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Research

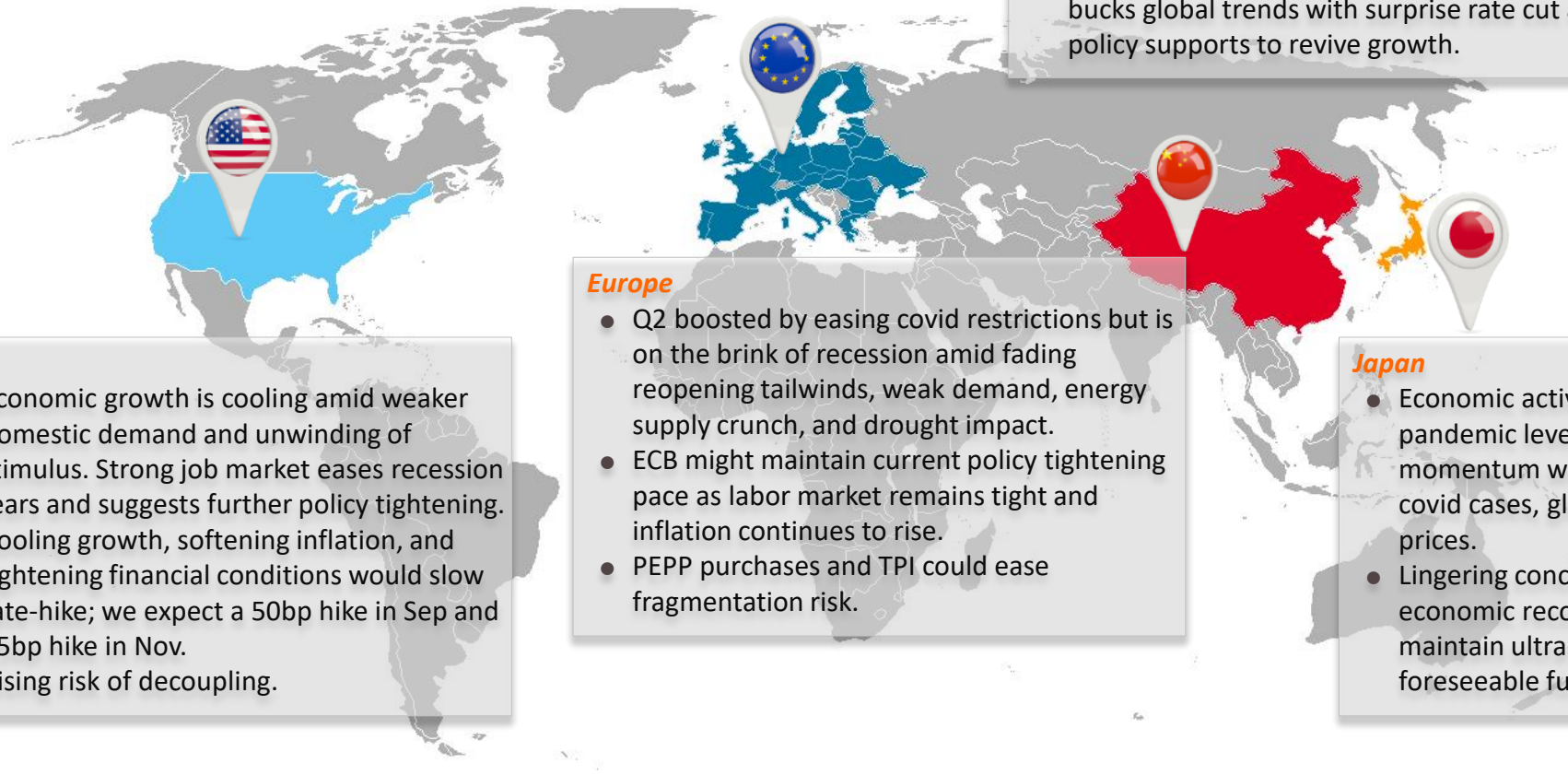
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MONTHLY ECONOMIC BULLETIN

August 2022

Krungsri Research

Global: From inflation to recession risk amid polarization



China

- Fading gains from reopening tailwinds amid rising covid cases and renewed restrictions in some cities; rising concerns over weak global prospects could curb exports.
- Rising risk in property sector threatens economic recovery; PBOC bucks global trends with surprise rate cut and we expect more policy supports to revive growth.

US

- Economic growth is cooling amid weaker domestic demand and unwinding of stimulus. Strong job market eases recession fears and suggests further policy tightening.
- Cooling growth, softening inflation, and tightening financial conditions would slow rate-hike; we expect a 50bp hike in Sep and 25bp hike in Nov.
- Rising risk of decoupling.

Europe

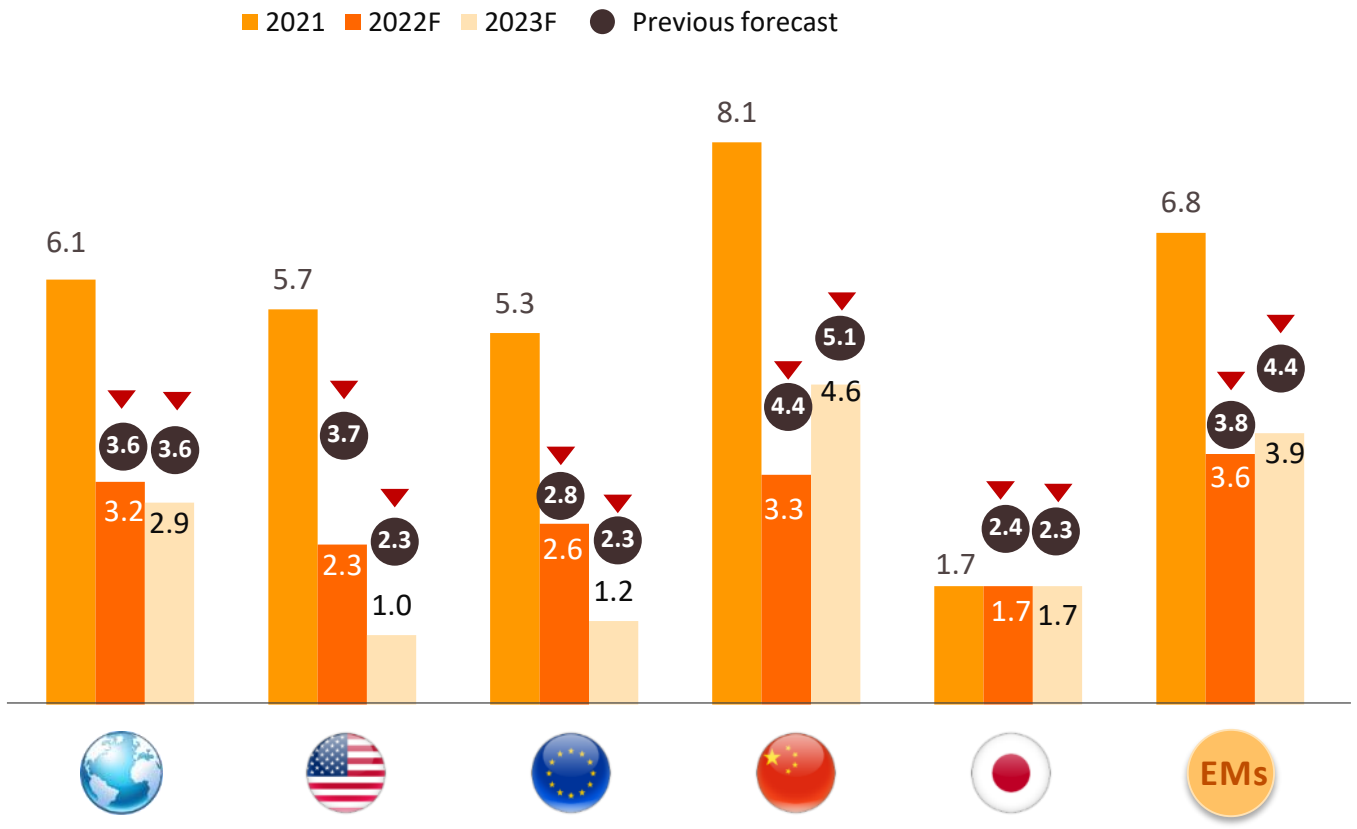
- Q2 boosted by easing covid restrictions but is on the brink of recession amid fading reopening tailwinds, weak demand, energy supply crunch, and drought impact.
- ECB might maintain current policy tightening pace as labor market remains tight and inflation continues to rise.
- PEPP purchases and TPI could ease fragmentation risk.

Japan

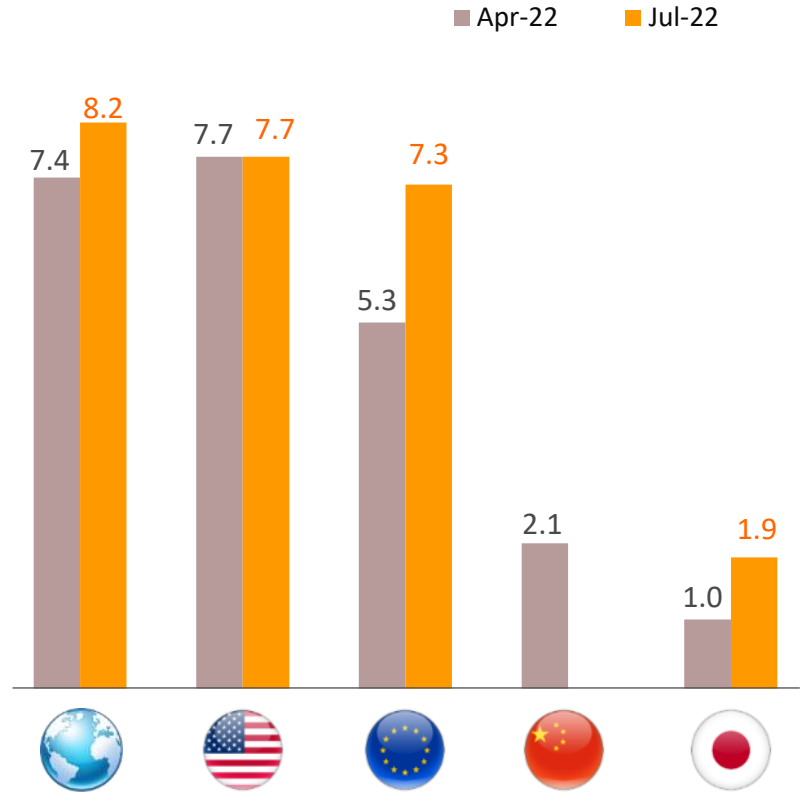
- Economic activity returns to pre-pandemic level but growth could lose momentum with higher number of covid cases, global slowdown, and rising prices.
- Lingering concerns over still-weak economic recovery suggest BOJ would maintain ultra-low interest rates in the foreseeable future.

Global slowdown intensifies with recession risk; IMF slashes global growth forecast amid Ukraine war, high inflation, rising interest rates and slower China economy

Economic growth projections for global and major economies (%)



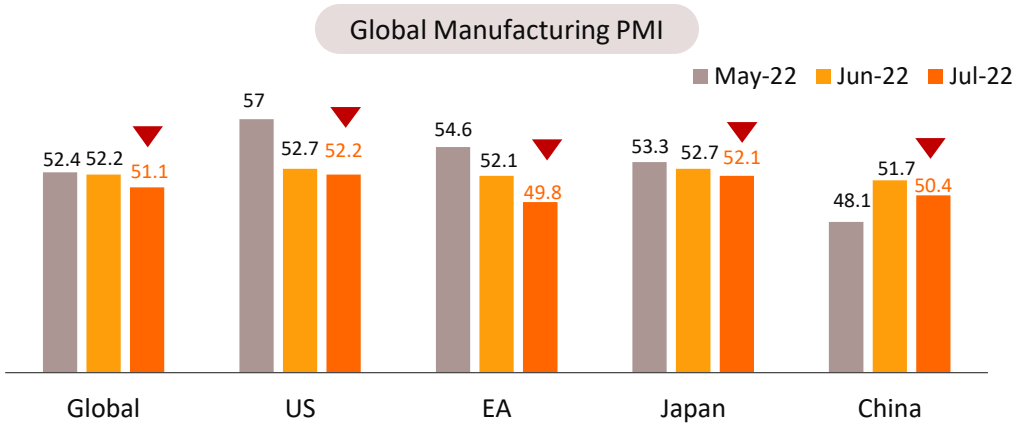
2022 Inflation growth projections (%)



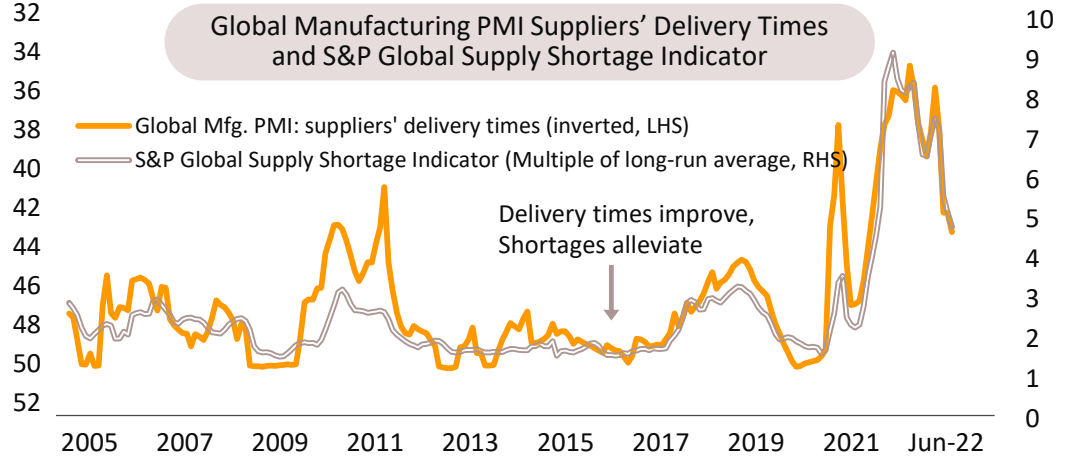
Source: IMF, World Economic Outlook (July 2022)

Manufacturing growth in key countries slowed down despite easing supply disruption; recovery in services activity is losing momentum

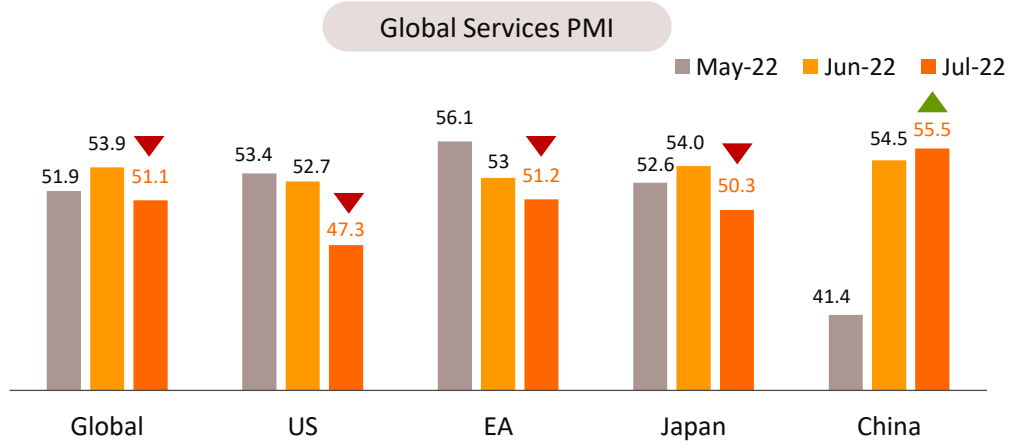
Manufacturing PMI dropped in the four largest economies in July; China's economic recovery slowed as reopening tailwinds faded



Weaker global demand leads to higher spare capacity, easing supply shortage and improving suppliers' delivery times



Service sector growth dropped to the second-slowest since July 2020, registering only modest expansion activity



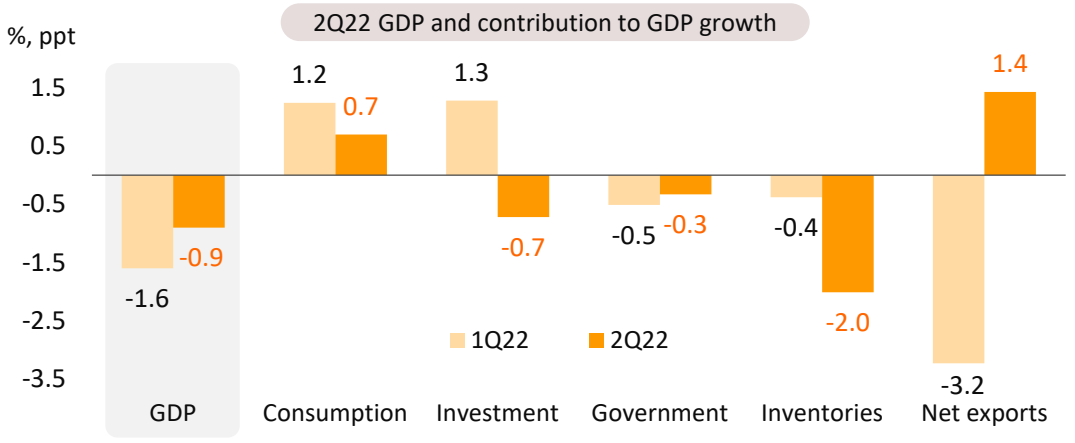
New orders for goods fell globally for the first time in 2 years; new business placed with service providers grew by the second weakest rate since Jan 2021



