong Expressway. In addition, work will begin on some megaprojects in 2023 but initial expenditures on these new projects will be low, mainly for making compulsory purchase orders and preparing the sites. It also remains to be seen how political developments after the 2023 election will affect the business environment; the new government might change it's the infrastructure spending policy.

Capital budgets: Government & State-Owned Enterprises (SOE)*



Infrastructure investment in EEC (THB bn)



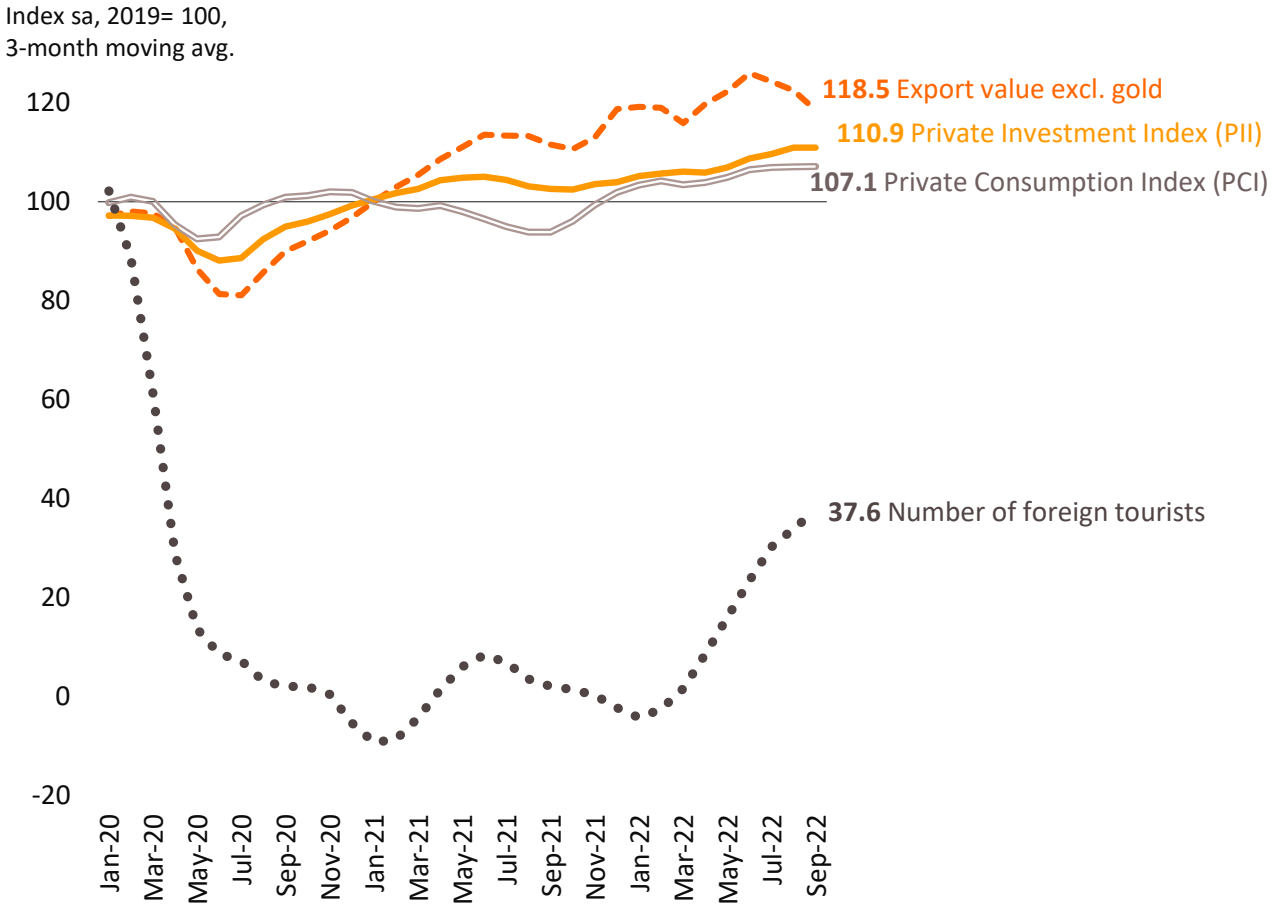
Investment in key mega projects in 2023

Projects	Worth (THB bn)	Completion Year
Ongoing project		
Motorway: Bang Yai - Kanjanaburi	62	2024
Motorway: Bang Pa In - Nakorn Ratchasima	85	2025
Expressway Rama III - Dao Kha Nong	29	2024
MRT: Purple Line - South (Tao poon - Ratchaburana)	128	2027
High speed train: Bangkok -Nakorn Ratchasima (Thai-China)	179	2027
Start construction		
Dual-track railway: Ban Pai - Nakhon Phanom	68	2026
Dual-track railway: Denchai - Chiang Khong	85	2028
Motorway: Bang Khun Thian - Bang Bua Thong (M9)	56	2028
High speed rail linked 3 airports (Don Mueang–Suvarnabhumi–U-Tapao)	225	2029
MRT: Orange Line - West (Bangkhonnon - Thailand Cultural Center)	120	2028

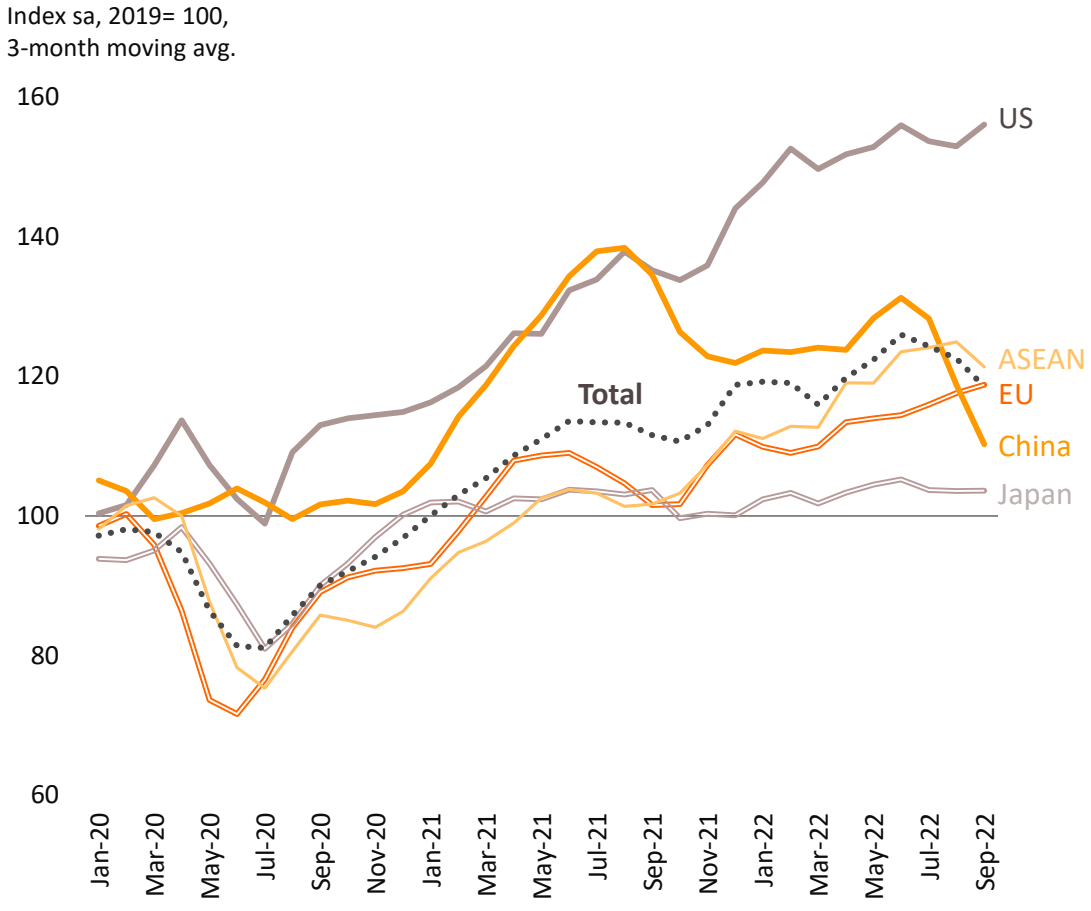
Note: * 44 state-owned enterprises
Source: EEC, Budget Bureau, SEPO, Krungsri Research

