FINANSIA
FSS INTERNATIONAL INVESTMENT ADVISORY

Thailand Market Strategy

US recession fears no more

- A fast and furious Fed rate hike would induce a tumultuous downcycle globally, led by a potential recession on multiple negative quarterly GDP growth prints, in our view.
- We believe a 3% policy interest rate differential is achievable for Thailand vs the US; our SET index downside correction estimate is 1,480 during 2H22.
- Top picks for Aug-22 are BCH, BH, MINT, BA, SHR, EA, NEX, CKP and KTB.

From moderation to correction

In the next 6-12 months, we believe the global economy, led by the US, is likely to enter a tumultuous downcycle, with the US economy likely to enter a recession on multiple negative quarterly GDP growth prints caused by the US Federal Reserve (Fed)'s fast and furious policy rate hikes aimed at curbing inflation. We believe there will four key phases – moderation (2021-2Q22), correction (2H22), recuperation (2023), and growth (post 2023) – for the global economy as it evolves following the Fed's rate hikes that prompt global central banks to raise rates to manage their currencies while fighting inflation.

Correction period with SET downside at 1,480

We expect 2H22 to be a period of SET index consolidation, moving within the range of 1,480 (14.8x 2022E P/E, -0.50SD) to 1,629 (16.1x 2022E P/E, -0.25SD), supported by Thailand's healthy and improving economic metrics and the solid earnings growth of corporates on the SET. Given the external factors such as the Fed's rate hikes and possible economic recessions in the US, the EU, and Japan, along with sustainably high energy prices, we remain confident that the SET index's downside is limited to 5-10% and is likely to bottom at 1,480, supported by projected GDP growth recovery from 3% in 2022 to 4% in 2023, a strong current account balance and high reserves, a healthy banking system, and strong domestic consumption due to high farm incomes and tourism revenue.

A 3% policy interest rate differential is achievable for Thailand vs the US

FSSIA expects the Fed's rate hikes to end at 4.0% and the Bank of Thailand (BoT)'s rate to hit 1% in 2022, implying that the BoT will raise its policy rate from 0.5% in Aug-22 to 1% at the end of 2022, and by an additional 0.5% to 1.5% in 2023. This would leave the policy interest rate differential (IRD) between the BoT and the Fed at 3% starting from the end of 2022 to the end of 2023. We think Thailand could tolerate a much higher IRD range thanks to the rising revenues from tourism, exports, domestic consumption, higher foreign direct investments for the EEC and EVs, and its sound metrics including high reserves, a healthy current account balance, solid GDP growth, and a high reserve-to-external debt ratio.

Limited downside with bottom-up picks for healthcare and tourism

We retain our 2022 SET index target of 1,629, based on 16.1x 2022E P/E, -0.25SD, reflecting the higher risks from rising inflation and a more aggressive BoT rate hike that could jeopardise the earnings growth of corporates on the SET, with FSSIA's SET EPS 2022 forecast at THB101 per share vs the Bloomberg consensus' forward EPS forecast of THB97.7 in 2022, as of 1 Aug-22. Top picks for Aug-22 are BCH, BH, MINT, BA, SHR EA, NEX, CKP and KTB.

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From moderation to correction phase in 2H22-1H23

In our strategy report "Investment landscape as globalisation trends reverse", dated 4 Jul-22, we described three key trends that we think will be critical for investors in the next 12 months. First, the de-globalisation trend caused by sanctions imposed by the West (US, EU, and allies) against Russia, which are likely to result in higher "import parity" costs between the two major political blocs of the West and the East, led by China and Russia, that could exacerbate problems in the global supply chain. Inflationary pressures could also rise as the East decouples from the West.

Second, the de-balancing of the income gap is now ongoing as the prices of investable assets, including commodities, metals, bonds, and cryptocurrencies have sharply plunged from their peaks in 4Q21 across entire global asset classes. We believe the income gap between the rich and those with mid-to-low incomes is narrowing.

Third, we believe the megatrend of global de-carbonisation is likely to put even more pressure on production costs in an already injured global economy, mostly in the form of higher costs for energy and heftier carbon taxes. This is "greenflation", in our view.

Exhibit 1: Three winning factors under the megatrends of de-globalisation, de-carbonisation, and de-balancing income gaps

Megatrend	Muscles	Causes	Winning sectors
De-balancing income gaps	High pricing power	Tight supply and strong pent-up demand	Refinery, energy, hospitals, tourism, asset management companies
De-carbonisation	Cost control	Cost pressure on rising prices for energy, metals, and food	Packaging, recycled plastics, renewables
De-globalisation	Regional producers	Higher cost of "import parity" and logistics	Petrochemicals, refinery, oil & gas, financials

Source: FSSIA estimates

We forecast more aggressive policy rate hikes, both in the US and Thailand in 2H22-2023, due to our more bearish view of higher-for-longer inflation that should be structurally driven by the persistently high prices of energy, food, and other raw materials due to the prolonged Russia-Ukraine war. With our higher-than-consensus inflation view in 2022-23 due to rising cost pressures, we project Thailand's GDP to be lower than both BNPP's and the BoT's forecasts.

Exhibit 2: Key economic forecasts

US economic forecasts (%)	2022E	2023E	2024E
Fed rate (FSSIA)	4.0	4.5	3.5
Fed rate (BNPP)	3.5	3.8	3.3
Fed rate (FOMC's dot plot)	3.4	3.8	3.5
GDP (BNPP)	2.6	1.9	1.7
CPI (BNPP)	7.5	3.9	2.4
Thailand economic forecasts (%)	**2022E**	**2023E**	**2024E**
Headline inflation (FSSIA)	6.5	2.6	1.7
Headline inflation (BoT)	6.2	2.5	
Headline inflation (BNPP)	6.4	2.4	1.5
Core inflation (FSSIA)	2.2	2.0	
Core inflation (BoT)	2.2	2.0	
GDP (FSSIA)	3.0	4.3	3.8
GDP (BoT)	3.3	4.2	3.9
GDP (BNPP)	3.9	4.9	3.5
BoT's policy rate (FSSIA)	1.0	1.5	
Crude oil price (USD/bbl)	**2022E**	**2023E**	**2024E**
Dubai crude oil price (FSSIA)	120	110	
Dubai crude oil price (BoT)	105	105	
Dubai crude oil price (BNPP)	105	105	
Number of tourists arrivals (m)	**2022E**	**2023E**	**2024E**
No. of international tourists (FSSIA)	8.5	34.1	-
No. of international tourists (BoT)	6.0	19.0	

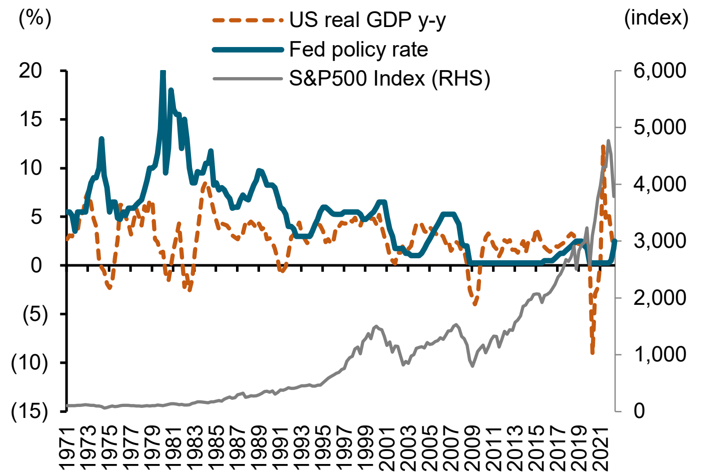
Sources: Bank of Thailand (BoT); Bloomberg; Airports of Thailand (AOT); BNP Paribas (BNPP); FSSIA estimates

Entering a correction phase but with limited downside for the SET

In the next 6-12 months, we believe the global economy, led by the US, is likely to enter a tumultuous downcycle, with the US economy likely to enter a recession on multiple negative quarterly GDP growth prints, caused by the fast and furious Fed's policy rate hikes aimed at curbing the spike in inflation.

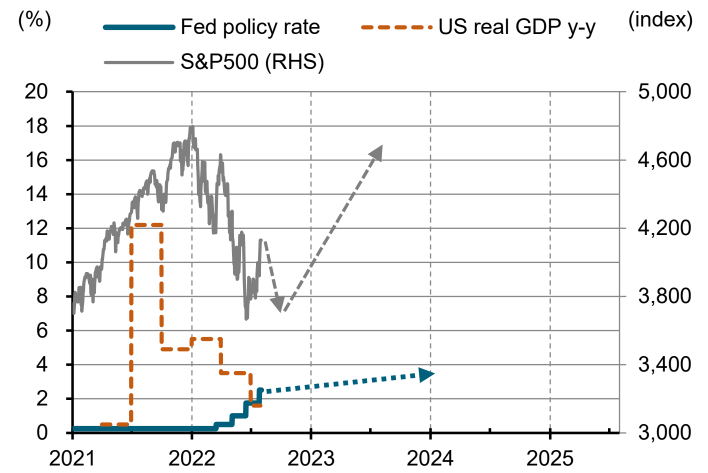
We believe there will be four key phases – moderation, correction, recuperation, and growth – for the global economy that will evolve following the Fed's rate hikes that lead to rate hikes by global central banks as they manage their currency exchange rates while fighting inflation. Within each phase, we think the impact of changes in interest rate trends, inflation trajectory, and the economic growth outlook should greatly influence the risks and returns of investments in global capital markets, including the Thai equity market.

Exhibit 3: US Fed rate, GDP growth and S&P index



Source: Bloomberg

Exhibit 4: Expected trend of US Fed rate, GDP growth and S&P index



Sources: Bloomberg; FSSIA estimates

Four phases of US equity market projections

Phase 1: Moderation (2021 to Jun-22) as global capital market indexes drop down to or below pre-Covid-19 levels. We see the period of the past 18 months as a "moderation" phase given the Fed's U-turn of hiking its policy rate at a faster and higher rate than the market expected. This has already resulted in moderate declines in equity markets in the US and other developed as well as emerging markets.

Since peaking in late Dec-21 at 4,766, the S&P 500 index dropped to 3,674 in Jun-22 – close to the Jan-21 level – which is around 50% of the two-year rally that saw the S&P 500 index rise from 2,304 in Mar-20. We think US equity indexes, including the S&P 500, are likely to correct further in 2H22, potentially dropping by 20-30% to near the pre-Covid-19 level, but still staying above the bottom seen in Mar-20.

Phase 2: Correction (2H22) as global capital market indexes further plunge to levels of the pre-rally period in 2018. Due to the US recession, higher interest rates, rising costs and lower purchasing power, we think capital market indexes, including equities, fixed-income assets, and other alternative investments, could weaken further to bottom at close to or near the pre-rally level seen in 2018.

Phase 3: Recuperation (2023) as global market indexes rebound from their bottoms following a decline in inflation and the Fed cuts rates to stimulate GDP. In this phase, we think global equity and capital markets could rally again after a period of recession in the US and other countries with "weak" economic structures (low reserves, a high reserve to external debt ratio, poor GDP).

Phase 4: Expansion (2024 onward) as global market index rallies continue for a long period. The return of low interest rates, high liquidity, and strong GDP growth could lead to global rallies in capital markets, particularly for high-risk assets such as equities.

Four phases of Thailand's equity index trajectory

Although it is influenced by US market movements, inflation, the interest rate differential, the USD-THB exchange rate, GDP growth and current account balance and reserve levels, we think Thailand's SET index should have a more limited downside than US equity indexes.

Our four phases for Thailand's economic and capital market outlook are:

Phase 1: Moderation, with the SET down by 10% from 1,718 in Feb-22 to 1,517 in Jul-22 (1H22). The SET index has already declined by 10% from its most recent peak at 1,718 in mid-Feb 2022 down to a bottom of 1,517 in mid-July 2022. The SET index's moderation – a drop of 10% from its peak – is much smaller than the 50% drop in the US S&P 500 index in the same period. We think Thailand's strong economic structure with solid tourism and exports, a highly effective healthcare system, and sound risk management by the BoT, have all played key roles in sustaining the SET index within a much narrower band than the US equity indexes.

Phase 2: Consolidation, with the SET down by 12% from its recent peak at 1,660 in Jun-22 to 1,480 by the end of 2022 (2H22). We expect 2H22 to be a period of SET index consolidation, moving within the range of 1,480 to 1,629, based on 16.1x 2022E P/E (-0.25SD).

Despite external factors, including the Fed's rate hikes and possible economic recessions in the US, the EU, and Japan, along with sustainably high energy prices, we remain confident that the SET index has a limited downside of 5-10% and is likely to bottom at 1,480, supported by the projected GDP growth recovery from 3% in 2022 to 4% in 2023, a strong current account balance and high reserves, the healthy banking system, and strong domestic consumption due to high farm incomes and tourism revenue.

Phase 3: Recuperation, with the SET index up by 10-15% to 1,750 by the end of 2023. While we project a number of developed countries to enter recessions in 2023 – possibly including the US, most countries in the EU, Japan, and South Korea – we think Thailand is likely to stand out as one of the few countries in the world with positive GDP growth.

Our positive view is based on rising revenue from tourism, which accounted for 12% of GDP in 2019 during the pre-Covid period, combined with strong food, automotive, and electronics exports and rising foreign direct investment (FDI) inflows for the government's Eastern Economic Corridor (EEC) investment promotion campaign, which has a particular emphasis on electric vehicles (EVs) and related cluster businesses.

Phase 4: Expansion, with the SET index up by 10-15% to 1,800-1,900 by the end of 2024. Our bold call for the SET index to rise to 1,800-1,900 by the end of 2024 is premised on 1) a full recovery in tourism; and 2) lower energy prices after the sanctions on Russia are lifted or reduced as demand growth decelerates after a period of strong growth in 2022-23 post the Covid-19 pandemic.

Under our four-phase market outlook, we see a limited downside for the Thai equity market with the SET index moving between 1,480-1,629 in 2H22, supported by:

1) the BoT's high reserves and low reserve-to-external debt ratio, Thailand's healthy banking system, and solid current account balance;

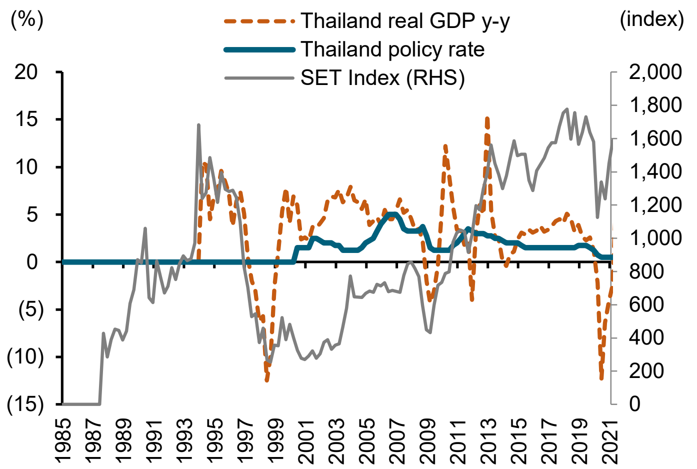
2) the relatively strong and stable THB currency;

3) high employment mainly in the agricultural, export-related, and tourism sectors;

4) calmer inflation than most peers due to lower food inflation; and

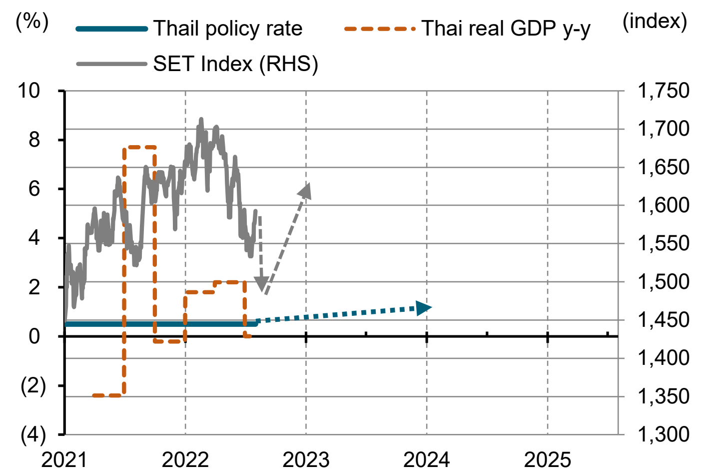
5) an improving GDP outlook on the back of stronger tourism revenue, continued high export growth, and solid domestic consumption thanks to rising farm incomes and tourism revenue, which we project to return to the pre-Covid-19 level by the end of 2023.