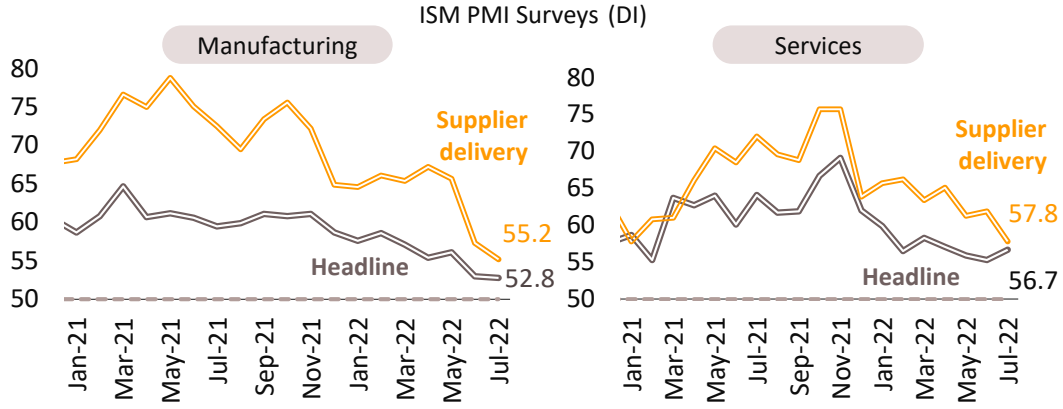
Source: Markit Economics, Capital Economics, Bloomberg, Krungsri Research

US: Economic growth is cooling amid weaker domestic demand and unwinding of stimulus; strong job market eases recession fears and suggests further policy tightening

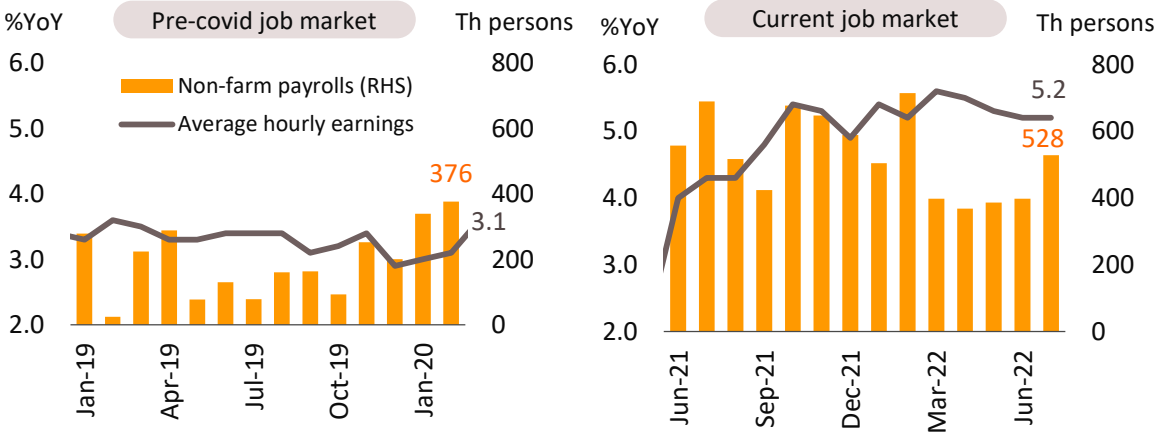
2Q22 GDP contracted for the 2nd straight quarter, with a broad-based slowdown in consumption, investment, inventories, and public spending



ISM Manufacturing and Services PMI data indicate the economy is not in recession as supply disruption eased; services sector rebounded in July



Job growth surprisingly accelerated in July and total employment has reached pre-pandemic level; wage growth is steady, defying forecasts of a slowdown



The FOMC raised policy rate to close to neutral level at 26-27 July meeting but inflation risk amid strong job growth suggests policy tightening will continue

Key issues	Policy move at the latest FOMC meeting, forward guidance, and our comments
Policy rates may be close to neutral	• **The Fed voted unanimously to raise benchmark rate by 75 bps to 2.25%-2.5%.** • The balance-sheet reduction process is proceeding as planned with caps on Treasury roll-off doubling to $60 bn a month in September and to $35 bn for MBS.
Job gains and inflation risk suggest further tightening	• FOMC affirms that *"job gains have been robust in recent months."* The FOMC repeats that it's "highly attentive to inflation risks." • Recent data show labor market remained tight with an unexpected surge in employment and high wage growth in July. Also, despite signs of softening, inflation was far beyond the 2% target. **This implies further tightening of monetary policy.**
Signs of slower rate hikes	• Fed said the next decision *"will depend on the data we get between now and then"* . • **Pace of policy tightening may be less aggressive** given (i) more key economic indicators are slowing down with tightening financial conditions, and (ii) inflation could soften following weaker demand, recent drop in oil and other commodity prices and easing of supply disruption.

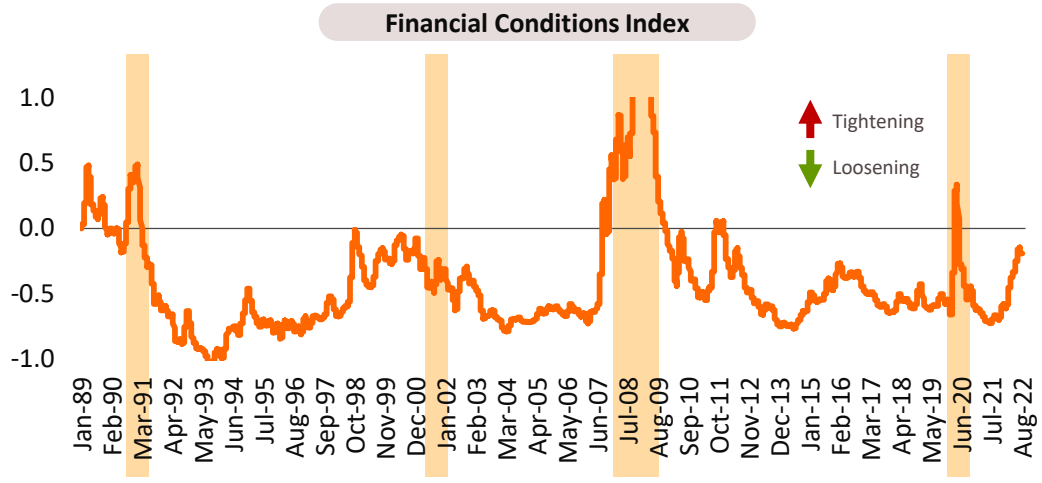
Source: Bureau of Economic Analysis (BEA), ISM, Bureau of Labor Statistics (BLS), Federal Reserve, Bloomberg, Krungsri Research

Cooling growth, softening inflation, and tightening financial conditions would slow rate-hike; we expect a 50bp hike in Sep and 25bp hike in Nov; rising risk of decoupling

Despite high inflation based on historical data, most inflation indicators showed signs of softening, led by CPI, PPI, Core PPI and inflation expectation

%YoY	2019	Mar'22	Apr'22	May'22	Jun'22	Jul' 22
Consumer Price Index (CPI)	1.8	8.5	8.3	8.6	9.1	8.5 ▼
Core CPI	2.2	6.5	6.2	6.0	5.9	5.9 =
PCE Price Index	1.5	6.6	6.3	6.3	6.8 ▲	n.a.
Core PCE Price Index	1.7	5.2	4.9	4.7	4.8 ▲	n.a.
Producer Price Index (PPI)	1.7	11.7	11.2	11.1	11.3	9.8 ▼
Core PPI	2.1	9.7	9.0	8.6	8.4	7.6 ▼
1-year ahead inflation expectation	2.58	6.6	6.3	6.6	6.8	6.2 ▼
3-year ahead inflation expectation	2.62	3.7	3.9	3.9	3.6	3.2 ▼

Financial conditions have tightened after the Fed raised rates from near-zero to 2.25-2.50%, which suggests less-aggressive rate hikes ahead



On August 9, President Joe Biden signed the CHIPS and Science Act to provide $52.7bn subsidies for U.S. semiconductor production and research

Key provisions in the package

- $39 bn in financial assistance to build domestic semiconductor facilities
- $11 bn to fund chip research and workforce development
- $2 bn for defense-related chips manufacturing
- Restrictions on use of funds for stock buybacks, foreign investment
- 25% investment tax credit for the manufacture of semiconductors and tools to create semiconductors
- $500 mn for an international secure communications program
- $200 mn for semiconductor industry worker training
- $1.5 bn for public wireless supply-chain innovation
- Changes and authorizes funding for programs in the National Space and Aeronautics Administration, National Institute of Standards and Technology, National Science Foundation
- Authorizes new programs under Energy Department

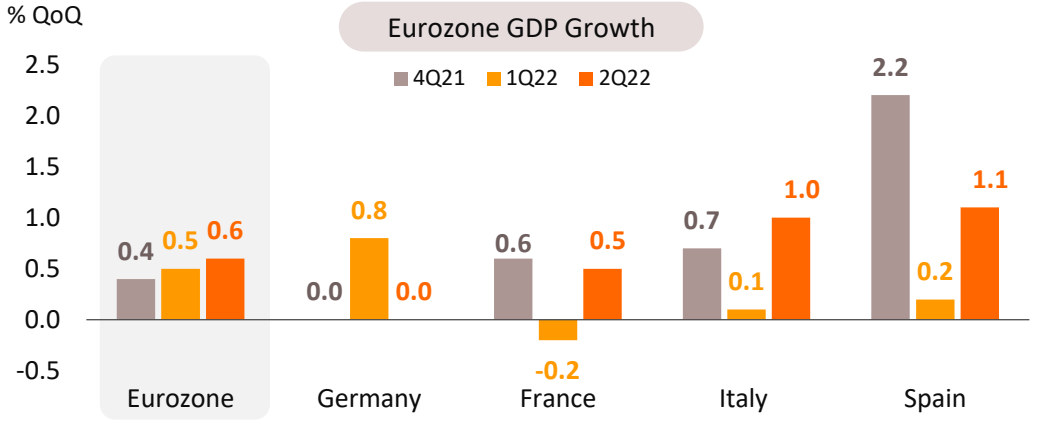
Technological decoupling could distort global supply chains, disrupt internal trade, push up chip prices sharply, and lead to future innovation loss

US's view	• The bill is aimed to make the US more competitive with China's science and technology efforts. Biden said it is *"a once-in-a-generation investment in America itself."*.
China's view	• China "firmly opposed" the bill, calling it reminiscent of a "Cold War mentality." A new chips act will distort the global semiconductor supply chain and disrupt international trade.
Potential impact on the US and the world	• If the US pursues a hard technological decoupling and completely bans domestic semiconductor companies from selling to Chinese clients, those **US companies would lose 18% of their global market share and 37% of their revenues**, said Boston Consulting Group (BCG). • Fully self-sufficient local supply chains would require at least $1 trn in upfront investment, incur $45-125 bn in incremental recurrent annual operational costs for the entire industry, **and result in a 35-65% overall increase in chip prices**, according to a joint report by the Semiconductor Industry Association (SIA) and BCG. • Aside from economic costs, **decoupling the global semiconductor value chain would also lead to future innovation loss for the entire industry.** • Policymakers should implement specific and targeted policies rather than broad restrictions to preserve the benefits of the global semiconductor value chain while safeguarding national interests, according to CSIS.

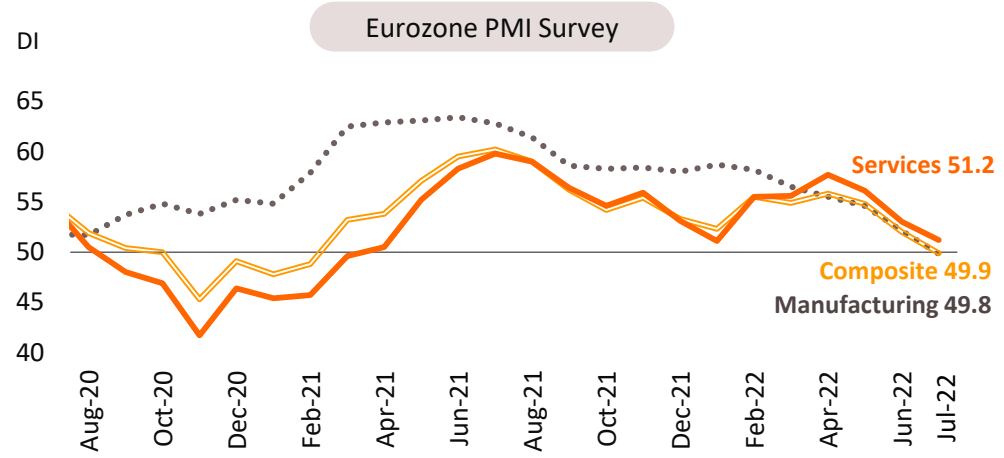
Source: BLS, New York Fed, Bloomberg, Reuters, the Center for Strategic and International Studies (CSIS), BCG, SIA, CEIC, Krungsri Research

Eurozone: Q2 boosted by easing covid restrictions but is on the brink of recession amid fading reopening tailwinds, weak demand, energy supply crunch, and drought impact

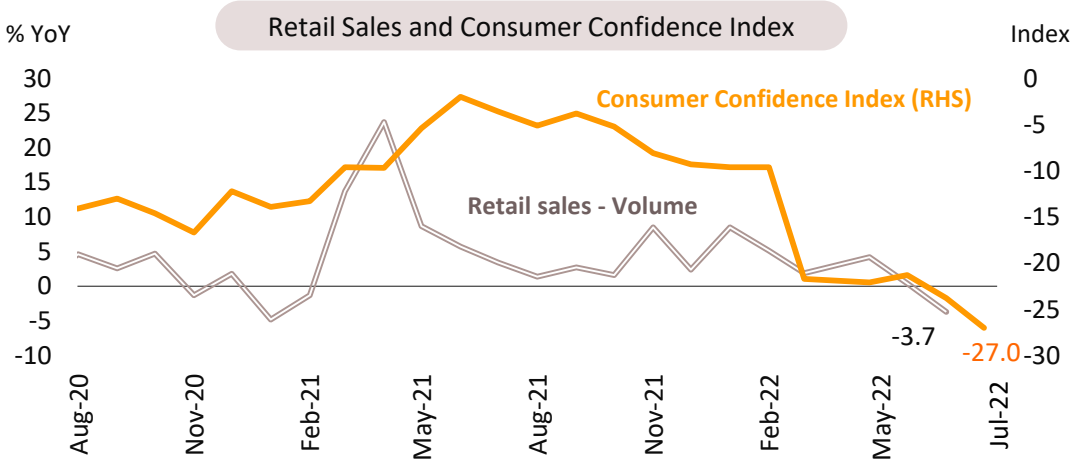
Euro Area GDP grew 0.6% in Q2 led by France, Italy and Spain amid tourism season while Germany's economy unexpectedly stalled



Manufacturing activity shrank for the first time in two years and services activity slowed sharply to the weakest growth since January



Consumer confidence in Euro Area hit a new low in July; Retail sales fell unexpectedly by 3.7% YoY in June, the first decline since February 2021



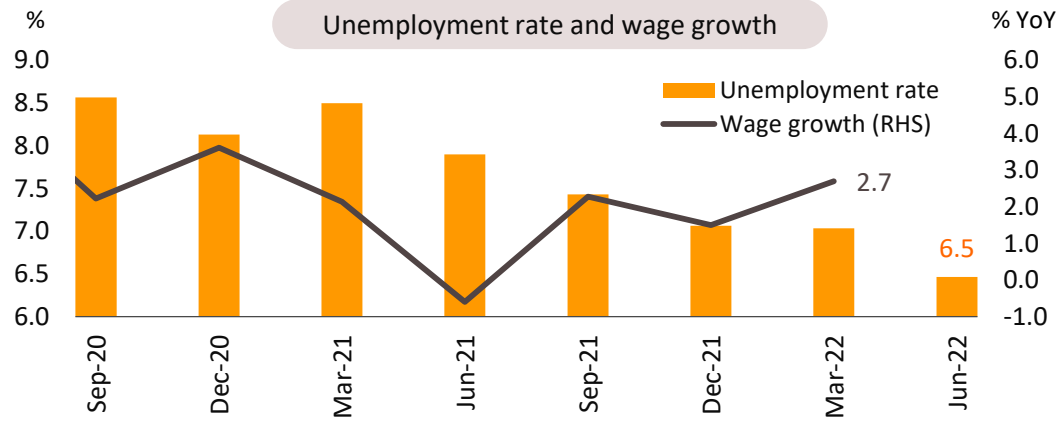
Worst drought in decades is exacerbating energy supply crunch, worsening supply chain bottleneck, hindering economic growth and worsening inflation

Key risks	Potential impact of energy crisis and drought on European economy
Energy supply crunch increases risk of recession	• **Wholesale natural gas price** in Europe, which is more than 10 times pre-covid average, has dented household real incomes and increased risk of recession. • **Russia's decision to cut the flow of gas** through Nord Stream 1 to a fifth of its capacity will make it harder for Europe to fill its gas storage facilities before the winter. • In addition, **there is risk that Russia might turn off the gas taps completely**, which would lead to higher inflation and a deeper recession in Eurozone economy.
Historic drought could exacerbate energy crisis and heighten risks to the economy	• **Water levels on the Rhine river have fallen to new lows**, below 40cm on parts of a key route for transporting vital commodities such as fuel, chemical, paper products and grains. At 40 cm, it is uneconomical for most barges to transit the chokepoint. • **This might worsen supply disruption and energy crisis.** A shortage of coal will affect coal-fired power stations and low water levels might not be enough to cool power stations such as France's nuclear power stations and Italy's hydroelectric power station • In northern Italy, **farmers are suffering from the worst drought in 70 years** which has hurt the production of crops and food, from soya to parmesan.

