

Economic and Financial Outlook

ttb analytics

Sep 2022

Global Economy

- **GDP figures of Q2/2022** showed several nations have lost their growth momentum. Global recession risk seems to even worsened in Q3.
- **PMIs data of August 2022 showed a contraction in the manufacturing activities across nations**, particularly in China, the UK and European counterparts.
- **Global commodity prices** have started to ease due to weak demand amid recession concerns, a pressure from two-decade high US dollar , agricultural supply improvement. However, energy prices remain under high pressure in August.
- **Global inflation is decelerating through H2/2022**, but it remains far too high for central bankers with its forecast for 2022 and 2023 are 8.3% and 5.7% respectively.
- **Major central banks have recently promised to continue delivering a hiking decision** to tame inflation despite softening price pressure.
- **Retail sales have started to soften in several nations** while some have rebounded sluggishly due to weakened purchasing powers.

Domestic Economy

- In July 22, Thai economy continued to recover but at a slower pace. Private consumption and private investment declined slightly after accelerating in the preceding periods.
- The value of merchandise exports also declined in line with lower trading partners' demand particularly in trading with U.S., China and Japan. By products, major export of auto and parts, computer and parts, and rubber products also dropped significantly.
- Foreign tourists in July increased consecutively to reach a peak since pandemic at 1M. The major groups still came from East Asia. Moreover, European tourists show a signal of return
- Public spending contracted from capital expenditure of the central government. Nevertheless, the service sector continued to improve thanks to increases in foreign tourists, while manufacturing production also saw a slight improvement as producers received more electronic parts from supplier abroad.
- Headline inflation in August 22 continuing accelerated to the fresh highest level since 2008 due to more cost-transmitted effects and lower supply in food products, high energy cost-push remained. Core inflation also reached 3% level.

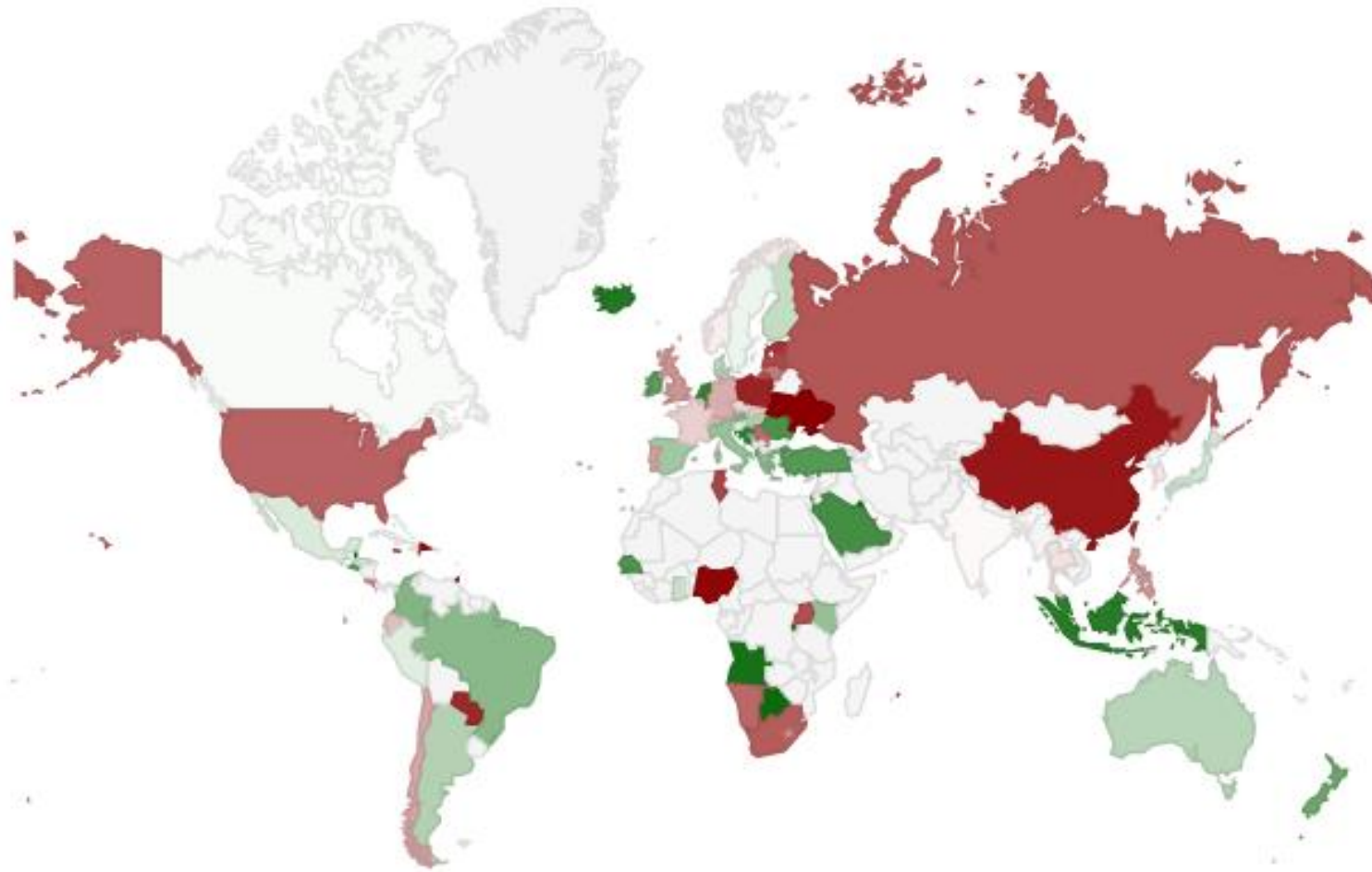
Financial Market

- **Major central banks around the world hiked policy rate to curb rising inflation.** The European Central Bank (ECB) unprecedentedly hike 75 bps on 8 September. Meanwhile, the next rate decision of Federal Reserve is expected at least for 75 bps in attempt to control high costs of living.
- **Investors went into long term bond tenor, for both US and Thai bond, due to recession concerns.** Moreover, 10y-2y yield spread for US government bond dropped below zero, negative yield curve signal higher possibility of coming US economy recession. Meanwhile, 10y-2y yield spread for Thai government bond has sharply declined but was still in positive territory.
- **USDTHB remained in high level in August, ending 36.5 level.** It could be around 36.70-37.10 in September. Dollar would strengthen further from market expectations on faster rate hike from FED to combat US inflation. The strong dollar put pressure on Asian currencies together with negative real interest rate.

PART 1

Global Economy

Global real GDP (%QoQ)



Country	Q2/2022
Indonesia	3.7
Netherlands	2.6
Saudi Arabia	2.2
Turkey	2.1
Brazil	1.2
Italy	1.1
Spain	1.1
Australia	0.9
Japan	0.9
Mexico	0.9
Canada	0.8
Euro Area	0.8
South Korea	0.7
France	0.5
Switzerland	0.3
Germany	0.1
United Kingdom	-0.1
Singapore	-0.2
United States	-0.6
South Africa	-0.7
Russia	-0.8
China	-2.6

PMI (Aug22) showed economic activities contracted across key nations

Manufacturing PMI

	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Australia	58.2	59.2	57.7	55.1	57.0	57.7	58.8	55.7	56.2	55.7	53.8
China	50.6	49.9	50.9	49.1	50.4	48.1	46.0	48.1	51.7	50.4	49.5
India	55.9	57.6	55.5	54.0	54.9	54.0	54.7	54.6	53.9	56.4	56.2
Japan	53.2	54.5	54.3	55.4	52.7	54.1	53.5	53.3	52.7	52.1	51.5
South Korea	50.2	50.9	51.9	52.8	53.8	51.2	52.1	51.8	51.3	49.8	47.6
Indonesia	57.2	53.9	53.5	53.7	51.2	51.3	51.9	50.8	50.2	51.3	51.7
Thailand	50.9	50.6	49.5	51.7	52.5	51.8	51.9	51.9	50.7	52.4	53.7
United States	58.4	58.3	57.7	55.5	57.3	58.8	59.2	57.0	52.7	52.2	51.5
Canada	57.7	57.2	56.5	56.2	56.6	58.9	56.2	56.8	54.6	52.5	48.7
United Kingdom	57.8	58.1	57.9	57.3	58.0	55.2	55.8	54.6	52.8	52.1	47.3
Germany	57.8	57.4	57.4	59.8	58.4	56.9	54.6	54.8	52.0	49.3	49.1
France	53.6	55.9	55.6	55.5	57.2	54.7	55.7	54.6	51.4	49.5	50.6
Italy	61.1	62.8	62.0	58.3	58.3	55.8	54.5	51.9	50.9	48.5	48.0
Spain	57.4	57.1	56.2	56.2	56.9	54.2	53.3	53.8	52.6	48.7	49.9

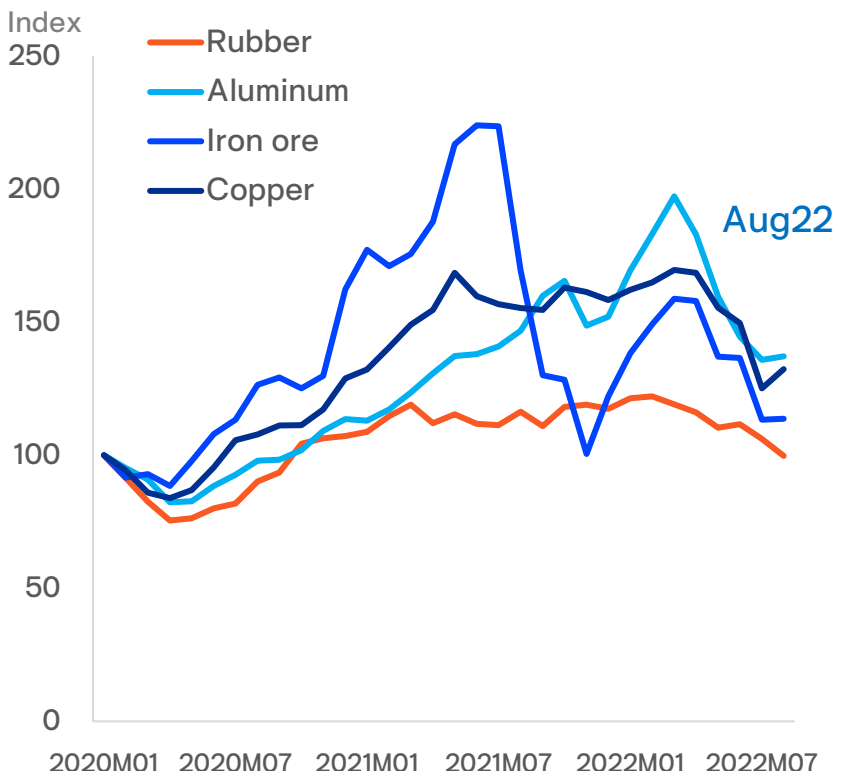
Services PMI

	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Australia	51.8	55.7	55.1	46.6	57.4	55.6	56.1	53.2	52.6	50.9	50.2
China	53.8	52.1	53.1	51.4	50.2	42.0	36.2	41.4	54.5	55.5	55.0
India	58.4	58.1	55.5	51.5	51.8	53.6	57.9	58.9	59.2	55.5	57.2
Japan	50.7	53.0	52.1	47.6	44.2	49.4	50.7	52.6	54.0	50.3	49.5
United States	58.7	58.0	57.6	51.2	56.5	58.0	55.6	53.4	52.7	47.3	43.7
UK	59.1	58.5	53.6	54.1	60.5	62.6	58.9	53.4	54.3	52.6	50.9
Germany	52.4	52.7	48.7	52.2	55.8	56.1	57.6	55.0	52.4	49.7	47.7
France	56.6	57.4	57.0	53.1	55.5	57.4	58.9	58.3	53.9	53.2	51.2
Italy	52.4	55.9	53.0	48.5	52.8	52.1	55.7	53.7	51.6	48.4	50.5
Spain	56.6	59.8	55.8	46.6	56.6	53.4	57.1	56.5	54.0	53.8	50.6

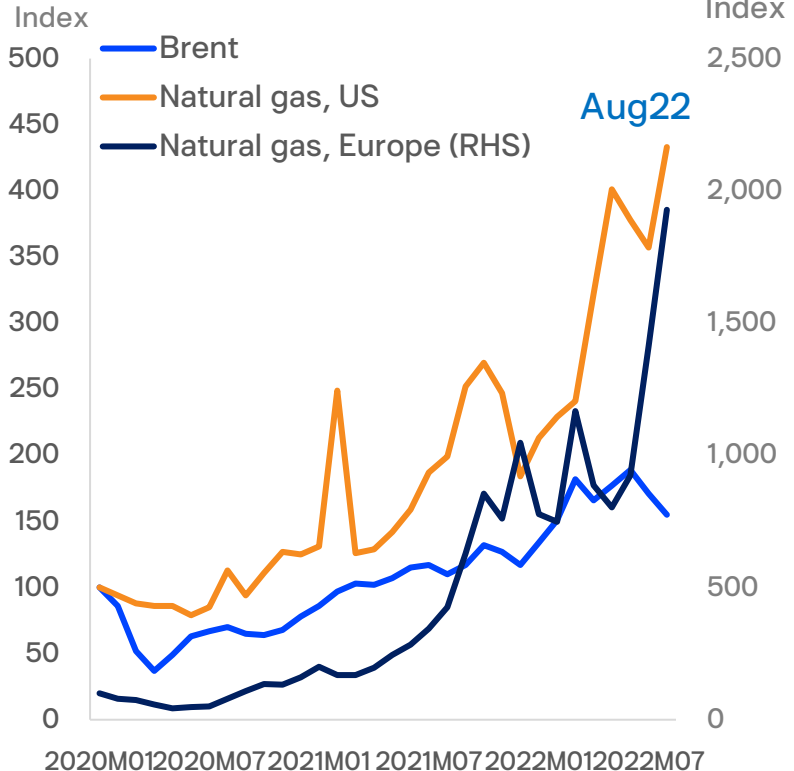
- PMIs data of August 2022 showed a contraction in the manufacturing activities across nations, particularly in China, the UK and European counterparts. Meanwhile, there were manufacturing slowdowns in the US.
- The weaknesses in the global economy were becoming more widespread, as new order inflows declined, international trade volumes fell, and excess capacity grew. However, there was improvement on the price front with rates of input cost and output price easing.
- Service sector business activities fell in the US, Japan and Germany. The downturn in the US was especially marked, with activity declining at the quickest pace since May 2020.