Exports: Recovery in domestic activity is gaining traction but more pronounced slowdown in the global economy could rein in Thai exports

Thailand's key indicators: Demand side



Thailand's exports by destination

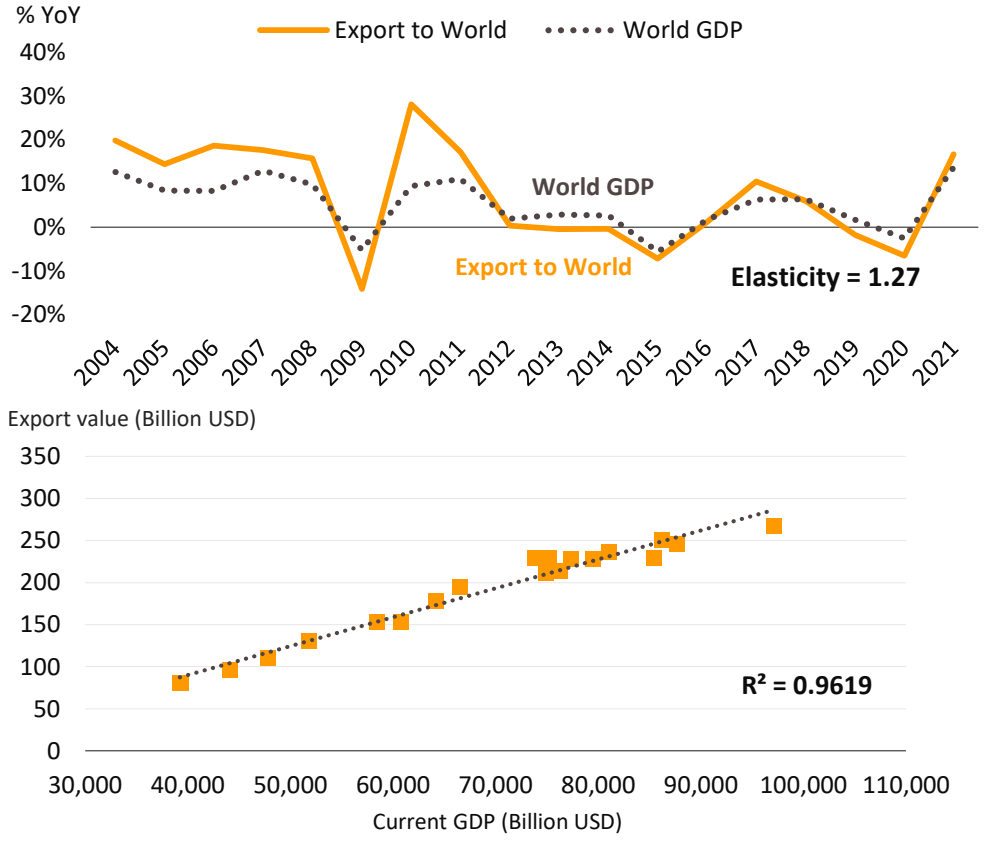


Source: BOT, CEIC, Krungsri Research

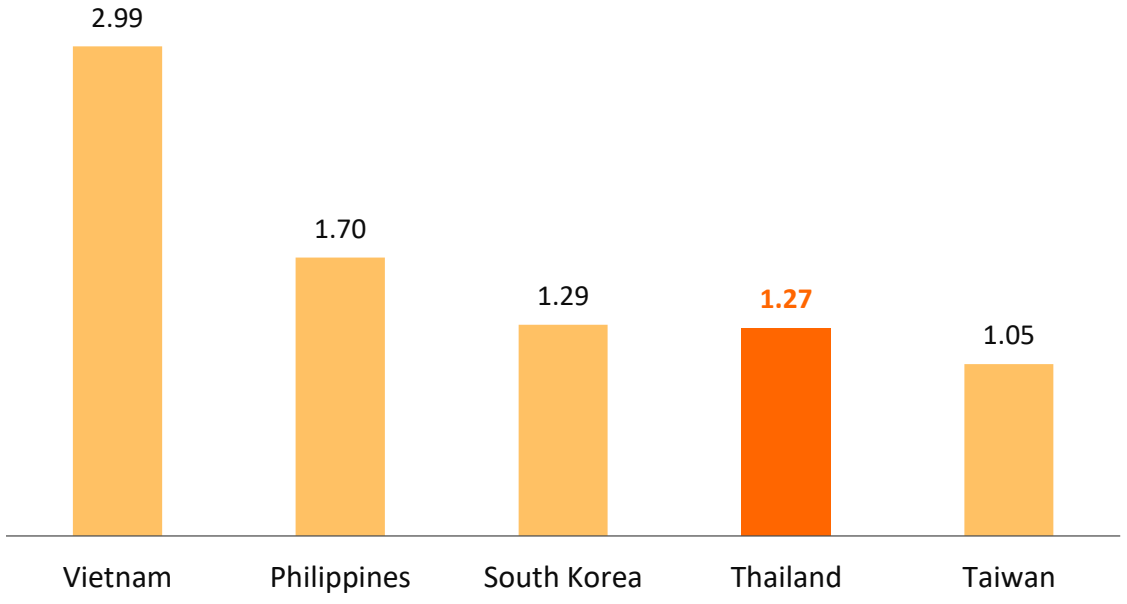
Thai export growth is projected to decelerate along with an expected slowdown in global economy and trade; Thai exports is less sensitive to global growth than peers

With the income elasticity of demand for Thai exports at 1.27, that means a 1% drop in global GDP would reduce Thailand's exports by 1.27%. The income elasticity of demand for Thailand's exports is lower than for several of other countries in the region such as Vietnam (2.99), Philippines (1.70), and South Korea (1.29).