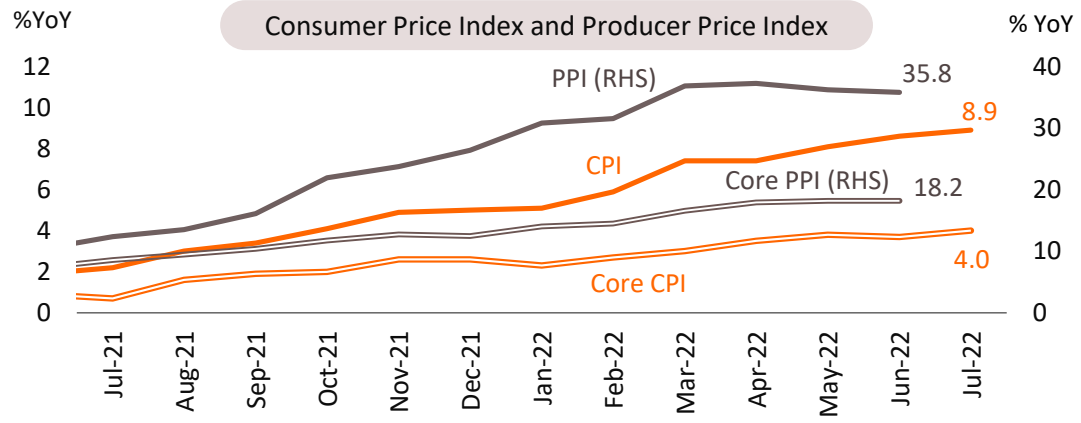
Source: EuroStat, Markit Economics, European Commission, Bloomberg, Krungsri Research

ECB might maintain current policy tightening pace as labor market remains tight and inflation continues to rise; PEPP purchases and TPI could ease fragmentation risk

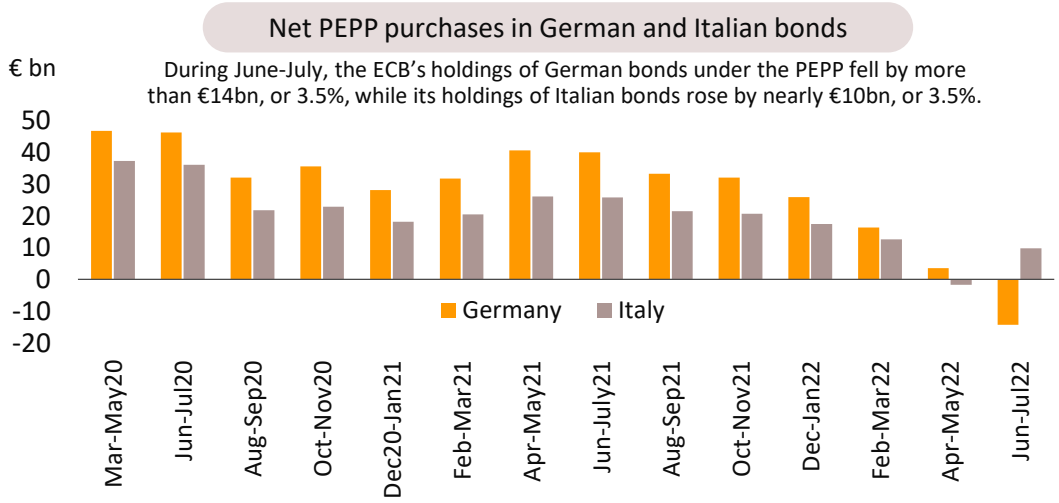
Eurozone unemployment rate remained at a record low and wage growth has increased, raising inflation risks and allowing further policy tightening



Headline inflation is not peaking yet and hit a new record of 8.9% in July; the core index advanced to 4.0% from 3.7%; Producer inflation remained high



PEPP purchases in June and July show the degree of flexibility in the ECB's bond reinvestments, first line of defense against fragmentation risks



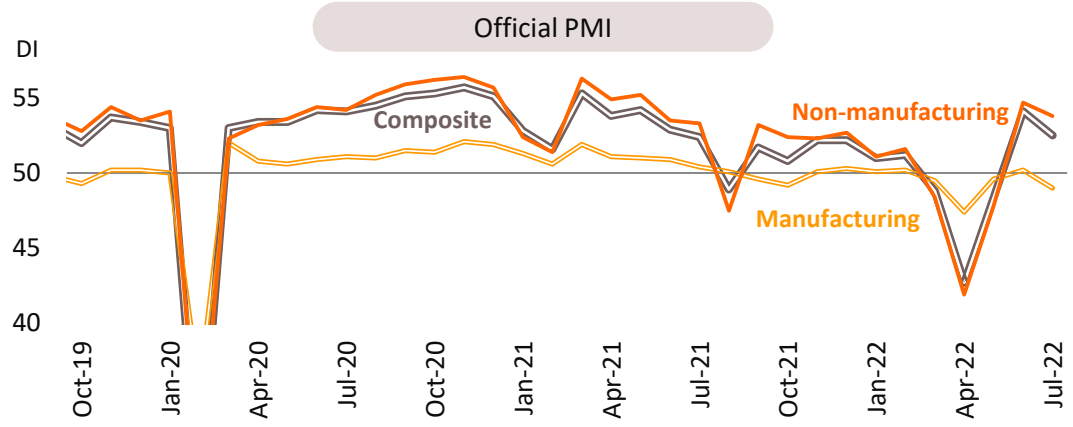
Source: Eurostat, ECB, Capital Economics, Bloomberg, CEIC, Krungsri Research

ECB raised policy rates for the first time in 11 years, ending 8 years of negative rates; Policy normalization to continue to combat soaring inflation

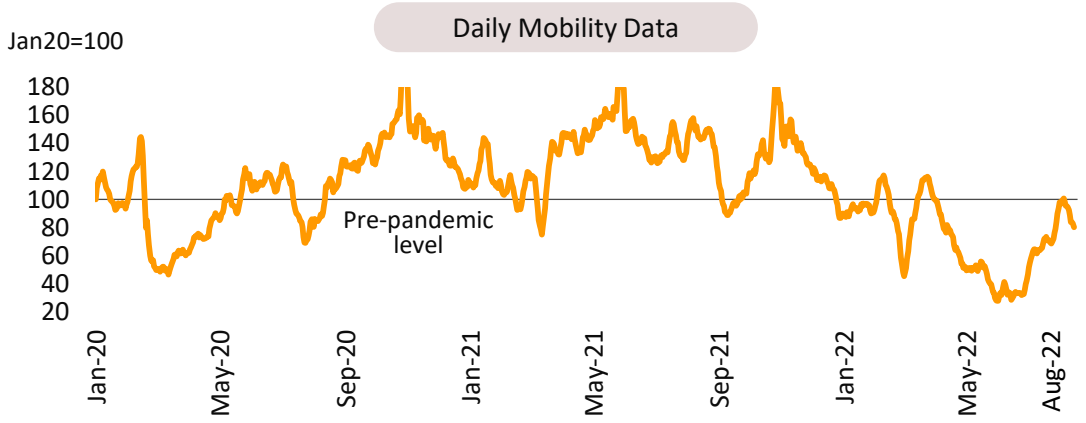
Key issues	Highlights of ECB meeting on 21 July and our comments
Bigger than expected rate hike	• **The ECB started to raise interest rates in July** and delivered a bigger than anticipated 50bps rate hike to bring down inflation to its medium-term target by strengthening the anchoring of inflation expectations.
TPI to support policy transmission	• **ECB also approved the Transmission Protection Instrument (TPI)** to support the effective transmission of monetary policy. The scale of TPI purchases depends on the severity of the risks facing policy transmission.
Data-dependent approach	• **Future policy rate direction will continue to be data-dependent** and will help the ECB to deliver its 2% inflation target over the medium term.
Recent economic data suggest 50bp hike in Sep	• Despite recession fears, latest economic growth and inflation data has topped analysts' estimates, **strengthening the case for ECB to maintain current pace of rate hikes.** • Unemployment rate in the Euro Area was unchanged at 6.6% for a second consecutive month in June, which is a record low reading.

China: Fading gains from reopening tailwinds amid rising covid cases and renewed restrictions in some cities; rising concerns over weak global prospects could curb exports

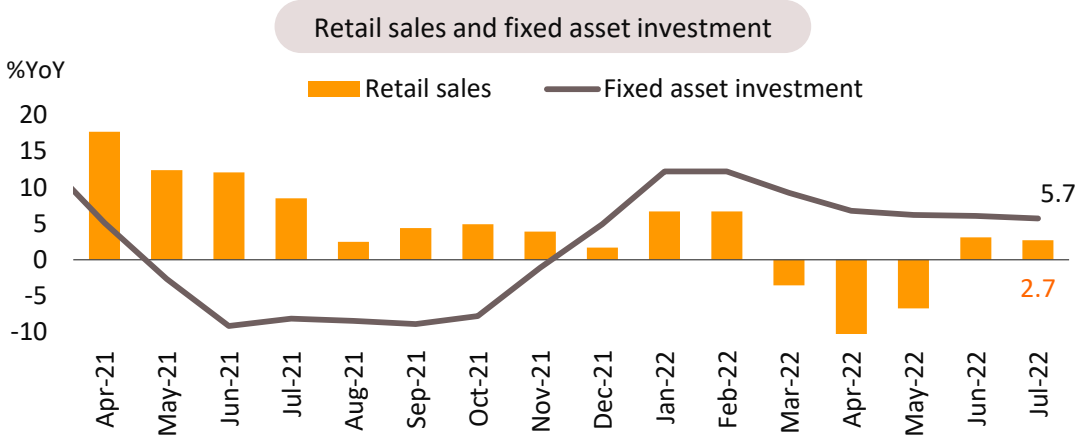
Manufacturing growth shrank in July amid sporadic lockdowns and global growth concerns; Non-Manufacturing PMI dropped from a 13-month high



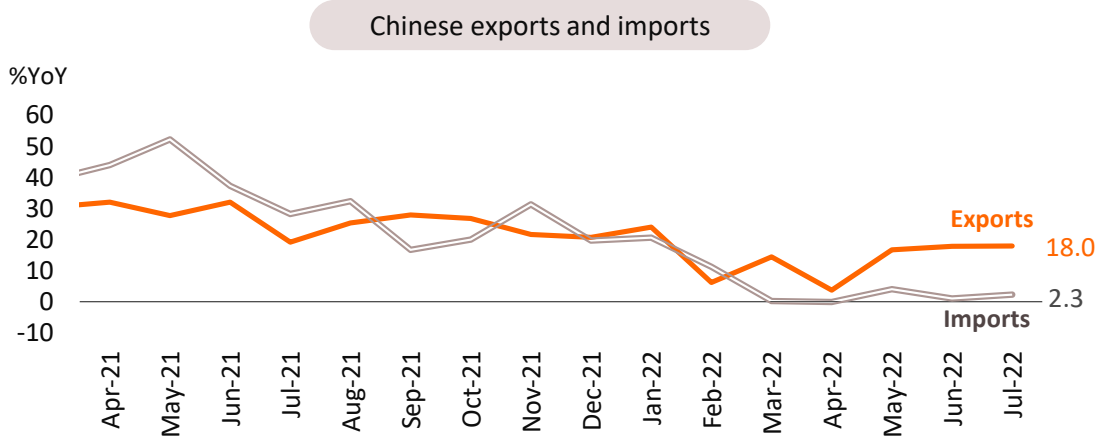
China has reported over 2,000 new covid cases, the highest since May; Zero-Covid policy and rising new cases raised fears of more disruptive restrictions



Retail sales growth decelerated to 2.7% YoY in July, well below market estimate of 5%; investment missed estimates and slowed for all sectors



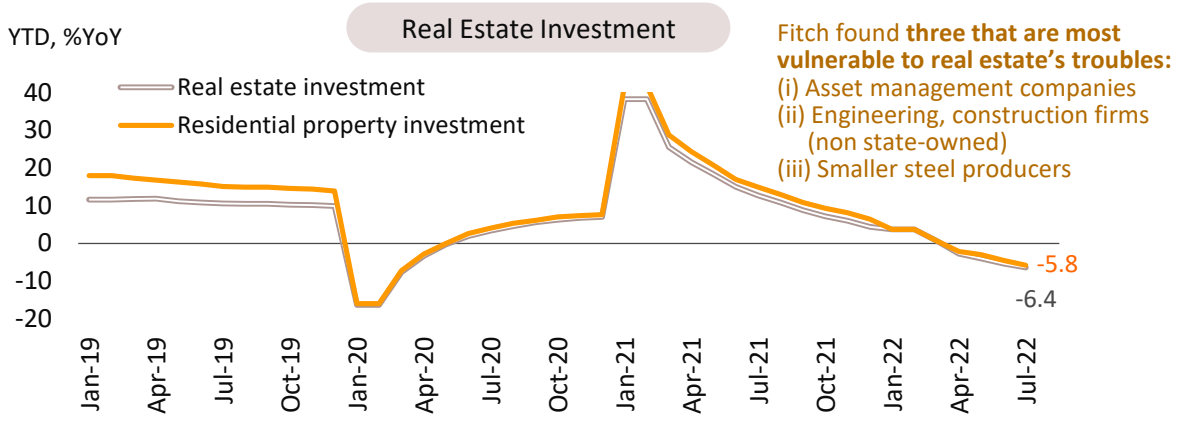
Exports rose to a 7-month high on easing logistic issues, but imports suggest weak recovery in domestic demand despite relaxing pandemic curbs



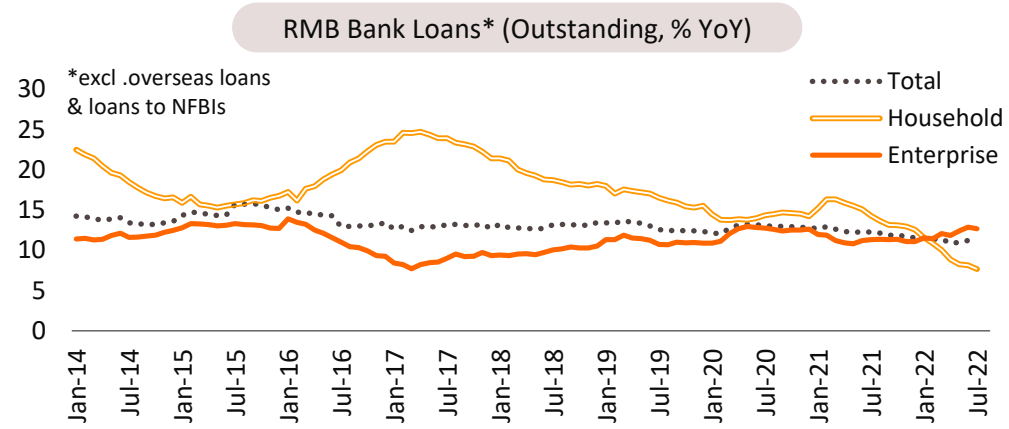
Source: National Bureau of Statistics, General Administration of Customs, CEIC, Bloomberg, Krungsri Research

Rising risk in property sector threatens economic recovery; PBOC bucks global trends with surprise rate cut and we expect more policy supports to revive growth

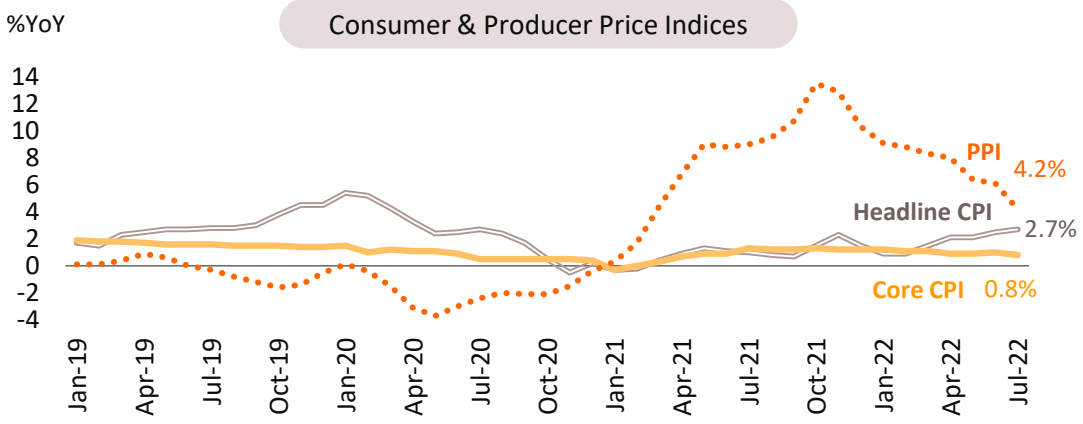
Recent mortgage strike could dampen confidence in the property market, delay recovery, and have ripple effects through the domestic economy



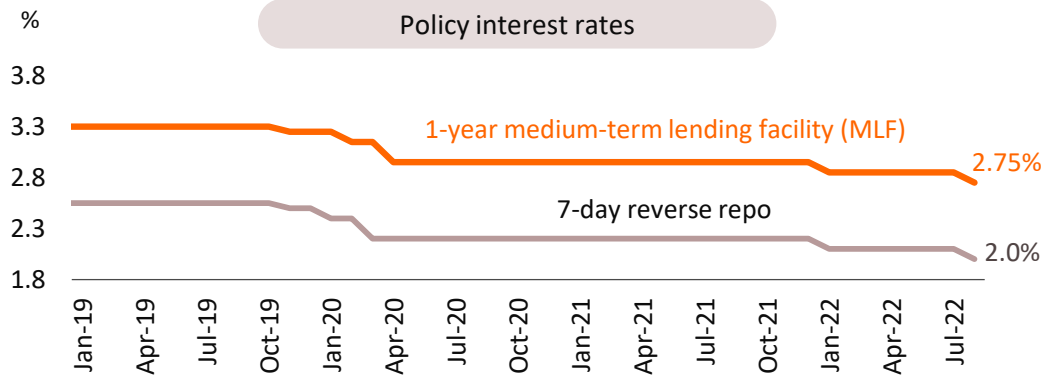
Credit growth slowed amid jitters in the property market with the recent wave of mortgage boycotts possibly hurting developers' sales and cash flows



Unlike many advanced economies, China's core inflation eased to 0.8% in July amid weak domestic demand, giving PBOC room to ease monetary policy



PBOC unexpectedly cut key policy interest rates for the first time since January, but small rate cuts might have limited ability to support the covid-hit economy

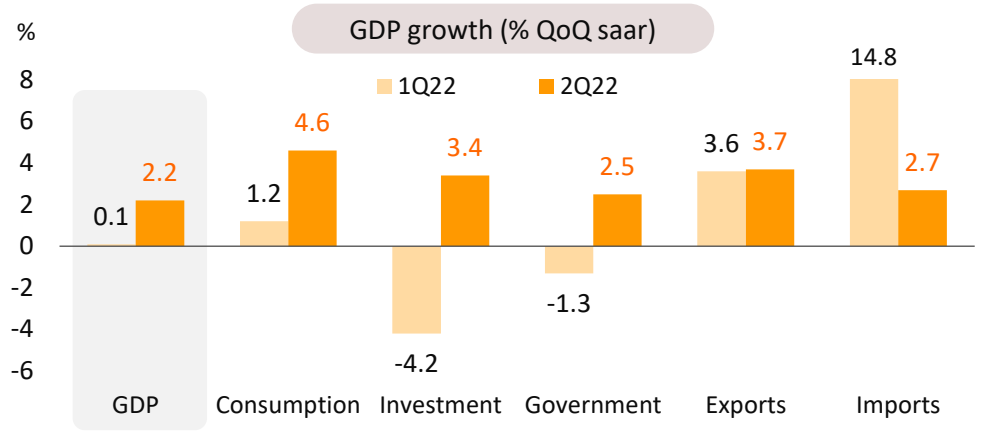


The central bank reduced rate for 1-year medium-term lending facility (MLF) loans to some financial institutions by 10 bps to 2.75% from 2.85%. PBOC also cut 7-day reverse repos rate by 10 bps to 2.0% from 2.1%. Expect more policy supports in coming months, including more interest rate cuts, an increase in the PBOC's re-lending program, and additional fiscal stimulus.