Exhibit 5: Thai policy rate, GDP growth and SET index



Source: Bloomberg

Exhibit 6: Expected trend of Thai policy rate, GDP growth and SET index



Sources: Bloomberg; FSSIA estimates

Factor #1: Thailand's high reserve-to-external debt ratio at 101.9%

Thailand vs financially risky countries. Compared to countries with high risks of insolvency and which are currently facing significant currency weakness against the USD – Sri Lanka, Argentina, Pakistan, and Zimbabwe – Thailand has a much higher reserve-to-external debt ratio at 101.9%, far above 0.1% for Zimbabwe, 3.8% for Sri Lanka, 8.3% for Pakistan, and 12.1% for Argentina.

Thailand vs ASEAN countries. Compared to ASEAN countries, only Cambodia has a higher reserve-to-external debt ratio at 176.5%, but this is mostly due to the small size of its economy. Most other countries in Southeast Asia have reserve-to-external debt ratios lower than 40%, particularly Laos at 12.2%, which we think indicates that Thailand is financially much healthier than most of its ASEAN peers.

Thailand vs the BRICS and its allies. Even compared to countries in the BRICS (Brazil, Russia, India, China, and South Africa) group and its allies like Turkey and Saudi Arabia, Thailand still ranks in the top three in terms of the highest reserve-to-external debt ratio, behind only Saudi Arabia (169.5%) and China (113.9%).

Thailand vs the US, the EU, and their allies. Thailand emerges as the strongest country in terms of its reserve-to-external debt ratio if we compare it to major countries such as the US, the EU, and their allies. These countries all have very low reserve-to-external debt ratios, mostly lower than 1% for the US (0.2%), Germany (0.5%), Greece (0.5%), France (0.7%), and Portugal (0.8%), except for Japan at 25.7%.

Exhibit 7: Foreign reserves vs external debt of select countries

	Foreign reserve (USD b)	as of	External debt (USD b)	as of	Foreign reserve to external debt (%)
Sri Lanka	1.9	May-22	50.6	1Q22	3.8
Argentina	32.4	Jun-22	266.7	4Q21	12.1
Pakistan	10.7	Jun-22	128.9	1Q22	8.3
Zimbabwe	0.1	May-22	129.0	4Q21	0.1
Thailand	201.4	Jun-22	197.7	4Q21	101.9
Southeast Asia					
Indonesia	122.3	May-22	457.3	4Q21	26.7
Malaysia	99.7	Jun-22	255.8	4Q21	39.0
Laos	1.3	Mar-22	10.6	4Q20	12.2
Cambodia	16.2	Jun-22	9.2	1H21	176.5
Philippines	90.1	May-22	106.4	4Q21	84.6
Vietnam	106.3	Mar-22	130.1	4Q20	81.7

	Foreign reserve (USD b)	as of	External debt (USD b)	as of	Foreign reserve to external debt (%)
BRICS & allies					
Brazil	325.9	Feb-22	670.3	4Q21	48.6
Russia	468.6	Jan-22	472.3	2Q21	99.2
India	538.7	May-22	614.9	4Q21	87.6
China	3,127.8	May-22	2,746.6	4Q21	113.9
South Africa	44.9	Jun-22	160.9	4Q21	27.9
Saudi Arabia	425.8	Mar-22	251.2	4Q21	169.5
Turkey	45.5	Jun-22	441.1	4Q21	10.3
US and allies					
U.S.	36.3	Jun-22	23,370.7	4Q21	0.2
Germany	37.3	Jun-22	6,946.1	4Q21	0.5
Japan	1,192.9	Jun-22	4,649.1	4Q21	25.7
France	52.2	Jun-22	7,251.7	4Q21	0.7
Canada	79.0	Jun-22	2,591.2	4Q21	3.0
Italy	46.4	Jun-22	2,767.3	4Q21	1.7
Spain	52.6	Jun-22	2,638.2	4Q21	2.0
Portugal	3.8	Jun-22	462.6	4Q21	0.8
Greece	2.9	Jun-22	630.4	4Q21	0.5

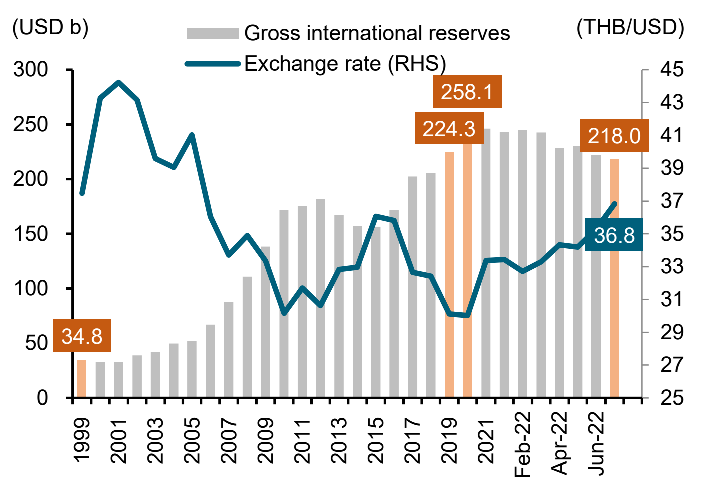
Sources: Bloomberg; tradingeconomics.com; FSSIA's compilation

Factor #2: THB currency stability from the BoT's high reserves

In the past few months, the BoT has continued to reduce its exposure in the form of USD reserves ahead of an expected sharp depreciation in the USD against most currencies in 2023 as a result of the US economy entering a period of recession triggered by the Fed's rate hikes and rising inflation that could lead to a higher unemployment rate and weaker economic growth.

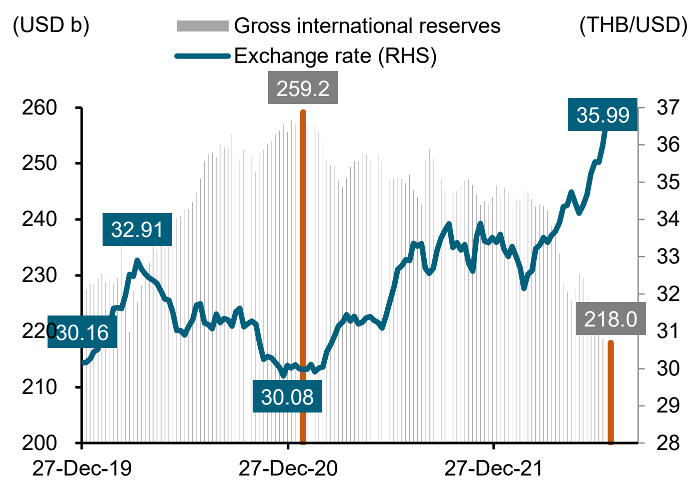
In the short term, the THB-USD exchange rate has weakened by over 10% YTD to THB36-37/USD at the end of Jul-22 due to the strengthening of the USD driven by sharply higher fund inflows to the US after the Fed hiked its interest rate by 1.0% within only a few months.

Exhibit 8: Thailand's international reserves since 1999



Source: Bank of Thailand

Exhibit 9: Thailand's weekly international reserves since end 2019



Source: Bank of Thailand

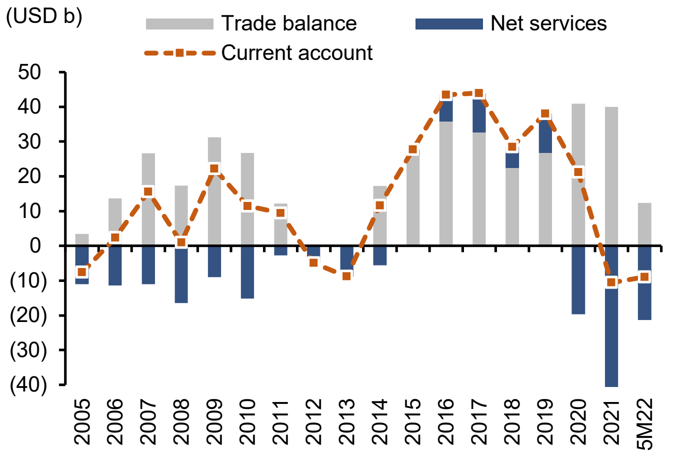
Expect THB36-38/USD in 2022 and THB34-36/USD in 2023. We expect the THB to stabilise in the range of THB36-38/USD, premised on:

1) the BoT raising its policy rate to narrow the interest rate differential;

2) stronger revenues from services (tourism), farm incomes (agriculture), and exports, which should turn the current account deficit into a surplus; and

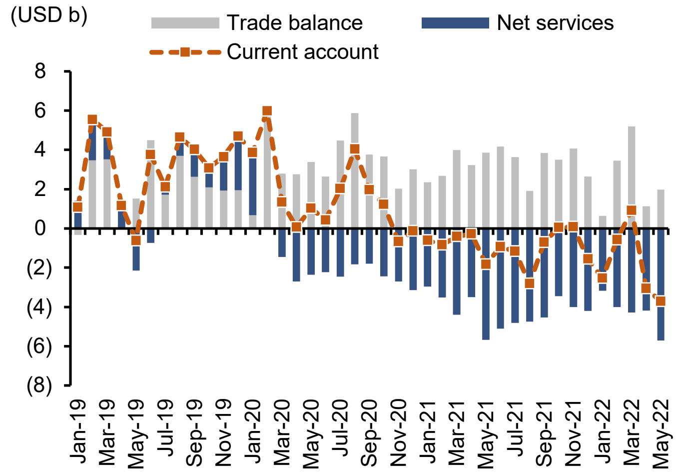
3) the stronger GDP to 3-4% in 2H22-2023 driven by rising tourism, exports, and solid domestic spending, should set a firm foundation for the THB currency to at least stabilise, if not strengthen, in the range of THB36-38/USD, in our view.

Exhibit 10: Annual trade balance, net services and current account since 2005 to 5M22



Source: Bank of Thailand

Exhibit 11: Monthly trade balance, net services and current account since Jan-19 to May-22

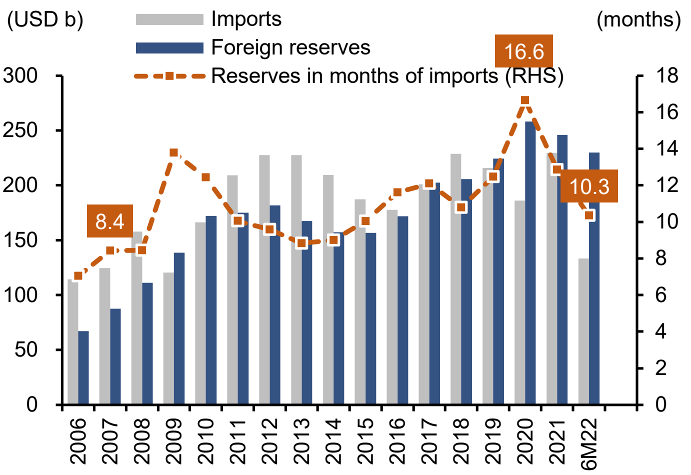


Source: Bank of Thailand

Since 2020, when the Covid-19 pandemic began to hit Thailand and the global economy, Thailand's current account has declined from USD30b-50b during the pre-Covid period in 2016-19 to the current negative balance in 2021-5M22. The key culprits are negative service industry income and a sharp drop in the net trade balance on the rising cost of imports of crude due to the spike in crude prices.

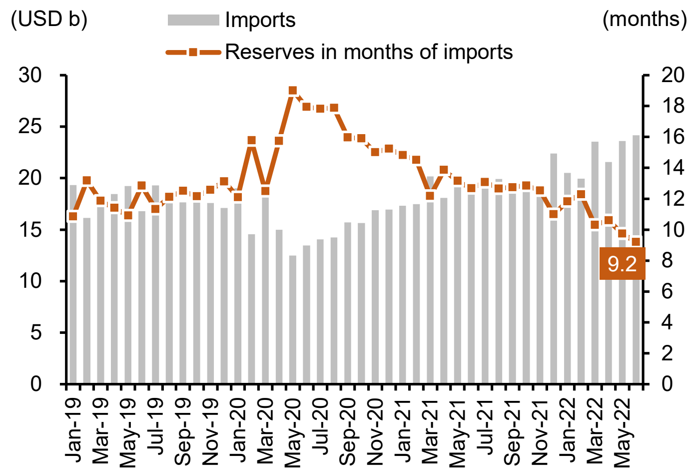
We project Thailand's current account balance to turn positive by 4Q22, supported by rising service revenue from tourism and an improving trade balance from higher exports of automotive and agricultural products.

Exhibit 12: Total reserves in months of imports from 2005 to 6M22



Source: Bank of Thailand

Exhibit 13: Total reserves in months of imports from Jan-19 to Jun-22

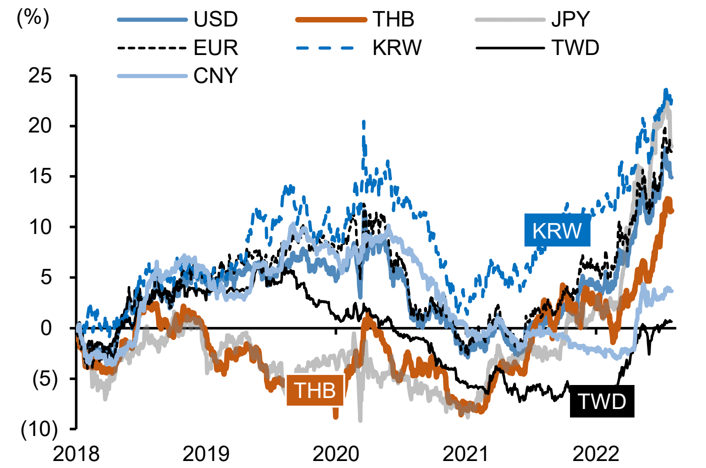


Source: Bank of Thailand

THB currency: no reason for alarm at THB36-37/USD. We believe the dip in the THB against the USD from THB33/USD to THB36.8/USD as of Jul-22 is not alarming, even though the THB has already weakened by over 10% YTD.

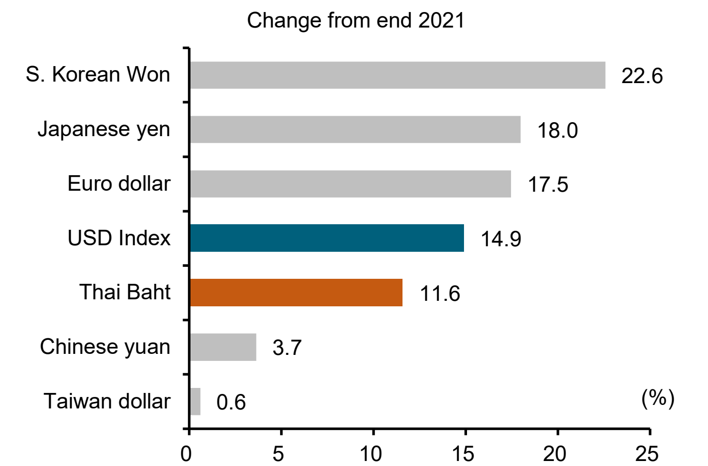
Even though the THB has slipped against the fast-strengthening USD as a result of the Fed's rate hikes, the THB remains relatively strong compared to other currencies, including South Korea's won (KRW), the Philippines' peso (PHP), Indonesia's rupia (IDR), and the euro.