Thai Exports to World



Income elasticity of export by countries



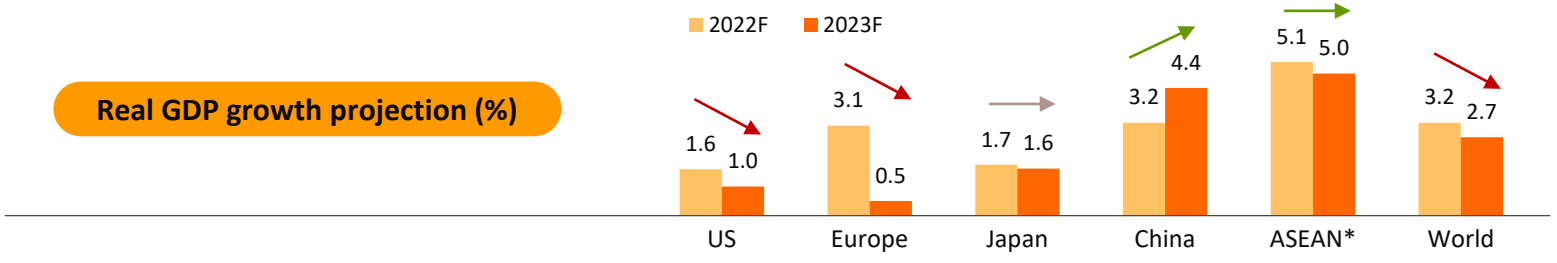
Source: Bloomberg, IMF, Krungsri Research

Thai exports to major advance economies, especially the US and Eurozone, will slow down further; growth opportunity has shifted to ASEAN market

Summary: Elasticity of demand for Thailand's export products by major trading partner and World

Thailand's export products	Major trading partners					World
	US	Europe	Japan	China	ASEAN	
Total	**1.77**	**0.75**	**0.05**	**0.60**	**1.60**	**1.27**
Agriculture	3.09	-0.61	-2.91	-0.07	1.12	**0.42**
Computer & electronic equipment	1.01	0.60	-2.95	0.63	1.09	**0.74**
Textile	0.79	0.55	1.59	0.23	1.27	**0.83**
Food & beverage	0.54	1.02	0.28	1.19	0.97	**1.15**
Other manufacturing	1.03	0.55	1.77	3.50	1.93	**1.30**
Transport equipment	-0.66	-0.78	0.99	5.80	1.62	**1.32**
Electrical machinery	1.88	0.82	-0.71	1.03	1.90	**1.35**
Rubber & plastic	3.40	-0.06	-2.17	-0.83	1.44	**1.47**
Chemicals	3.96	2.66	-3.79	0.66	1.99	**1.71**
Machinery & equipment	3.09	0.03	-3.28	0.91	1.61	**2.23**
Coke & petroleum	67.78	61.01	-22.05	-0.41	2.83	**2.30**
Fabricated metal	8.42	1.74	-1.06	1.80	1.70	**2.37**
Basic metal	8.51	1.84	-7.69	3.94	1.86	**2.42**
Motor vehicles	5.19	1.19	0.10	5.44	2.24	**2.81**

Real GDP growth projection (%)



Thailand is facing external challenges as economic growth in major countries is projected to slow down coupled with higher risk of recession. Although domestic activity is gaining traction, a more pronounced slowdown in the global economy could dampen Thai exports growth.

(I) **U.S. & Europe:** Accounting for a combined 21% of Thailand's total exports, exports to these two economies are expected to experience slower growth in 2023 due to weaker demand, tighter financial conditions, and escalating geopolitical uncertainty. The income elasticity of demand for Thai exports to the US and Europe is 1.77 and 0.75, respectively, this also supports slower exports ahead.

(II) **Japan**: Japan's economy is expected to grow at a moderate pace in 2023 but with larger downside risk. The projected downturn in its overseas trading partners' economies would weigh on Thai exports through the supply chain. However, the impact should be limited as Thai exports to Japan is inelastic (elasticity of demand for Thai exports to Japan is at 0.05)

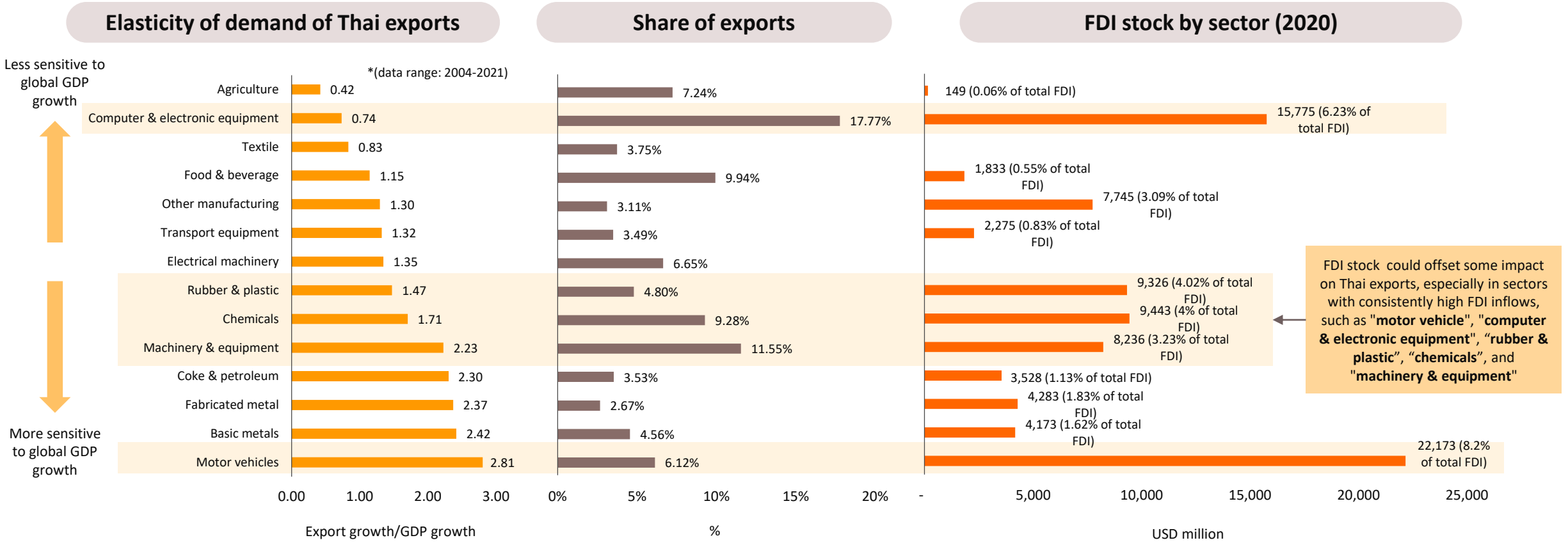
(III) **China:** In 2023, China's market could support Thai exports backed by improving economic conditions and gradual easing of supply bottlenecks. However, that will not help much as Thai exports to China is inelastic (elasticity of demand for Thai exports to China is at 0.60)

(IV) **ASEAN:** We see opportunities within the ASEAN market in 2023. This bloc accounts for 24% of Thailand's total exports. The ADB projects Southeast Asia's economy would continue to expand by about 5.0% in 2023, close to estimated 5.1% in 2022. And, Thai exports to ASEAN is elastic (elasticity of demand for Thai exports to ASEAN is at 1.60).

Source: Trademap, IMF, ADB, *ASEAN forecast by ADB (Asian Development Outlook, September 2022), Krungsri Research

Exports by some key sectors less sensitive to global slowdown due to low elasticity and substitution effect; downside risk to exports in some sectors could be limited by FDI

Thai exports of "motor vehicles“, "basic metals", fabricated metal", “coke & petroleum", and "machinery & equipment" register the highest elasticity (more than 2) to global GDP. 2023 would be a difficult year for these sectors amid worsening economic conditions in major export markets, especially the U.S. and Europe. On the other hand, exports of "agriculture“ and "computer & electronic equipment“ are less sensitive to global GDP growth given relatively low elasticity index of less than 1; this mean a global slowdown would have smaller impact on these sectors. Some of these products could be substitutes for products blocked by Russia's war. In addition, the negative impact of a global slowdown on Thai exports could be mitigated by Foreign Direct Investment (FDI), especially into “motor vehicles" and “computer & electronic equipment”.