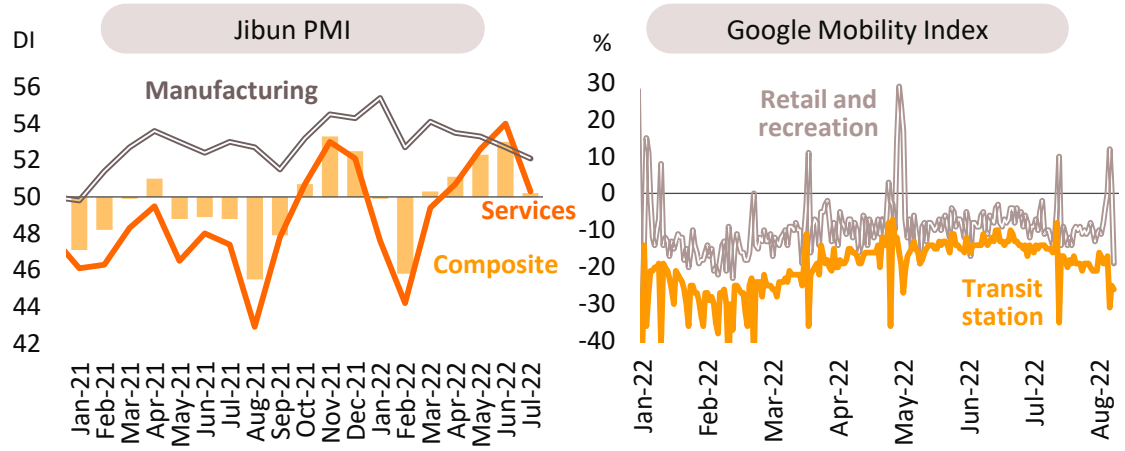
Source: Fitch Ratings, National Bureau of Statistics, The People's Bank of China, CEIC, Bloomberg, Krungsri Research

Japan: Economic activity returns to pre-pandemic level; growth could lose momentum with higher number of covid cases, global economic slowdown, and rising prices

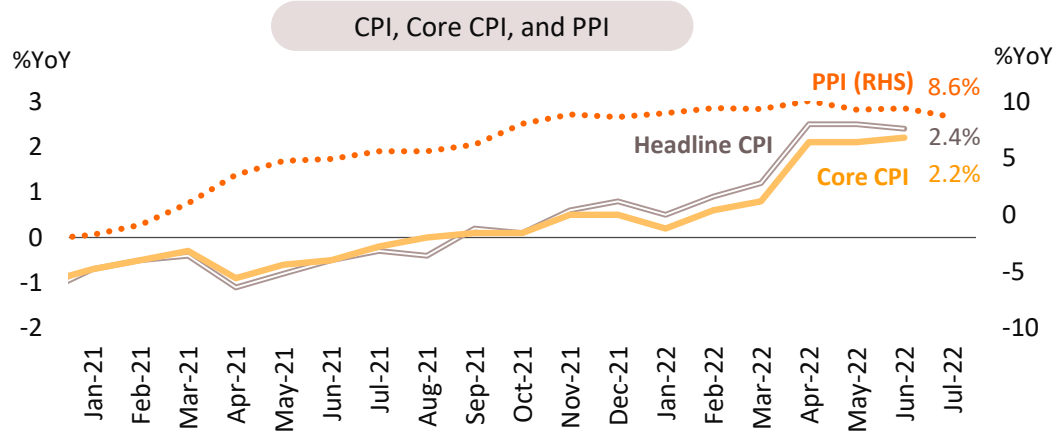
2Q22 GDP grew for the third straight quarter, by 2.2%, led by consumption and investment since covid restrictions; GDP has returned to pre-covid level



Manufacturing PMI posted the weakest growth in 10 months in July amid rising production costs; Services growth slowed sharply on rising covid cases



Core inflation inched up past the BOJ's 2% target but headline inflation edged down from a 7-1/2-year high and PPI saw the slowest rise since December



Lingering concerns over still-weak economic recovery suggest BOJ to maintain ultra-low interest rates in the foreseeable future

Reasons for maintaining ultra-loose monetary policy
• BOJ officials said Japan still needed easing monetary policy as **wages must catch up to boost consumption** and help the economy recovery.
• Recent rise in wages in June was mostly driven by a surge in summer bonus payments; **the BOJ's 3% wage growth target will remain out of reach for a while.** • Nominal wage rose 2.2% YoY in June but real wage fell 0.4%, which could hurt consumer purchasing power.
• Despite inflation exceeding the 2% target, **it is still low compared to other major economies.** • Inflation rate eased slightly to 2.4% YoY in June from May's 7-1/2- high of 2.5%.
• BOJ cut its 2022 GDP growth forecast to 2.4% from 2.9%, citing a slowdown in overseas economies and persistent supply chain issues due to the prolonged war in Ukraine.
• Prime Minister Fumio Kishida is seeking the next candidate for BOJ governor and has signaled **intention to maintain aggressive monetary easing stance that is characteristic of the *Abenomics* era.**

Source: Japan's Cabinet Office, Google, CEIC, Krungsri Research

Pelosi's visit to Taiwan has worsened US-China relations, raised tension in East Asia, and creates risk to global economy although China's recent trade retaliation has limited impact

China Announces Sanctions on Nancy Pelosi Over Taiwan Trip - Bloomberg

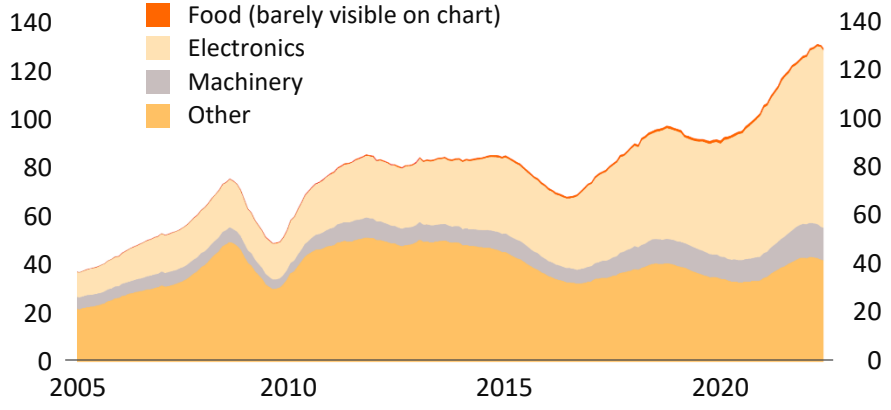
Nancy Pelosi arrives in Taiwan as China puts military on high alert - The Guardian

Welcomed by Taiwan, Pelosi Leaves Rising Tensions With China in Her Wake - The New York Times

Taiwan: Nancy Pelosi meets President Tsai to Beijing's fury - BBC News

Furious China fires missiles near Taiwan in drills after Pelosi visit - Reuters

Taiwan goods export to China ($bn, 12m sum)



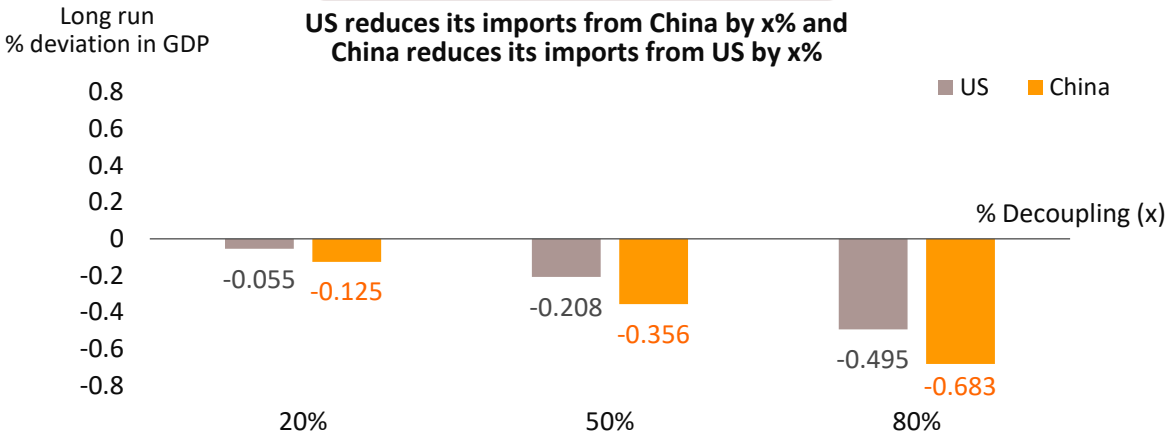
Source: Bloomberg, The Guardian, BBC News, Reuters, FT, Capital Economics, The Economist, CEIC, Krungsri Research

Despite limited short-term impact, Pelosi's Taiwan trip creates substantial risks to global economy

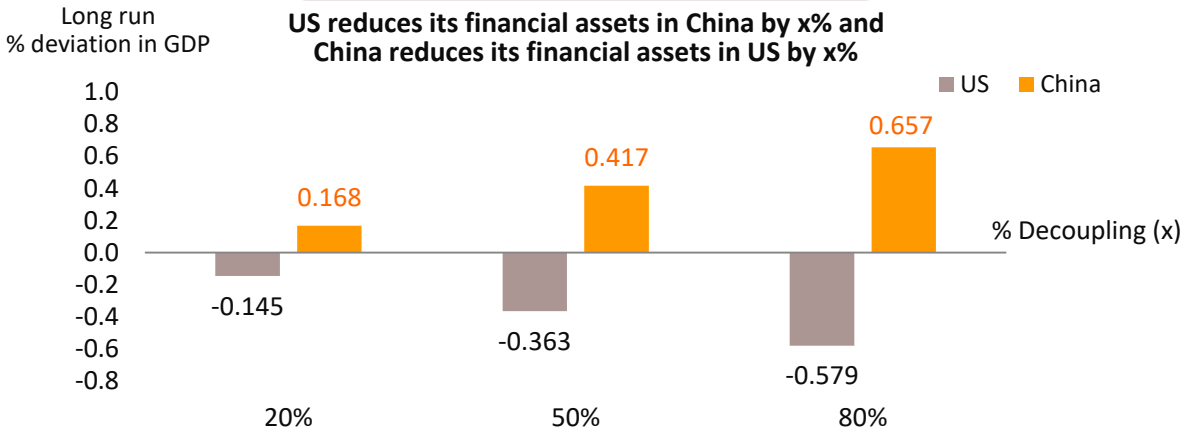
Worsening US-China relations	• **The high-profile visit by House of Representatives speaker to Taiwan has worsened already-poor relations between the two biggest economies.** • This would accelerate the decoupling of US and China which had started with the trade war and tech war in the past few years.
China's recent retaliation	• **China has halted some trade with Taiwan** in retaliation against Pelosi's visit, with more disruptions likely as political tensions intensify. • China has banned imports of some citrus fruits and fish from Taiwan and suspended more than 2,000 of the 3,200 foodstuff import permits issued to individual Taiwanese firms. China has also suspended exports of "natural sand" to Taiwan. • Many of southern Taiwan's fruit-producing regions are typically bastions of political support for President Tsai Ing-wen's Democratic Progressive Party.
Marginal impact on economy in the short term	• **The trade bans imposed by China so far were to signal Beijing's displeasure rather than serious efforts to hurt Taiwan's economy, for the following reasons:** (i) Taiwan's agricultural exports accounted for only 0.6% of total exports last year. Taiwan's exports of food to China last year were valued at less than 0.2% of GDP. (ii) On China's ban on "natural sand" exports to Taiwan, there is little impact as that is only 3% of Taiwan's sand imports.
Substantial risks to global economy via supply chains, trade, financial flows, inflation, and economic growth	• Expect more trade disruption between China and Taiwan as tensions continue to rise. • **As China is still conducting military exercise near Taiwan, the greater risk is widening restrictions on trade or disruption of shipments.** • Any move by the US or China to freeze or withdraw business operations would create substantial risks for the global economy as China, together with Taiwan — which produces 90% of the world's most advanced semiconductors — is both a crucial production hub and a huge market. • **Restricting the export of chips would worsen supply bottlenecks, push up inflation and weaken economic growth.** • In addition, China could make it more difficult for US companies to access its market. • **There would also be pressure on the US not only to impose economic sanctions and freeze assets but to execute militarily intervention as well.** • The US has by far one of the biggest arsenals of nuclear warheads while China has been adding hundreds of new missile silos in recent years.

Trade decoupling would hurt China severely while the US will be hurt by financial decoupling, but decoupling could be gradual because of grave consequences on both

Effects of trade decoupling

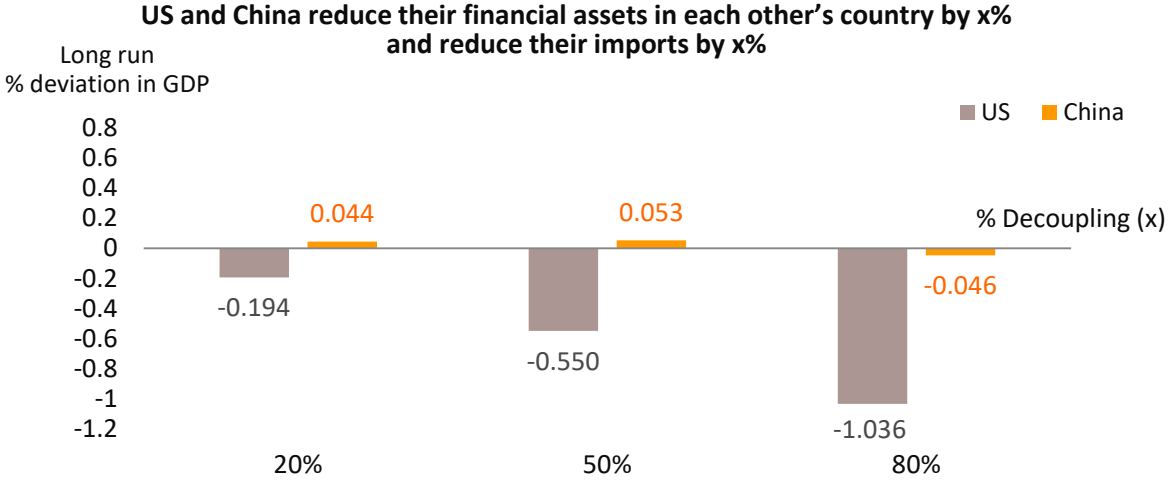


Effects of financial decoupling



Note: The US would gain by limiting its capital flows to China and redirecting flows to the domestic economy. This would stimulate investment in the US with favorable effects on employment, capital stocks, real GDP, wealth and real wage. At the same time investment in China would decline and hurt the Chinese economy. Similarly, China would gain by limiting its capital flows to the US and the US would lose.