Exhibit 14: Relative performance of key currencies in Asia since end-2017 to 1 Aug-22



Sources: Bloomberg; FSSIA's compilation

Exhibit 15: Relative performance of key currencies in Asia since end-2021 to 1 Aug 2022

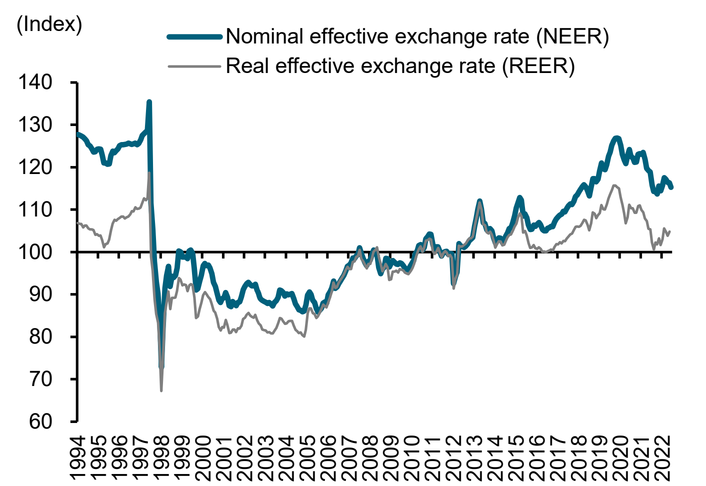


Sources: Bloomberg; FSSIA's compilation

However, compared to Vietnam's dong, Hong Kong's dollar, Taiwan's dollar, and China's yuan, the THB has been weakening against these currencies, potentially enhancing Thailand's export competitiveness. However, most of these countries are not major export markets for Thailand and should have a limited impact on exports.

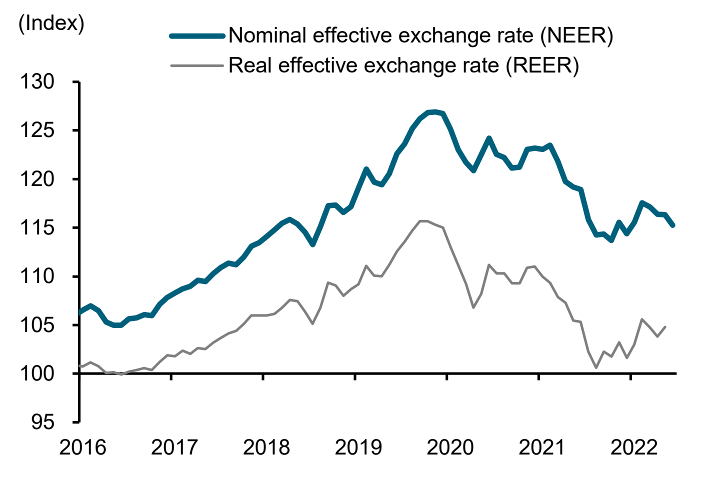
Looking at the THB exchange rate against the USD in real effective exchange rate (REER) terms rather than the nominal effective exchange rate (NEER), we find that the THB has weakened by less than 5% in 2021-1H22. This reflects Thailand's strong current account balance, high reserves, low debt to GDP, and solid exports, all of which contribute to the THB's strength vs the USD.

Exhibit 16: NEER and REER of THB/USD



Source: Bank of Thailand

Exhibit 17: NEER and REER of THB/USD from 2016

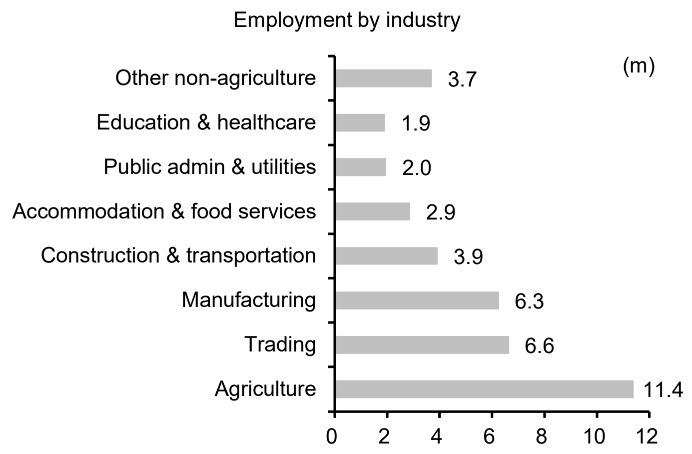


Source: Bank of Thailand

Factor #3: Thailand's employment rate remains rosy

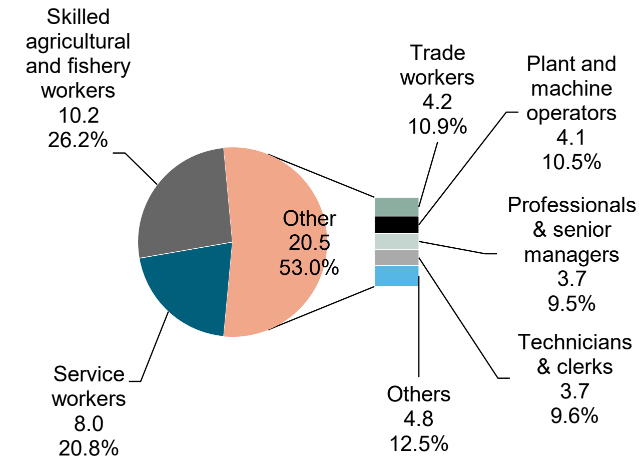
Thailand is one of the few countries to greatly benefit from the impact of global inflation, higher food prices, and improving tourism, which should lead to a higher employment rate and improving revenues from exports (agriculture and manufacturing) and service revenue (tourism).

Exhibit 18: Breakdown of Thailand's 38.7m workers in 1Q22



Sources: Bank of Thailand; FSSIA's compilation

Exhibit 19: Thailand's employment structure, 1Q22



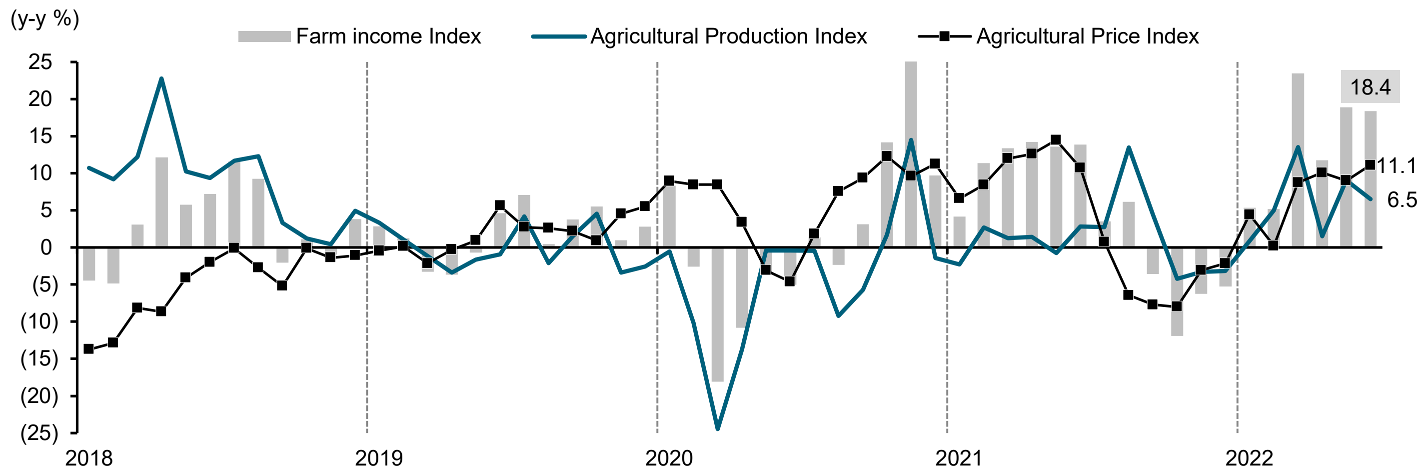
Sources: Bank of Thailand; FSSIA's compilation

Up to 2/3 of Thailand's workforce will see gains in 2022-23. According to the BoT, Thailand employs around 8m workers in the service sector (20.8% of total), mostly in tourism and hospitality such as spas, healthcare, and restaurants.

An additional 10.2m workers (26.2%) are employed in the agriculture sector, growing rice, rubber, sugar cane, cassava, and fruit for export, including durian, longan, pineapple, coconut, and rambutan.

Despite lower production levels due to drought, Thailand's farm income has risen by more than 10% y-y since April and was up 15% q-q during Apr-Jul 2022, thanks to the global spike in the prices of agricultural products.

Exhibit 20: Farm income index vs agricultural price and production

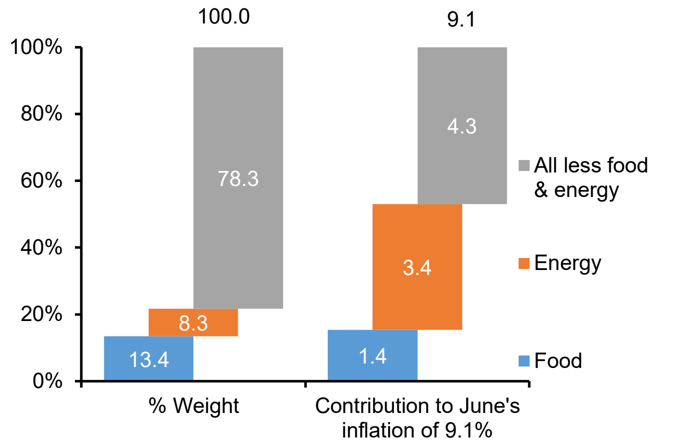


Sources: Office of Agricultural Economics; FSSIA's compilation

In the export sectors, around 4.1m (10.5%) workers are plant and machine operators, 3.7m (9.6%) are technicians & clerks, and 4.2m (10.9%) are trade workers. While the breakdowns for these three segments are unavailable, we estimate that around 50-60% of the total 12m workers in these three segments are employed in Thailand's major export industries, which include electronics & electrical appliances, automotive and auto parts, and refinery and petrochemical industries – all of which are export sectors that we project to see continued strong growth in 2022-23.

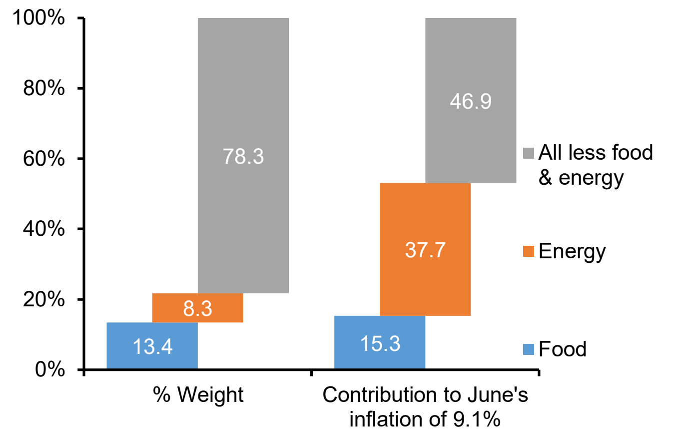
Hence, we estimate that around 63% of Thailand's total workforce of 38.7m workers will benefit from the upcoming trends of increasing tourist arrivals and strong exports, particularly agriculture, which employs the largest number of workers at 26.2% of the total workforce as of 1Q22.

Exhibit 21: US inflation breakdown by components; % weight and share of the 9.1% y-y CPI hike in Jun-22



Sources: United States Department of Labor; FSSIA's compilation

Exhibit 22: US inflation breakdown in Jun-22; % weight of key items vs % of contribution of each

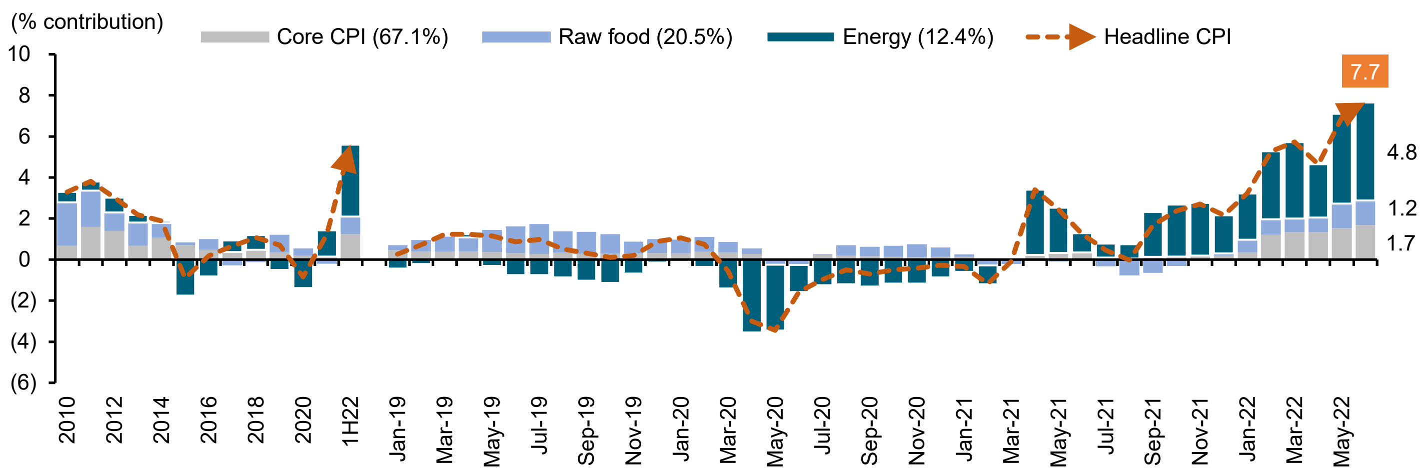


Sources: United States Department of Labor; FSSIA's compilation

Factor #4: Thailand's inflation rate should be more restrained than that of the US and other net importers of food and energy

While headline inflation in Thailand is rising mainly due to the higher price of energy, we think Thailand should be less vulnerable to the spikes in global food and energy prices, given that Thailand's tourism revenue is now projected to rebound meaningfully in 2022 onward (Bank of Thailand, Monetary Policy Report June 2022). Also, the country's high exports of oil-related products such as refined oils and petrochemicals help to lower the overall net impact of energy imports.