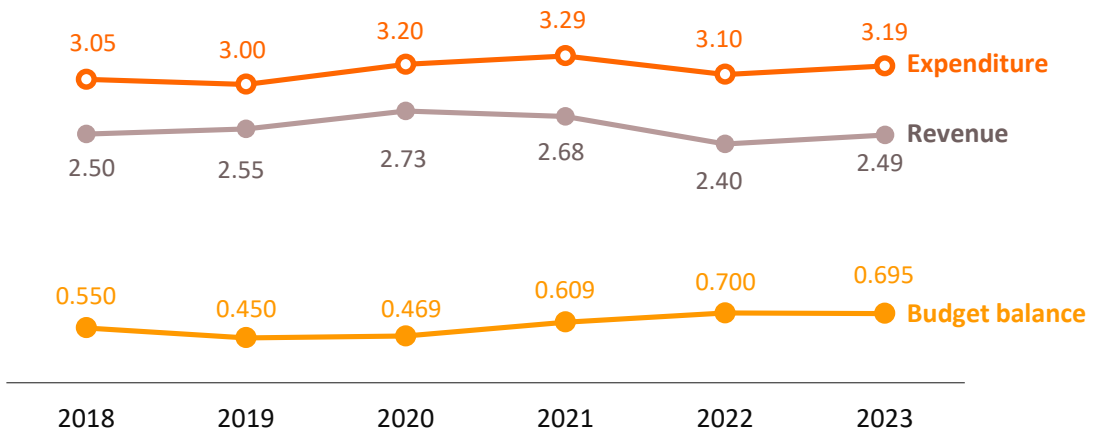


Source: Trademap, Krungsri Research

Fiscal stimulus: Smaller stimulus but still conducive to support economic recovery

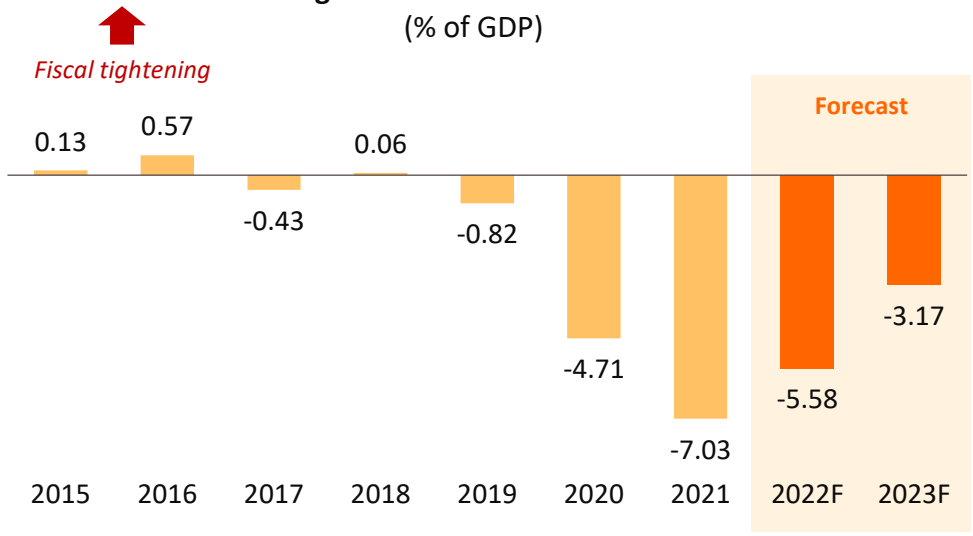
Government budget (FY 2018-2023)

(THB trn)

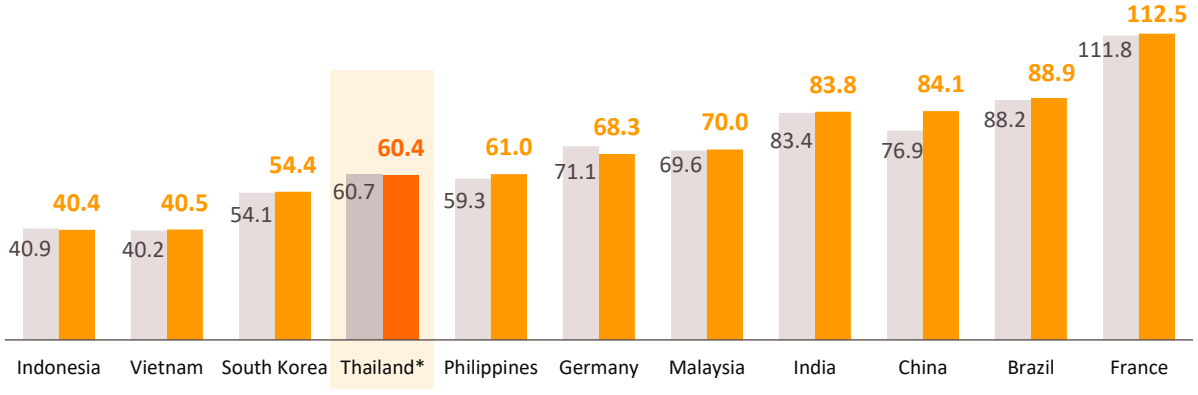


Change in structural fiscal balance

(% of GDP)



Public debt in 2022-2023 (% of GDP)



Note: *Forecast by PDMO

Source: IMF, Budget Bureau, Krungsri Research

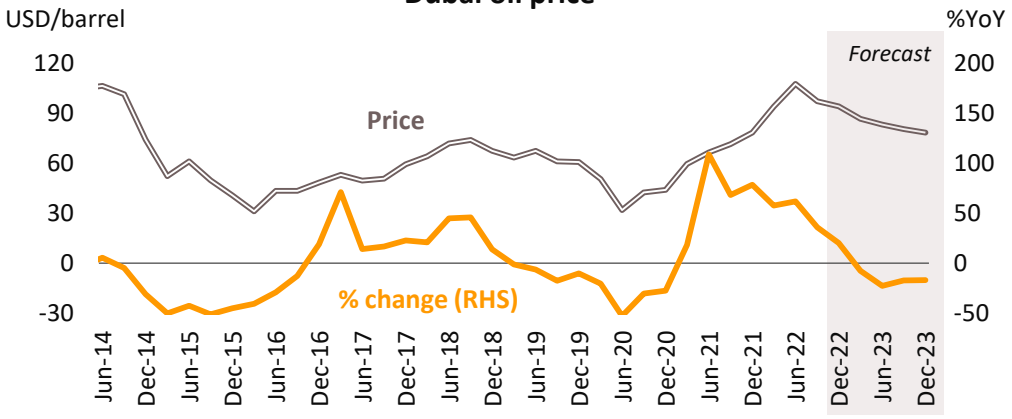
Krungsri Research's view

- **Fiscal policy will continue to support economic recovery.** The Government's expenditure budget will be increased to THB3.19 trn (+2.7% YoY) for Fiscal Year (FY) 2023**,** comprising a current budget of THB2.40 trn (+1.0%) and capital budget of THB0.695 trn (+13.6%).
- However, FY2023 budget would be smaller than the FY2020 budget set during the pre-pandemic period. Also, the budget deficit will narrow to THB0.695 trn in FY2023 from THB0.70 trn in FY2022. The IMF expects Thailand's fiscal deficit (as a net fiscal boost to the economy) to drop to 3.17% of GDP in FY2023 from 5.58% in FY2022.
- **The PDMO forecasts Thailand's public debt will drop to 60.4% of GDP in 2023 from 60.7% of GDP in 2022, reflecting intention to maintain fiscal discipline and to reserve fiscal space if necessary.** The government has set the official ceiling for public debt at 70% of GDP.