Effects of trade and financial decoupling



Source: GTAP analysis by Centre of Policy Studies (CoPS), Victoria University, Krungsri Research

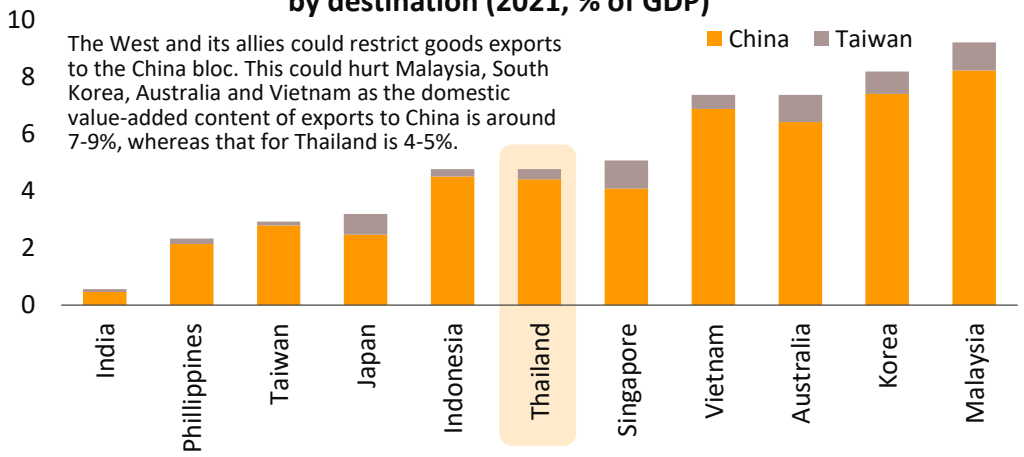
Effects of trade and financial decoupling of the US and China

- **Trade decoupling would shrink the GDP of both countries, more in China than the U.S.** Existing Chinese tariffs suggest limiting trade would have particularly adverse effects on China's GDP.
- **In a financial decoupling, in a tit-for-tat situation where each country reduces holdings of financial-assets in the other by x%, the winner would be China.** The primary reason is that the value of Chinese financial assets in the U.S. is considerably greater than the value of U.S. financial assets in China. A reinforcing mechanism is that initial gains for China would be translated into long-term gains through China's very high savings rate. A low savings rate for the U.S. means this mechanism is weaker in the U.S.
- **In combination with financial decoupling, trade decoupling would largely eliminate any GDP gains that China would obtain from financial decoupling. For the US, trade decoupling would add to the GDP loss created by financial decoupling.**

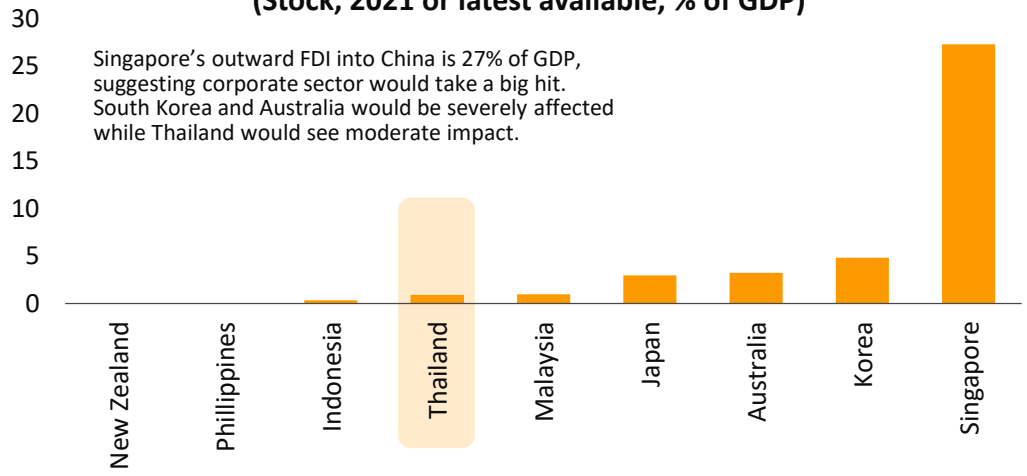
Escalating tensions over Taiwan add risks to many countries via trade, investment, services sector, and domestic production, depending on restrictions by the West and China

ASEAN countries are reliant on China both as a source of imported inputs as well as a destination for exports, while major disruptions to semiconductor production in Taiwan would severely disrupt the manufacturing industry in ASEAN, including Thailand.

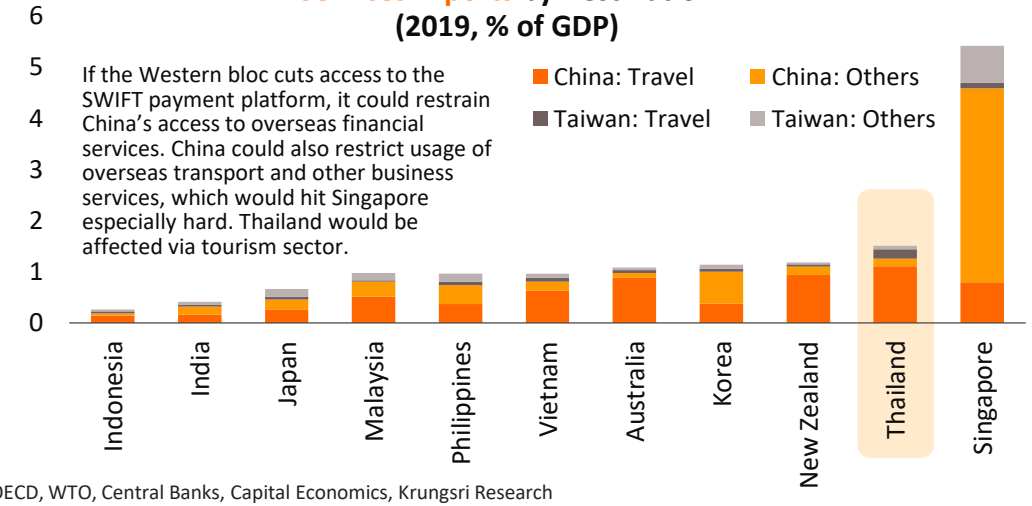
Domestic Gross-Value Added Content of Goods Exports by destination (2021, % of GDP)



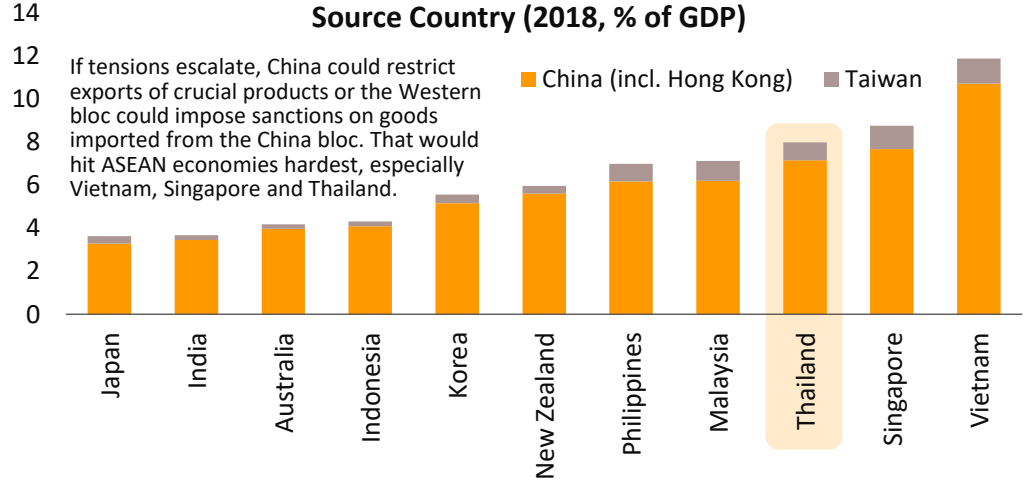
Outward Foreign Direct Investment into China (Stock, 2021 or latest available, % of GDP)



Services Exports by Destination (2019, % of GDP)



Foreign Value-Added Content of Domestic Output by Source Country (2018, % of GDP)



Source: OECD, WTO, Central Banks, Capital Economics, Krungsri Research

Taiwan tension could have limited impact on Thai economy in the near-term; if tensions worsen, there will be greater impact on Thailand because of strong linkages with China

Taiwan and China tensions are spiking after China announced it would extend sea and air military drills over and around Taiwan until September. **The Thai economy would be affected through the following channels:**

(i) **Supply chain linkage** as Taiwan is the world's largest IC manufacturer. **Thailand's IC imports from Taiwan accounted for almost 44% of total Thai imports from Taiwan** and 54% of total Thai IC imports. This could hurt industries which had developed major production bases in Thailand such as electronic, electrical appliances, and automobile.

(ii) **Investment flows.** In 2021, Foreign Direct Investment (FDI) from Taiwan **accounted for 3.3% of total FDI in Thailand**. The BOI reported that in 1Q22, Taiwan investors accounted for the largest share of BOI applications for investment incentives by investment value, at THB 37.1 bn and 48% of total FDI applications to the BOI. The major FDI destination was auto production. For outward flows, Direct Investment from Thailand (TDI) to Taiwan was less than 1% share of total TDI.

(iii) **Trade with Taiwan** (Thailand's 10th largest trading partner) faces higher transportation and logistics risks. In 2021, Thailand's exports to Taiwan accounted for **1.7% of total Thai exports**, led by electronic integrated circuits.

(iv) **Tourism sectors** as Taiwanese tourists accounted for **2% of total tourist arrivals in Thailand 2019 and 0.4% (or 8,060 persons) in 1H22**. Given rising tensions, there could be fewer tourists from Taiwan.

This implies Taiwan tension would have limited impact on the Thai economy in the near-term. However, if tensions worsen and adversely affect the Chinese economy, there will be greater impact on Thailand because of strong linkages with China in terms of trade, supply chains, investment flows and tourism.

Thailand's trade with Taiwan

Product	Value (mn USD)	% growth	% share
Total exports to Taiwan	**4,673**	**23.1**	**1.7**
- Electronic integrated circuits	491	-4.4	10.5
- Air conditioning machine	300	7.4	6.4
- Chemical products	317	118.2	6.8
- Other industrial products	76	8.0	1.6
- Computer and parts	259	35.3	5.6
- Plastic resin	189	44.4	4.0
- Motor cars, parts and accessories	255	-4.7	5.5
- Tapioca products	155	27.8	3.3
- Semi-conductor devices	74	22.9	1.6
- Copper	178	86.3	3.8
Total imports from Taiwan	**10,513**	**27.5**	**3.9**
- Electronic integrated circuits	4,616	17.8	43.9
- Chemicals	915	51.5	8.7
- Iron, steel and products	746	60.9	7.1
- Electrical machinery	748	54.0	7.1
- Computers and parts	176	16.4	1.7
- Machinery	518	29.4	4.9
- Other metal ores and products	488	15.0	4.6
- Fresh aquatic animals processed	230	60.5	2.2
- Fabrics	188	(4.4)	1.8
- Plastic products	209	61.9	2.0

Source: BOT, MOC, MOTS, Krungsri Research

Thailand's trade with China

Product	Value (mn USD)	% growth	% share
Total exports to China	**37,204**	**21.5**	**13.7**
- Fresh, frozen and dried fruit	5,074	74.4	13.6
- Tapioca products	2,757	72.1	7.4
- Rubber products	2,813	-0.3	7.5
- Plastic resin	3,368	13.9	9.1
- Computer and parts	2,855	29.3	7.7
- Chemical products	2,353	45.0	6.3
- Rubber	1,967	53.1	5.3
- Woods and wood products	1,237	16.3	3.3
- Copper and articles thereof	988	55.9	2.7
- Other industrial products	1,483	16.4	4.0
Total imports from China	**66,553**	**33.6**	**24.9**
- Electrical machinery and parts	8,248	17.2	12.4
- Chemicals	5,616	54.0	8.4
- Machinery and parts	6,388	20.5	9.6
- Electrical appliances	6,766	38.5	10.2
- Computers and parts	4,960	35.1	7.5
- Iron, steel and products	3,988	59.4	6.0
- Other metal ores and products	2,742	74.3	4.1
- Electronic integrated circuits	1,763	41.1	2.7
- Metal manufactures	1,989	29.8	3.0
- Plastic products	2,053	23.3	3.1

Thailand's relation with China and Taiwan

Relation	Taiwan	China
Trade (USD, mn) 1/	**15,186**	**103,757**
- Export	4,673	37,204
- Import	10,513	66,553
- Trade balance	(5,840)	(29,349)
Tourist 2/		
- Number (persons)	790,017	10,997,372
% of total	2.0	27.6
- Receipt (THB, bn)	34	532
% of total	1.8	27.8
Investment 1/		
FDI (USD, mn)	406	910
% of total	3.3	7.5
TDI (USD, mn) 3/	166	138
% of total	0.9	0.8

Notes: 1/ data as of 2021
2/ data as of 2019
3/ Thai Direct Investment Abroad

Source: BOT, MOC, MOTS, BOI, Krungsri Research

Thailand: Recovery driven by reopening, but still below pre-pandemic levels

- **2Q GDP growth is the strongest in a year, at +2.5% YoY, supported by accelerating consumption and recovering tourism activity**, but growth was slightly slower than expected due to weaker exports and investment. **We maintain our full-year growth forecast at 3.1% premised on a stronger recovery in tourism activity**. However, upside could be capped by several headwinds created by the extended Russia-Ukraine crisis, weakening global demand as major countries tighten monetary policy, slower economic growth in China attributed to its zero-covid policy, and rising tensions between the US and China over Taiwan.

- **Foreign tourist arrivals** exceeded 1 mn in July after the government removes Thailand Pass requirement; at this rate, full-year arrivals may be better than expected.

- **Exports** saw double-digit growth in 1H22 at 12.7% but slowing global manufacturing activities might dampen Thai export growth the rest of this year. **Manufacturing production** saw zero growth and would remain slow given weaker external demand, shift in demand from goods to services, and high excess capacity.

- **Private investment** expanded slowly amid weak sentiment and higher production costs; recovering tourism activity helped to boost investment in service sector. **Private consumption** backed by additional government measures to help household cope with higher cost of living. High farm income and a mild improvement in employment might support consumption, but growth would be moderate due to high household debt and rising interest rates.

- **Inflation** edged down in July after hitting a 14-year high; cost-push pressures could be limited by falling global crude oil prices.

- **We expect rate hikes to be gradual and slower than in neighboring countries mainly because of weaker recovery in Thailand relative to peers.** For 2022 (based on consensus forecast), economic activity (or GDP) in Thailand will be 1.5% below pre-Covid level while peers are expected to register economic activity that is 2.1%-15.0% higher than pre-pandemic levels. Despite high inflation, the tentative signs of economic recovery suggest the Thai MPC would raise policy rate by 25 bps at the next meeting on 28 September to tame inflation expectations. The probability of another hike at the November meeting would increase if data show a stronger-than-expected recovery of the Thai economy.

Krungsri Research Forecasts for 2022

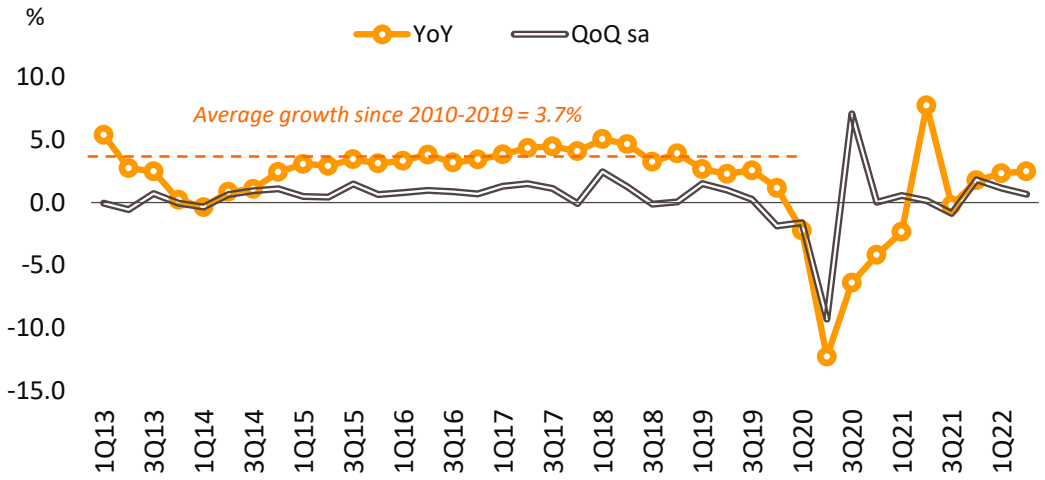
Krungsri Research Forecast		2020	2021	1H2022	2022F
GDP growth	YoY (%)	-6.2	1.5	2.4	3.1
Private Consumption Expenditure	YoY (%)	-1.0	0.3	5.2	4.2
Government Consumption Expenditure	YoY (%)	1.4	3.2	4.7	-0.5
Private Investment	YoY (%)	-8.2	3.3	2.6	3.0
Public Investment	YoY (%)	5.1	3.8	-6.8	1.8
Nominal Exports in USD (f.o.b.)*	YoY (%)	-6.5	19.2	12.0	7.5
Nominal Imports in USD (f.o.b.)*	YoY (%)	-13.8	23.9	19.4	17.0
Current Account Balance	USD, bn	20.3	-11.0	-10.8	-12.0
Tourist Arrivals	Mn, persons	6.7	0.4	2.1	8.0
Headline Inflation	YoY (%)	-0.8	1.2	5.6	6.1
Exchange rate (end of period)	THB/USD	30.0	33.4	35.3	34.8
Policy Interest rate (end of period)	(%)	0.50	0.50	0.50	1.00
Dubai crude price - period average	USD/bbl	41.5	69.0	100.6	98.0

Note: * BOT data

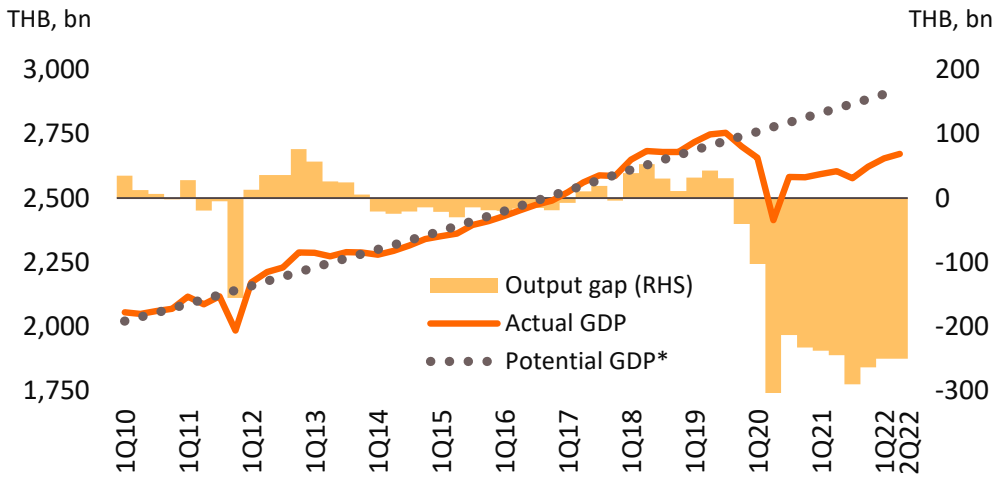
Source: NESDC, BOT, MOC, MOTS, Bloomberg, Krungsri Research