Exhibit 23: Thailand's inflation broken down by contribution (%)



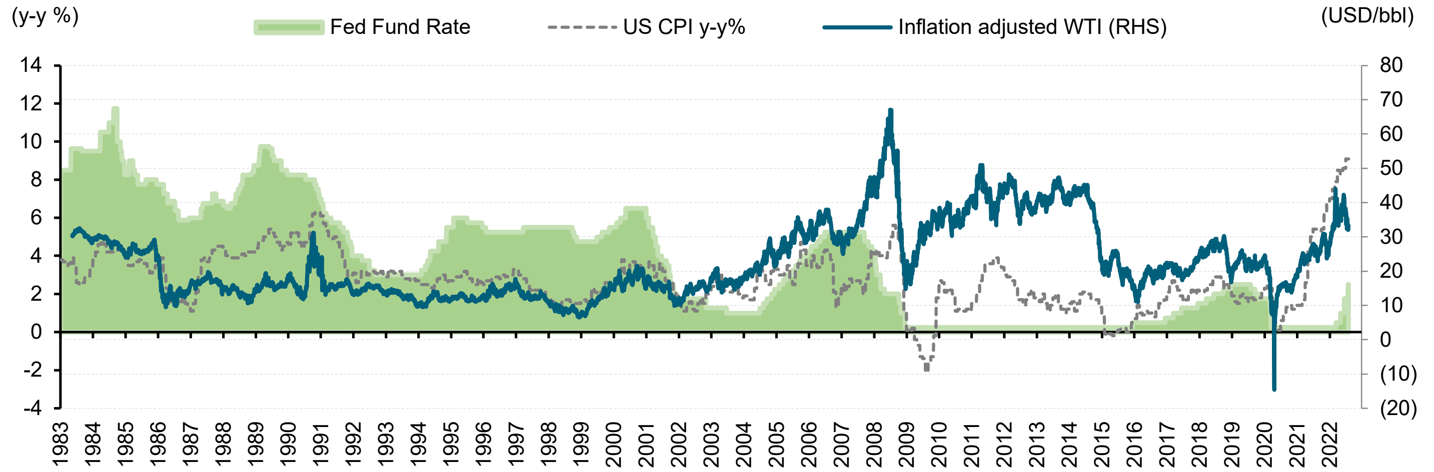
Source: Ministry of Commerce

In Jun-22, Thailand's headline inflation rate rose to 7.7% from 7.1% in May-22, still at a lower inflation rate than in the US, where inflation jumped from 8.6% in May to 9.1% in June – the highest increase since 1981 – driven by a 41.6% hike in energy prices (gasoline, fuel oil, electricity, and gas) and a 10.4% hike in food prices, according to the US Bureau of Labor Statistics (BLS).

But the most worrying factor for US headline inflation is the recent increase in prices for shelter, which surged 5.6% in July, the most since February 1991, resulting in a 5.9% higher core CPI, which excludes food and energy, which was slightly below the 6% increase seen in May, but above forecasts of 5.7%. Once the prices of energy and food decline y-y by 4Q22 due to the high base effect in 2H21, we expect US headline inflation to fall back to 3-5% but still overshoot the Fed's target range of 2-3% due to continued high shelter inflation.

Hence, before we move on to further analysis of Thailand's inflation, we would like to point out one important factor – shelter inflation measured by housing costs – which is embedded in US core inflation.

Exhibit 24: WTI adjusted for inflation vs the Fed funds rate, and US CPI



Source: Bloomberg

The calculation of US Shelter inflation changed dramatically during US Federal Reserve Chairman Paul Volcker's tenure. Shelter has always been the single largest component in the US CPI, which is a fundamental bellwether for headline and core inflation trends. Until 1983, the US CPI used a measure of Shelter inflation that estimated the price of housing including borrowing costs, which were extremely high in the late 1970s when the US 10-year Treasury yield was at 10%.

After Shelter inflation peaked in June 1980 at 21%, in Jan 1983, the BLS changed the housing component of CPI Shelter inflation from being based on home prices — which also included mortgage payments and maintenance costs — to rental prices to gauge the cost of housing under the current survey-based measure called "owners' equivalent rent". Critics charge that this has resulted in a far lower CPI than under the previous Shelter inflation metric which used the price of housing linked with borrowing costs.

From housing price to housing rent. The inflation calculation that switched from tracking mortgages and other housing costs to tracking "owners' equivalent rent" or simply switching from "housing price to housing rent" has significantly reduced not only Shelter Inflation volatility but also the level of inflation by 8-10 ppts, based on our estimates.

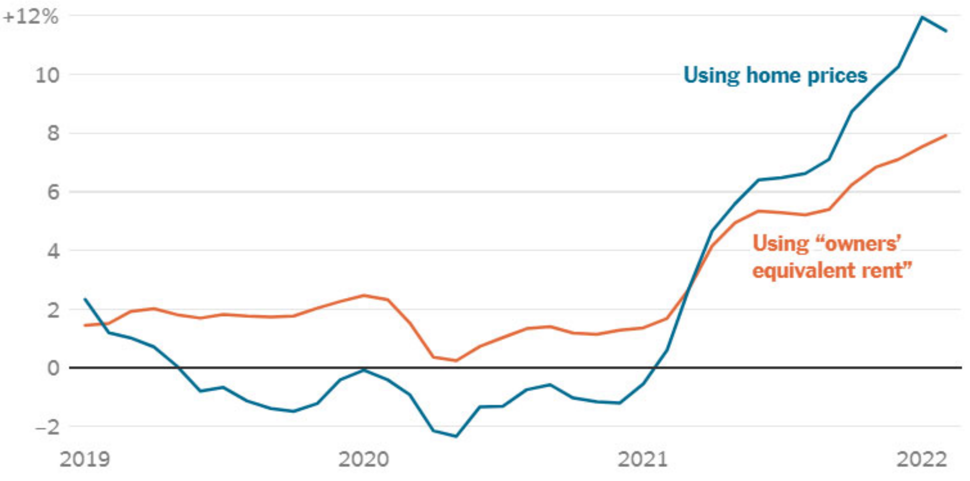
Exhibit 25: Changing Shelter Inflation calculation from housing cost to rent expense methodology

Sources: New York Times; Full Stack Economics based on calculations by Jonathon Hazell, Juan Herreño, Emi Nakamura and Jón Steinsson from "The Slope of the Phillips Curve: Evidence from U.S. States" published in The Quarterly Journal of Economics By The New York Times

What if home prices (rather than the current rent expense) were still included in the US inflation rate? While the argument by the BLS in favour of its rent-based calculation is based on the idea that homes are an investment that will appreciate over time and can be sold for a profit, rent, on the other hand, represents consumption, which will leave the renter without an asset that can be sold in the future.

Based on an approximation of the original inflation calculation by Full Stack Economics, which applied the housing price rather than the current housing rent used by the BLS, US inflation in Jun-22 surged from 9.1% to 14.1%.

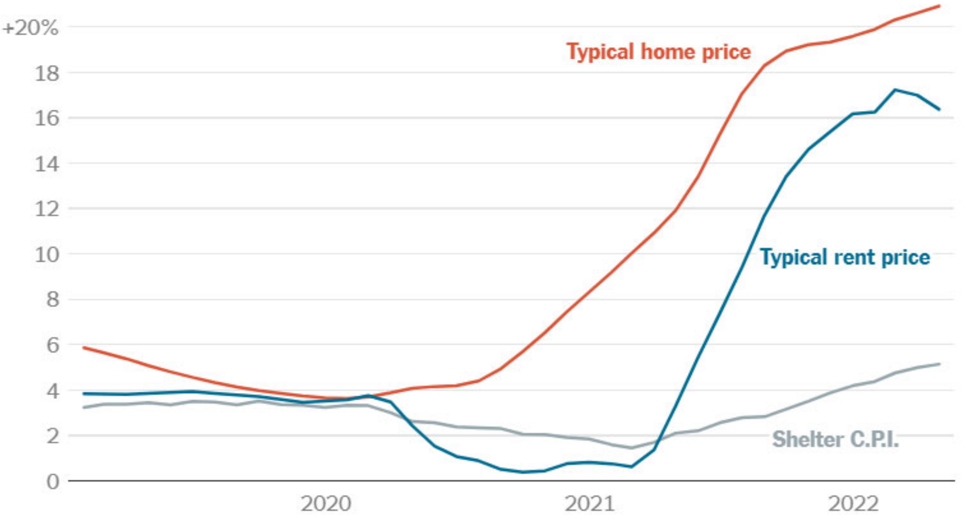
Exhibit 26: US inflation under price-based and rent-based shelter inflation



Sources: New York Times; Full Stack Economics based on calculations by Jonathon Hazell, Juan Herreño, Emi Nakamura and Jón Steinsson from "The Slope of the Phillips Curve: Evidence from U.S. States" published in The Quarterly Journal of Economics By The New York Times

Based on statistics from the BLS and Zillow, a real estate website, housing prices in the US have risen much faster than the CPI inflation rate, clearly indicating that "real" inflation, including the impact of housing prices, is far higher than the official figures state. We think this substantiates our view that the Fed will have no choice but to aggressively hike its policy interest rate to 4.0% by the end of 2022 and 4.5% by the end of 2023, higher than the current consensus forecasts based on the Fed's "Dot Plot" at 3.4% and 3.8%, respectively.

Exhibit 27: US CPI inflation vs the changes in typical home price and typical rent price



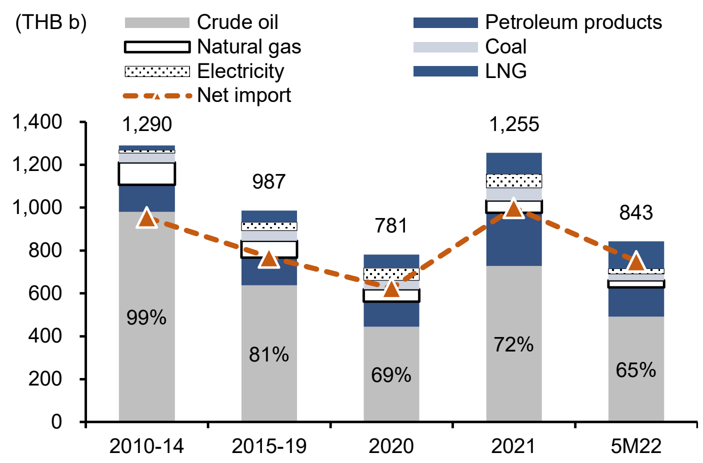
Sources: New York Times; BLS; Zillow

Thailand: Food for deflation, energy for inflation

Unlike the US, most countries in the EU, and other net food importing countries, Thailand is one of the world's largest exporters of raw food and agricultural products. We think this results in lower headline and core inflation, which excludes energy and food prices. In Jun-22, Thailand's core CPI was only 1.7%, up slightly from 1.6% in May, compared to the 0.5% hike in the US inflation rate to 5.9% over the same period.

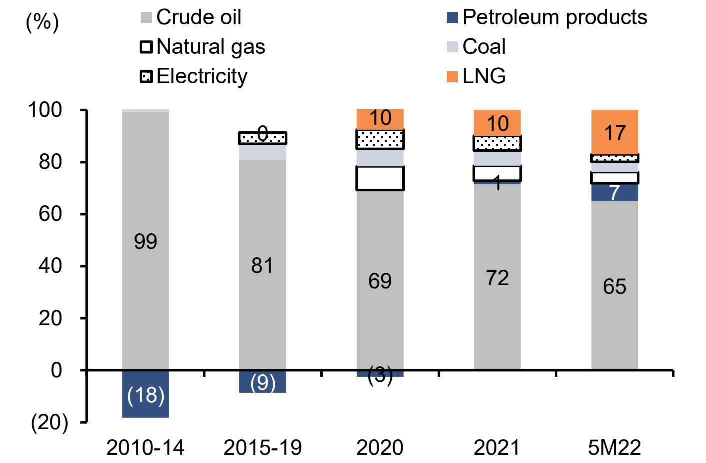
Energy prices are Thailand's greatest enemy. While Thailand's headline inflation is vulnerable to higher energy prices mainly due to its imports of crude oil, which accounted for 65% of total import value in 5M22, Thailand is far less exposed to the increase in the food prices thanks to its self-sufficiency in food. Furthermore, it even has excess supply available for export, in contrast to US headline inflation which has a highly inflationary component in the form of imported food, as well as energy and shelter.

Exhibit 28: Value of energy imports by product



Sources: Energy Policy And Planning Office (EPPO); FSSIA's compilation

Exhibit 29: Proportion of energy import value by product

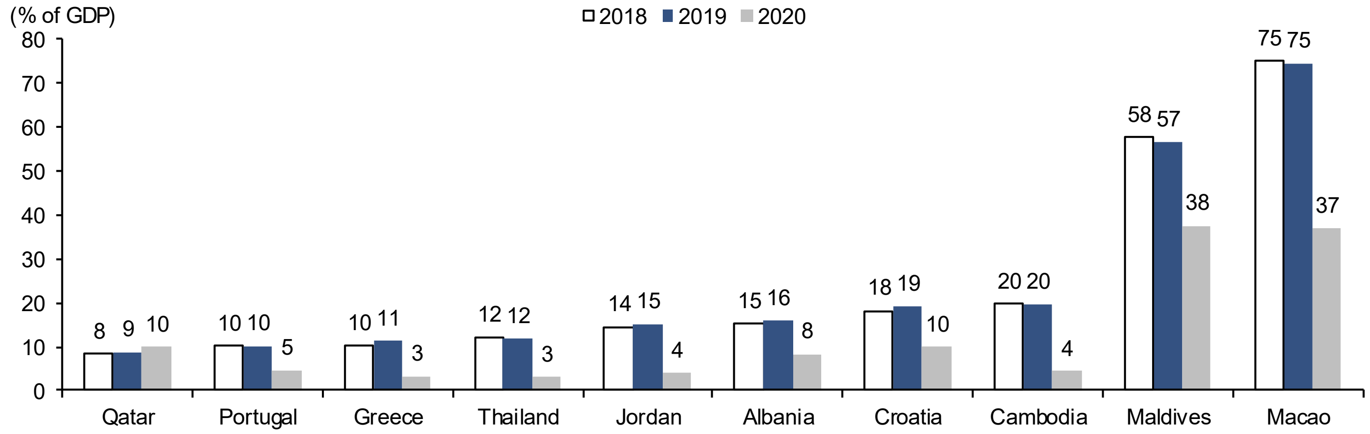


Sources: EPPO; FSSIA's compilation

Factor #5: GDP growth in 2022-23 remains sanguine as tourist inflows are on a rising trend

Thailand is one of the world's top 10 countries in terms of tourism revenue as a percentage of GDP, with tourism revenue accounting for 12% of GDP in 2018-19 prior to the Covid-19 pandemic and plunging to 3% of GDP in 2020 when the pandemic forced global lockdowns and halted international flights. Hence, we think in 2022-23, Thailand's GDP should improve from 3.0% in 2022 to 4.3% in 2023.

Exhibit 30: International tourism revenue as % of GDP



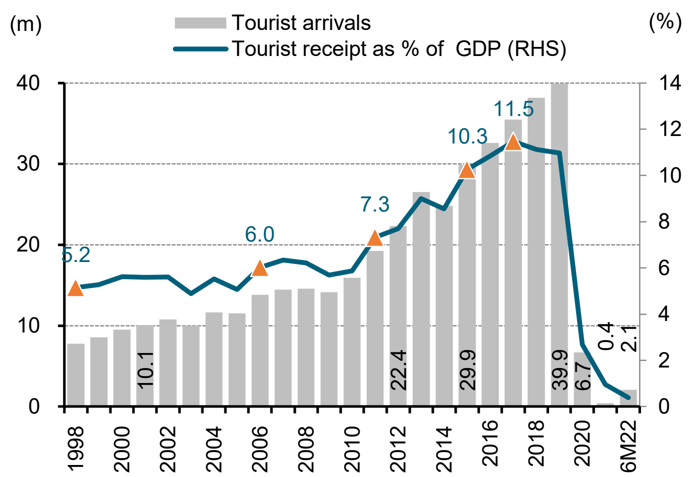
Sources: Theglobaleconomy.com; World Tourism Organisation

In 6M22, Thailand has seen a gradual rise in tourist arrivals despite China's ongoing lockdowns and ban on international travel. The influx of tourists to Thailand YTD has mostly come from India, Malaysia, the Middle East, and European countries, particularly Scandinavia.