Commodity prices started to decline with recession concerns, EU energy crisis and Climate challenges

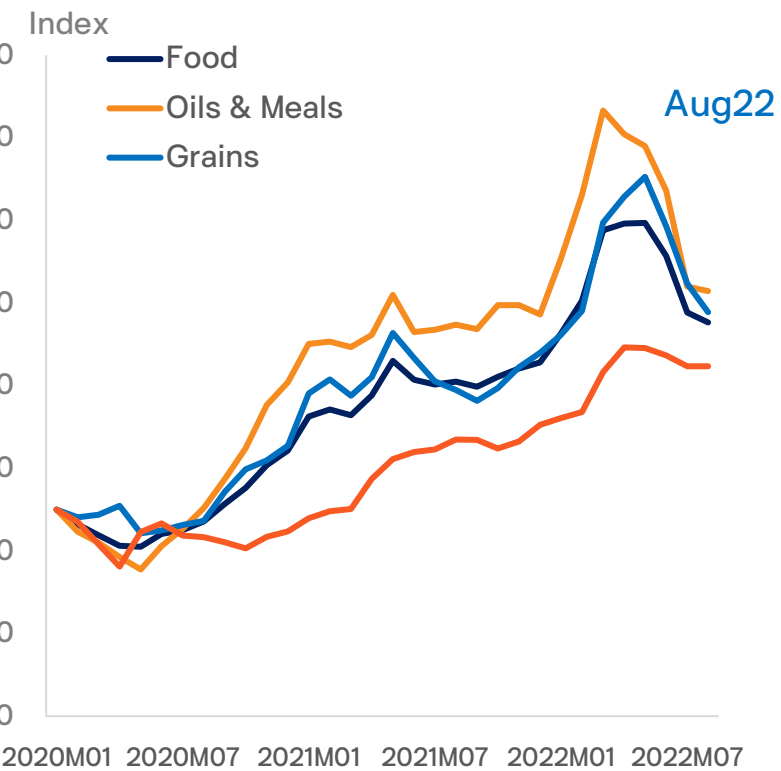
Industrial commodity



Energy commodity



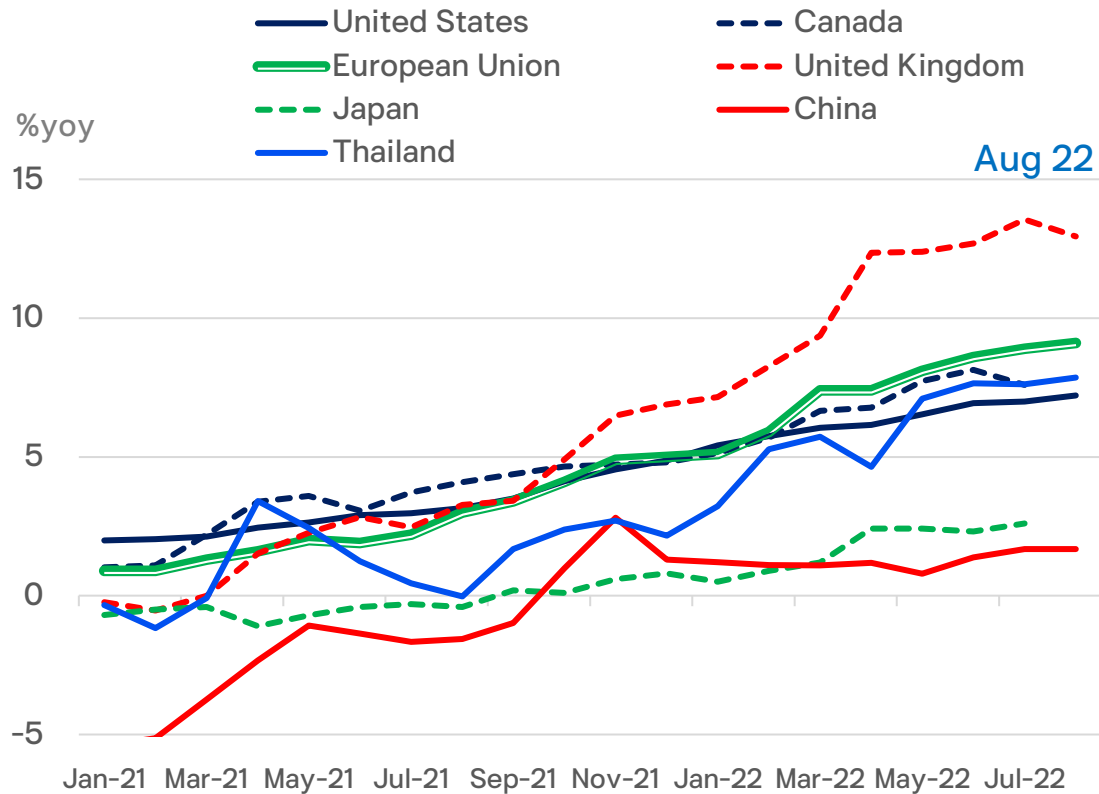
Food



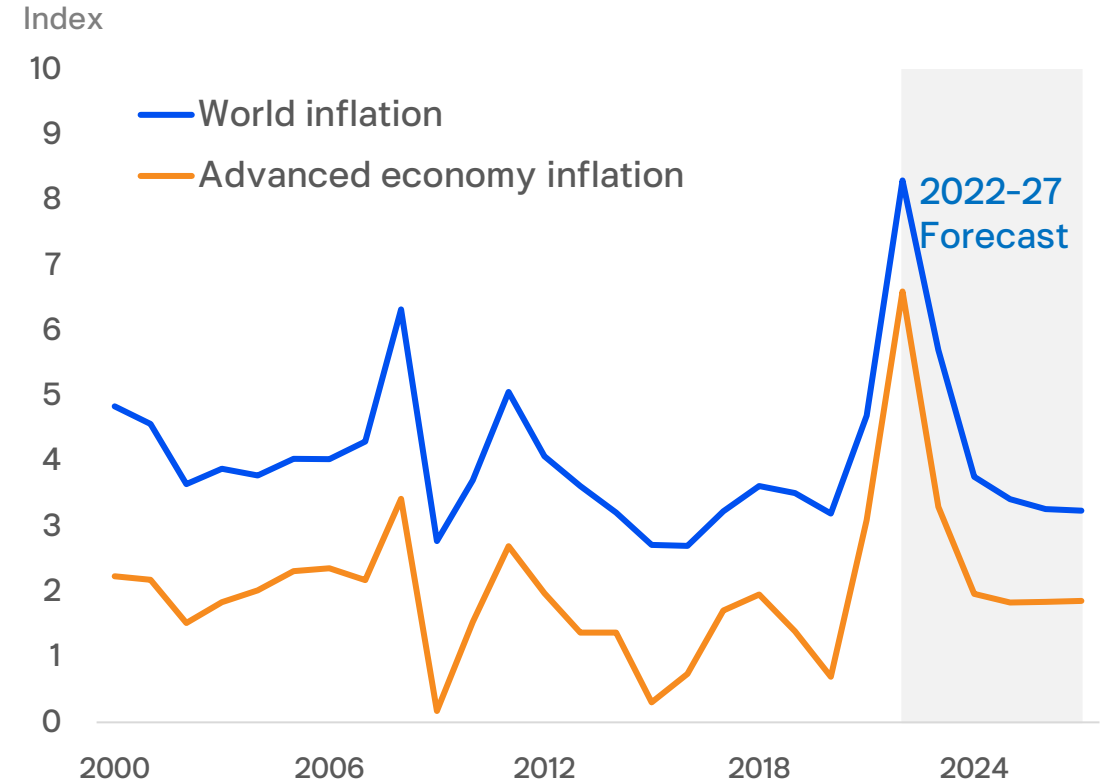
- Weak demand amid recession concerns and a two-decade high US dollar adversely hit the price of **global industrial commodity**. Meanwhile, the **decline in food prices** reflected improved production prospects in North America and Russia, and the resumption of exports from Black Sea ports in Ukraine.
- **Energy prices** is skyrocketing in Aug 22. However, in Sep 22, wholesale gas prices have started to tumble amid signs that European leaders' plans to avert a winter energy crisis are taking shape. This includes an emergency package (looking into options to cap energy prices and cut electricity demand) as well as examining structural reform of the electricity market.

Sources: World bank, CEIC and ttb analytics

Global Inflation

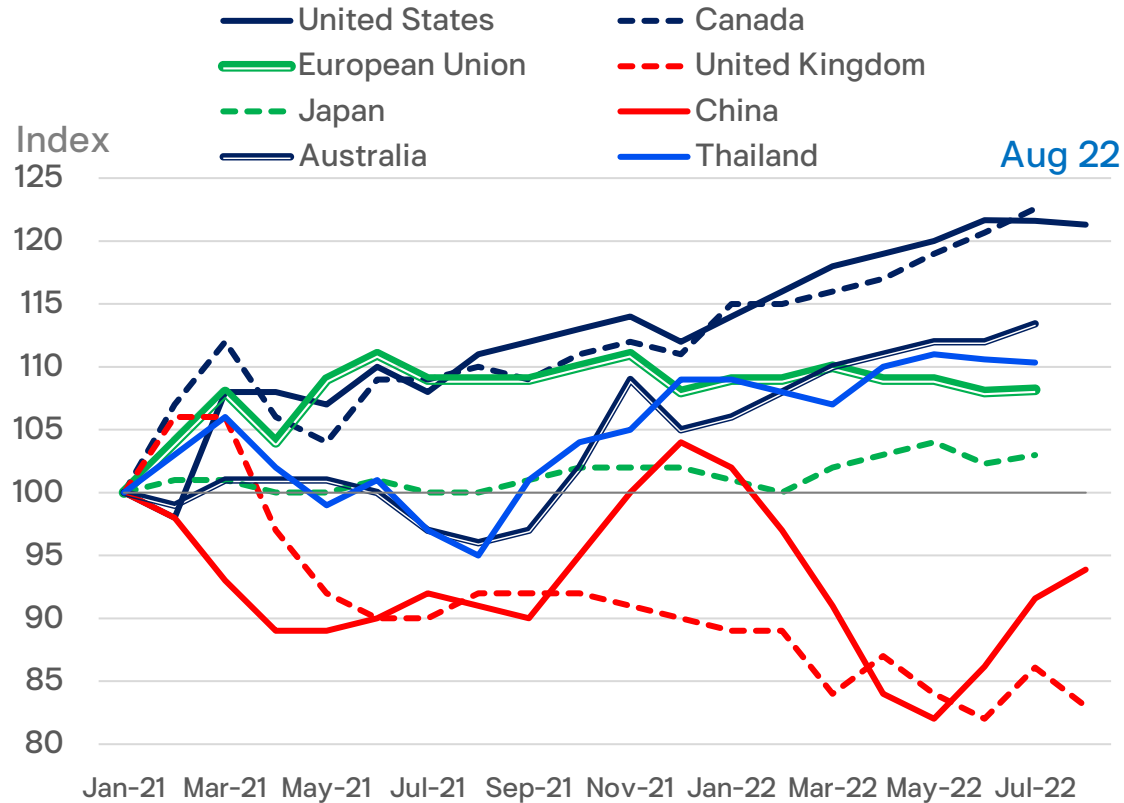


World inflation forecast 2022-2027

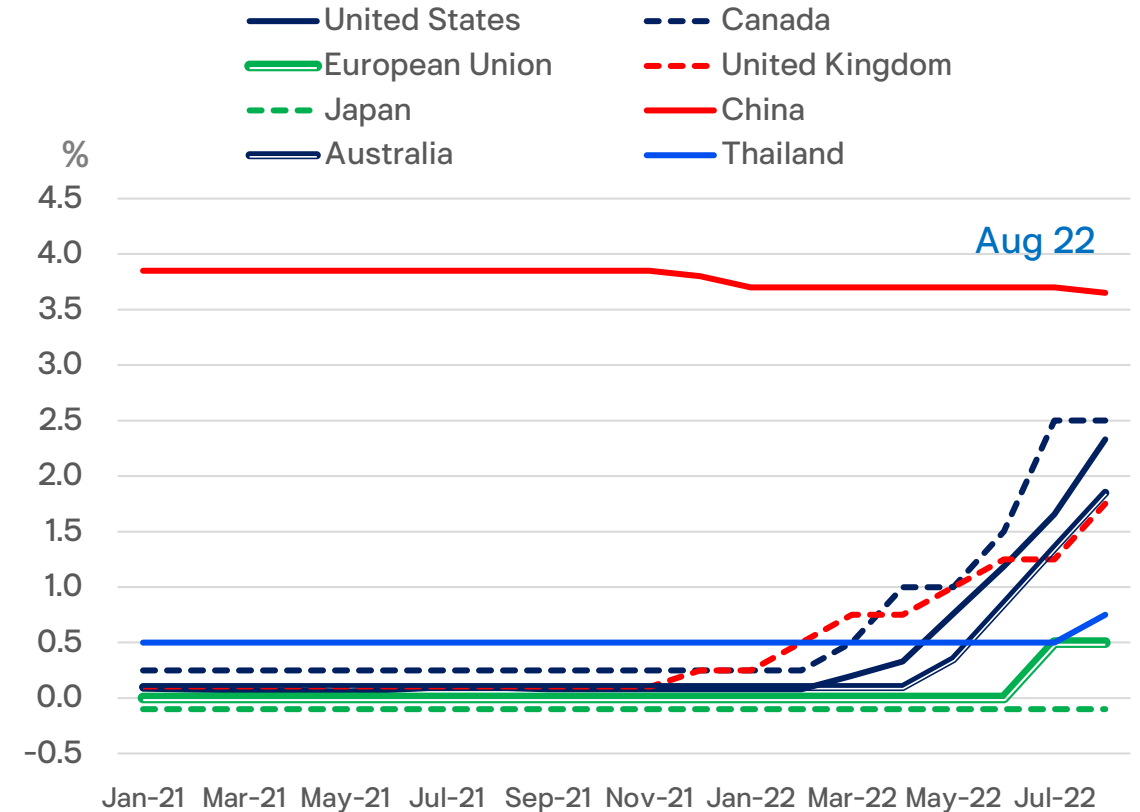


- Inflation around the globe is decelerating through the second half of the year after demand slowdowns and key commodities' prices have eased. However, it remains far too high for central bankers, triggering further rate hikes.
- Global inflation outlook for 2022 and 2023 are 8.3% and 5.7% respectively, while those of advanced economies stand at 6.6% and 3.3% for the current and the next year.

Global retail sales (sa)



Policy rate



- Domestic demands have started to soften in several nations while some have rebounded sluggishly due to weakened purchasing powers after encountering high living costs. In the meantime, major central banks have recently delivered supersized rate hikes to tame inflation and promise to continue such actions to bring inflation back to targets amid decelerating price pressures in H2/2022.