2Q22 GDP +2.5% YoY, slightly slower than our projection (+2.7%) amid slower exports and investment; we are keeping full-year growth at +3.1% amid stronger recovery in tourism

Thailand's GDP growth



Real GDP (sa)

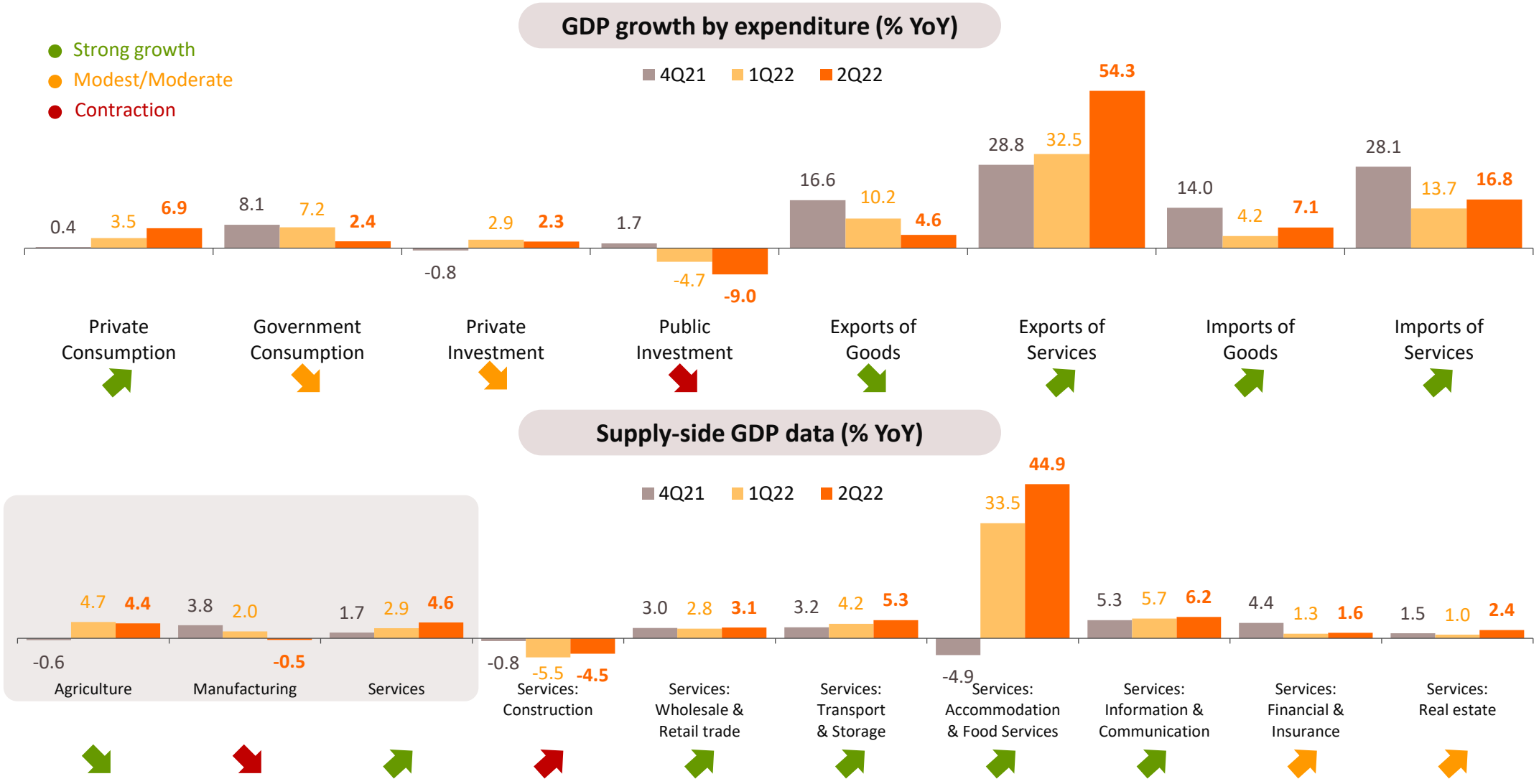


Krungsri Research's view

- **Thai GDP growth improved slightly to +2.5% YoY in 2Q22 following +2.3% (revised up) in 1Q22, led by accelerating growth of private consumption and tourism revenues.** It is the third straight quarter of expansion and the fastest in a year, with further recovery in tourism (exports of services +54.3% in 2Q vs +32.5% in 1Q) and an acceleration in private consumption growth (+6.9% vs +3.5%). However, 2Q22 GDP growth was slightly slower than our projection (+2.7%) and below consensus estimate (+3.1%) due to (i) slower expansion of goods exports (+4.6% vs +10.2%) amid Russia-Ukraine crisis and China lockdown; (ii) weaker private investment (+2.3% vs +2.9%) with decelerating growth in machinery and capital investments and continued decline in construction investment; (iii) further contraction in public investment (-9.0% vs -4.7%); and (iv) accelerating growth of goods and services imports (+9.1% vs +6.2%).
- Compared to the previous quarter, GDP growth slowed from +1.2% QoQ sa in 1Q to +0.7% in 2Q, close to our estimate of +0.8% and consensus forecast of +0.9%.
- **On the supply side, 2Q22 GDP growth was mainly driven by agriculture (+4.4% vs +4.7%) and services (+4.6% vs +2.9%)** such as accommodation & food service activities (+44.9%), information & communication (+6.2%), and transportation & storage (+5.3%). The industrial sector contracted for the first time in three quarters (-0.5% vs +2.0%) given weaker external demand and supply chain disruption.
- **We are keeping out 2022 GDP growth forecast at +3.1% as the Thai economic growth in 1H22 is in line with our expectation and domestic economic activity would improve further in 2H22** driven by recovering tourism and domestic spending. However, several headwinds could cap upside: (i) extended Russia-Ukraine crisis; (ii) weakening global demand following tightening monetary policy; (iii) China's weak economic growth amid zero-covid policy; and (iv) rising tensions between the US and China over Taiwan.

Note: * data for calculating potential GDP as of 1Q20
Source: NESDC, Krungsri Research

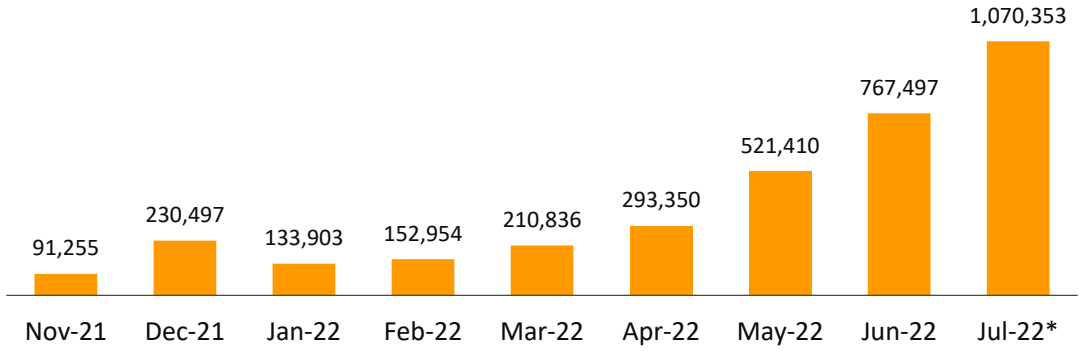
Major drivers for 2Q GDP were improving consumption and tourism spending; drop in manufacturing output dragged supply-side growth despite gains in agriculture and services



Source: NESDC, Krungsri Research

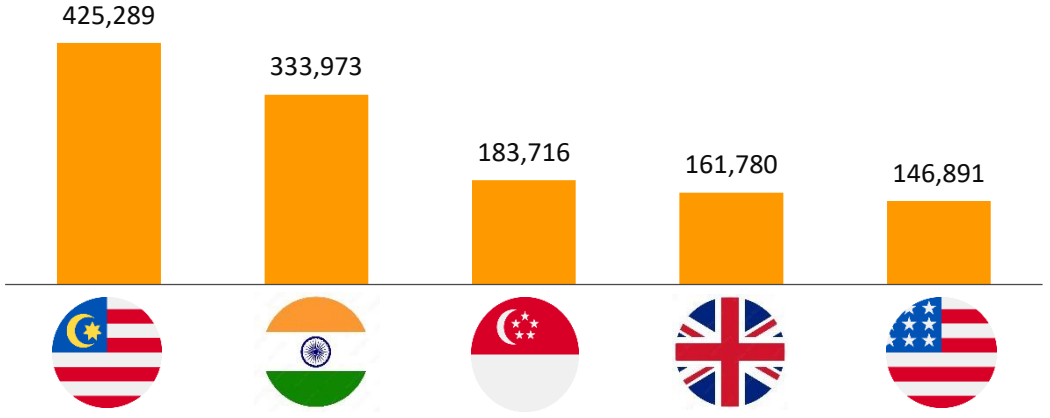
Tourism sector: Foreign tourist arrivals exceeded 1 mn in July after government removed Thailand Pass requirement; at this rate, full-year arrivals may beat expectations

Foreign tourist arrivals (persons)

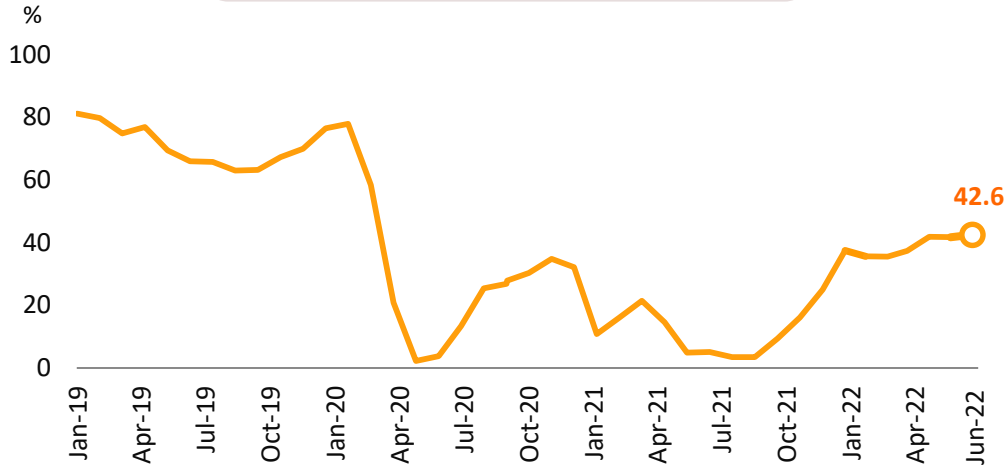


Top 5 Foreign Arrivals in 7M2022 (Jan-July)*

(persons)



Nationwide average occupancy rate



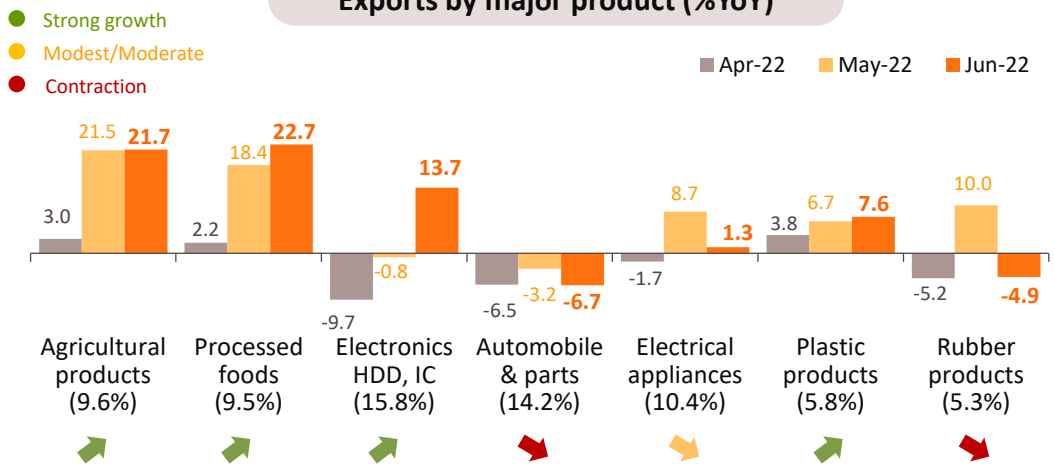
Krungsri Research's view

- **In July, foreign tourist arrivals exceeded 1 mn for the first time since the pandemic started.** Preliminary data showed 1.07 mn tourist arrivals, up from 767,497 in June, attributed to (i) a cancellation of Thailand Pass and medical insurance requirements from 1 July; and (ii) easing international travel restrictions as the Covid-19 situation improved.
- **In the first 7 months of this year, there were 3.15 mn tourist arrivals.** The biggest group came from Malaysia, followed by India, Singapore, the UK, and the US, generating THB157 bn total revenue (vs THB1.9 trn in 2019). Although tourist arrivals surpassed 1 mn per month, it is still far below the average of over 3 mn per month in 2019. Given the strong momentum, full-year 2022 arrivals could exceed our 8 mn forecast. There were 0.43 mn arrivals in 2021.

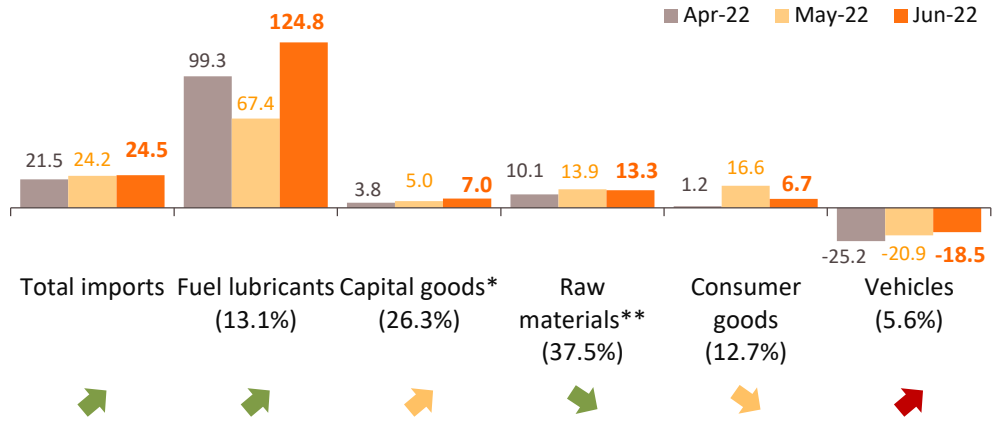
Note: * Preliminary data
Source: MOTS, BOT, Krungsri Research

Export sector: Signs of softer purchasing power in core economies; food security and ASEAN reopening are tailwinds for certain sectors

Exports by major product (%YoY)

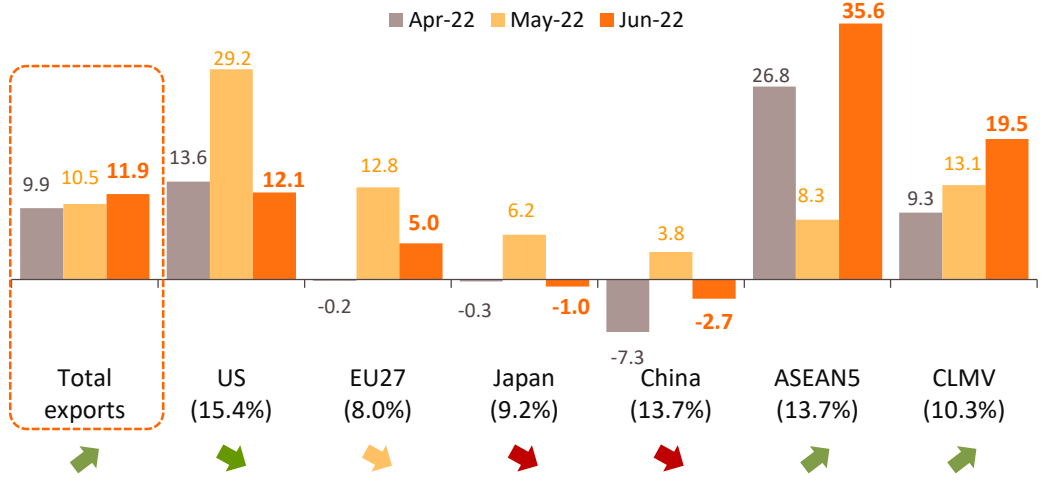


Imports by major product (%YoY)



* Capital goods excl. aircraft, ship ** Raw materials exclude gold

Exports by major destination (%YoY)



Source: MOC, Krungsri Research

Krungsri Research's view

- **In June, merchandise export value grew 11.9% YoY to USD26.6 bn.** Stripping out oil, gold and military supplies, exports expanded by 10.4% fueled by rising global demand for agricultural products and foods to ensure food security. Exports of electronics products rebounded. Shipments of automobile & parts contracted for the 4th straight month. However, by destination, exports performed well as reopening of neighboring countries increased demand. Shipments to major markets (the US and Eurozone) grew at a slower pace and those to China and Japan contracted.
- **Imports surged 24.5% YoY in June led by fuel lubricants,** especially crude oil. Although value of raw material imports grew more than 13% in June, that was mostly attributed to price effect, implying import volume was flat.
- **Exports surged 12.7% YoY to USD149.2 bn in 1H22 but may slow down in 2H22 for the following reasons:** (i) slowing European economy as a result of the extended Russia-Ukraine crisis; (ii) weaker global purchasing power amid high inflation and tightening monetary policy in developed countries; and (iii) China's weak economic growth because of its Zero-Covid policy. And, rising tension between the US and China over Taiwan could be a key risk factor for the global economy in the next period.