According to the BoT, tourism receipts as a percentage of GDP have risen from only 0.4% in 2021 to 2.1% in 1H22, but are still far lower than the 11.5% peak seen in 2017 and 10.8% in 2019.

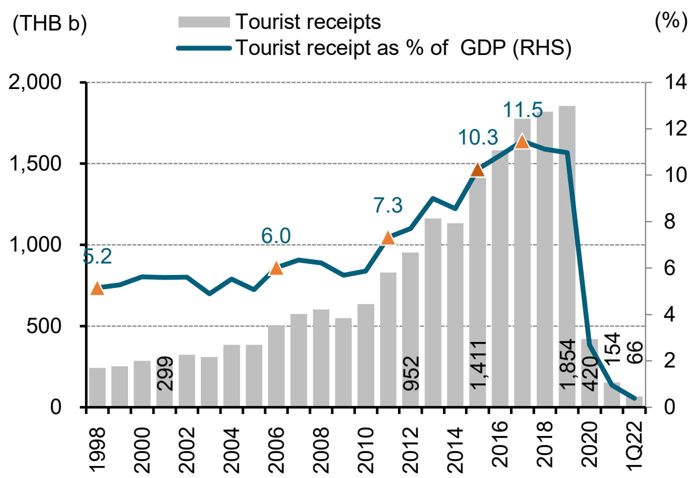
Given that Chinese tourists accounted for one-third of Thailand's total tourist arrivals of around 40m in 2019, and tourists from Russia were among the top four visiting nationalities that same year, due to the ongoing sanctions against Russia, we think Thailand still has ample room for a tourism revenue upside in 2H22-2023.

Exhibit 31: Tourist arrivals vs receipts as % of GDP



Source: Bank of Thailand

Exhibit 32: Tourist receipts as % of GDP



Source: Bank of Thailand

Policy rate hike to fight inflation

Based on our strategy report, "Investment landscape as globalisation trends reverse", dated 27 Jul-22, we stated that we expect the Fed to accelerate its rate hikes at the expense of excessive damage to the economy in the near term, possibly leading to a "recession" as early as 4Q22 to 1Q23.

Based on recent forecasts by the International Monetary Fund (IMF), global economic growth is projected at 2.6% in 2022 and 2.0% in 2023, mainly due to the high price of energy. In our view, the unrelenting inflation driven mostly by the impacts of the West's sanctions against Russia will undoubtedly lead to hikes in global policy rates to curb inflation.

Exhibit 33: FSSIA's forecasts of key economic indicators

YE-Dec	2022E (%)	2023E (%)	2024E (%)
Fed rate	4.0	4.5	3.5
Dubai crude oil price (USD/bbl)	120	110	110
Thailand real GDP growth	3.0	4.3	3.8
Thailand headline inflation	6.5	2.6	1.7
Thailand core inflation	2.2	2.0	
Thailand policy rate	1.0	1.5	
Tourist arrivals (m)	8.5	34.1	

Source: FSSIA estimates

Exhibit 34: Upcoming meetings of the BoT, ECB, and BoE

Country	Date	Rate	Current
Thailand	8-Jun-22	BoT Benchmark Interest Rate	0.50%
	10-Aug-22	BoT Benchmark Interest Rate	
	28-Sep-22	BoT Benchmark Interest Rate	
	30-Nov-22	BoT Benchmark Interest Rate	
European Central Bank (ECB)	21-Jul-22	ECB Main Refinancing Rate	0.00%
		ECB Marginal Lending Facility	0.25%
		ECB Deposit Facility Rate	-0.50%
	8-Sep-22	ECB Main Refinancing Rate	
	27-Oct-22	ECB Main Refinancing Rate	
	15-Dec-22	ECB Main Refinancing Rate	
United Kingdom	4-Aug-22	Bank of England Bank Rate	1.25%
	15-Sep-22	Bank of England Bank Rate	
	3-Nov-22	Bank of England Bank Rate	
	15-Dec-22	Bank of England Bank Rate	

BoT = Bank of Thailand; BoE = Bank of England
Sources: Bloomberg; FSSIA's compilation

2H22 should be a period of policy rate hikes. FSSIA expects the Fed's rate adjustments to end at 4.0% in 2022, implying two additional 0.75% hikes in July and Sep, and two hikes of 0.5% each in Nov and Dec-22.

Based on our assumptions of USD120/bbl for 2022, USD110/bbl for 2023-24, we think the BoT will raise its policy rate by 0.25% twice to end the year with its policy rate at 1.0%, up from 0.5% currently, at its upcoming meetings on 8 Aug-22 and 30 Nov-22.

As for other major central banks, we expect the European Central Bank (ECB) to raise its main refinancing rate by 0.25-0.5% in 2022, and the Bank of England (BoE) to lift its policy rate by 0.5-1.0% in 2022 to curb fast-rising inflation.

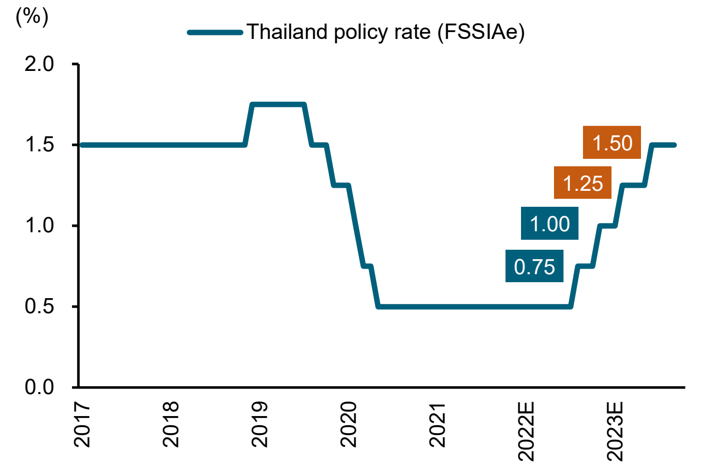
But the most important move will come from the US Fed, which we think will raise its policy rate by 3.75% to end at 4.0% in 2022. We note that this is higher than the market's current expectations based on the Fed's Dot Plot projection of 3.8% and the Bloomberg consensus forecast of 3.25%.

BoT rate hikes: how far will it go in 2022-23?

For Thailand, we think the BoT will raise its policy rate from 0.5% in Aug-22 to 1.0% at the end of 2022 and add a further hike of 0.5% to end up at 1.5% in 2023. This would leave the interest rate differential between the BoT's and the Fed's policy rates at 3.0%, starting from the end of 2022 to the end of 2023 (Fed's 4.0% vs BoT's 1.0% in 2022 and Fed's 4.5% vs BoT's 1.5% in 2023).

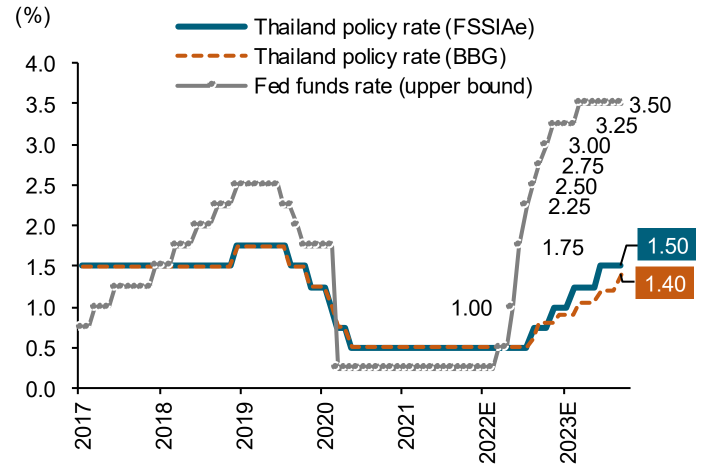
Our BoT rate hike trajectory in 2022-23 is 0.1 ppts higher than the current Bloomberg consensus estimate of 1.4% at the end of 2023 given that we expect higher-than-consensus inflation rates for Thailand and the US, leading to our projections of faster and higher policy rate hikes by the Fed and the BoT in 2022-23.

Exhibit 35: FSSIA expects the BoT to hike its rate twice in 2022 by 25bps each to 1% and twice in 2023 by 25bps each to 1.50%



Source: FSSIA estimates

Exhibit 36: BoT policy rate hike projections by FSSIA, Bloomberg consensus vs Fed rate hike (upper bound)



Sources: Bloomberg consensus as of 3 Aug-22: FSSIA estimates

How high of an interest rate differential against the Fed's policy rate can Thailand tolerate? Before we answer this question, we should look at the history of the interest rate differential (IRD) that has changed markedly over the past 30 years. We start with the pre-1997 crisis period (Period 1) that began in 1992 with high GDP growth and ended with the 1997 economic crisis. Period 2 covers the years between 1997 and the US sub-prime mortgage crisis in 2008. Period 3, from 2008-18, saw Thailand transform itself economically into a stronger country based on higher service and export revenues, and finally Period 4, from 2019-22, which in our view was an era of consolidation and survival amid the global Covid-19 pandemic.

Period 1 (1992-1997): High IRD led to a high growth period with Thailand emerging as a new economic tiger. Historically, Thailand has seen a wide range of interest differentials between the BoT's and the Fed's policy rate. This gap was especially wide prior to the 1997 financial crisis when Thailand's annual GDP growth stayed at a phenomenally high rate above 5%, supported by Thailand's fixed currency exchange rate at THB25/USD amid a high interest rate environment.

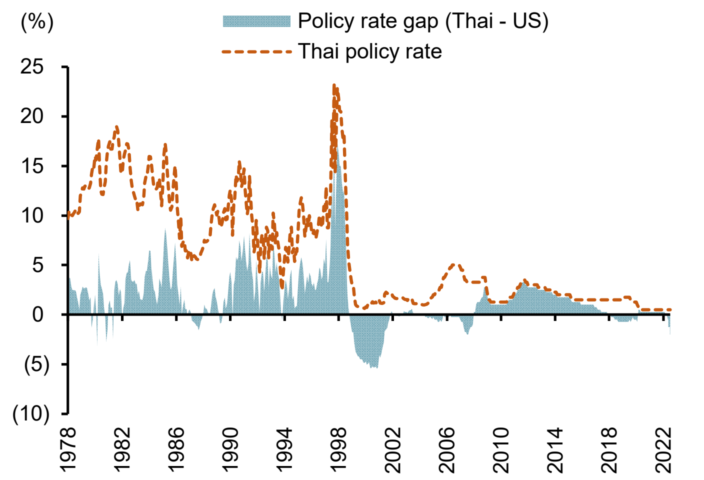
Period 2 (1997-2008): Low IRD amid a restructuring era as Thailand shifted from an industrial and finance-driven economy to tourism and exports. After the 1997 financial crisis, the interest rate differential narrowed substantially, gradually emerging from negative territory in 1997 and then widening slightly during the US "dotcom" crisis in 2000 and the 2008 sub-prime mortgage crisis.

Period 3 (2008-2014): Moderate IRD as Thailand regained its economic strength on rising revenues from tourism and exports. During 2008-14, the IRD between Thailand and the US held firm in a much narrower positive range of between 2.0-3.1%, as Thailand successfully transformed itself from a financially undisciplined agriculturally driven country into one based on sound financial discipline, tourism and value-added exports.

In this period, Thailand's tourism revenue grew from 5-6% of GDP to above 8% by 2014. It stayed above 10% until 2020-21 when the Covid-19 pandemic resulted in global lockdowns and travel bans.

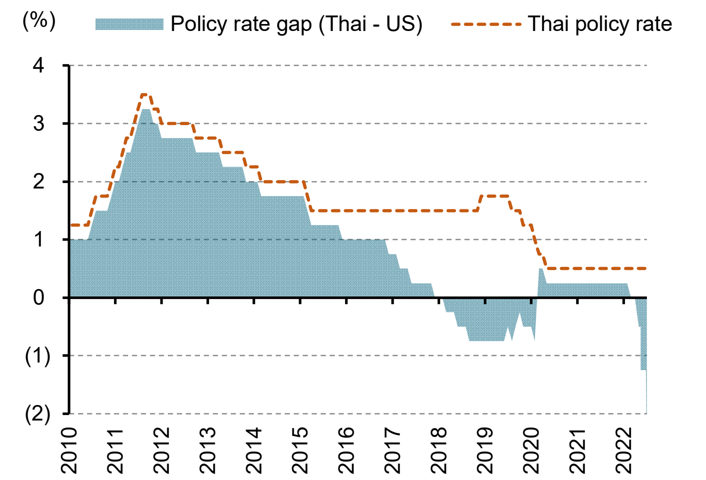
Thailand's export mix has also shifted away from basic commodities to higher value-added products such as automobiles and parts, electronics and electrical appliances, refined oils, petrochemicals, and further-processed food products. Hence, the trade balance continued to grow from less than USD20b during 2005-10 and the negative figures seen during 2011-13 due to the impact of the US dotcom crisis.

Exhibit 37: Policy rate gap, Thai vs US



Source: Bloomberg

Exhibit 38: Policy rate gap, Thai vs US, as of 1 Aug-22



Source: Bloomberg

Period 4 (2014-2019) saw wide swings in IRD as the BoT held firm. During this time, the IRD started off positive before gradually turning negative in 2018-19 as the Fed raised its policy rate from zero to 2.5% while the BoT kept its policy relatively unchanged. This, in our view, clearly indicates that Thailand is financially strong enough to tolerate a low or even negative IRD, thanks to its solid revenues from tourism and exports (current account balance), and its sound monetary policies of maintaining high reserves and a financially strong banking system, which is the backbone of Thailand's economy today – but ironically was the key culprit for the 1997 financial crisis.

The five-year period from 2014 to 2019 was a period of successful economic transformation, in our view, as Thailand's annual current account balance grew markedly by 2x to hit over USD40b in 2016-17 and stayed above USD30b until 2020 when the Covid-19 pandemic hit. The sharp drop in the current account balance was caused mainly by plunging service revenue, down from over USD20b annually in 2015-19 to negative USD10b in 2021.

Tourism revenue as a percentage of GDP grew from 8% in 2014 to 11.5% in 2017 and remained in the double digits until 2020, when Covid-19 flattened global tourism and economic growth.

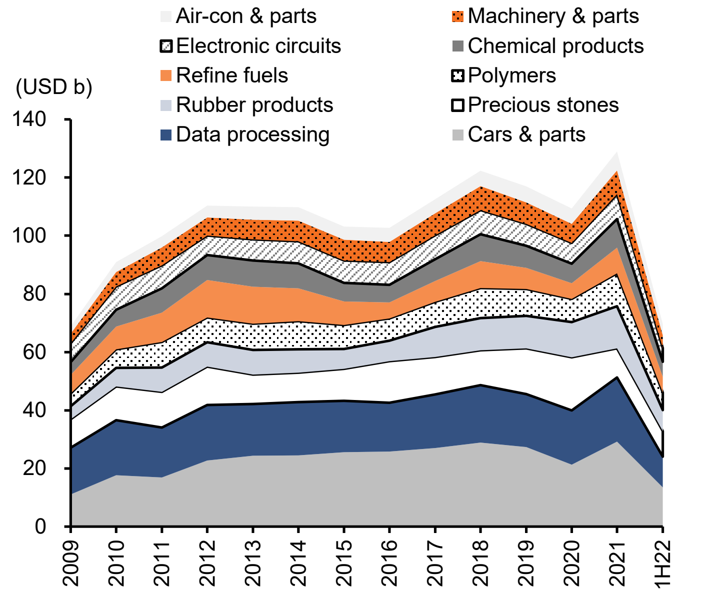
Period 5 (2020-2021): IRD stable at 0.25% amid a collapse in tourism and a looming economic crisis. On the heels of the Covid-19 pandemic lockdowns, travel bans, and slumping global trade, Thailand's GDP and current account balance went south as tourism revenue sharply plunged and GDP growth turned negative. However, its strong trade balance countered the lower tourism revenue, resulting in only a small negative current account balance in 2020-21.