PART 2

Thai Economy



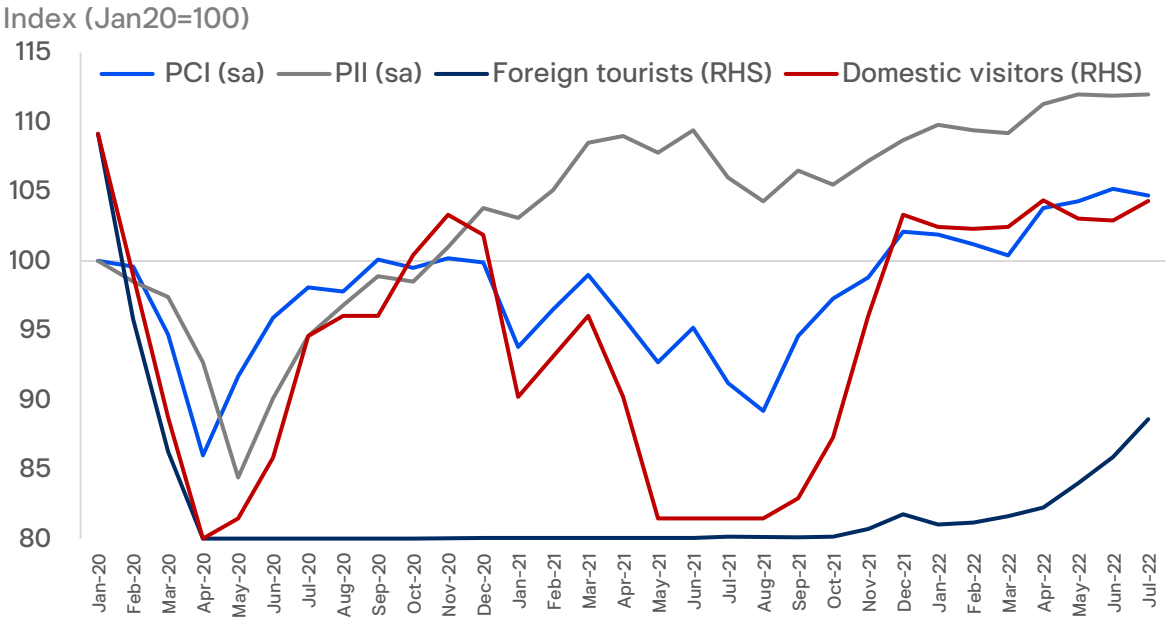
July 22: Thai economy continued to recover but slower pace; foreign arrival skyrocketing



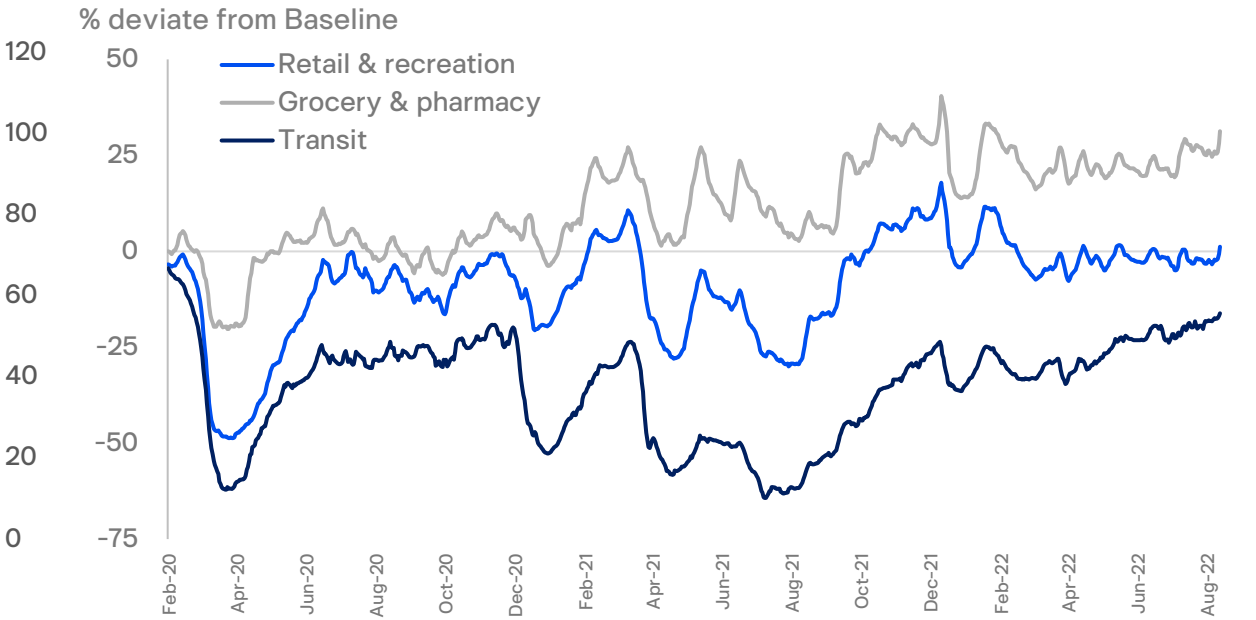
Coincident Economic Index (sa)

	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Coincident Economic Index (sa)	100.1	99.2	99.9	99.9	98.9	98.0	99.0	99.9	100.5	100.8	100.7	100.9	100.9	100.5	100.3	100.6	100.5
Import Volume index (exclude Gold)	102.5	103.1	107.6	103.2	103.8	109.0	102.1	104.3	99.8	115.9	104.9	107.9	112.5	109.6	109.2	109.4	110.5
Manufacturing Production Index	99.3	98.9	99.0	99.3	93.3	89.0	96.3	98.5	99.8	102.5	99.5	99.6	99.3	98.9	97.1	99.1	99.9
Gross Value Added Tax at 2000 price (Million baht)	58,633	51,079	54,217	55,279	54,009	54,648	52,842	55,047	61,594	57,139	56,930	58,144	58,511	57,467	56,777	58,146	55,517
C																	
Sales Benzene, Gasohol & Diesel Index	107.3	88.7	80.7	87.3	74.7	70.3	79.9	86.6	91.8	102.8	98.4	95.7	89.2	96.9	97.8	92.8	94.6
VAT Hotel & Restaurant Index	38.3	20.2	18.9	28.2	21.5	21.1	29.2	36.9	45.1	48.1	38.2	48.8	48.7	53.7	56.0	58.3	62.2
I																	
Imports of Capital Goods at 2010 price (Million USD)	3,943.3	3,904.6	3,703.2	3,910.5	3,905.9	3,959.5	3,863.7	3,812.8	3,807.0	3,878.4	3,926.9	3,851.8	3,853.0	3,767.0	3,943.3	4,181.3	3,973.6
Domestic Machinery Sales at 2010 price (Million THB)	85,332	87,277	87,579	89,786	86,640	81,628	88,249	88,945	90,303	90,123	91,033	92,003	87,812	92,390	91,711	85,131	92,271

Demand-side indicators



Google Mobility Report

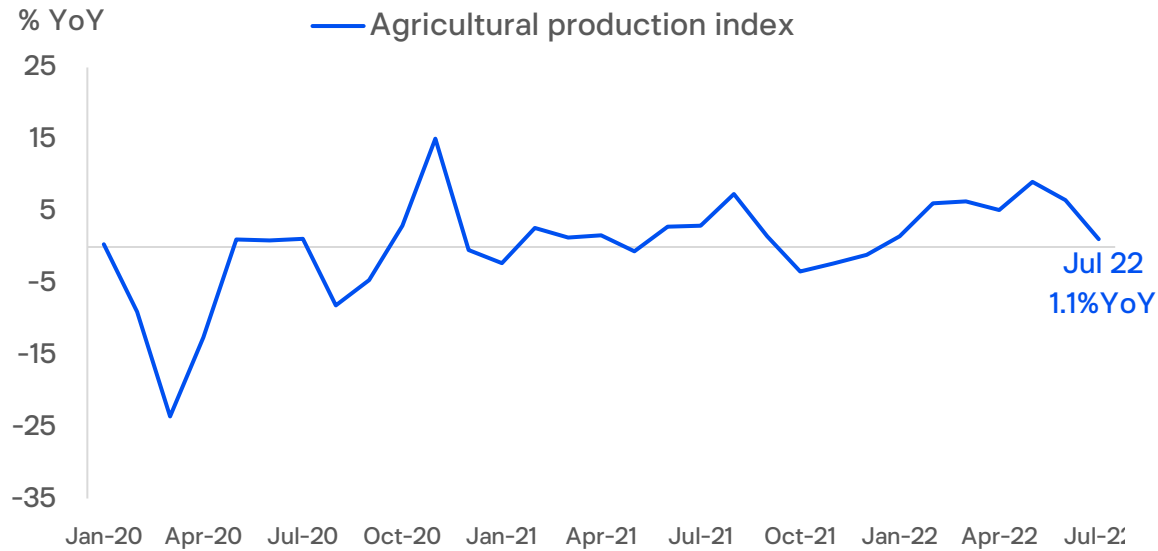


Source: Bank of Thailand, Google mobility report (Data as of 2 Sep 22) and ttb analytics

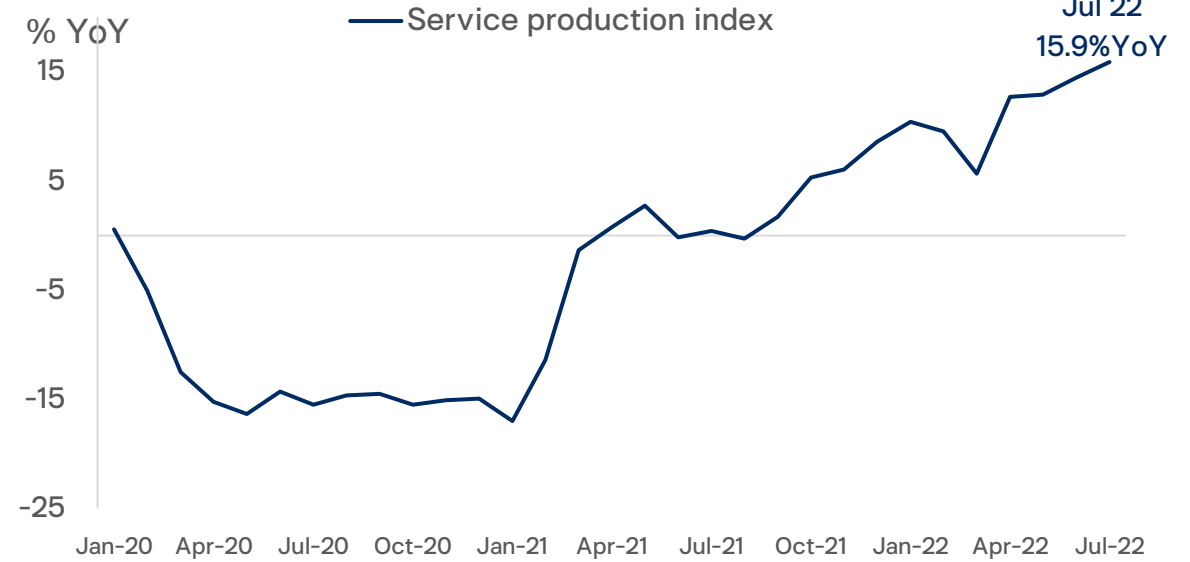
Agricultural production continue to drop, while services activities expanded steadily



Agriculture



Services



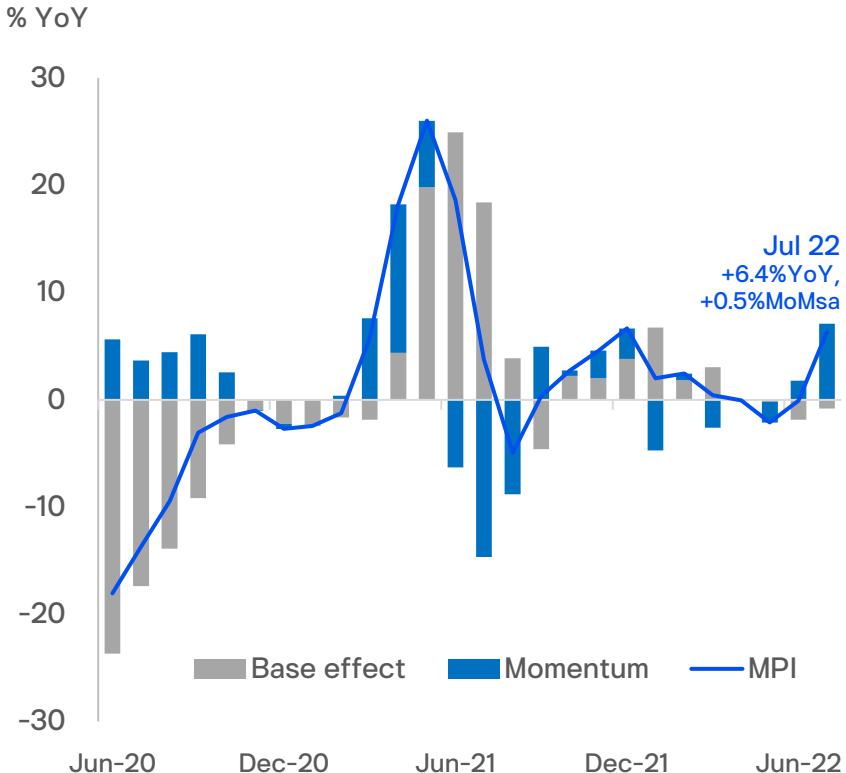
Service Production Index (Base Jan 2020=100)

	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Wholesale and retail trade; repair of motor vehicles and motorcycles	92.5	92.8	94.5	95.6	94.8	93.6	95.4	97.7	99.5	100.6	102.0	103.3	105.3	104.0	103.0	103.6	104.2
Transportation and storage	70.4	63.2	64.2	64.4	61.8	60.2	62.4	63.4	65.3	70.3	67.9	66.9	72.2	70.4	74.5	77.9	81.4
Accommodation and food service activities	17.9	11.7	2.4	2.2	1.8	1.7	3.8	8.0	20.2	30.4	27.9	28.0	29.1	32.7	35.4	39.5	47.4
Information and communication	114.2	99.6	108.4	102.7	95.8	110.3	116.3	98.8	108.7	121.4	112.8	99.8	116.9	103.0	115.2	117.3	109.7
Financial and insurance activities	117.0	110.4	113.5	115.6	114.2	115.3	114.9	111.5	113.1	115.5	102.2	101.5	102.2	118.8	120.3	111.3	108.3
Real estate activities	102.0	93.5	97.4	99.3	116.7	116.4	121.3	121.1	128.1	133.9	123.3	122.3	128.7	120.6	122.0	123.8	124.2
Professional, scientific and technical activities	113.9	102.3	101.8	106.1	102.7	97.9	105.4	111.4	113.0	125.1	120.1	107.4	126.1	120.1	118.4	129.2	143.6
Administrative and support service activities	83.7	76.8	76.6	79.2	86.7	71.1	80.4	73.6	81.1	85.1	82.0	76.7	89.3	79.2	77.3	85.7	90.6
Public administration and defence; compulsory social security	107.0	103.4	102.0	99.2	102.6	107.6	113.5	105.8	101.0	106.5	102.1	97.6	92.1	116.1	105.1	104.4	108.3
Service Production Index	88.8	84.3	84.6	84.9	85.6	86.0	89.2	88.1	91.1	95.9	92.3	90.5	93.5	97.0	96.3	97.1	99.3

Manufacturing production improved significantly in line with reopening economy



Manufacturing



Manufacturing Production Index (Base Jan 2020=100)