Exports saw double-digit growth in 1H22 at 12.7% but global manufacturing slowed down, which might dampen Thai export growth the rest of this year

1H22 export value beats expectations at 12.7% led by shipments to the US and ASEAN, supported by reopening of economic activity and implementation of RCEP with effect from January 2022. However, global production showed signs of slowing down. Global Manufacturing PMI fell to a 2-year low of 51.1 in July from 52.2 in June amid concerns over weaker global demand.

Exports by major product and destination

Thailand: 1H22 export growth (% YoY)	World	US (15%)	EU (8%)	Japan (9%)	China (14%)	ASEAN-5 (14%)	CLMV (10%)
Total	+12.7	+20.5	+5.7	+1.4	+0.8	+25	+10
Cars & parts (10.7%)	-9	-10	-39	-26	-63	+13	-17
Computer & parts (8.1%)	+1	+28	-16	+10	+8	-26	-16
Rubber products (5.3%)	-4	-7	-12	-8	+13	-9	+0
Plastic resin (4.2%)	+12	+27	+9	+24	+8	+9	+16
Chemical products (3.6%)	+13	+70	+39	+14	-25	+11	+15
Electronic IC (3.1%)	+13	+35	+26	+6	+1	+26	+25
Fresh, frozen & dried fruit (2.2%)	+10			+3	+18	+36	-65
Rubber (2.1%)	+5	+10	+19	-4	-6	-3	+30
Plastic products (1.7%)	+7	+17	+10	-1	-13	+8	-0.02
Electrical appliances (1.6%)	+6	+23	-11	+5	-15	+15	-9
Tapioca products (1.5%)	+23	+22	+31	+13	+18	+102	-0
Preserved fish, crustaceans (1.3%)	+12	+17	+12	+9	-36	-8	-14
Sugar (1.2%)	+139	-	-29	+17	+403	+258	+19
Rice (1.3%)	+30	+37	+1	-31	+50	-1	+27

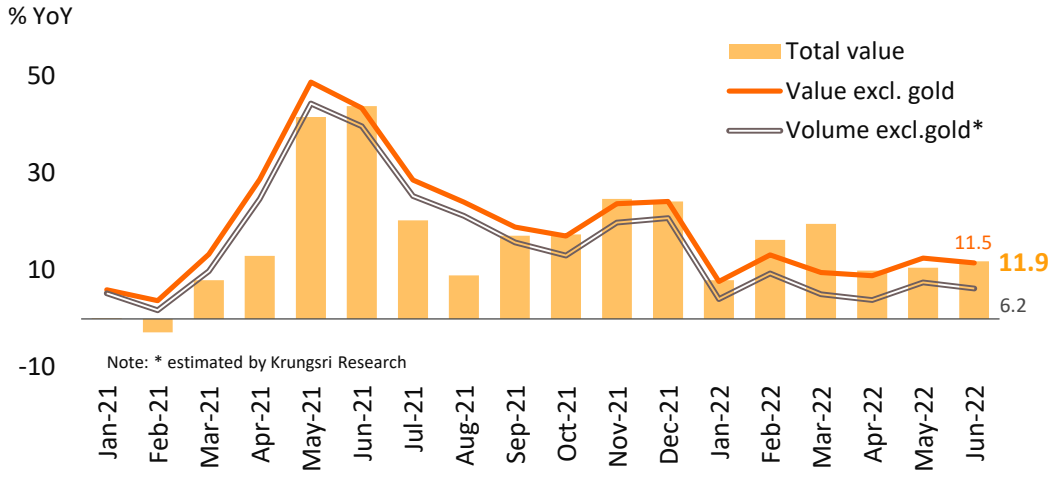
Substitution effects

Supply disruption hurt production and exports

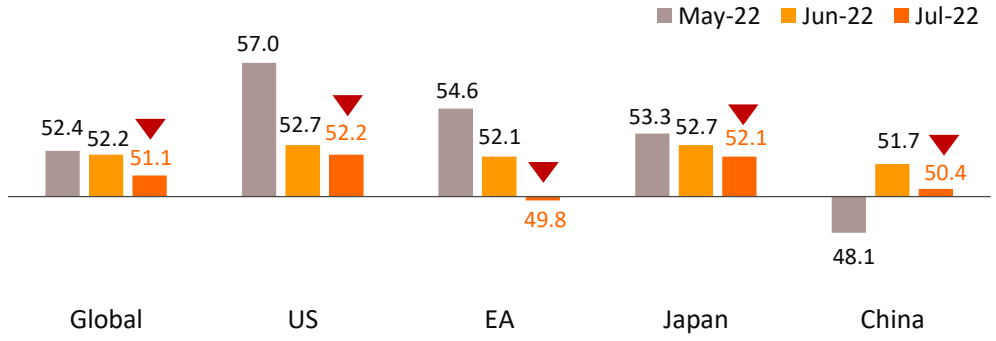
China's slowdown from zero Covid policy

Reopening tailwinds & RCEP benefit

Thailand's export growth



Global Manufacturing PMI

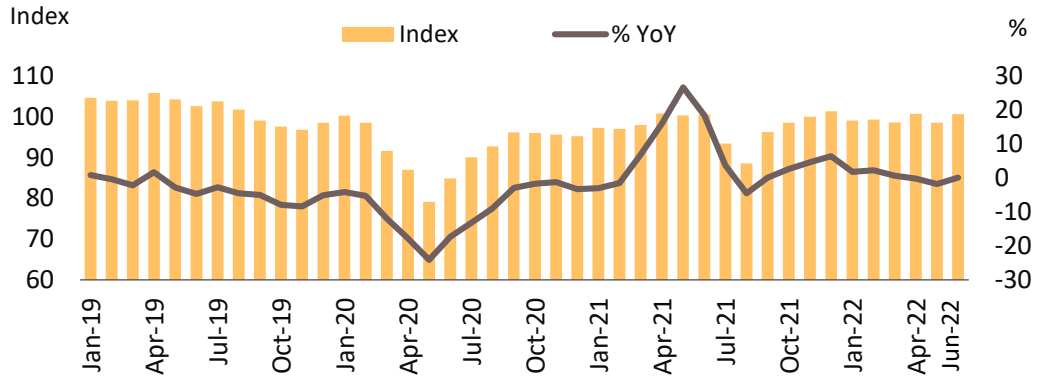


Note: (% share in 2021)
Source: Markit, Bloomberg, MOC, Krungsri Research

Manufacturing production saw zero growth and will remain muted given weaker external demand, a shift in demand from goods to services, and high excess capacity

Following signs of weaker external demand and a shift in demand from goods to services, manufacturing production index edged down 0.1% YoY in June. Capacity utilization rates in several manufacturing sectors are still below pre-Covid levels, including Chemicals, Automotive, HDD, Medical, Electrical Appliances. Capacity utilization rate in IC & Semiconductor and Machinery sectors are above pre-Covid levels. Despite rising domestic demand, manufacturing production is projected to recover gradually because of a slowdown in the global economy amid high inflation and ongoing supply disruption.

Manufacturing Production Index



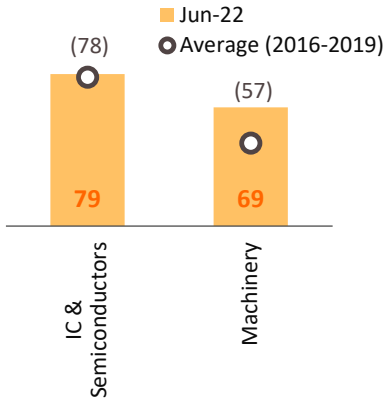
Manufacturing Production Index by sector

Manufacturing Production (%YoY)*	Weight	2020 J F M A M J J A S O N D	2021 J F M A M J J A S O N D	2022 J F M A M J
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%			

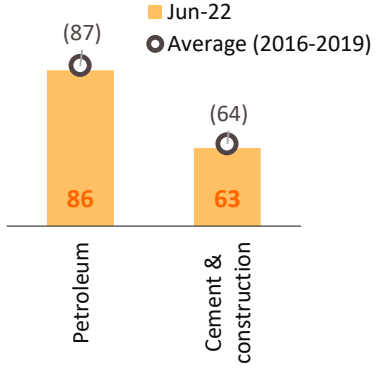
**Green > 0%, Red < 0% / Darker green (red) indicates stronger (weaker) momentum*

Capacity utilization by sector (Index)

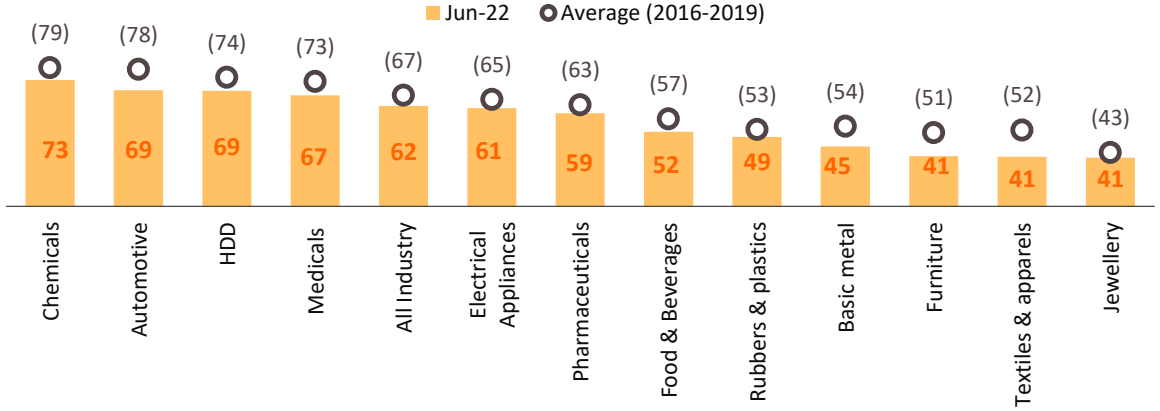
Above pre-COVID level



Approaching pre-COVID level



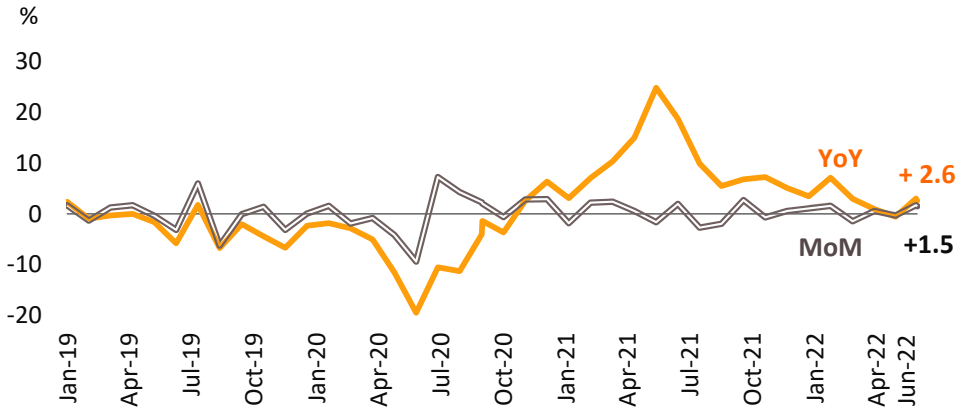
Below pre-COVID level



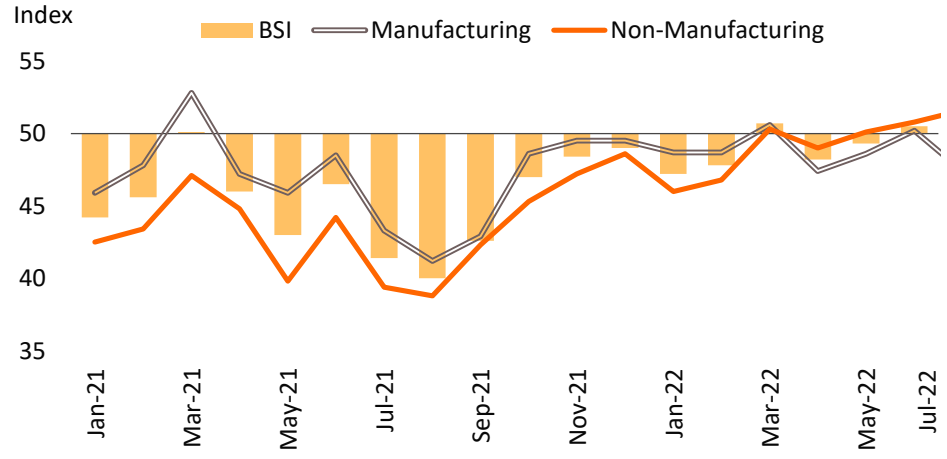
Note: ( ) % share in all industry
Source: OIE, Krungsri Research

Private investment expands at a gradual pace amid weak sentiment and higher production costs; tourism recovery helps to boost investment in service sector

Private Investment Index



Business Sentiment Index



Private Investment by category

%YoY*	2020												2021												2022					
	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
Private investment																														
Construction area permitted																														
Construction material sales																														
Imports of capital goods																														
Machinery sales																														
Newly registered vehicles																														

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

Krungsri Research's view

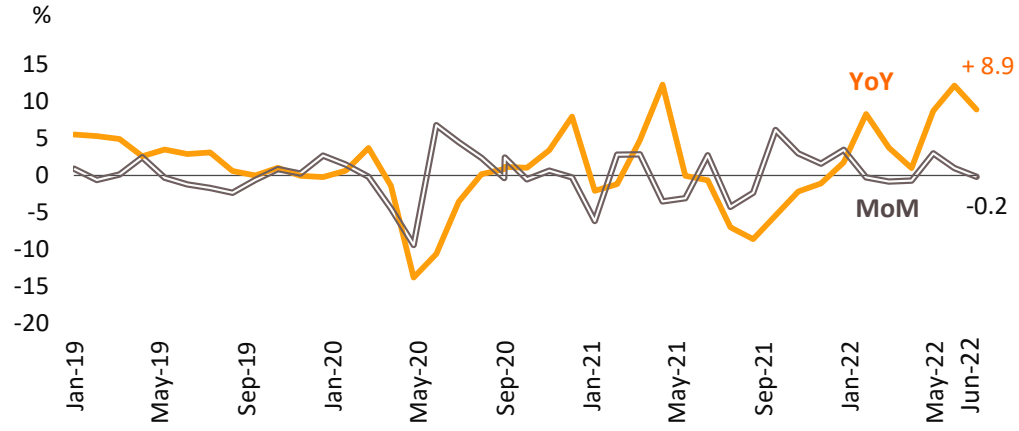
- **In June, Private Investment Index rose by 2.6% YoY** with improving investment in all segment. Investment in machinery & equipment grew in line with imports of capital goods and rising sales of machinery to manufacture plastic, garment and clothes. Investment in construction expanded with rising sales of construction materials and more approvals for construction of factories and residential projects.
- **However, investments will slow down the rest of year** as the Business Sentiment Index (BSI) shows uneven recovery. BSI fell below-50 in July, at 49.4, from 50.5 in June, due to concerns over high costs, especially by manufacturers. Sentiment of producers in non-manufacturing sector improved and exceeded-50 for the third straight month in line with improving economic activity since reopening in May 2022.

Source: BOT, Krungsri Research

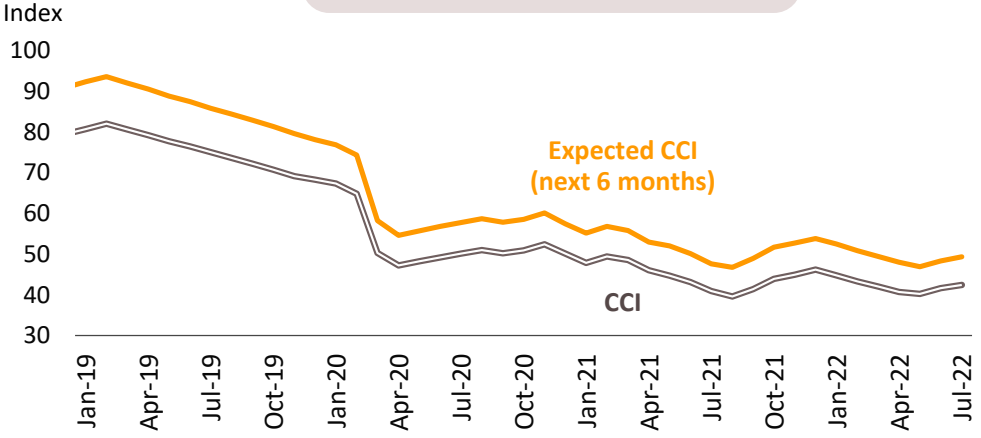
Private consumption backed by more government measures to address high cost of living

In June, private consumption index rose 8.9% YoY driven by (i) improving services expenditure as pandemic fears eased; and (ii) relaxation of control measures to boost tourist arrivals and domestic tourist activity. However, spending on durable goods fell due to weaker registered sale of passenger cars because chip shortage had delayed deliveries. In 2H22, still-high inflationary pressure would increase prices of consumer goods amid weak consumer confidence, which would dampen purchasing power. Recently, the government launched additional measures worth THB27.43 bn to support purchasing power in late-2022 (September-October). These measure would inject THB48.63 bn (+0.13% of GDP) into the economic system.