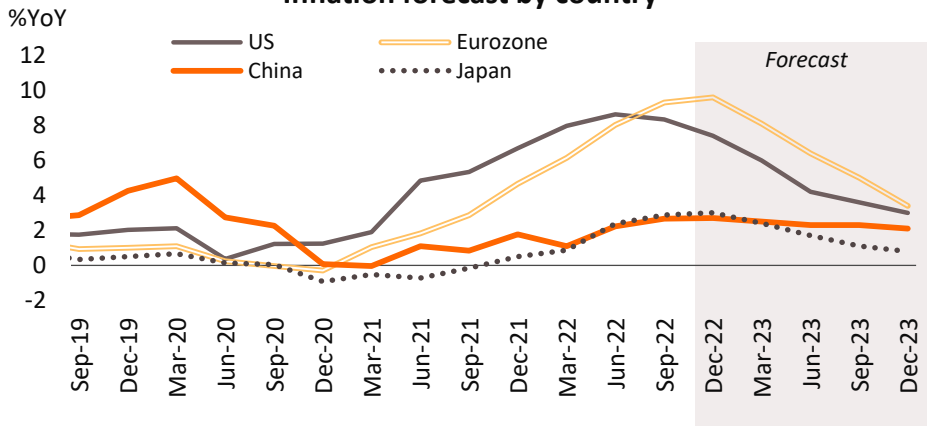
Headline inflation would ease to official target range by mid-2023 and possibly drop below 2% by 4Q23

Headline inflation is expected to ease from an estimated 6% in 2022 to an average of 2.5% in 2023, premised an expectations of a year-on-year drop in global crude oil and other commodity prices triggered by a global economic slowdown as advanced economies' (particularly the US and Eurozone) tighten monetary policies to contain skyrocketing inflation. Bloomberg forecasts inflation in the US and Eurozone would remain high at 4.2% and 5.7%, respectively, in 2023, exceeding their central banks' 2% inflation targets. Unlike advanced economies, **inflation in Thailand is expected to return to the 1-3% official target range by mid-2023 and stay close to the median inflation target range in 2H23** given softening commodity prices, weak demand-pull pressure, and limited wage pressure. However, headline inflation might not drop much as gains from lower global crude prices would be used to finance the mounting debt in the state Oil Fuel Fund created by a huge subsidy to control domestic fuel prices. So in 2023, domestic fuel prices would drop slower than global crude prices. Given recovering domestic activity, **core inflation is expected to stay above 3% in 4Q22 and fall gradually to below 3% from 2Q23 onwards as cost-push pressures ease.**

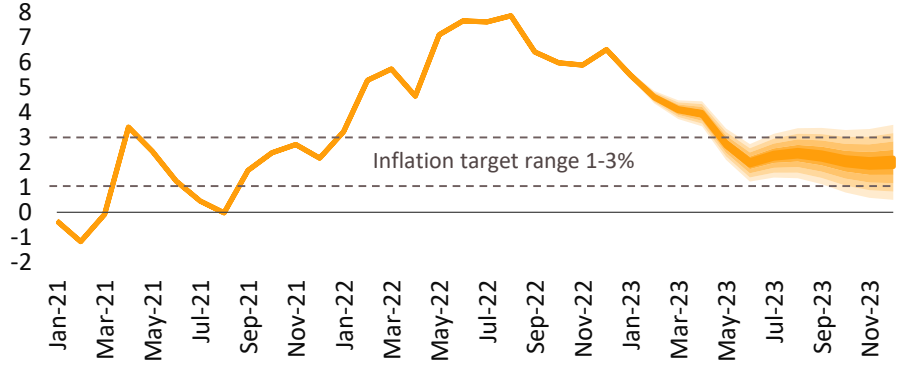
Dubai oil price



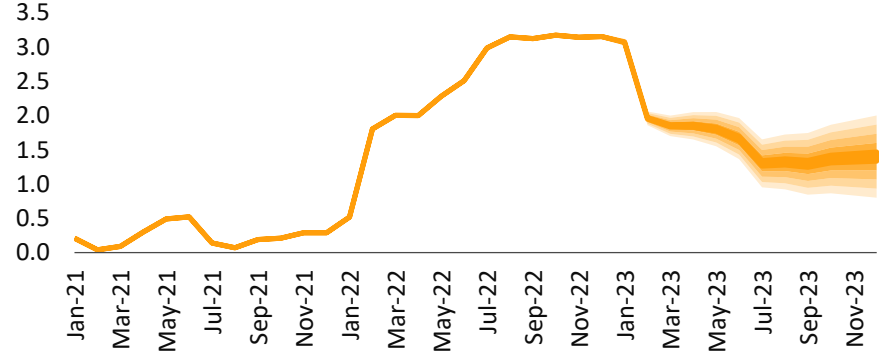
Inflation forecast by country



Headline inflation forecast (%YoY)



Core inflation forecast (%YoY)