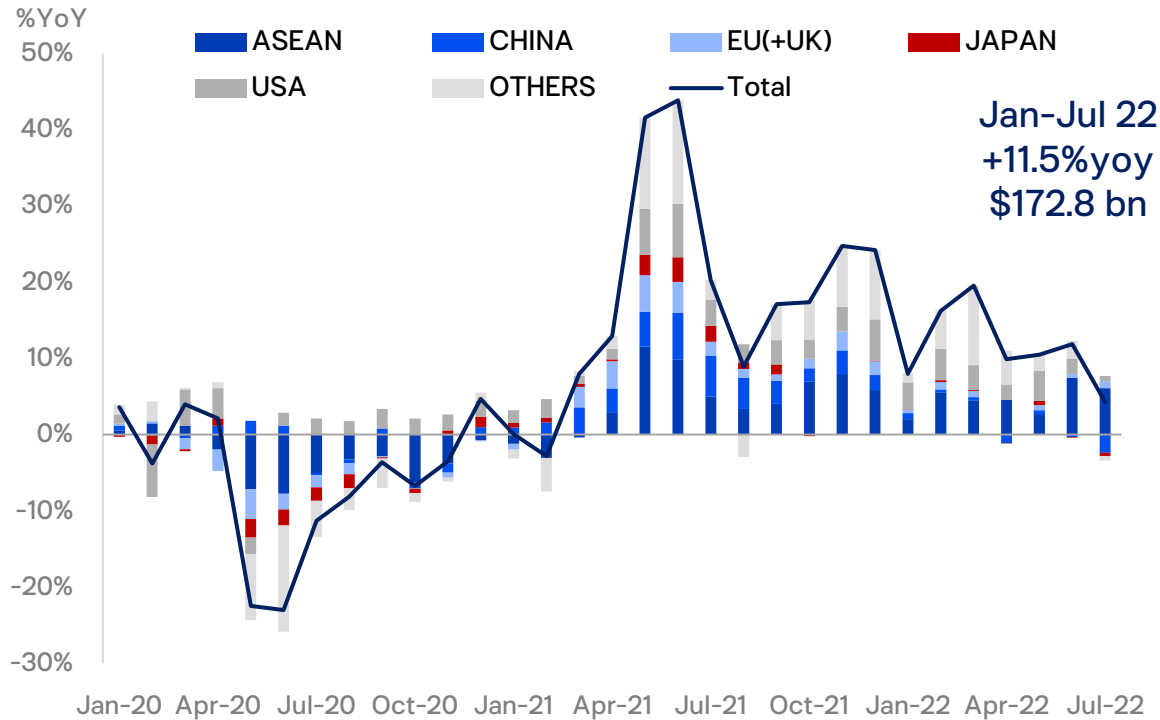
Contribution	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
Food products (16.2%)	Green	Green	Orange	Red	Yellow	Yellow	Green	Green	Yellow	Yellow	Yellow	Red	Orange	Yellow	Green
Beverages (3.8%)	Yellow	Yellow	Orange	Red	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Tobacco products (0.5%)	Yellow	Yellow	Yellow	Yellow	Green	Red	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Textiles (1.6%)	Green	Green	Yellow	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Wearing apparel (1.9%)	Orange	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Yellow	Green	Yellow	Yellow	Green	Yellow	Green
Leather products (0.9%)	Green	Green	Yellow	Orange	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green
Paper products (2.9%)	Green	Green	Yellow	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Orange	Orange	Orange
Coke and refined petroleum products (9.6%)	Yellow	Orange	Orange	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green
Chemicals (8%)	Green	Green	Green	Orange	Yellow	Yellow	Green	Green	Yellow	Orange	Orange	Orange	Red	Orange	Orange
Pharmaceutical products (1.2%)	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Red	Orange	Orange	Orange	Yellow
Rubber and plastics products (8.9%)	Yellow	Yellow	Red	Red	Red	Red	Green	Yellow	Orange	Yellow	Yellow	Yellow	Yellow	Red	Green
Other non-metallic mineral products (5.5%)	Green	Green	Yellow	Yellow	Yellow	Red	Orange	Yellow	Red	Orange	Yellow	Yellow	Yellow	Yellow	Yellow
Basic metals (3.6%)	Yellow	Red	Red	Red	Red	Red	Red	Red	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Fabricated metal products (1.9%)	Green	Yellow	Yellow	Orange	Yellow	Yellow	Orange	Red	Orange	Yellow	Yellow	Yellow	Red	Orange	Orange
Computer and electronic products (8.9%)	Green	Green	Yellow	Orange	Orange	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Electrical equipment (3%)	Red	Red	Yellow	Yellow	Yellow	Orange	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Machinery and equipment (2.7%)	Green	Green	Yellow	Red	Red	Red	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Motor vehicles (13.9%)	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Green
Other transport equipment (1.1%)	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Furniture (1.5%)	Green	Green	Orange	Orange	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Others (2.4%)	Yellow	Orange	Orange	Orange	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
MPI (%YoY)	26.0	18.6	3.7	-4.9	0.4	2.7	4.6	6.7	2.0	2.5	0.4	0.0	-2.1	-0.1	6.4

- As of Jul22, Manufacturing Production Index (MPI) improved significantly at 6.4%YoY compared to a decrease 0.1%YoY in previous month. The better momentum were mainly from motor vehicles, concrete and cement production, as well as rubber and plastic products in accordance with reopening country that boosting up purchase order.

Total export in July grew 4.3%YoY as expected

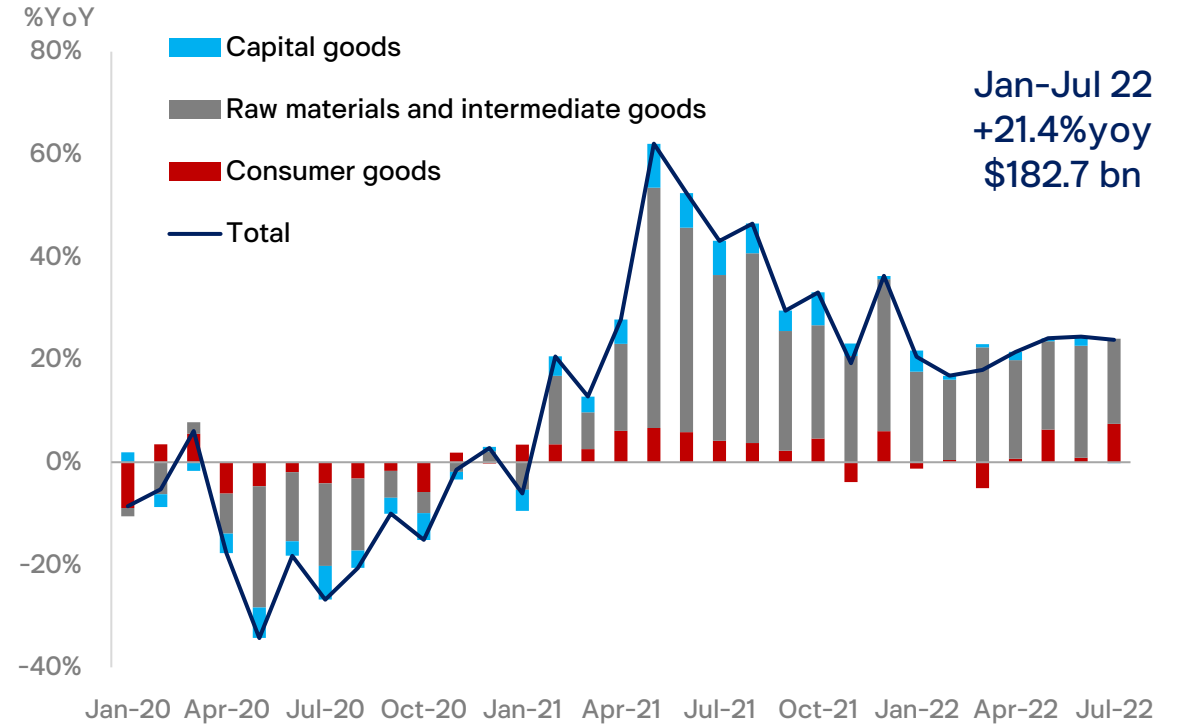


Exports value by destination*



Total export growth	2019	2020	2021	2022F
	-2.6%	-5.9%	17.1%	8.1%
	\$246 bn	\$232 bn	\$272 bn	\$294 bn

Imports value by groups*



Total import growth	2019	2020	2021	2022F
	-4.8%	-12.7%	29.8%	17.6%
	\$236 bn	\$206 bn	\$267 bn	\$312 bn

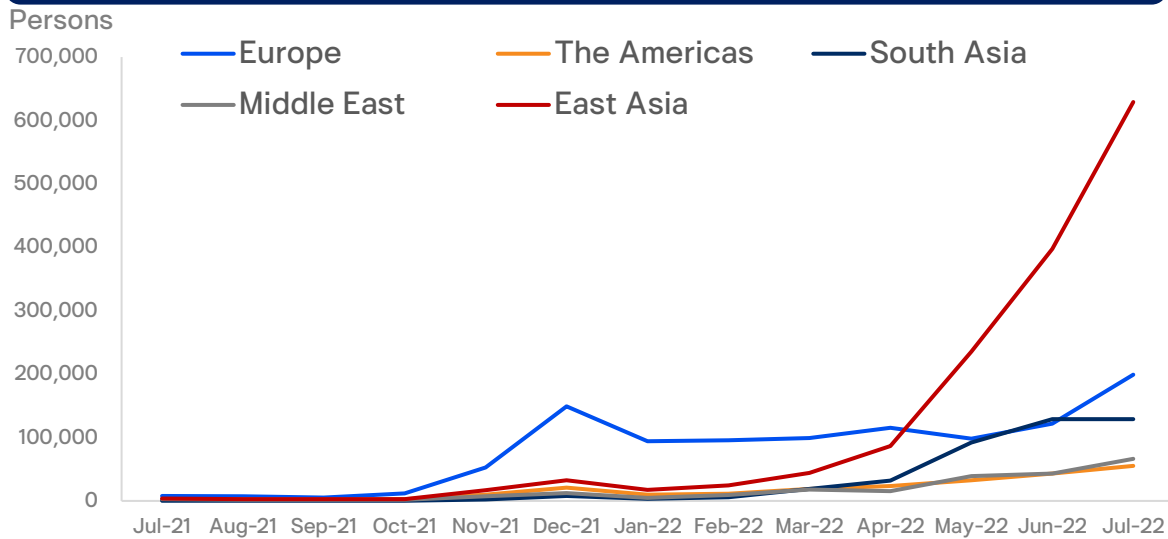
- As of Jul 22, total exports grew 4.3%YoY, compared to previous month at 11.9%YoY led by the decrease of export in auto and parts, computer and parts, and rubber products. On the other hand, agricultural and agro-industry products also decelerated, particularly in fresh fruits and cassava.

Total Foreign Tourist Inbounds

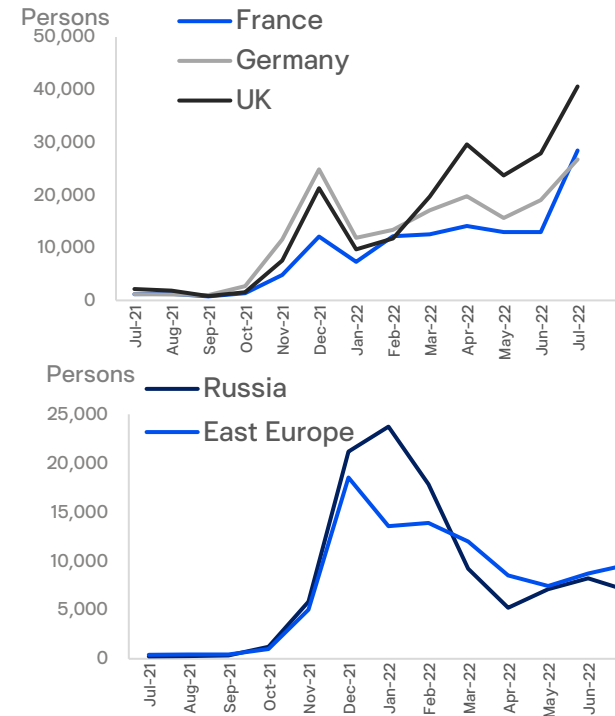


As of Jul22, foreign tourist increased consecutively from last month after both Thailand and several foreign nations have eased travelling restrictions. The major groups still came from East Asia, led by Malaysia. Significant recovery of India could also be seen. More importantly, European tourists show a signal of return after a huge drop earlier.