Private Consumption Index



Consumer Confidence Index



Private Consumption by category

%YoY*	2020												2021												2022					
	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
Private consumption																														
Non-durables																														
Semi-durables																														
Durables																														
Services																														
Non-residents expenditure																														

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

Government economic stimulus measures

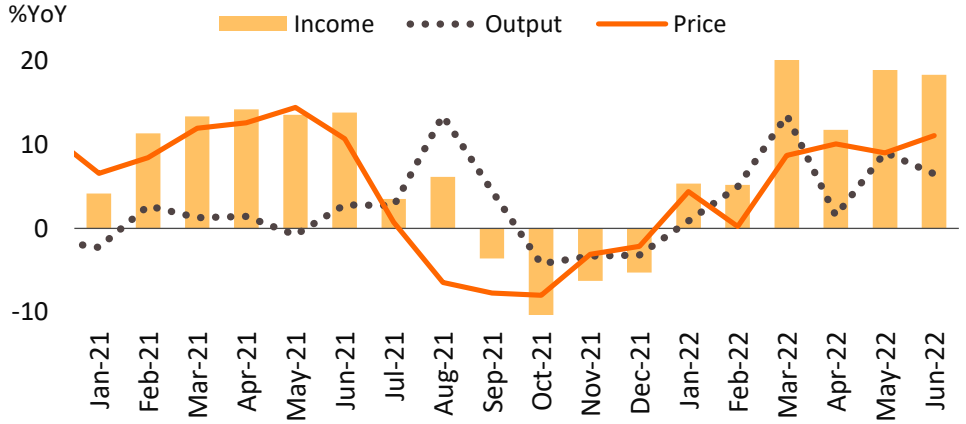
Latest measures (effective Sep-Oct'22) Total = THB27.43 bn	Previous (effective Feb-Apr'22) Total = THB44.22 bn
I. **THB21.2 bn** for phase 5 Co-payment scheme (THB800 per person)	I. **THB34.8 bn** for phase 4 Co-payment scheme (THB1,200 per person)
II. **THB5.43 bn** for government welfare cardholders (THB400/person with THB200/month)	II. **THB8.07 bn** for government welfare cardholders (THB600/person with THB200/month)
III. **THB0.89 bn** for assistance to vulnerable group (THB400/person with THB200/month)	III. **THB1.35 bn** for assistance to vulnerable group (THB600/person with THB200/month)

Source: BOT, UTCC, Krungsri Research

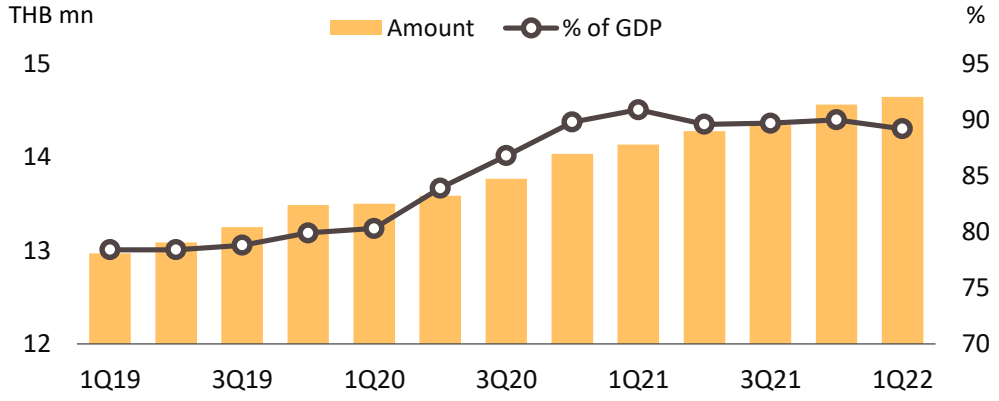
High farm income and mildly-better employment data would support consumption but growth would be moderate due to high household debt and rising interest rates

Farm income has risen sharply following a jump in farm prices and farm output. In June, farm income grew more than 18% YoY for the second consecutive month. Although **unemployment rate improved** to 1.4% in 2Q22 from 1.53% in 1Q22, it is still higher than pre-Covid (2019) level of 1%. In addition, the number of unemployed persons remain high at 0.55 million, albeit fewer than 0.61 million in 1Q22, but it is still above 0.39 million in 1Q20 (pre-pandemic level). **Household debt** was also high, close to 90% of GDP, and rising interest rates could affect debt repayment ability, which would cap consumer spending growth.

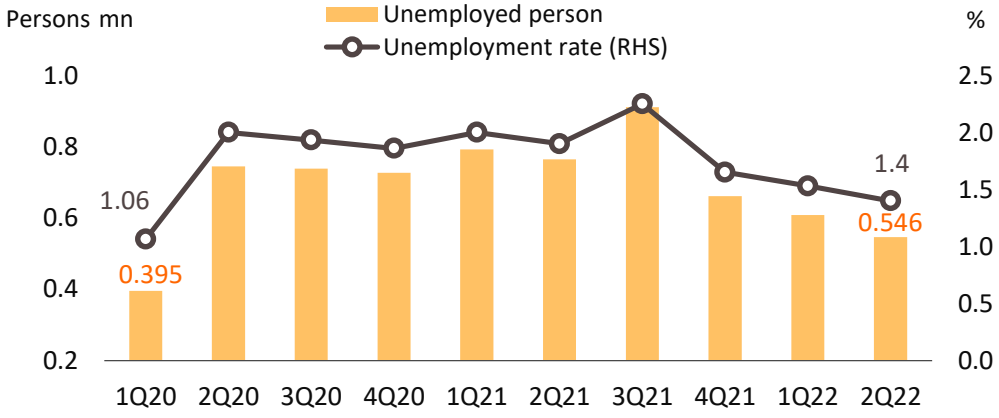
Farm income



Household debt

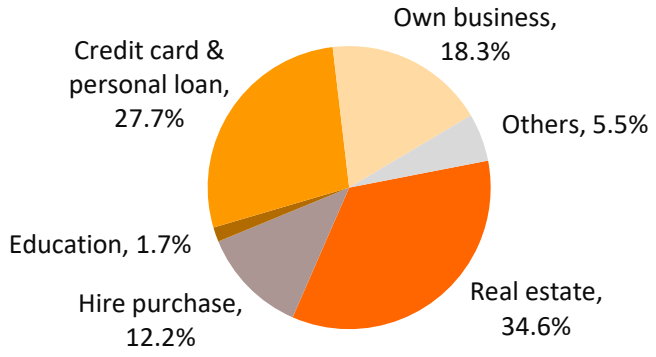


Unemployment rate and unemployed person



Loans to Household classified by Purpose in 1Q2022

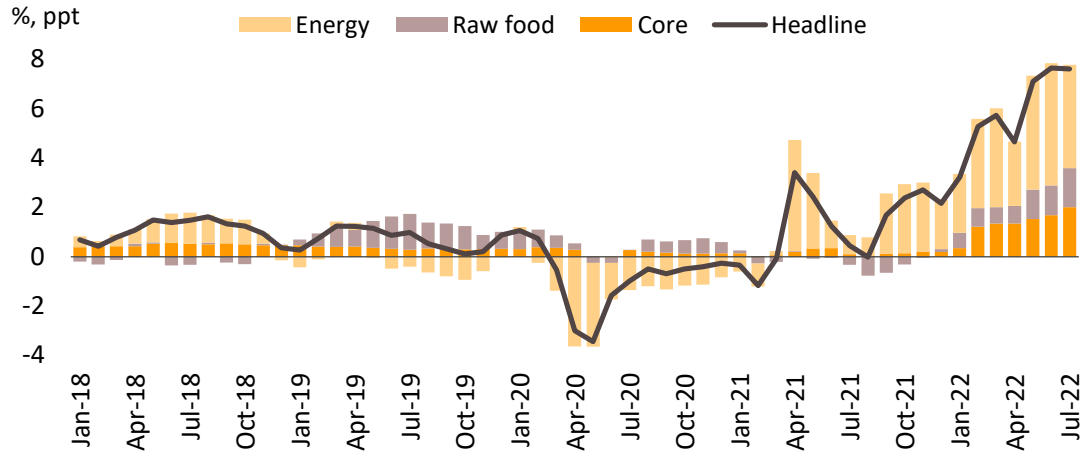
(% share)



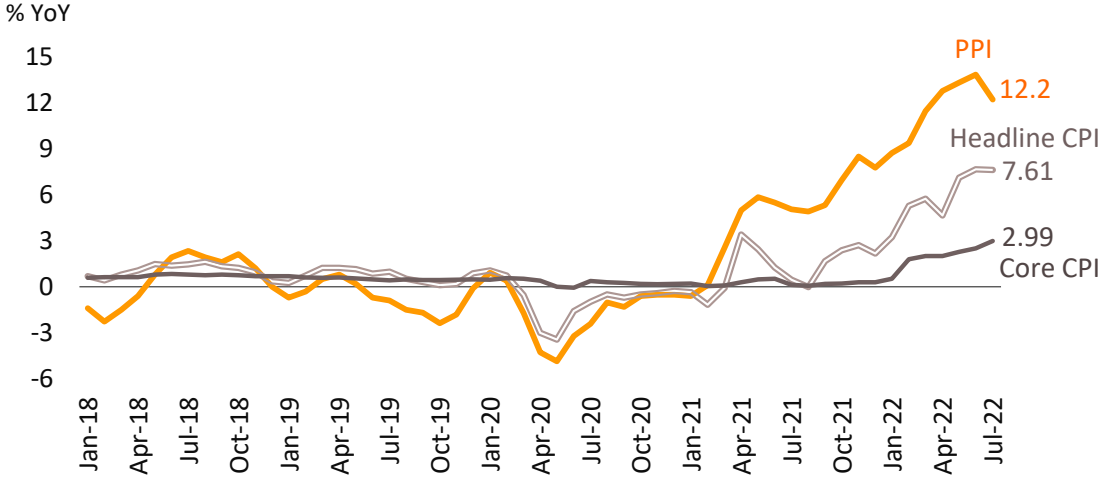
Source: OAE, BOT, NSO, Krungsri Research

Inflation edged down in July after hitting a 14-year high; cost-push pressures could be limited by falling global crude oil prices

Contributors to inflation



Consumer Price Index (CPI) and Producer Price Index (PPI)



Source: MOC, Krungsri Research

Consumer Price Index: Major categories

Consumer Price Index (% YoY)*	Weight	2020 J F M A M J J A S O N D	2021 J F M A M J J A S O N D	2022 J F M A M J J
Headline CPI	**100.00%**			
Food & beverages	41.01%			
Apparel & footwears	2.08%			
Housing & furnishing	21.93%			
Medical & personal care	5.36%			
Transportation & communication	24.08%			
Recreation & education	4.20%			
Tobacco & alcoholic beverages	1.33%			
Raw food	20.71%			
Energy	14.71%			
Core CPI	**64.58%**			

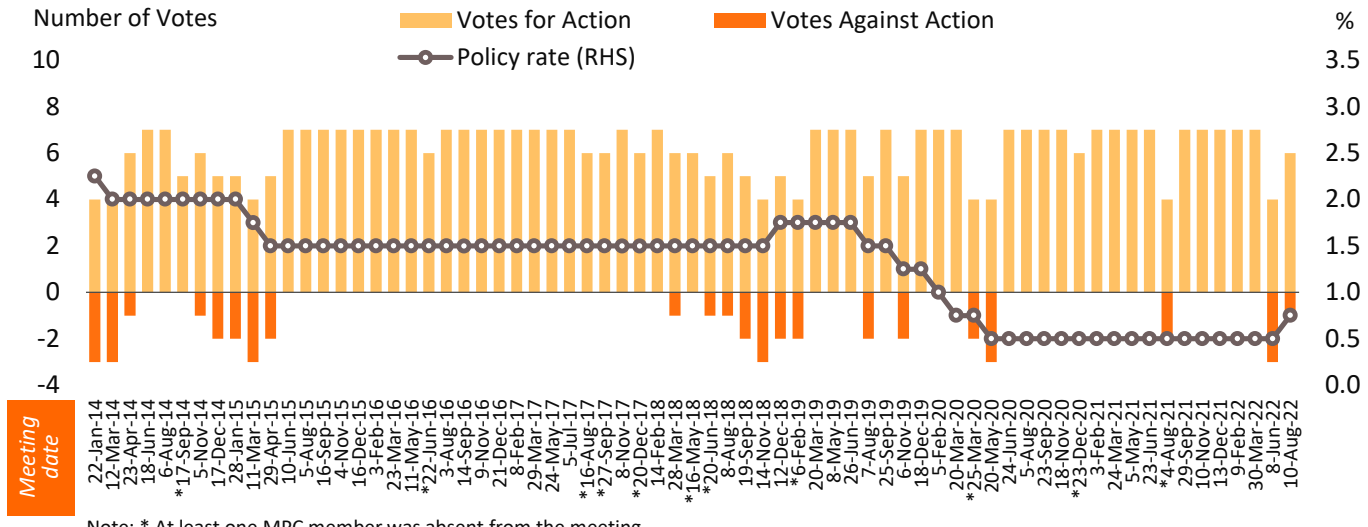
** Green > 0%, Red < 0% / Darker green (red) indicates stronger (weaker) momentum*

Krungsri Research's view

- **Headline inflation only edged-down to 7.61% in July** from a 14-year high of 7.66% in June. The drop was due to lower domestic retail fuel prices. However, prices of food & beverage rose (such as meat, duck, chicken, and prepared food). The price of cooking gas price also increased. **Core inflation (excluding raw food and energy prices) rose to 2.99% in July** from 2.51% in June. For the first seven months of this year, headline and core inflation stood at 5.89% and 2.01%, respectively.
- **Looking ahead, a mild rise in core inflation could reflect a modest increase in demand-pull pressure. Meanwhile, cost-push inflationary pressure would remain high** as evidenced by the 12.2% YoY rise in producer price index in July. In addition, price of cooking gas and FT rate (September-December) will increase, while minimum wage is expected to increase by 5-8% later this year. Therefore, **producers will continue to pass through higher costs to consumer prices.** Nonetheless, as global crude oil prices had been falling and is now below USD 100/bbl due to concerns over weaker global economic recovery, that could cap inflation.

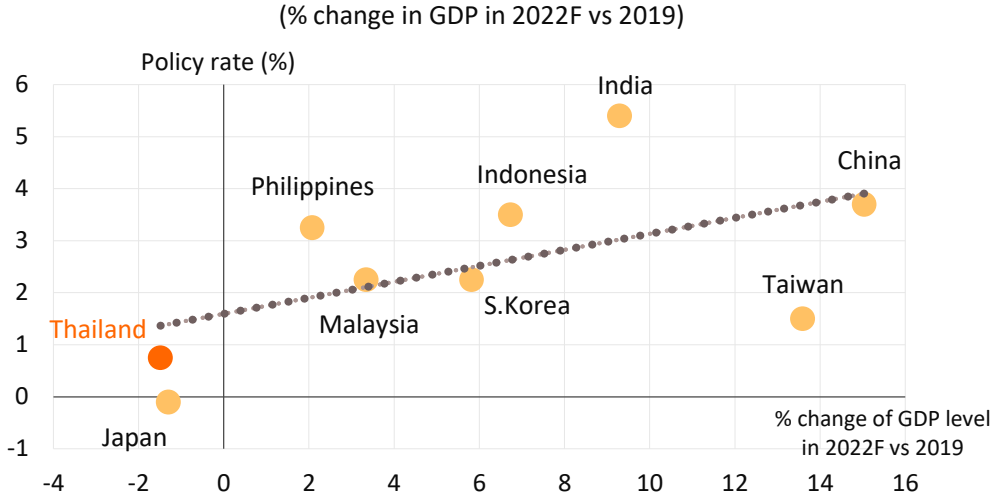
Thai MPC signals gradual rate hikes

MPC policy rate decisions and voting result



Note: * At least one MPC member was absent from the meeting
Source: Bank of Thailand (BOT), Krungsri Research

Current policy rate and economic recovery vs pre-Covid level



Note: 2022 GDP forecast by FocusEconomics Consensus (July 2022), except for Japan's GDP forecast by OECD (June 2022)
Source: IMF, OECD, FocusEconomics, CEIC, Krungsri Research

Krungsri Research's view

- At the August 10 meeting, the MPC voted 6-to-1 to raise policy rate for the first time since late 2018 by 25 bps to 0.75% from a record low of 0.50%.
- **Pace of rate hikes in Thailand would be gradual and slower than that in neighboring countries.**
  The MPC judged *that "there is less need for extraordinarily accommodative monetary policy"* as (i) Thailand's economic recovery will continue to gain traction; (ii) headline inflation will remain high for some time; and (iii) despite rising risk of a global slowdown, the impact on the Thai economy would be limited.
  However, the Committee viewed that *"monetary policy normalization should be done in a gradual and measured manner,"* citing (i) risks to the growth outlook in the period ahead due to the impact of rising living costs on private consumption; (ii) inflation would gradually drop to the target range in 2023 as supply-side inflationary pressure subside. Meanwhile, medium-term inflation expectations have not increased significantly; and (iii) there are vulnerable groups, particularly SMEs that have yet to fully recover as well as low-income households that are sensitive to rising living costs.
- **We also expect the pace of rate hikes in Thailand to be gradual and slower than that in neighboring countries** due mainly to Thailand's weak economic recovery relative to peers. For 2022 (based on consensus forecast), economic activity (or GDP level) in Thailand will be 1.5% below pre-Covid level while peers are expected to register economic activity that is 2.1%-15.0% higher than pre-pandemic levels.
- Despite high inflation, the tentative signs of economic recovery suggest the Thai MPC would raise policy rate by 25 bps at the next meeting on 28 September to tame inflation expectation. The probability of another hike at the November meeting would increase if data show a stronger-than-expected recovery of the Thai economy.

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