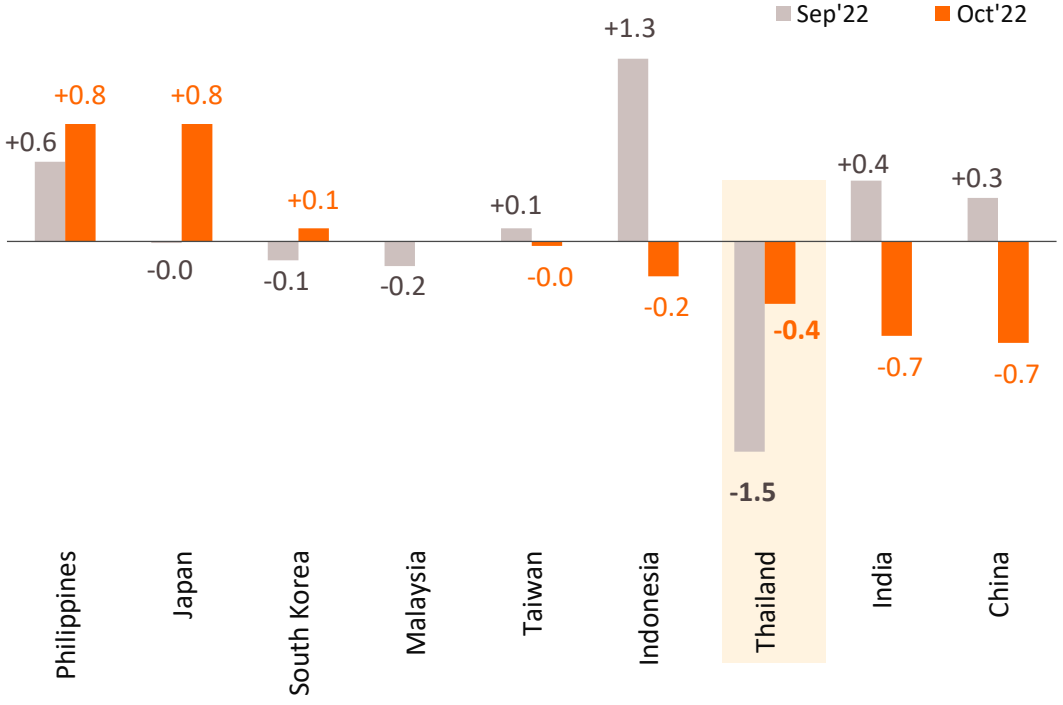


Source: MOC, Bloomberg, Krungsri Research

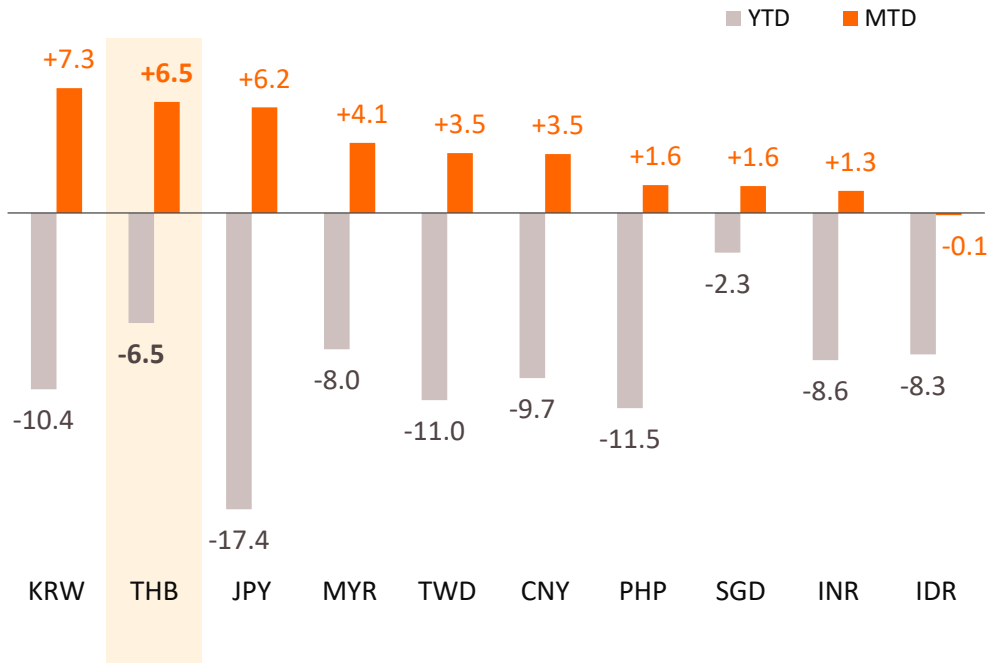
Pace of policy rate hikes likely to be milder than peers given Thai economic recovery is still in the early phase and inflation pressure is easing

Krungsri Research expects the Thai Monetary Policy Committee (MPC) to normalize monetary policy by gradually raising policy rate as economic activity recovers from the Covid-19 crisis. Nonetheless, the implementation of monetary policy to contain inflation is likely to be milder than peers for the following reasons: (i) Thai inflation had passed its peak in 3Q22 and is showing signs of slowing since 4Q22. In addition, it is projected to return to the official inflation target range of 1-3% by mid-2023. Meanwhile, the depreciating local currency is having less pressure on inflation as the US dollar had weakened in November on expectations of slower rate hikes by the US Fed; (ii) Thailand's tourism sector will take time before recovering to pre-pandemic level; (iii) the Thai economy is in the early phase of post-pandemic recovery; and (iv) external headwinds could heighten in 2023 as the global economy is projected to slow down and advanced economies face recession risks. For these reasons, **we expect the MPC to raise policy interest rate gradually, by 25bps each, at the next few meetings to reach 1.75% by end-1Q23 and keep it there throughout the rest of 2023.**

Change in inflation rate:
increase (+) or decrease (-) from the previous month



Foreign Exchange Rate vs USD (% change)
As of 16 November 2022



Source: MOC, CEIC, Krungsri Research

Risks & Challenges



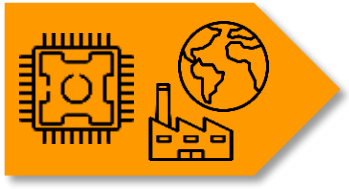
Extended and intensifying Russia-Ukraine crisis:
Subsequent sanctions on Russia and the deeper energy crunch, especially in Europe, as well as spillover effects on global trade, inflation, and financial markets.



Tighter-than-expected financial conditions:
Excessive tightening of monetary policies, a sharp corrections in the housing market with knock-on effects on the financial system would pull the US into a deeper recession.
Higher Thai bond yields would reduce private investment and long-term GDP.



Uncertainty over zero-covid policy and property crisis in China:
More lockdowns in major cities and a deeper property crisis could drag down China's economy and have spillover effects on global growth. Thailand's tourism sector might not recover as quickly as anticipated.



Risk of a tech war amid rising geopolitical tension
Major disruptions to semiconductor production would hurt the manufacturing industry in ASEAN, including Thailand. Escalating geopolitical tensions heighten risks in many countries via trade, investment, services sector, and domestic production.



Political risks in Thailand
In the worst-case scenario, political conflict could delay the formation of a new government, which would delay budget approval and economic policy implementation

Source: Krungsri Research

Vulnerability heat-map score: Most of the selected Asia economies are relatively resilient to new shocks than other EMs, due to less severe inflation and high FX reserves