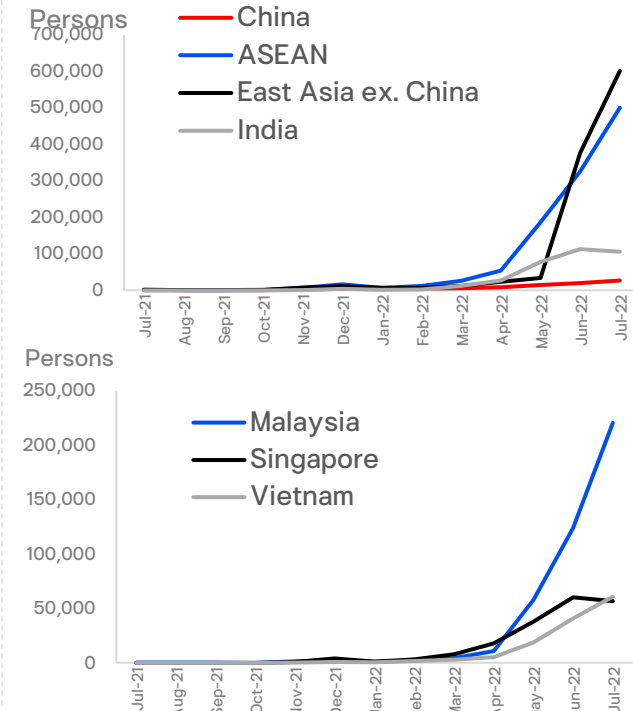
Classification by region



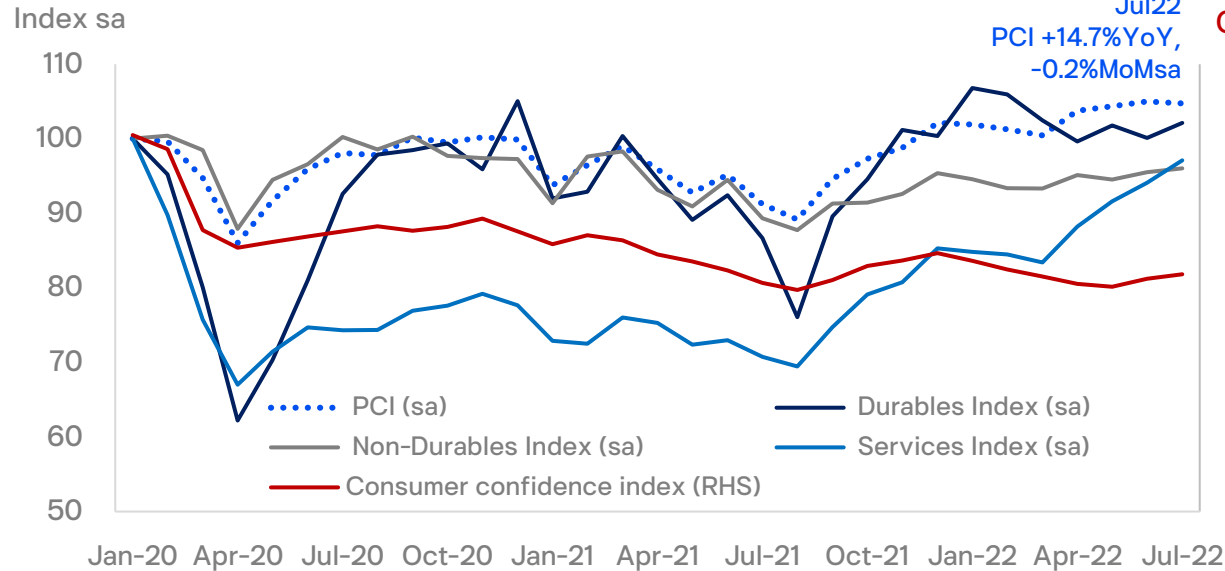
Europe



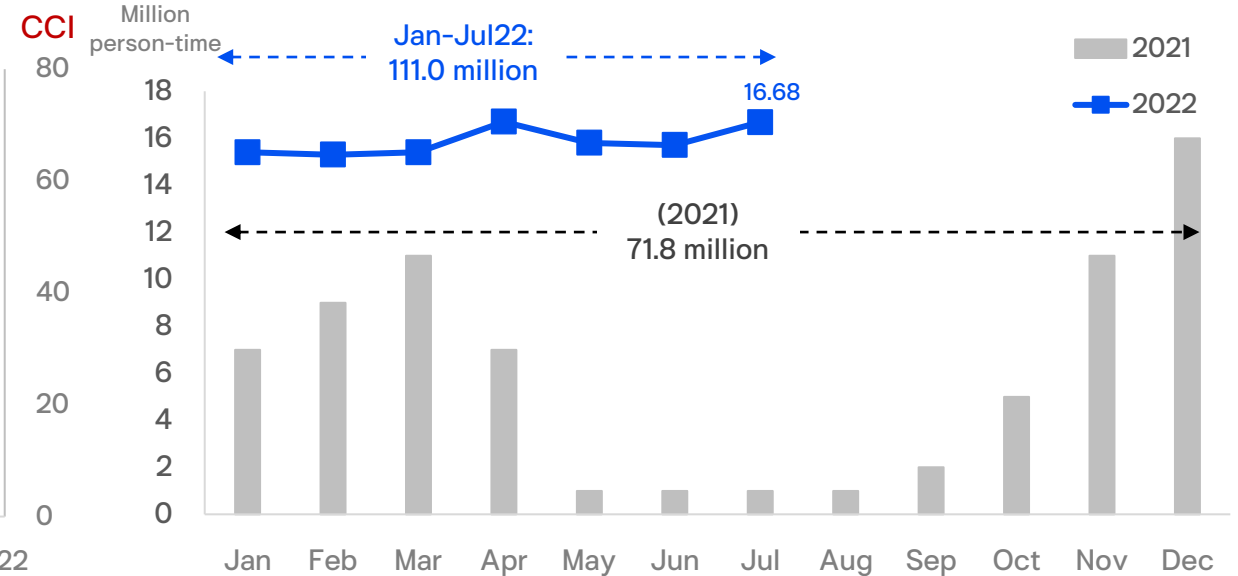
East Asia and India



Private Consumption (SA)

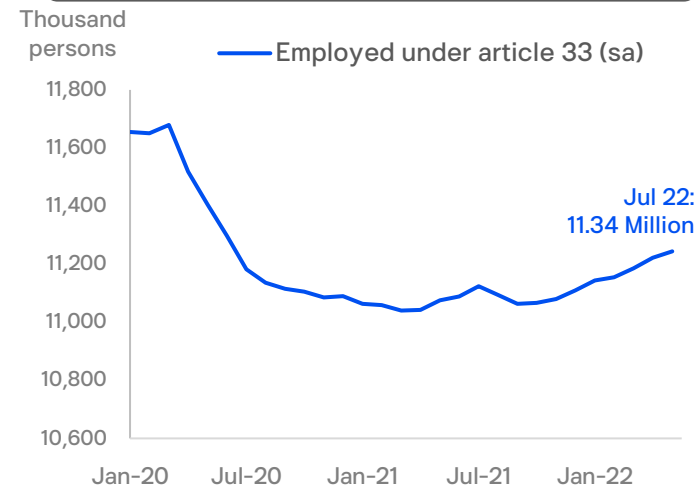


Thai domestic tourism visitors

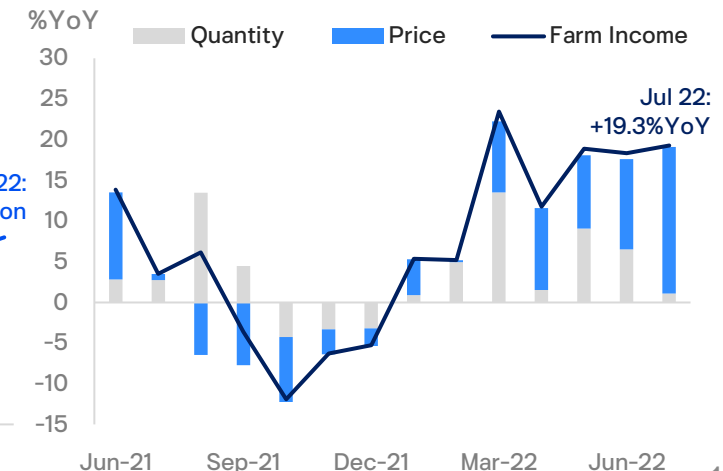


- Private consumption in July continued to rise but slightly decreased compared to previous month, led by service index.
- Several fundamental factors supporting household consumption such as employment, income, and consumer confidence, gradually improved.
- Farm incomes improved in accordance with the reduction in output, but the better agriculture prices boosting overall income

Employment M33



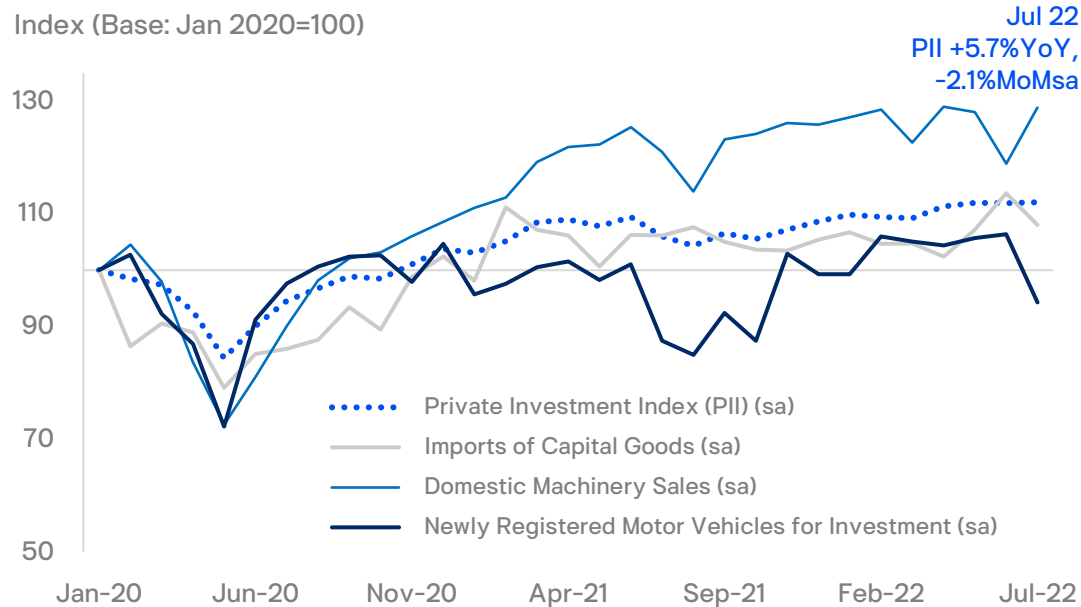
Farm Incomes



Private investment dropped from month earlier after pent-up demand exhausted

Private Investment (SA)

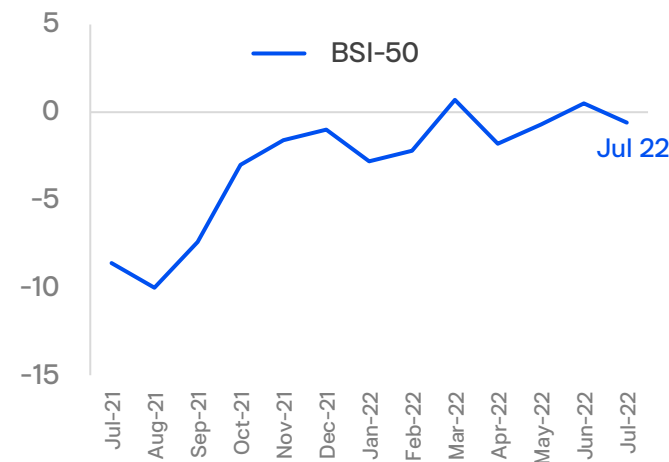
Index (Base: Jan 2020=100)



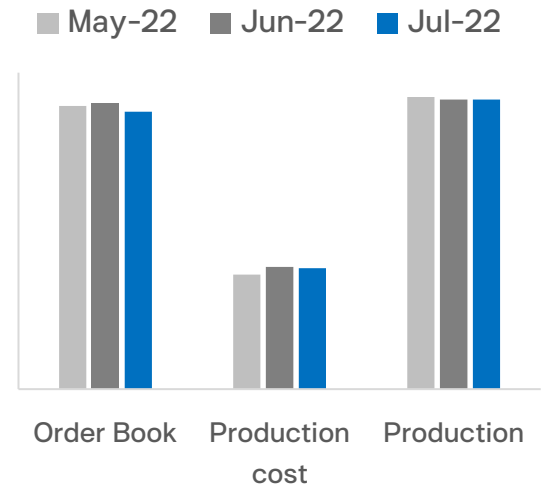
- Private investment indicators improved in annually-basis but decreased from month earlier mainly from machinery and equipment category after a good performance in the previous month.
- Construction material sales dropped from last period but permitted construction areas continued to rise considerably.
- Public spending contracted from the same period last year due to contraction in capital expenditure of the central government which had front-loaded its disbursement at the beginning of its fiscal year.

Business Sentiment Index

Below/above baseline

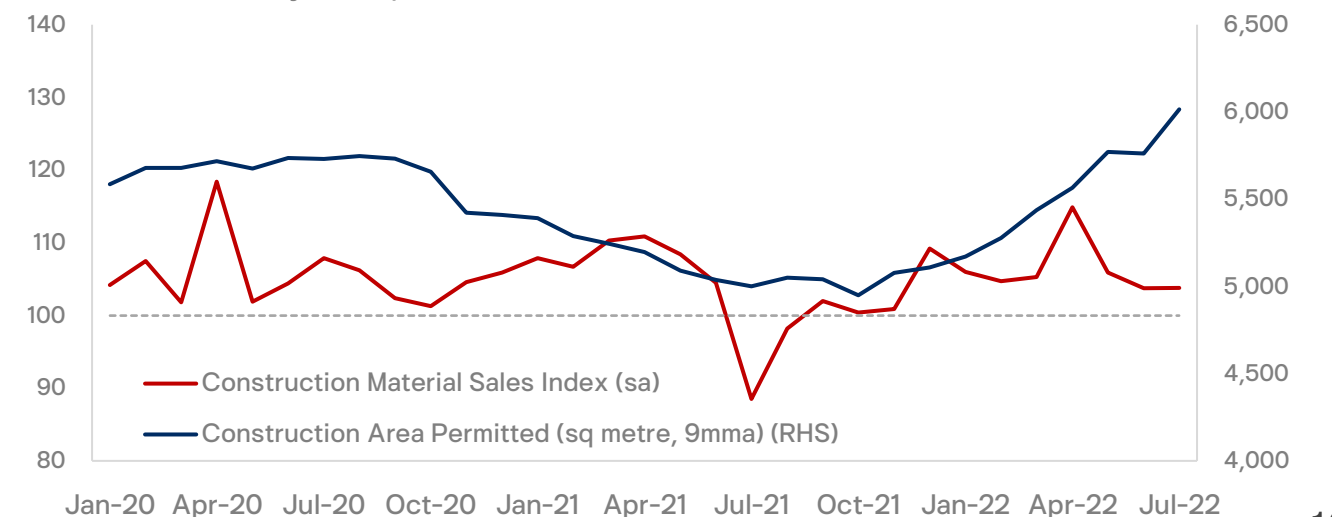


Index



Construction sector (SA)

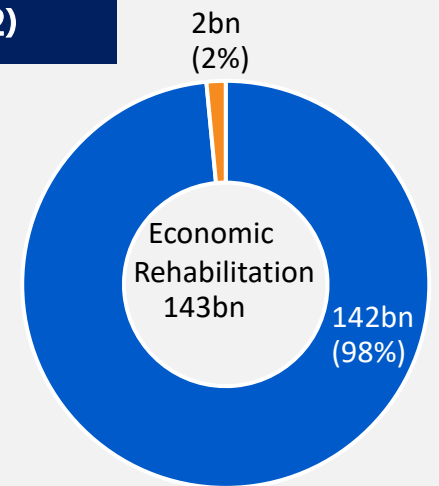
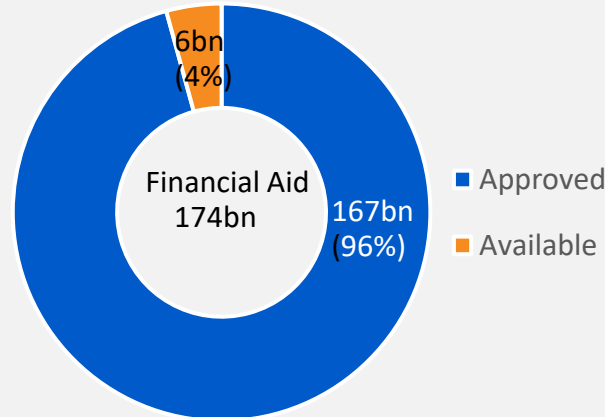
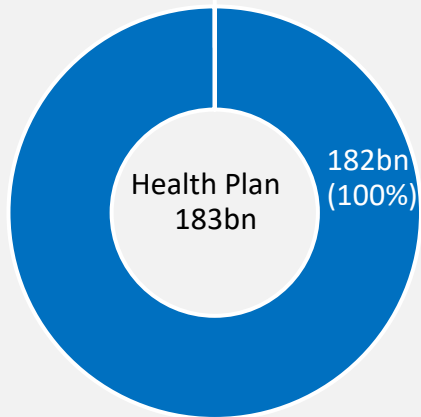
Index (seasonal adjusted ,base: Jan 2020=100)