The relatively healthy current account balance that has effectively allowed the BoT to maintain its reserves above USD200b since 2019 has been one of the key pillars supporting Thailand's GDP and the THB's exchange rate at relative stable levels – even during the Covid-19 period when Thailand suffered from a steep drop in tourism revenue.

Lower energy imports as a percentage of total imports despite higher prices. In this period, from 2020-5M22, Thailand slashed its energy import value as a proportion of total imports, which dropped from 99% on average in 2010-14, to 81% in 2015-19, 69% in 2020, 72% in 2021, and 65% in 5M22.

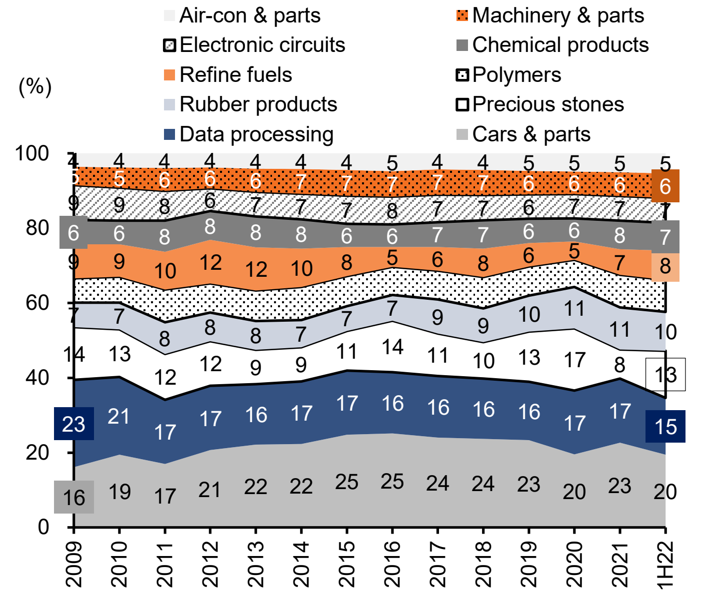
While the global prices of crude oil, LNG, and coal have risen sharply due to the rising supply risks from the Russia-Ukraine war, Thailand has kept its net import values at bay in the range of USD0.7-1t even with the need for increased imports of LNG and petroleum products, mainly gasoline, due to insufficient domestic supply.

Exhibit 39: Top 10 exports by product, annually from 2019 to 1H22



Sources: Information and Communication Technology Center, Ministry of Commerce with cooperation from The Customs Department – Ministry of Finance; FSSIA's compilation

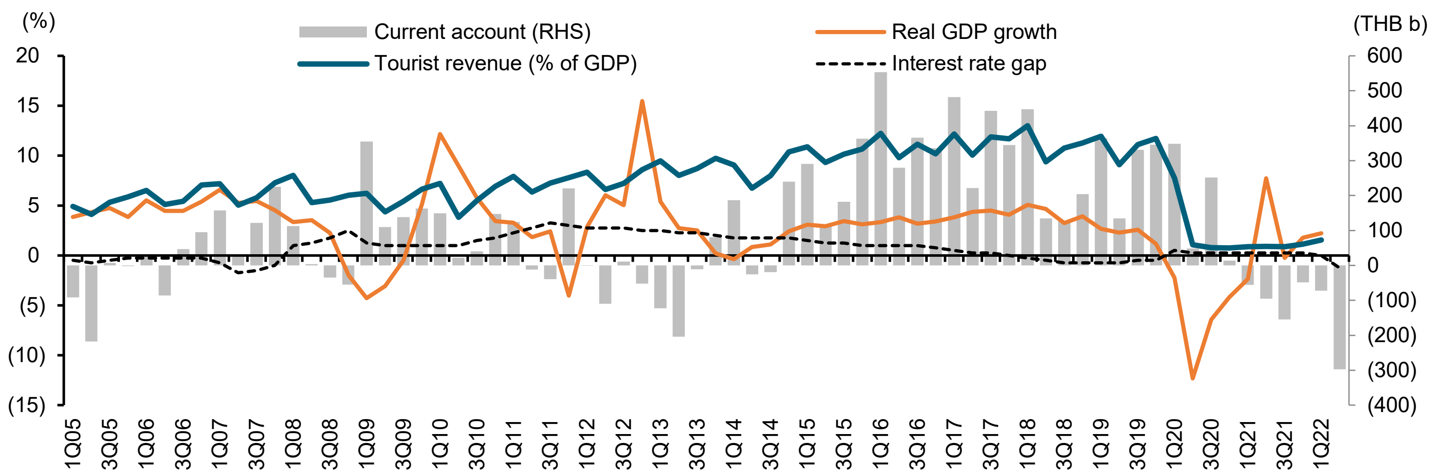
Exhibit 40: Share of top 10 product exports, annually from 2019 to 1H22



Sources: Information and Communication Technology Center, Ministry of Commerce with cooperation from The Customs Department – Ministry of Finance; FSSIA's compilation

We believe the key success factors in trimming the value of energy imports as a proportion of net imports came from 1) the higher export value of refined oils and petrochemical products, two key downstream oil derivative products with much higher added value than that of the imported crude oil, naphtha, and LPG, used as feedstocks; and 2) higher energy efficiency as a result of the government's promotional incentives encouraging consumers to switch from oil-powered vehicles to alternative fuels such as natural gas for vehicles (NGV), LPG, and EVs.

Exhibit 41: Interest rate gap* vs Thailand's current account, tourism revenue and real GDP growth



*Interest rate gap is calculated from the difference between the Thai policy rate and the Fed funds rate; a negative number suggests a percentage point in which the Thai policy rate is lower than the Fed funds rate
Sources: Bank of Thailand; FSSIA's compilation

Period 6 (2022 onward): From survival to revival: IRD to range between 1.0-3.0%. We expect Thailand's current account balance to gradually improve in 2022-23, backed by rising tourism revenue and strong exports that should more than offset the higher cost of energy imports.

We project Thailand's tourism revenue to turn into positive by 1Q23 when we project the number of tourist arrivals to bounce back to 30m, which is still 75% of the 40m figure during the pre-Covid period in 2019.

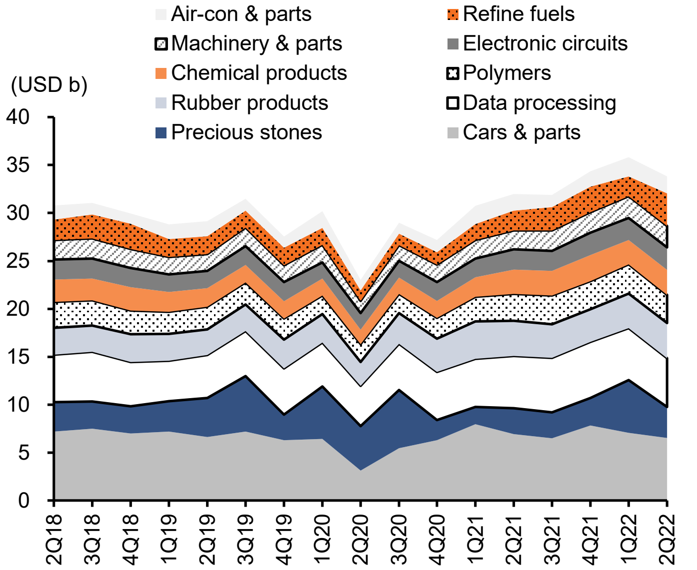
Another factor supporting a higher IRD is Thailand's strong exports of agricultural products, automotive, petrochemicals, refined oils, and electronics, which should further support the country's current account balance and allow the BoT to maintain high reserves, thanks to the weakening THB currency.

FSSIA projects a mild inflation rate of 6.5% (vs the BoT's 6.2%) in 2022, which should drop to 2.6% (2.5%) in 2023 mainly due to the reduced impact from the gas price as production from the Erawan gas field is projected to rise gradually from 250mmscfd (1.9mt of LNG) in 3Q22 to 600mmscfd (4.3mt) by 4Q23 and 800mmscfd (5.7mt) by mid-2024, based on PTT Exploration and Production (PTTEP TB, BUY, TP THB180)'s guidance.

In summary, we think Thailand should be able to tolerate a much higher IRD based on its strong economic structure based on tourism, exports, and domestic consumption – which is in turn boosted by higher export revenue and tourism – and rising investment from both FDI for the EEC and the EV industry and short-term investment fund inflows. We think investors will seek to park their capital where it is safer than most other countries, thanks to Thailand's sound metrics that include high reserves (cash on hand), a healthy current account balance (cash flow), solid GDP growth (net income), and a high reserve-to-external debt ratio (balance sheet).

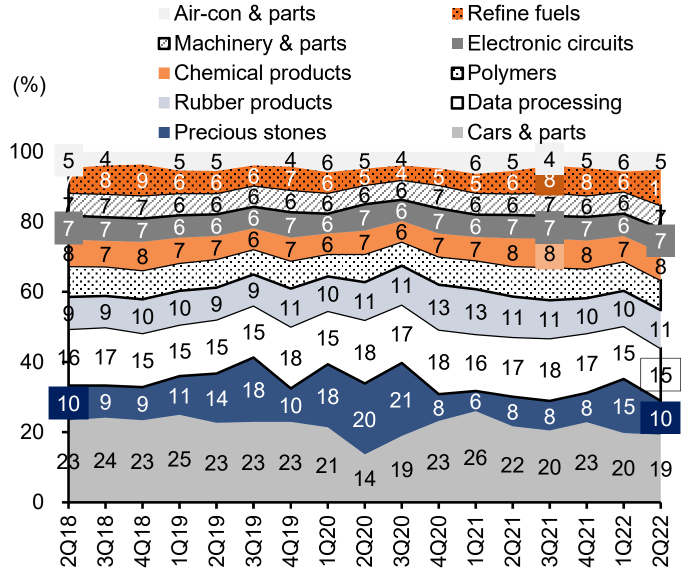
In the next section, we will focus on the upcoming storms of de-dollarisation and de-globalisation, and how Thailand is positioned to not only survive but also could grow its GDP in 2023-24 amid volatility in global commodity prices, highly dynamic geopolitical tensions, and a potentially unstable political landscape.

Exhibit 42: Value of top 10 exports by product type, quarterly from 2Q18 to 2Q22



Sources: Information and Communication Technology Center, Ministry of Commerce with cooperation from The Customs Department – Ministry of Finance; FSSIA's compilation

Exhibit 43: Share of top 10 exports by product type, quarterly from 2Q18 to 2Q22



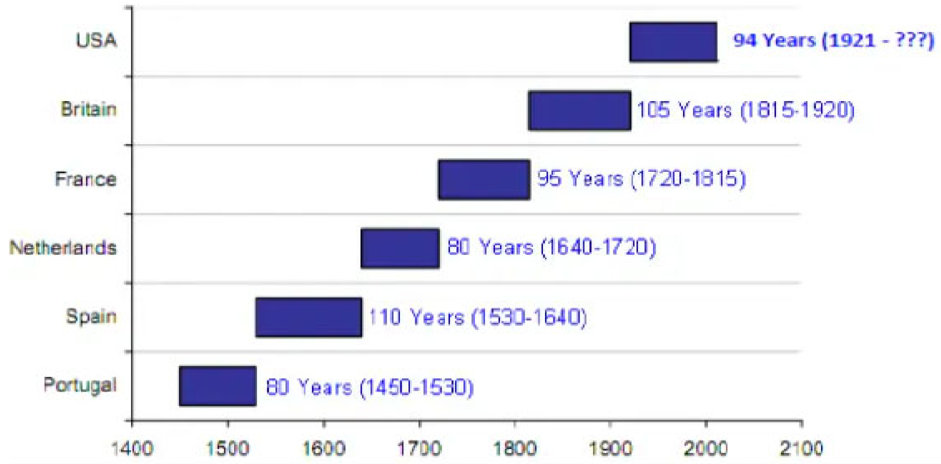
Sources: Information and Communication Technology Center, Ministry of Commerce with cooperation from The Customs Department – Ministry of Finance; FSSIA's compilation

De-dollarisation is inevitable and ongoing

After a century of domination as the world's single denominated currency, we think the USD is now entering a fast pace of "de-dollarisation", under three key processes of declining USD reserves by global central banks, dwindling "petrodollars" as the major currency for energy trading, and the USD as the world's major currency for trading.

Historically, no single currency can maintain its reserve status indefinitely, as the global economy is highly dynamic and market shares shift. Global reserves accumulating the USD in the past decades was due to the US economy being the dominant player in global trade right after the conclusion of World War I (WWI) in 1921. The US GDP accounted for 22% of global GDP in 2021.

Exhibit 44: Global reserve currencies since 1450



Source: Business Insider

How did the USD emerge to become the global leading currency? First printed in 1914 after the establishment of the Fed as the US' central bank with the passing of the Federal Reserve Act, the USD was first issued as a USD10 note featuring Andrew Jackson's portrait.

By the 1950s, the USD officially became the world's reserve currency, but the USD ascendancy to the global currency throne indeed began not long after the ink was dry on the first printing in 1914. A brief summary of the USD becoming the world's currency includes:

1914: Fed origin. The USD was first printed after the enactment of the Federal Reserve Bank in 1913 to create the Federal Reserve Bank to respond to the unreliability and instability of a currency system that was previously based on banknotes issued by individual banks. The creation of the Fed occurred at the same time that the US economy became the world's largest economy, surpassing the UK's pound sterling that had long been the world's currency of commerce and trade.

1914-18: WWI was an inflection event to turn the USD into a new global currency. Before WWI (28 July 1914 to 11 November 1918), major developed countries, mostly in Europe, pegged their currencies to gold as a way to stabilise currency exchanges.

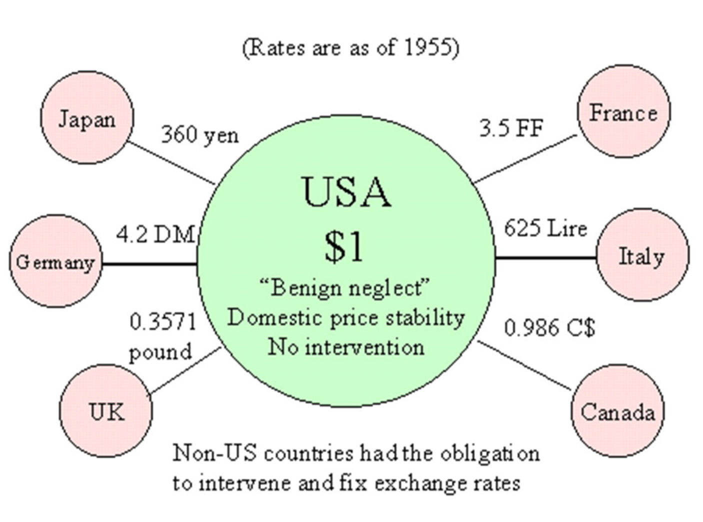
But when WWI broke out in 1914, many countries halted their use of the gold standard to pay their military expenses with paper money, which greatly devalued their currencies. Only the UK stuck to the gold standard to maintain its position as the world's leading currency and found itself borrowing money for the first time during the third year of WWI.