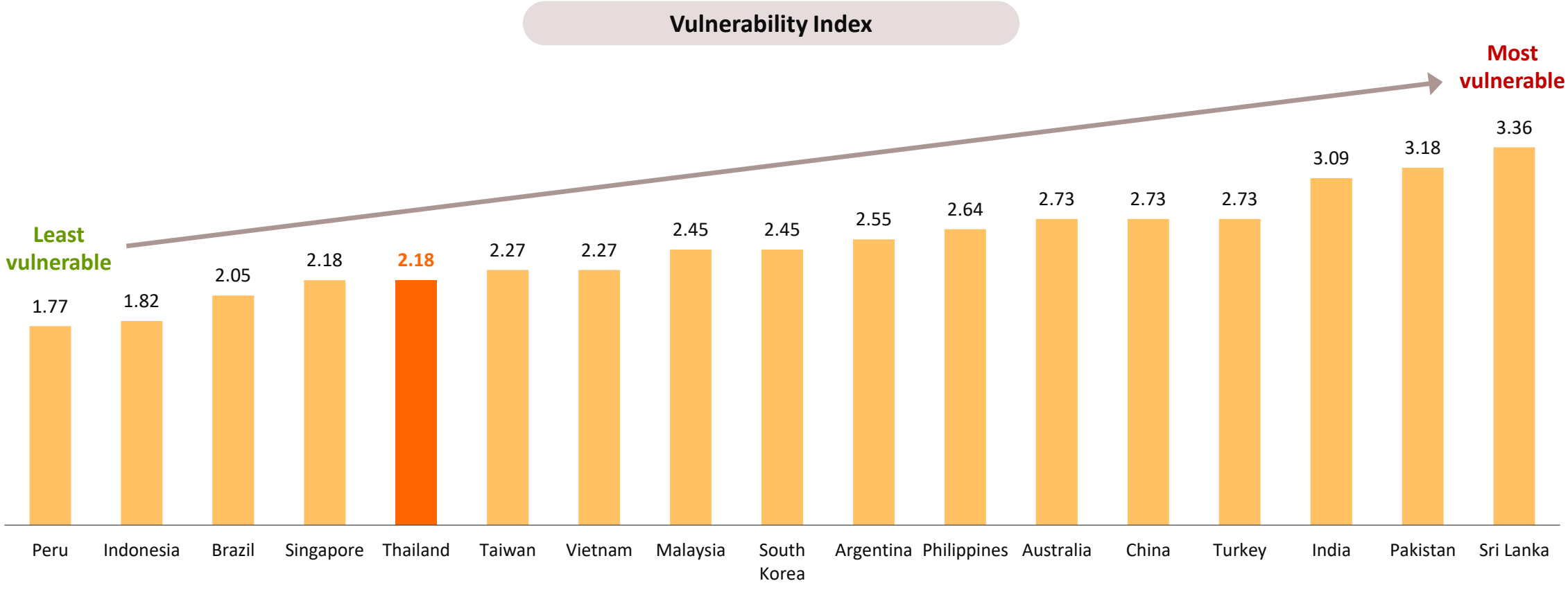
	External vulnerability				Fiscal vulnerability		Capital flow vulnerability		Bank stability	Interest rate vulnerability	
	FX reserve to GDP (% of GDP)	FX reserve to S-T debt (time)	Current account to GDP (% of GDP)	Trade in services to GDP (% of GDP)	Public debt to GDP (% of GDP)	Budget balance to GDP (% of GDP)	FDI to GDP (% of GDP)	FPI to GDP (% of GDP)	Capital adequacy ratio (%)	Policy rate less inflation (%)	Short-term yield spread of local bond to US bond (basis points)
	as of 2021	as of 2021	as of 2Q22	as of 2Q22	as of 2021	as of 2021	as of 2Q22	as of 2Q22	as of 2021	as of Sep-22	as of Sep-22
Australia	2.18	0.09	3.01	10.24	47.97	-3.90	1.68	4.34	16.90	-4.45	-1.61
China	16.60	2.12	1.94	5.28	20.35	-6.17	1.88	-0.79	15.09	1.15	-3.09
India	15.83	3.64	-3.33	12.33	56.97	-6.65	1.77	-1.74	15.31	-1.50	2.13
Indonesia	9.72	2.22	1.42	6.33	40.71	-2.29	1.78	0.22	24.72	-0.95	0.55
Japan	25.69	0.36	0.96	8.38	225.06	-6.50	0.55	3.71	15.72	-3.10	-4.90
Malaysia	25.30	0.95	1.11	23.23	63.40	-4.33	5.01	-2.32	17.75	-1.75	-1.80
New Zealand	4.09	0.12	-7.60	15.99	33.67	-3.62	1.82	-1.32	15.00	-3.70	-0.16
Philippines	21.73	5.78	-7.16	18.50	60.42	-7.91	3.15	-1.00	16.78	-3.45	0.52
Singapore	73.97	0.23	18.14	112.19	145.86	0.72	26.57	6.81	17.20	-4.85	-1.10
South Korea	23.44	2.14	2.72	14.20	45.33	-2.75	0.93	-0.16	16.24	-2.70	-0.88
Taiwan	68.97	2.52	14.19	17.78	30.18	-1.04	0.70	-6.94	14.91	-1.12	-3.55
Thailand	40.21	2.34	-4.55	25.35	52.76	-3.96	2.90	0.65	19.21	-5.41	-3.44
Vietnam	26.48	3.57	2.15	12.39	39.10	-5.45	4.28	0.95	11.47	-1.30	0.13
Sri Lanka	2.04	0.20	-3.30	6.05	122.40	-11.00	1.41	1.22	16.72	-51.50	21.20
Turkey	5.96	0.45	-6.15	13.40	42.00	-0.68	1.60	-2.34	18.83	-74.50	9.46
Pakistan	5.00	1.80	-4.60	4.68	34.50	-6.10	0.50	-0.02	16.10	-11.00	11.00
Argentina	5.87	0.40	-1.08	33.50	80.50	-3.99	2.82	-0.58	27.74	-13.00	35.65
Brazil	16.58	4.00	-3.48	40.05	80.27	-4.28	5.41	-0.75	16.15	7.28	8.98
Peru	29.93	7.75	-3.87	57.18	36.00	-2.56	2.84	-0.11	14.74	-1.03	2.50

*Note: Colors represent four classes of vulnerability; red = most vulnerable, orange = highly vulnerable, yellow = moderately vulnerable and green = least vulnerable.

Source: CEIC, Tradingeconomics, IMF, World bank, Krungsri Research

Vulnerability index: Other EMs are highly vulnerable to external shocks because of high debt and severe inflation

To gauge the vulnerability of selected Asia economies to external shocks, we analyzed several economic indicators, including "FX reserves to GDP", "FX reserves to short-term debt", "Current account to GDP", "Public debt to GDP", "Budget balance to GDP", "Trade in service to GDP", "FDI to GDP", "FPI to GDP", "Banks' capital adequacy ratio", "Real policy rate ", and "short-term yield spread to the US". The aggregate scores will determine the vulnerability of each country. Our analysis shows Indonesia, Singapore, Thailand, Taiwan, Vietnam, Malaysia and South Korea are less vulnerable than Argentina, Philippines, Australia and China. The most vulnerable are countries stuck with high debt, huge outflows and severe inflation such as Sri Lanka, Pakistan, India and Turkey.