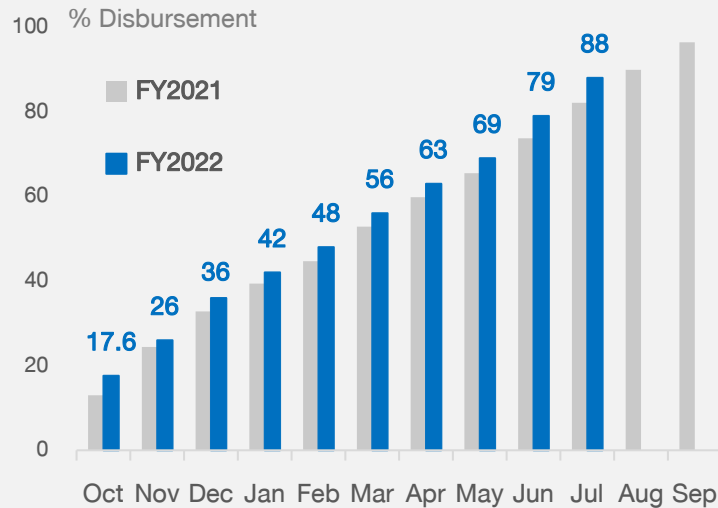
Only THB8bn is the leftover liquidity from THB500bn emergency loan decree to support economy in 4Q22



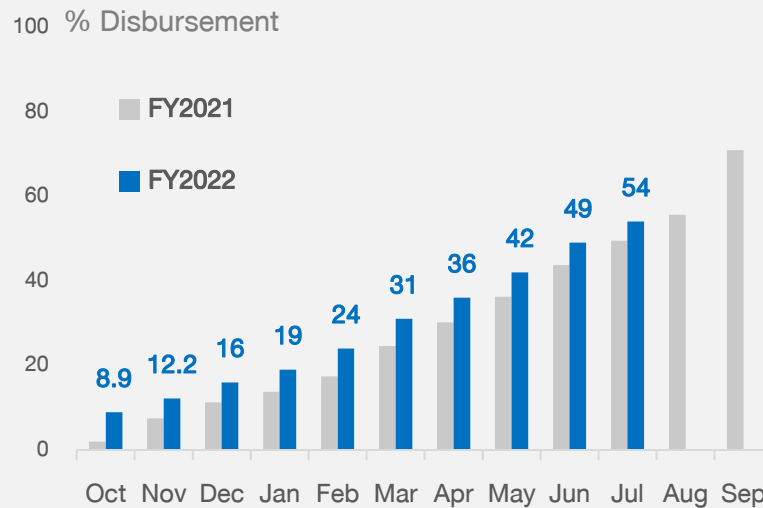
Progress on 500 billion Worth of Covid Stimulus Package by Purpose (as of Aug 2022)



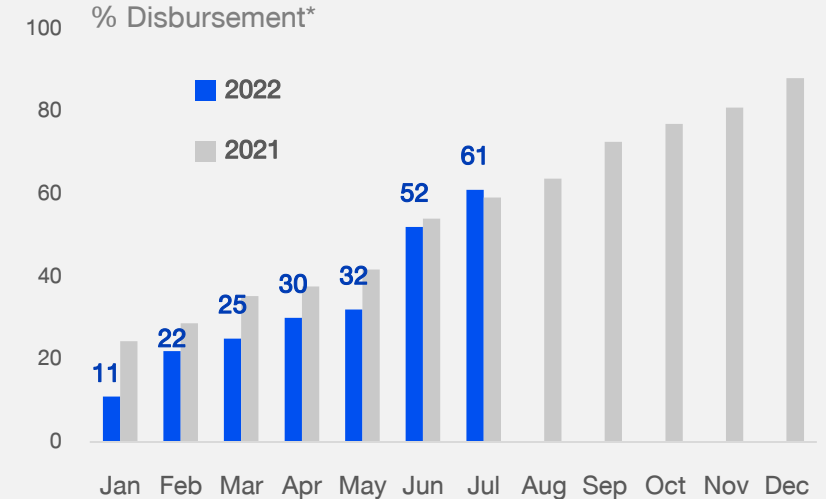
Current Expenditures(10MFY22) : 2,195bn



Public Investment Expenditures(10MFY22) : 324bn



SOE Investment : 213bn (as of Jul 2022)

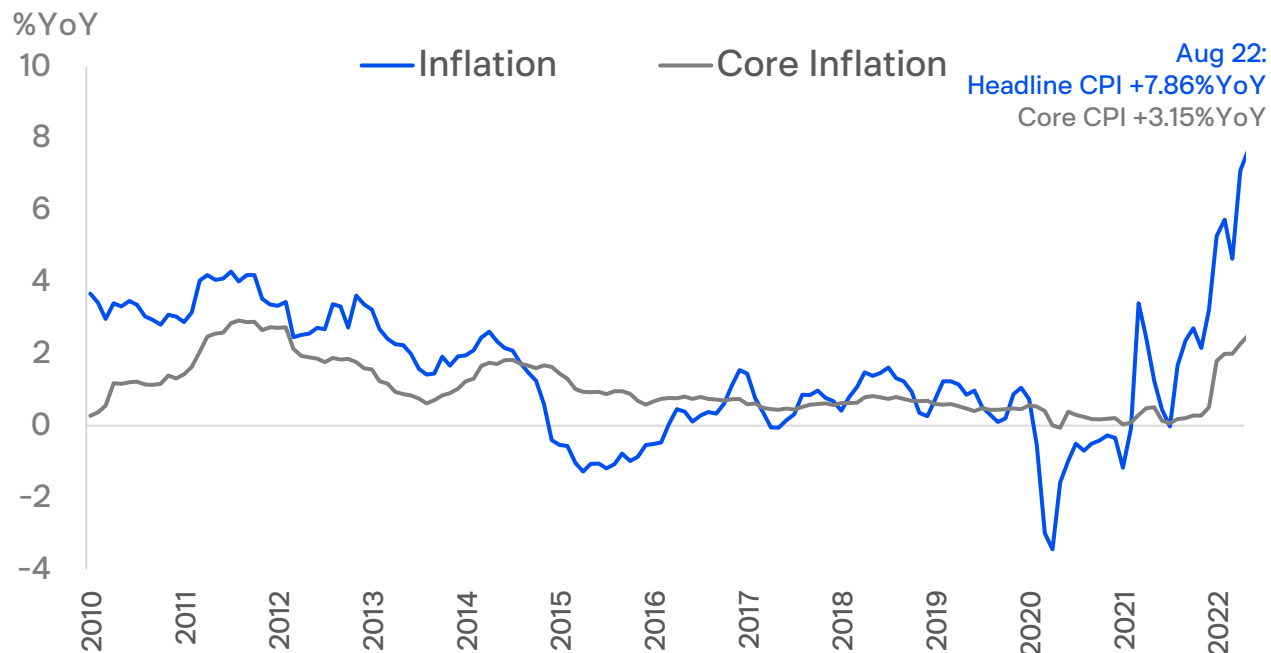


Source: NESDC, FPO, SEPO and ttb analytics

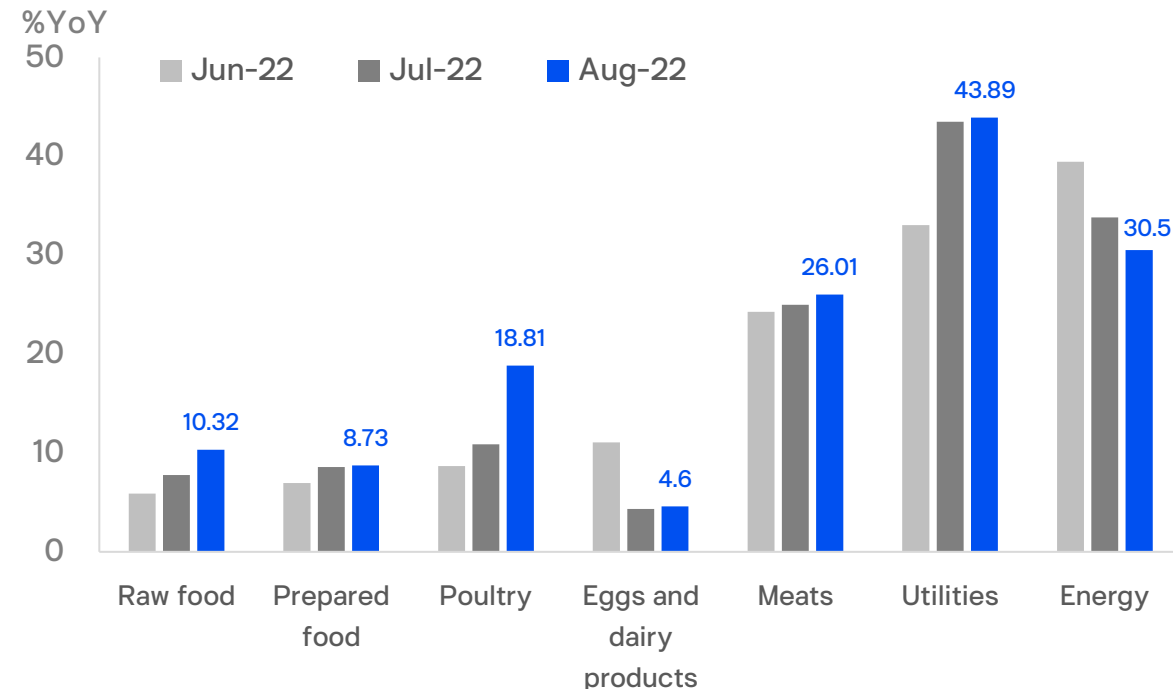
* Accumulated disbursement / Full year Plan

August inflation rose 7.86%, a further peak since 2008

Headline vs core inflation



Price change in top categories (Aug22)



Historical Thai Inflation (%yoy)

%YoY	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
HCPI	2.17	5.19	-0.83	3.3	3.81	3.01	2.19	1.9	-0.9	0.19	0.67	1.07	0.71	-0.84	1.24	6.14
Food	4.08	11.56	4.54	5.43	7.94	4.89	3.41	3.94	1.14	1.6	0.01	0.41	2.32	1.23	-0.12	5.27
Housing	0.13	-3.19	-1.55	2.03	1.31	2.73	1.9	1.41	0.59	-0.99	0.17	1.03	0.42	-1.02	-1.69	4.94
Transport	2.72	6.38	-9.41	3.81	1.73	1.58	1.34	0.09	-6.52	-1.75	2.37	2.31	-1.14	-4.53	7.81	11.30
Core CPI	1.08	2.29	0.27	0.95	2.36	2.10	1.01	1.59	1.05	0.74	0.55	0.71	0.52	0.29	0.24	2.16

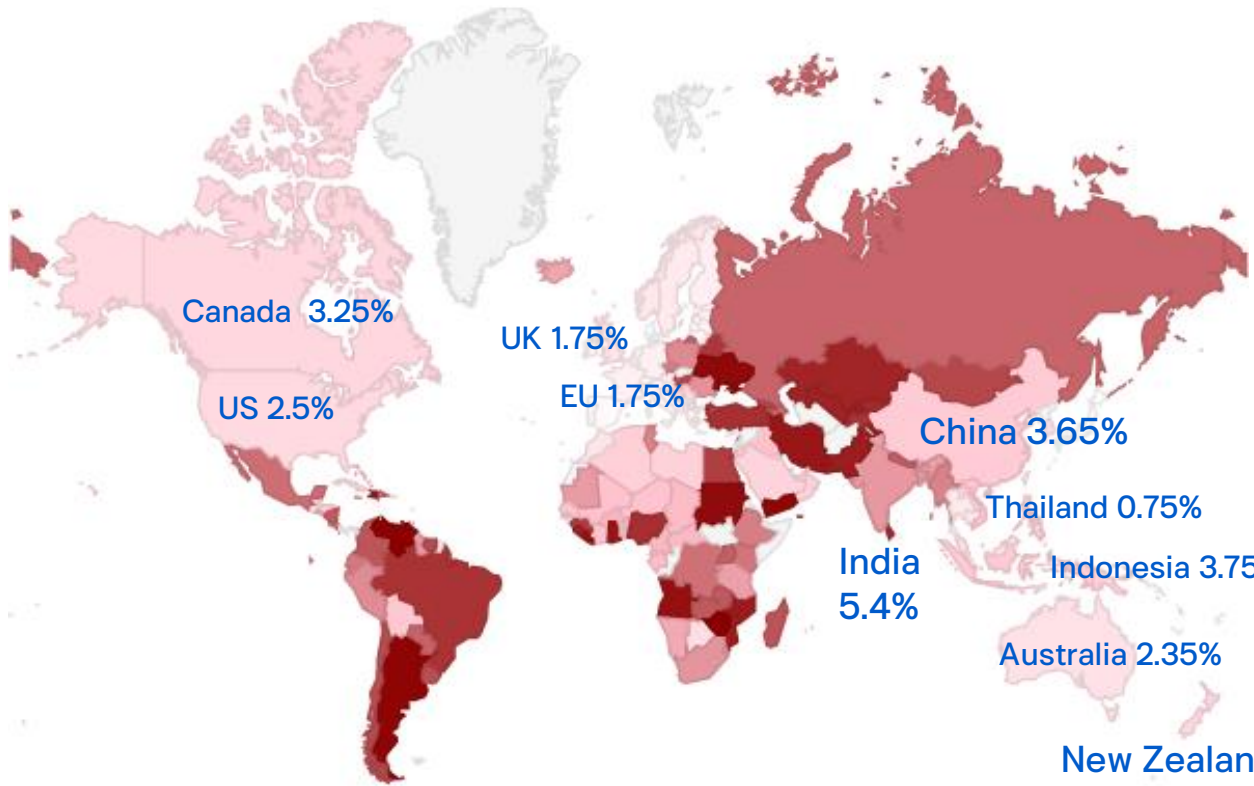
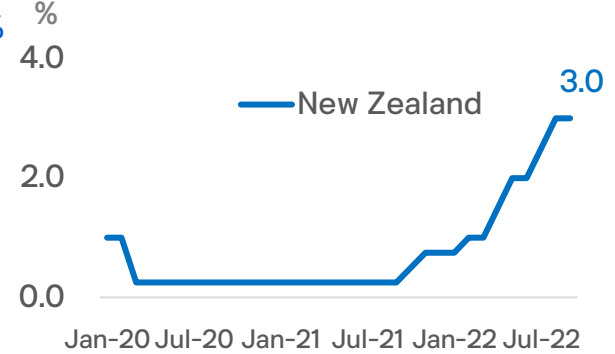
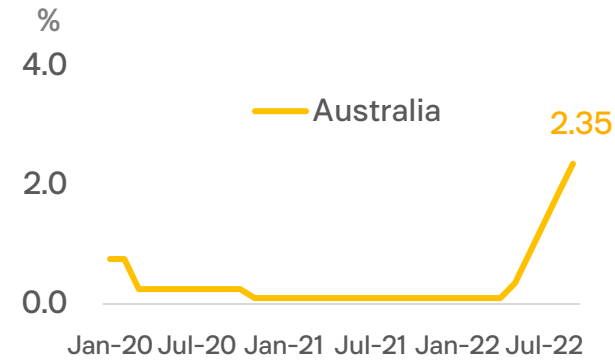
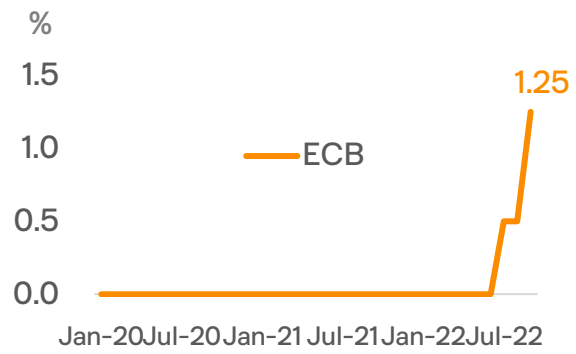
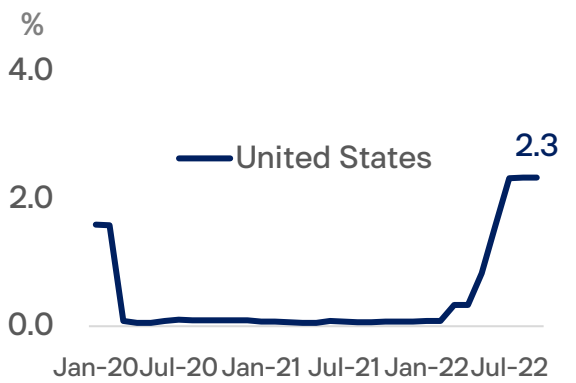
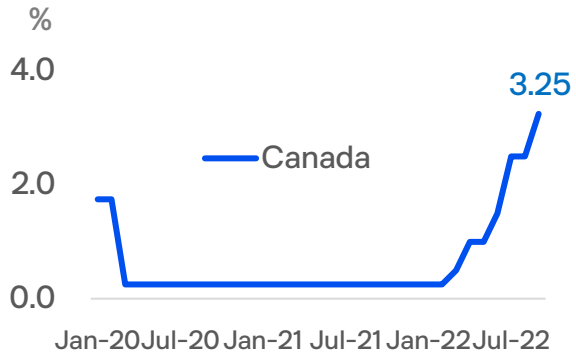
PART 3