Having been largely unscathed by WWI, the US then emerged as the world's lender of choice for a host of countries that needed to buy dollar-denominated US bonds. Eventually in 1931, the UK abandoned its gold-pegged standard, effectively decimating the bank accounts of international merchants who traded in pounds. This led to the USD replacing the UK's pound as the world's leading international reserve currency.

1918-1945: from WWI to WWII and the Bretton Woods Agreement. Similar to WWI, the US, despite the damages inflicted at Pearl Harbor by the Japanese army, had been relatively unscathed by WWII. Prior to WWII breaking out in 1939, the US served as the Allies' (the UK, France) main supplier of weapons and other goods in exchange for gold as payment.

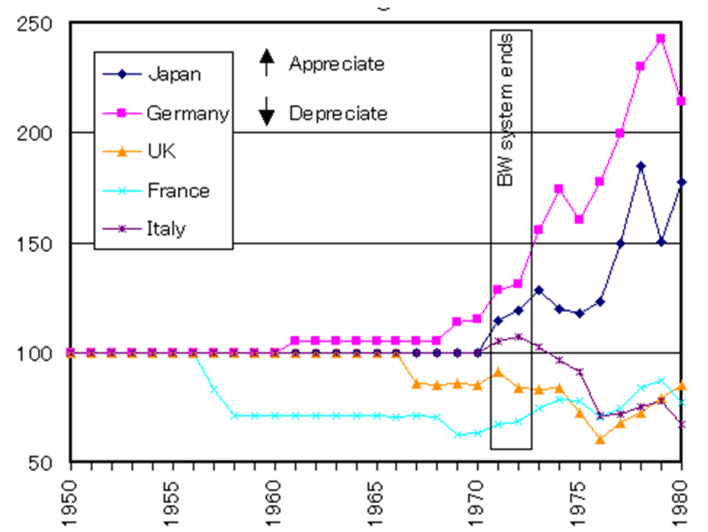
The gold-for-supplies from the Allies to the US during WWII effectively made the US the world's largest gold owner by the end of WWII in 1945, which in turn made it impossible for many countries which depleted their gold reserves, whether winners or losers of WWII, to return to the gold standard.

Exhibit 45: Bretton Woods: USD at the centre



Source: Grip.ac.jp

Exhibit 46: Currencies against USD



Source: Grip.ac.jp

1944: Bretton Woods Agreement (BWA). In 1944, delegates from 44 allied countries met in Bretton Woods, New Hampshire, to set up a new world system to manage foreign exchange that would not disadvantage any country. The solution was that the world's currencies would no longer be linked to gold but to the USD, as the greenback was overwhelmingly backed by its large amount of gold.

Besides pegging currencies to the USD from gold, BWA also established central banks' authorities to maintain fixed exchange rates between their currencies and the USD, in exchange for the US to agree to redeem USD for gold on demand. Countries had the authority to buy and sell their currencies and redeem their USD holdings for gold at any time to regulate their money supply.

BWA also created two sister organisations – the IMF and World Bank – to assist with the economic recovery of war-torn Europe and Japan. In essence, BWA contained four main features as follows:

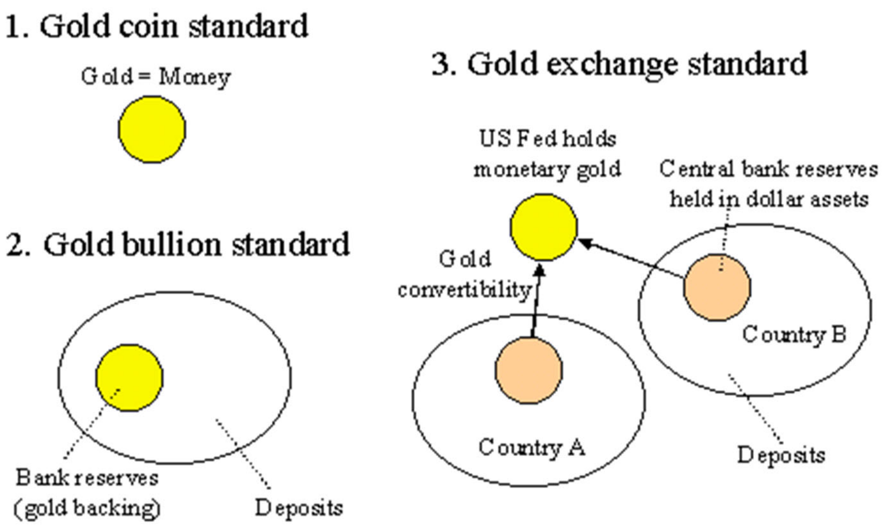
USD-based system. BWA was a gold-based system which treated all countries symmetrically, and the IMF was charged with the responsibility to manage the system. However, in reality, the USD-denominated system had the USD playing the role of the key currency, with relationships between the US and other countries highly asymmetric.

Adjustable peg system. BWA indicated that the exchange rates were fixed but permitted to be adjusted infrequently under certain conditions, meaning that BWA combined exchange rate stability and flexibility, while avoiding mutually destructive devaluation. Members were allowed to adjust "parities" (exchange rates) when "fundamental disequilibrium" existed.

Tight capital control. This feature was the main discrepancy between BWA and its predecessor, the Classical Gold Standard of 1879-1914, when there was free capital mobility. Under BWA, tight exchange controls were implemented.

Solid macroeconomic performance. During BWA's implementation, global price stability and high growth were concurrently achieved under deepening trade liberalisation. In other words, stability in tradable wholesale prices from the mid-1950s to the late 1960s was almost perfect and globally common, an unprecedented macroeconomic achievement.

Exhibit 47: Economising gold to create more money under BWA



Source: Grip.ac.jp

Gold-linked and BWA. Why are currencies required to link with gold value? If any country ties the value of money to gold, it may fluctuate due to the shifting demand and supply conditions of gold. However, this is much better than hyperinflation or deep devaluation caused by a huge budget deficit or irresponsible monetary policy. Gold therefore is needed to discipline the monetary and fiscal authorities. Even though macroeconomics has advanced, we cannot trust every central banker, even to this day.

Shortfalls of gold-linked currencies. Nevertheless, there are problems associated currencies with the rigid gold-money linkage. First, short-term price fluctuation is unavoidable. The changes in gold supply could lead to inflation (higher supply like the 19th century gold strikes in California or Alaska) and deflation (no big gold discovery). This means that there remains uncertainty that the speed of gold discoveries would match the increase in global money demand.

Second, the more serious problem is the long-term shortage of monetary gold. Over the years, the growth of the rapidly industrialising world economy was faster than the pace of gold discoveries. In order to supply the needed money, the gold standard was gradually transformed so that a small amount of gold could back a much greater amount of money.

Gold standard development. The gold standard evolved from a “gold coin standard” – only gold coins circulating as money with no paper money or bank deposits used. The amount of monetary gold was equal to the money supply. All money had intrinsic value.

Then the “gold bullion standard” occurred as the banking system created deposit money, people began to carry paper notes for convenience, where the paper money could be exchanged for gold at any time. Most monetary gold was accumulated at bank vaults in the form of gold bullion (gold bars). Through the money multiplier process, the money supply was much greater than the amount of gold held by banks.

The “gold exchange standard” was the system used for most currencies, except the USD. If the gold shortage persisted, further gold savings became necessary. Gold could only be held by the central country (US Federal Reserve) while other central banks held dollar reserves, not gold. Their dollar holdings were guaranteed to be converted to gold by the US.

These institutional changes proceeded naturally in order to economise the use of gold to support an ever-greater amount of money in the world. The Bretton Woods system, which collapsed in 1971, was the last gold-exchange standard.

Originally, gold was needed to constrain fiscal and monetary authorities. But if this constraint was too tight for world economic growth, and if institutional changes were required now and then to loosen it, why continue to be bound by it?

1944-1971: Bretton Woods era. The BWA effectively turned the USD into the world’s reserve currency, backed by its largest gold reserve. Countries accumulated the USD as a proxy for gold reserves, and instead of holding USD on hand, countries started purchasing US treasury securities as a “safe store of money”.

Due to the demands for expenses to cover the Vietnam War and fund the US’ Great Society domestic program, the US flooded the market with its paper money, causing the instability of the USD and eventually leading countries to convert their USD holdings into gold.

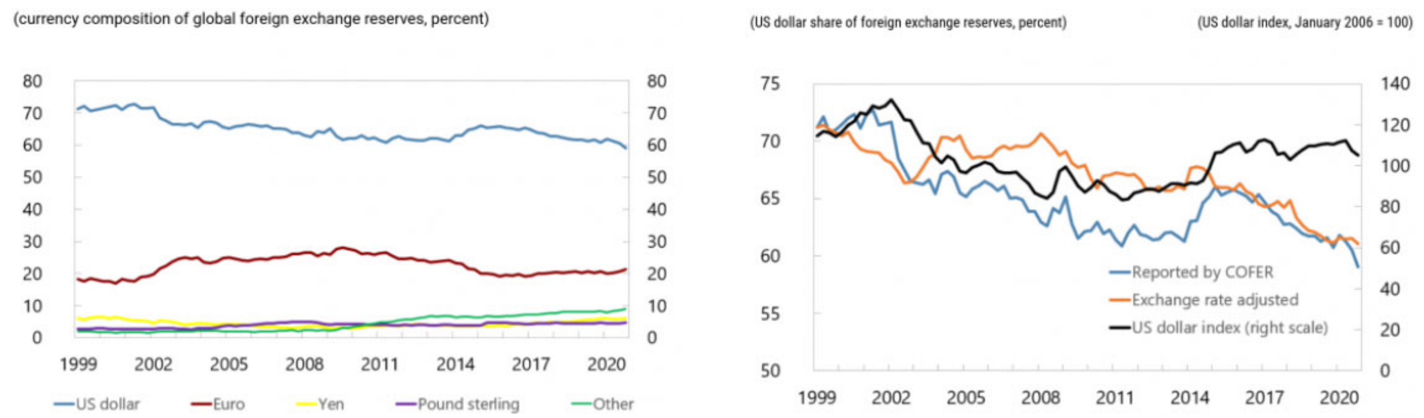
1971: severing Bretton Woods gold-pegged USD standard. By 1971, the USD-to-gold redeems had forced President Richard Nixon to abandon the Bretton Woods standard by de-linking the USD with gold, leading to the “floating” exchange rate scheme that has existed until today.

1974-present: petrodollar began. In 1974, in the absence of fixed value convertibility to gold, compared to other currencies, the USD subsequently deteriorated in value for several years, making fixed USD to local currency exchange rates unsustainable for most countries.

Then the agreements of 1971 and 1973 between OPEC and the US were reached, where OPEC oil had begun to be quoted in USD, creating the “petrodollar” as a scheme to create high demand for the USD.

Exhibit 48: Demand for dollars by central banks – *“The share of US dollar reserves held by central banks fell to 59%—its lowest level in 25 years—during the fourth quarter of 2020, according to the IMF’s Currency Composition of Official Foreign Exchange Reserves (COFER) survey.*

The chart shows that the share of US dollar assets in central bank reserves dropped by 12 percentage points—from 71% to 59%—since the euro was launched in 1999, although with notable fluctuations in between (blue line). Meanwhile, the share of the euro has fluctuated around 20%, while the share of other currencies including the Australian dollar, Canadian dollar, and Chinese renminbi climbed to 9% in 4Q20.”



Sources: IMF Currency Composition of Official Foreign Exchange Reserves (COFER), US Federal Reserve Board, and IMF staff estimates

Fading USD as the world's currency. The USD has long been the world's reserve currency and, according to the IMF, around 59% of global central banks held their reserves in USD, mostly in cash or US bonds, with the USD-denominated debt outside the US amounting to USD13.4t as of end-2020, based on the IMF's estimate.

The 59% reserve level was the lowest level in 25 years, dropping by 12 ppts from 71% in 1999 to 59% in end-2020, replaced partly at 20% by the Euro launch in 1999, and other currencies, including the Chinese renminbi at 9% as of 4Q20.

Exhibit 49: IMF Currency Composition of Official Foreign Exchange Reserves (COFER) – US dollar reserves held by central banks continued falling from 59% at the end of 4Q20 to 54.8% at the end of 1Q22.

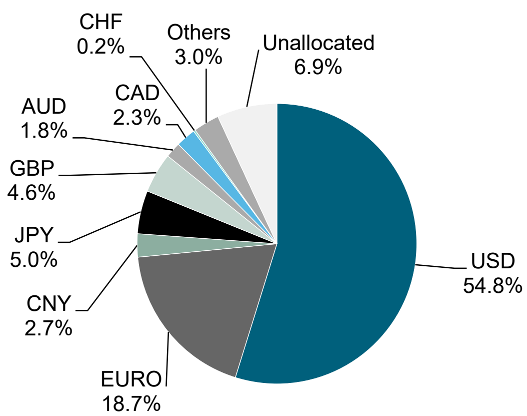
	World foreign exchange reserves					*Share of foreign reserves*				
	1Q21 (USD b)	2Q21 (USD b)	3Q21 (USD b)	4Q21 (USD b)	1Q22 (USD b)	*1Q21 (%)*	*2Q21 (%)*	*3Q21 (%)*	*4Q21 (%)*	*1Q22 (%)*
Total Foreign Exchange Reserves	**12,579**	**12,809**	**12,829**	**12,921**	**12,550**	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***
Allocated Reserves	**11,731**	**11,946**	**11,971**	**12,050**	**11,680**	***93.3***	***93.3***	***93.3***	***93.3***	***93.1***
Claims in U.S. dollars	6,972	7,070	7,093	7,093	6,878	*55.4*	*55.2*	*55.3*	*54.9*	*54.8*
Claims in euro	2,405	2,459	2,457	2,481	2,343	*19.1*	*19.2*	*19.2*	*19.2*	*18.7*
Claims in Chinese renminbi	293	315	321	337	336	*2.3*	*2.5*	*2.5*	*2.6*	*2.7*
Claims in Japanese yen	686	672	680	665	626	*5.5*	*5.2*	*5.3*	*5.1*	*5.0*
Claims in pounds sterling	554	561	559	579	581	*4.4*	*4.4*	*4.4*	*4.5*	*4.6*
Claims in Australian dollars	215	218	214	221	225	*1.7*	*1.7*	*1.7*	*1.7*	*1.8*
Claims in Canadian dollars	250	270	264	287	287	*2.0*	*2.1*	*2.1*	*2.2*	*2.3*
Claims in Swiss francs	19	23	24	21	26	*0.2*	*0.2*	*0.2*	*0.2*	*0.2*
Claims in other currencies	336	358	359	367	377	*2.7*	*2.8*	*2.8*	*2.8*	*3.0*
Unallocated Reserves	**848**	**863**	**858**	**871**	**870**	***6.7***	***6.7***	***6.7***	***6.7***	***6.9***

IMF note: COFER data for individual countries are strictly confidential. At present there are 149 reporters, consisting of member countries of the IMF, non-member countries/economies, and other foreign exchange reserve holding entities.
Source: International Monetary Fund (IMF)

Thailand's central bank's reserves: a paradigm shift from USD. Thailand has long held USD reserves, which accounts for over 90% of the country's total reserves as of Jun-22. Gold represents only 6.4% of the total reserve and the Special Drawing Rights (SDR), an international reserve asset created by the IMF in 1969, account for only 2.4% of the total reserve.