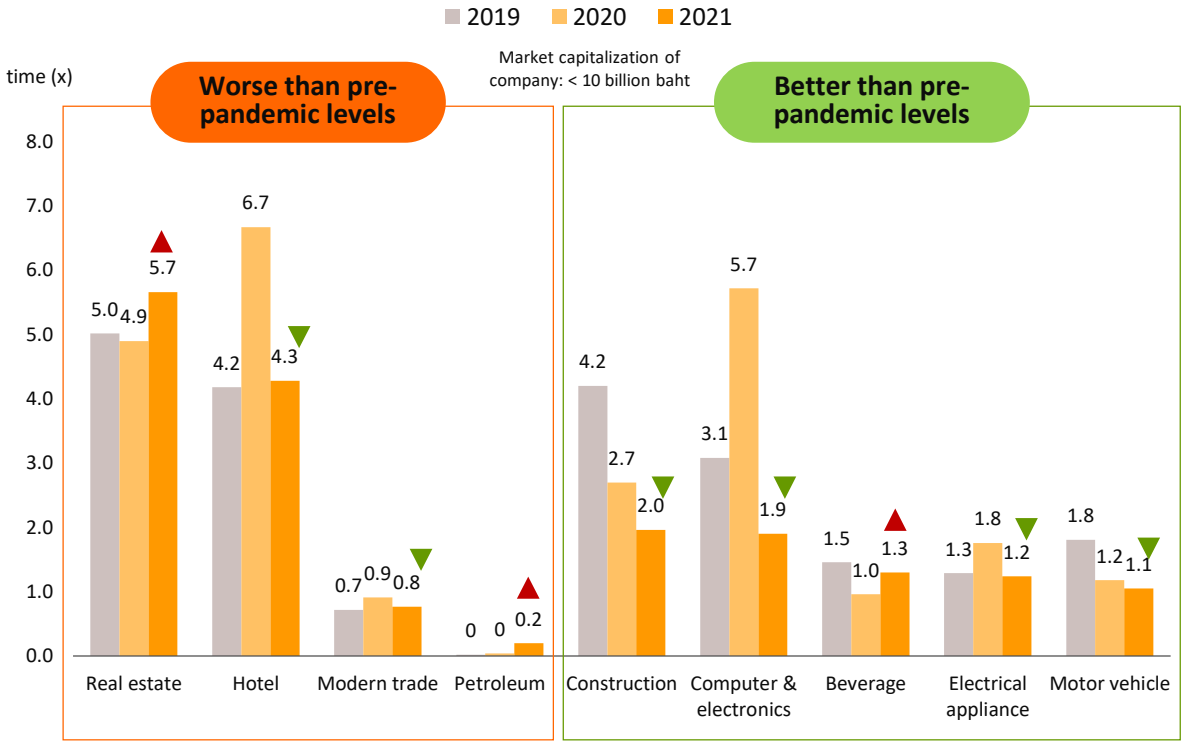


Source: CEIC, Tradingeconomics, IMF, World bank, Krungsri Research

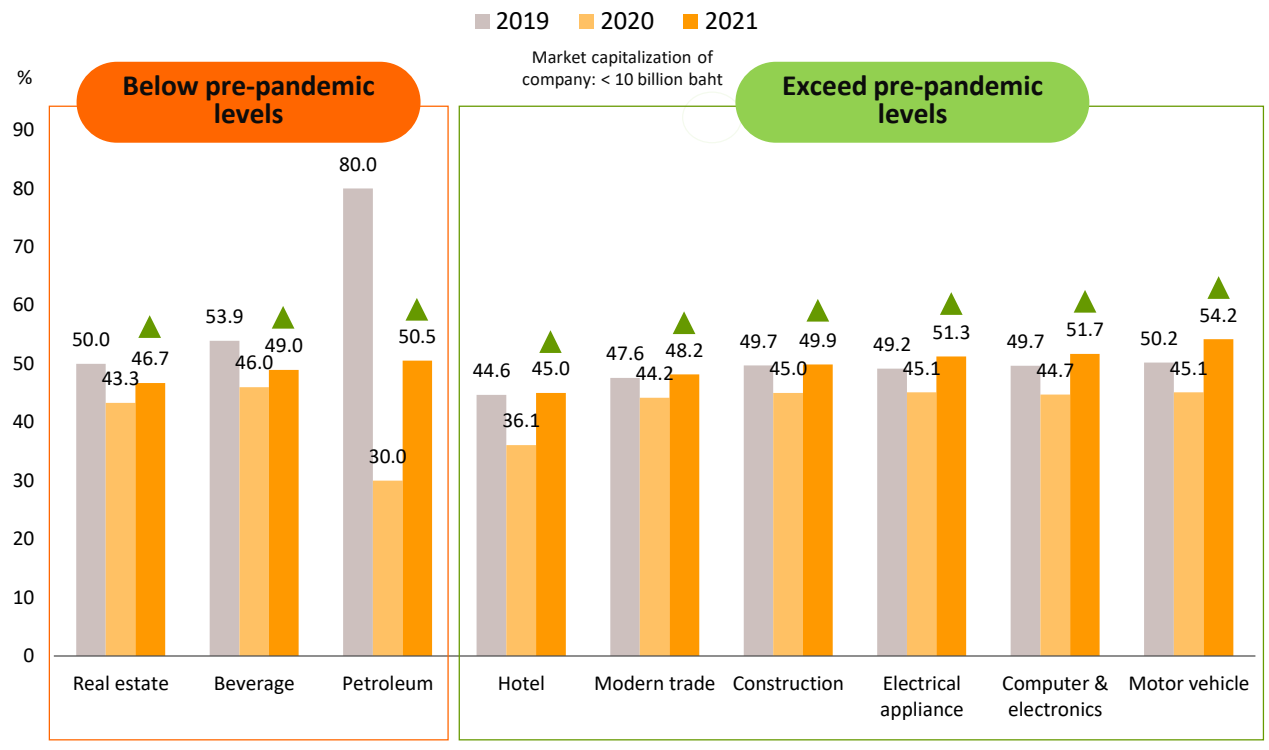
Financial stability of Thai SMEs: Activity in most sectors have improved but several continue to struggle to recover; companies with high gearing are exposed to interest rate risk

Our analysis shows Thai SMEs in *Hotel, Modern Trade, Construction, Computer & Electronics, Electrical Appliance*, and *Motor Vehicle* sectors which size is below 10 billion baht, are showing healthier balance sheets (lower D/E ratio) and a larger share of them are profitable. However, almost half of them are still struggling to recover to pre-pandemic level. Meanwhile, sectors that are clear laggards in both measures are *Real Estate* and *Petroleum*. In conclusion, *Motor Vehicle, Computer & Electronics, Electrical Appliance* and *Construction* sectors would be able to weather new shocks and high borrowing cost in 2023 better than *Hotel* and *Modern Trade* sectors. The *Real Estate* sector is the most fragile as they continue to lag in both indicators.

D/E ratio by sector



Percentage of profitable companies

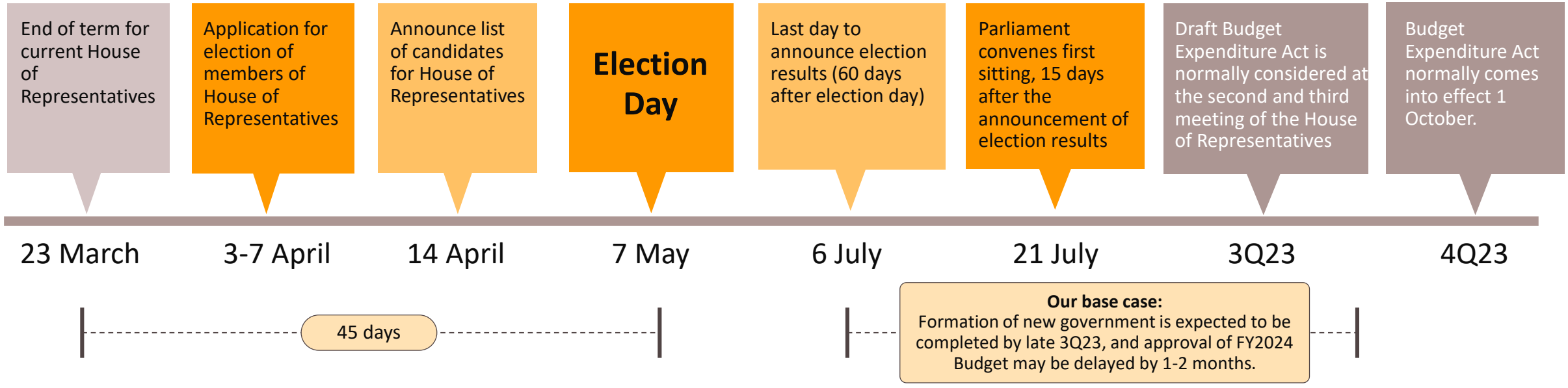


Source: Enlite, Krungsri Research

Thailand political uncertainty: Delays in forming government and economic policy implementation could lead to weaker-than-expected economic growth

Thailand is scheduled to hold a general election in 2023 but the political situation is uncertain and might affect economic growth. **The Election Commission (EC) has set the next general election to be held on May 7, 2023. Our base case assumption is the current government will remain in office until its term ends on March 23, 2023. However, there are concerns political conflict could delay the formation of a new government, and consequently, delay the implementation of economic policies and approval of the fiscal budget for FY2024 (normally scheduled to be completed by August and to start budget disbursement in October) by up to two months.** As soon as the House of Representatives is dissolved, the EC must hold a general election within 60 days but not less than 45 days after the executive decree endorsing the dissolution. However, if political conflict intensifies and delays the formation of a government, it could undermine confidence. In this case, Thailand's economic growth would be slower than expected.

Timeline for 2023 General Election and FY2024 Budget Approval



Source: The Office of Election Commission of Thailand, Krungsri Research

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