Financial Market



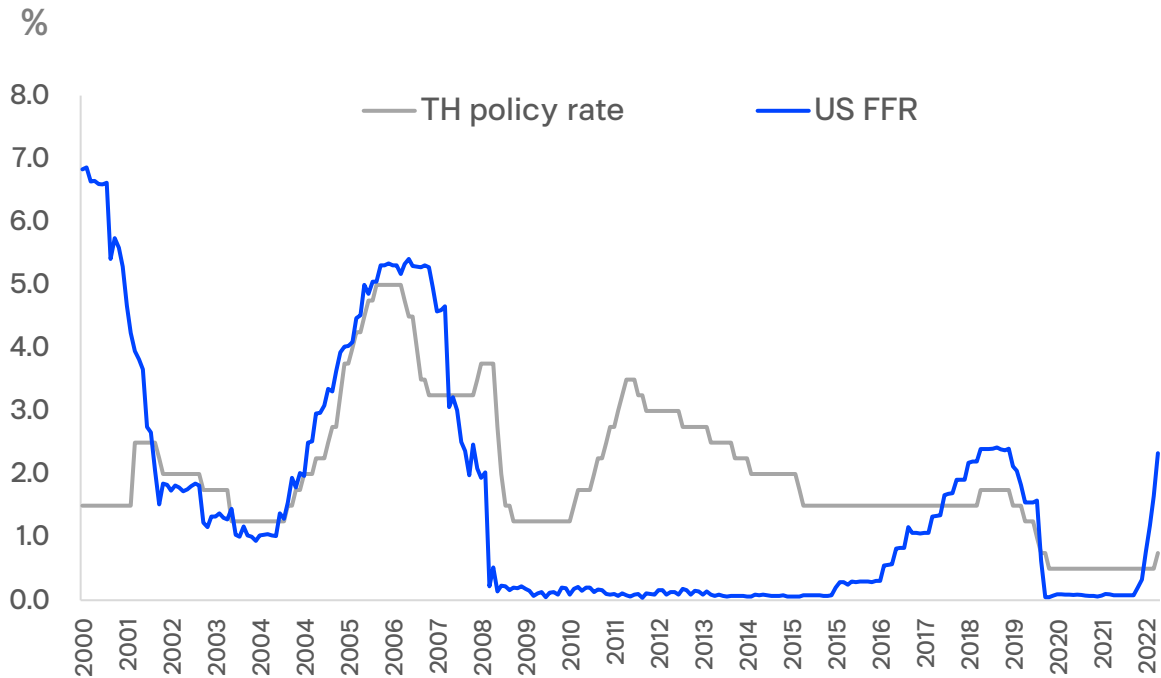
Major central banks sent signals of further rate hike to curb inflation back to target

Most central banks start the course of rate hiking to fight inflation in 2022

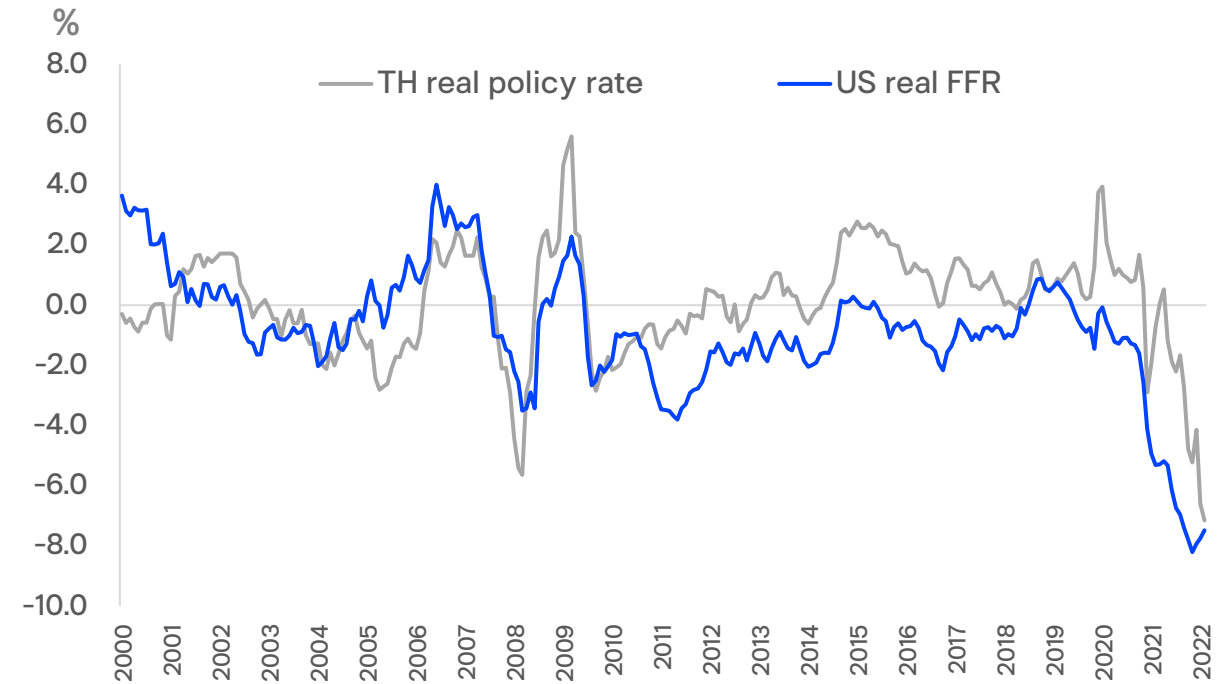


Source: BOT, CEIC and ttb analytics

FED-BOT Policy rate Historical (Nominal rate)

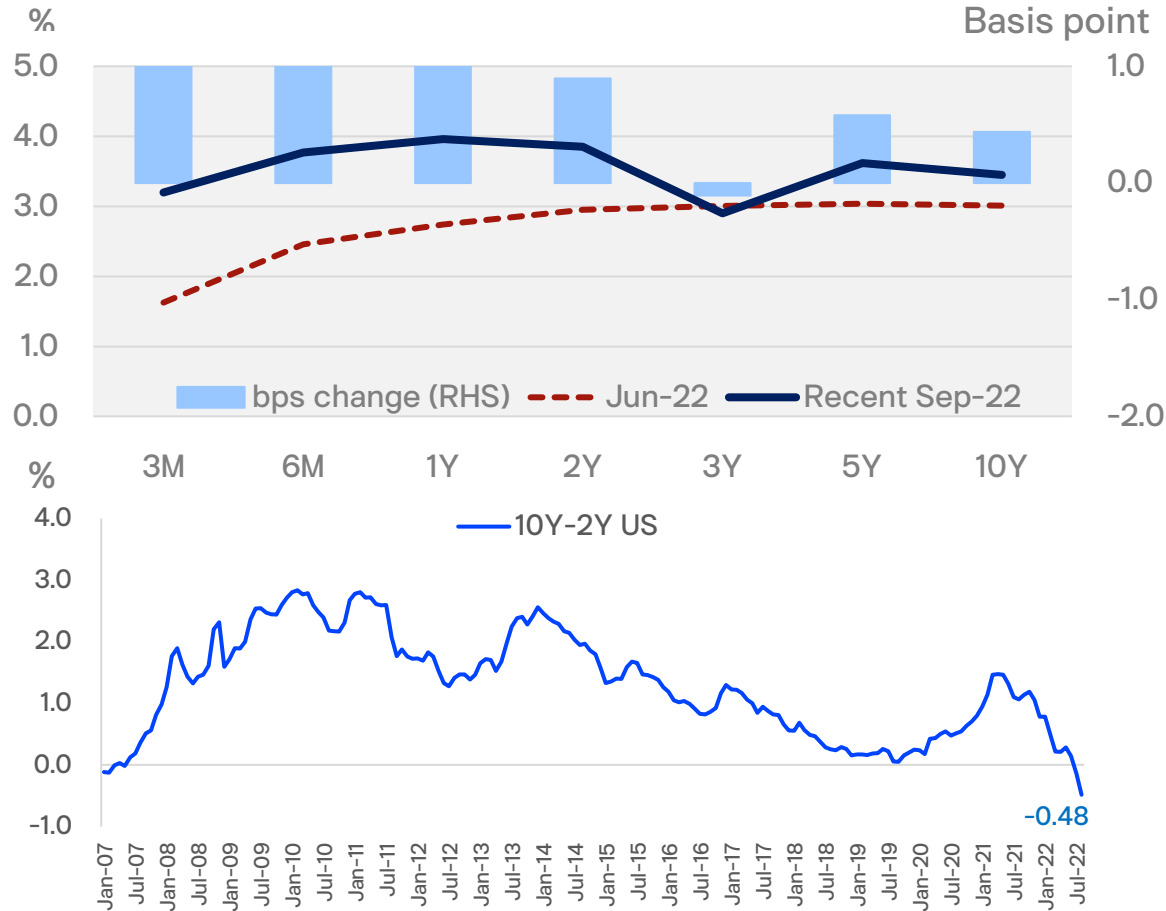


FED-BOT Policy rate Historical (real rate)

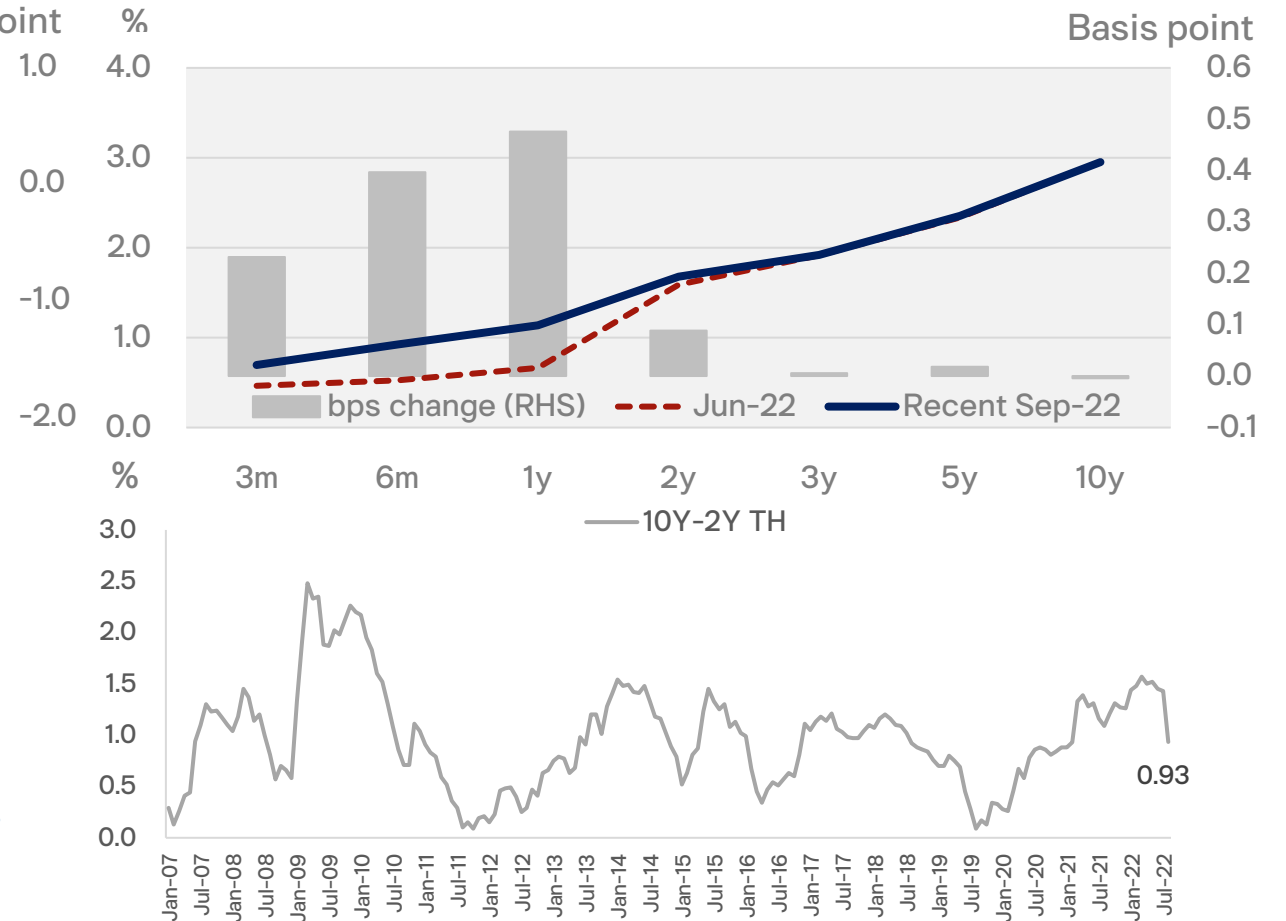


- The gap between US and Thai policy rate turns narrow, with the current Fed's target range is 2.25%-2.50% and Thai policy rate 0.75%
- According to high inflation rate, real policy rate of both US and Thai remained in negative territory.

US government yields

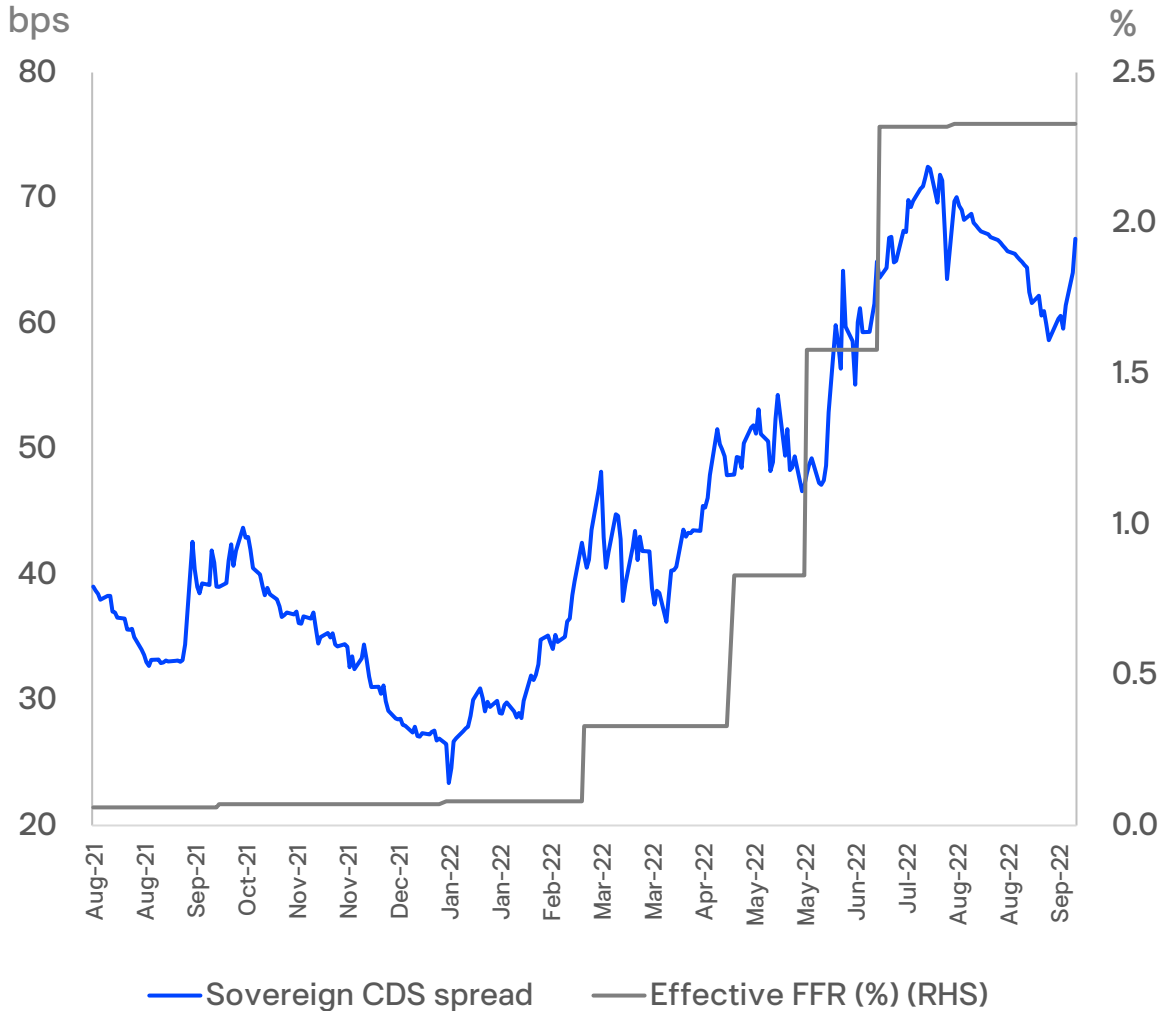


Thai government yield curve

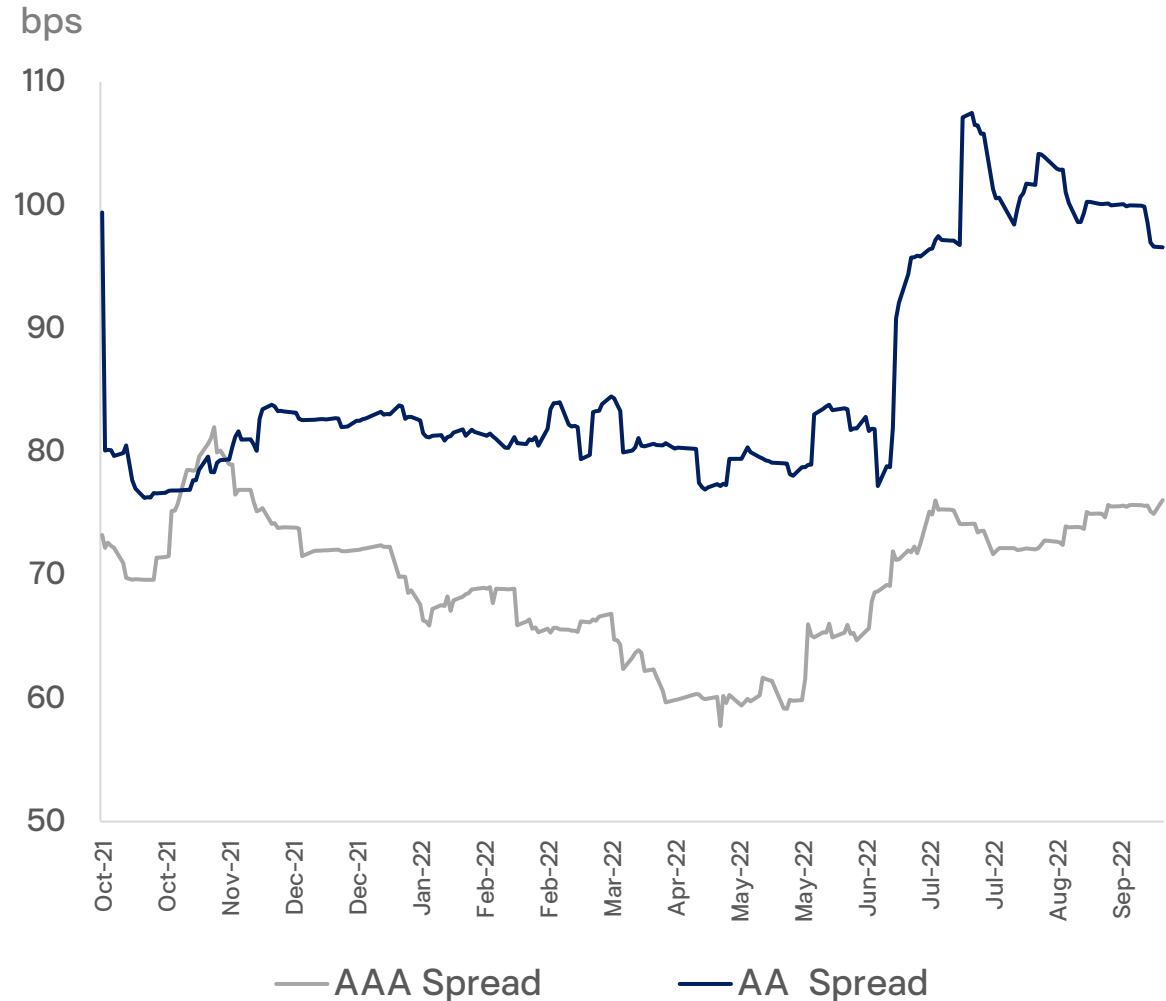


- For both US and TH government bond, Investors went into long term tenor due to recession concerns. Moreover, 10y/2y yield spread for US government bond dropped below zero, signaling approaching recession in US. Meantime, 10y/2y yield spread for Thai government bond also declined but above zero.

Sovereign CDS spread vs Effective Fed Fund Rate



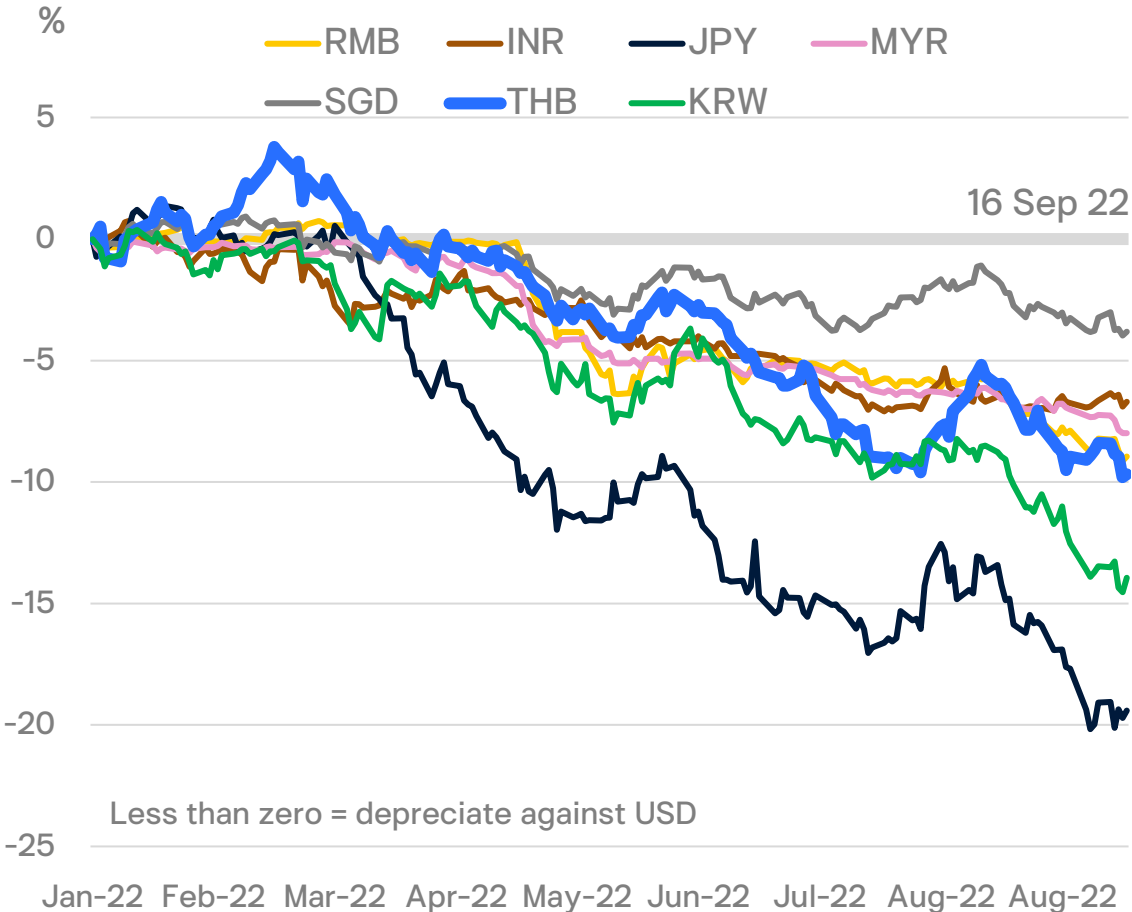
Credit spread: AAA/AA rating



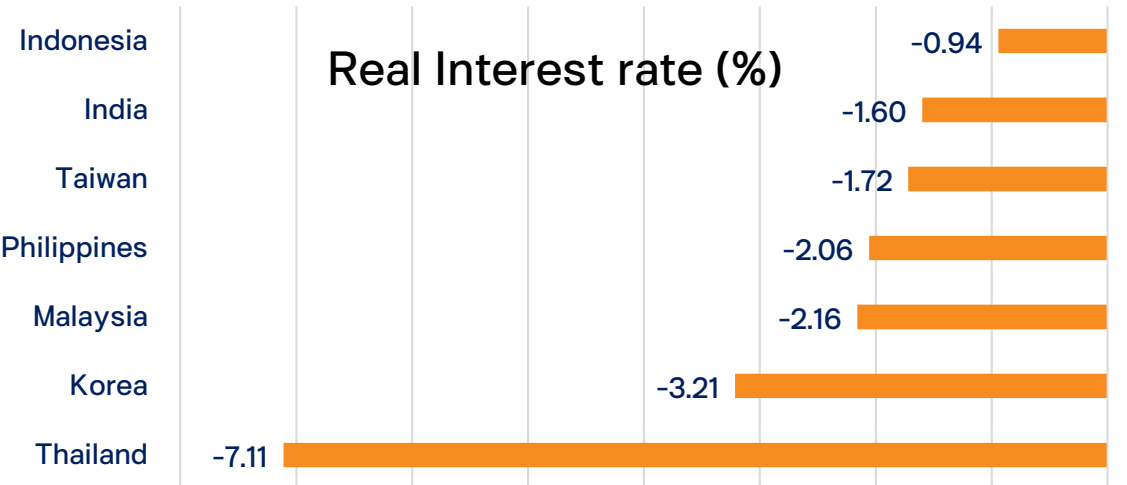
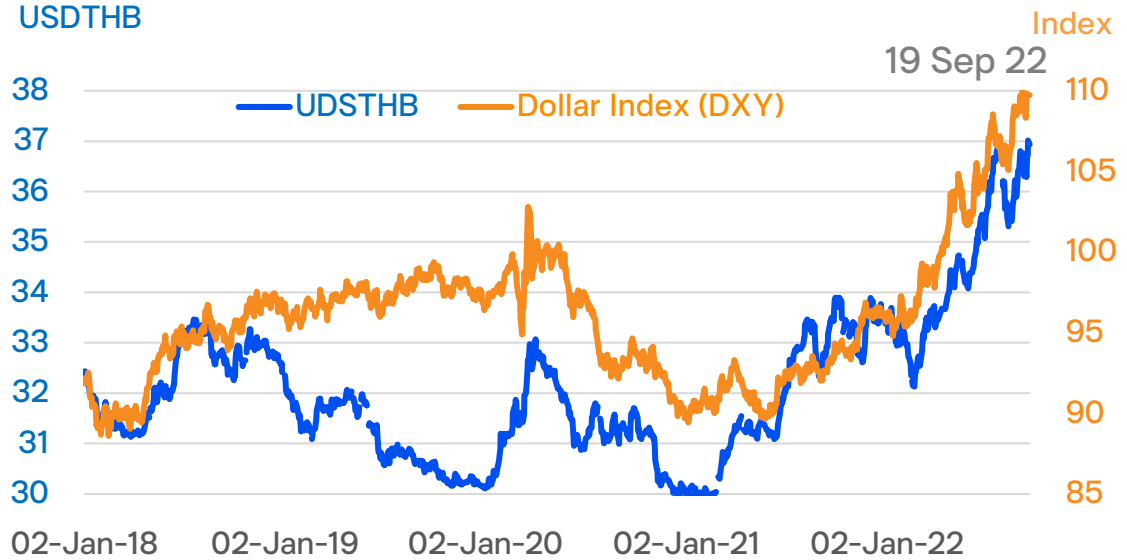
Strong dollar put pressure on Asian currencies together with negative real interest rate



Major Asian currencies against USD



Dollar Index / USDTHB



Source: Yahoo Finance, CEIC and ttb analytics

The logo features the lowercase letters 'ttb' in a bold, sans-serif font. The first 't' is blue, the second 't' is orange, and the 'b' is dark blue. To the right of the 'ttb' is a vertical line, followed by the word 'a.n.a.l.y.t.i.c.s' in a dark blue, sans-serif font with dots between each letter.