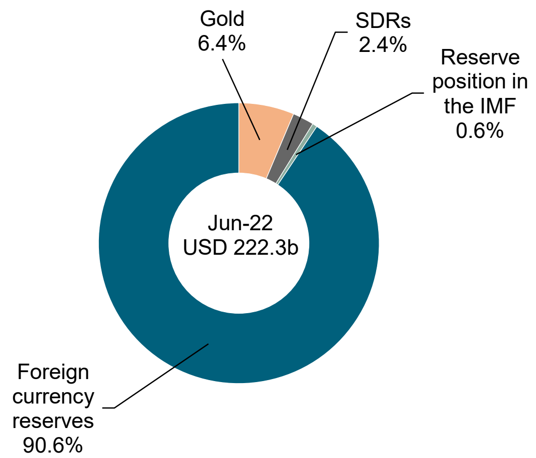
In the past few months, the BoT has reduced its USD-denominated reserves in exchange for gold and other currencies, in response to the projection that the USD currency would depreciate markedly in the next 12 months due to the economic recession, the effect of de-dollarisation, and the global reversal trend of USD reserves, led by Russia, China, and their allies.

Exhibit 50: World's allocated reserves by currency, 1Q22



Source: International Monetary Fund (IMF)

Exhibit 51: Thailand international reserves, Jun-22



Source: Bank of Thailand

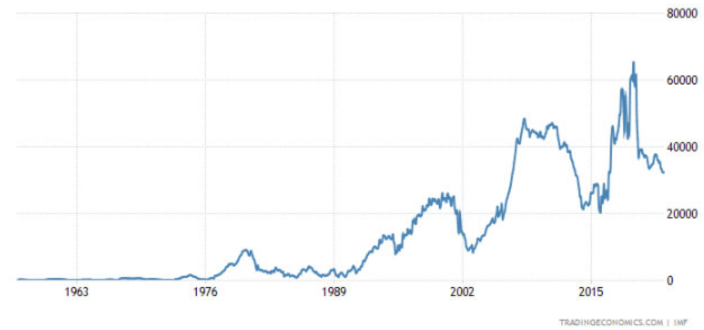
Individual countries, not continents, is where economic crises will likely occur in 2022-24. Unlike in the past when the origin of an economic crisis in one individual country eventually spilled over to create economic crises in other countries, we think the potential upcoming economic crisis, if not only recession, will be contained to individual countries with their own weaknesses – low reserves, small export revenue, high imports of energy and food, and hefty debts.

Sri Lanka, one of those countries with a number of weaknesses, has already faced financial bankruptcy due to its high debt, low reserves, and deficits in trade and current account balances. Sri Lanka has only USD1.92b in reserve, representing just 3.8% of its external debt at the end of Mar-22. With the sharp rise in imports of energy and food, Sri Lanka had no way out but to enter into a financial crisis since Jun-22.

Similarly, Argentina, Pakistan, and Zimbabwe are now facing rising risks of insolvency similar to Sri Lanka, given their low foreign reserve to external debt ratios, mostly below 15%, which we think is a high-risk zone that could lead the countries into the financial crisis.

We believe Thailand has very low risks of both insolvency and significant THB currency weakness above THB39/USD, given Thailand's high reserve-to-external debt ratio at 101.9% as of mid-2022.

Exhibit 52: Argentina foreign exchange reserves, USD32.3b at end of May-22 vs USD274b external debt at end of Mar-22



Source: Trading Economics

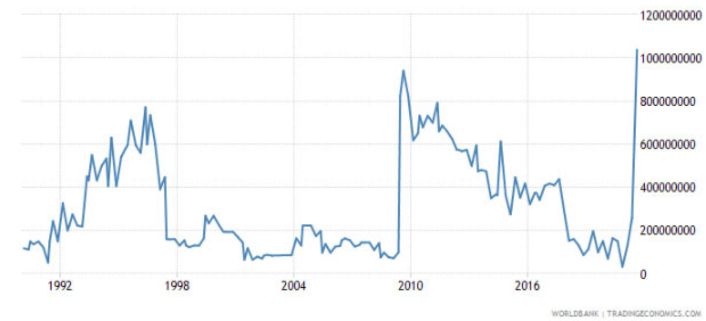
Exhibit 53: Sri Lanka foreign exchange reserves, USD1.92b at end of May-22 vs USD50.6b external debt at end of Mar-22

Source: Trading Economics

Exhibit 54: Pakistan foreign exchange reserves, USD16.4b at end of Apr-22 vs USD129b external debt at end of Mar-22

Source: Trading Economics

Exhibit 55: Zimbabwe foreign exchange reserves, most recent in 2021 was USD0.8b vs external debt of USD13.3b at end of Dec-20



Source: Trading Economics

The implication of BoT's rate hike cycle by sector

Given the elevated inflation driven mostly by rising energy costs, we think that the Fed and other central banks will likely be more aggressive to calm the inflation. Thus, we believe that in the upcoming round of policy rate hikes, the BoT is likely to raise its policy rate by 0.25% twice in 2022, followed by an additional two 0.25% rate hikes in 2023 – likely in 1H23. We think it will take at least 1-1.5 years before the BoT ends its long rate hike cycle by end-2023.

Exhibit 56: Key economic forecasts (recap)

US economic forecasts (%)	2022E	2023E	2024E
Fed rate (FSSIA)	4.0	4.5	3.5
Fed rate (BNPP)	3.5	3.8	3.3
Fed rate (FOMC's dot plot)	3.4	3.8	3.5
CPI (BNPP)	7.5	3.9	2.4
Thailand economic forecasts (%)	**2022E**	**2023E**	**2024E**
Headline inflation (FSSIA)	6.5	2.6	1.7
Headline inflation (BoT)	6.2	2.5	
Headline inflation (BNPP)	6.4	2.4	1.5
Core inflation (FSSIA)	2.2	2.0	
Core inflation (BoT)	2.2	2.0	
GDP (FSSIA)	3.0	4.3	3.8
GDP (BoT)	3.3	4.2	3.9
BoT's policy rate (FSSIA)	1.0	1.5	
Crude oil price (USD/bbl)	**2022E**	**2023E**	**2024E**
Dubai crude oil price (FSSIA)	120	110	
Dubai crude oil price (BoT)	105	105	
Dubai crude oil price (BNPP)	105	105	
Number of tourists arrivals (m)	**2022E**	**2023E**	**2024E**
No. of international tourists (FSSIA)	8.5	34.1	-
No. of international tourists (BoT)	6.0	19.0	

Sources: Bank of Thailand (BoT); Bloomberg; Airports of Thailand (AOT); BNP Paribas (BNPP); FSSIA estimates

Based on our study of the BoT's historical rate hikes and the impacts on the earnings and share prices of listed companies, we believe the implications of the BoT's rate hike cycle on industries or sectors as follows:

Banks (positive): higher margin over lower loan growth and rising NPLs

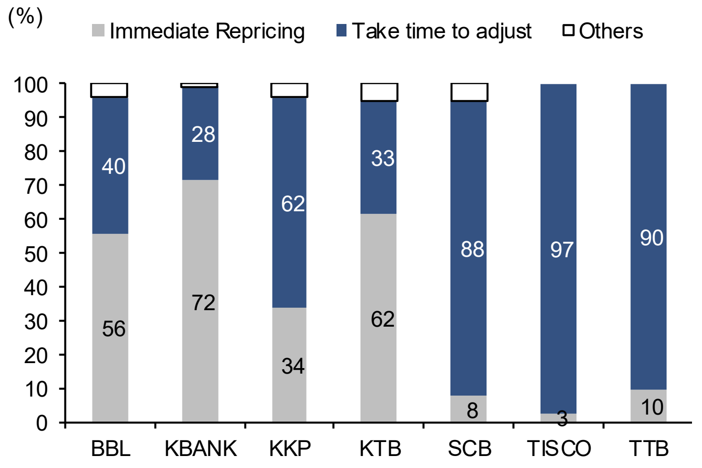
We expect Thailand to enter a rate hike rally phase, with the expected policy rate staying at 1.0% and 1.5% in 2022-23 vs 0.5% currently. We think policy rate hikes within a high inflation environment should have three impacts on banks' performance, including:

1) Wider net interest income – As always, when the policy rate is raised, we have a strong conviction that banks will increase their lending rate charges to their clients. This time, due to the fragile, uneven economic recovery and high inflation, we believe banks will raise their rates gradually rather than immediately.

Hence, we forecast banks to increase their M-rates to only 50% of the policy rate hike vs the normal rate of 60-70%. Meanwhile, we expect banks to raise their deposit rates by only 20% of the policy rate hike. Therefore, based on FSSIA's expectation of a 100-bps policy rate hike, we expect bank M-rates to rise 50 bps (rates may slightly differ between each bank and each M-rate type) and deposit rates to climb 20 bps during 2022-23.

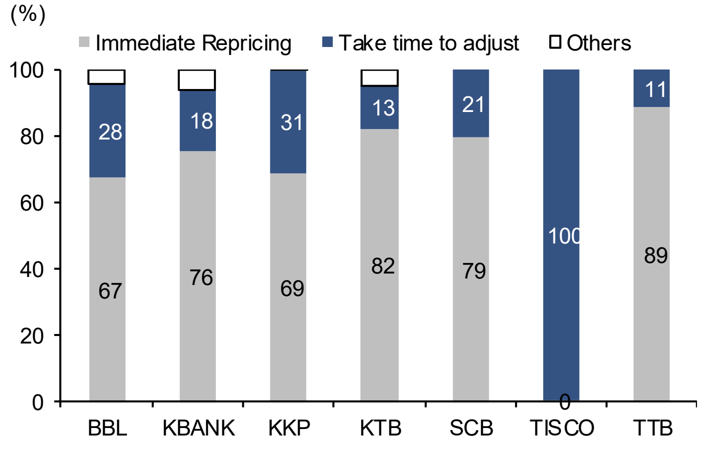
Bangkok Bank (BBL TB, BUY, TP THB170) and Krung Thai Bank (KTB TB, BUY, TP THB18.2) should benefit the most from the rate hikes due to their floating asset base, in our view, and the rising rate trend should also benefit Kasikornbank (KBANK TB, BUY, TP THB192), SCB X (SCB TB, BUY, TP THB134), and TMBThanachart Bank (TTB TB, BUY, TP THB1.4), in that order. Due to Kiatnakin Bank (KKP TB, BUY, TP THB82)'s and Tisco Financial (TISCO TB, HOLD, TP THB94)'s high proportion of fixed-rate assets, we expect slight negative impacts to their NIMs as adjusting their rate charges would take more time.

Exhibit 57: Breakdown of floating vs fixed interest rate loans by bank



Sources: Company data; FSSIA estimates

Exhibit 58: Breakdown of floating vs fixed interest rate deposits by bank

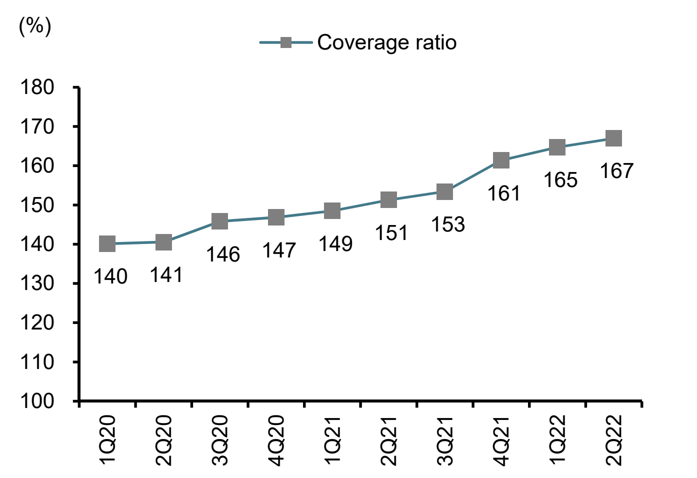


Sources: Company data; FSSIA estimates

2) Slower loan growth – We believe the high inflation rate will curb bank loan growth as banks take a more cautious approach to new lending, especially for high-risk, small ticket size retail lending.

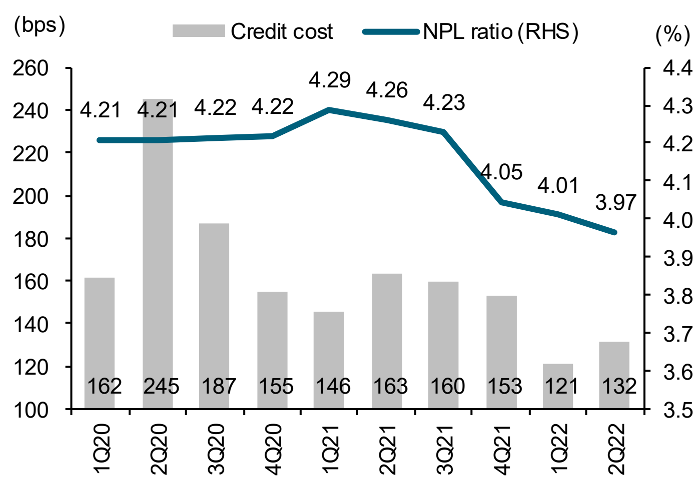
3) Higher asset deterioration rate – We expect that the debt repayment ability of bank clients might decline following the increase in lending rate charges amid high inflation. The most vulnerable segments should be retail and SMEs due to their lower bargaining power, while the least impacted should be corporate clients. However, banks have proactively set aside extra provisions, leading to a high coverage ratio level. Also, we expect banks to provide long-term debt restructuring programs to their clients. Thus, non-performing loans (NPLs) should rise at a manageable rate.

Exhibit 59: Sector's coverage ratio (q-q basis)



Sources: Company data; FSSIA estimates

Exhibit 60: Sector's NPL ratio and credit cost



Sources: Company data; FSSIA estimates

All in all, we think the wider NIM should outweigh the slower loan growth and higher credit costs. The concern over potential asset deterioration from high inflation will likely continue to provide negative sentiment for banks' share prices until the inflation rate in Thailand peaks, potentially in Aug-22. However, we believe banks' share prices have mostly priced the concerns in. SETBANK is trading at an undemanding valuation at 0.6x 2022E P/BV, despite the ROE recovery and benefits from the rate uptrend. We maintain OVERWEIGHT for long-term investment and retain KTB and BBL as top picks. We believe they should both benefit the most from future rate hikes and face the lowest risk from asset deterioration.

Diversified financials (moderate): higher funding cost and lower NIM

Rate hikes and high inflation should impact diversified financials under our coverage in three key areas, including one positive and two negatives:

1) on the positive side, we expect stronger loan demand as their clients need more money to live their lives and run their businesses during the higher cost of living period;

2) we expect their NIMs to be squeezed as most of their loan yields are fixed rate, while cost of funds should increase; and

3) we expect the debt repayment ability of their clients to decline. This should be reflected in higher credit cost.

All in all, we think the squeezed NIM and higher credit cost should outweigh the higher loan growth – expect a 5-10% upside to our current net profit forecasts

We maintain our OVERWEIGHT view on diversified financials. We believe the recent plummet in their share prices have mostly priced-in the potential downside risks over rate hikes. As for lending operators, we prefer secured lenders whose main clients are in the agricultural sector, as the farm income should slightly increase in line with the increase in product cost.

Thus, the ability to repay debts in this segment should be relatively the same as before the high inflation. Meanwhile, we think low salary earners or self-employed individuals should have the largest negative impact from the high cost of living. Regarding the asset management segment, we reiterate our view that unsecured asset management companies should be the inflation and rate hike winners due to the small ticket sizes, which should be easier for their clients to repay amid the slow economic economy.

Healthcare (neutral): tourism rebound and resurgence of Covid-19

We expect the overall revenue and earnings of the healthcare sector to slow down y-y in 3Q22, mainly due to the high base of Covid-related revenue in 3Q21. We expect earnings to be relatively flat or slightly slow down q-q due to the lower billing sizes of Covid treatments as patients are tending to self-isolate rather than seek treatment in hospital and “hospitels”. However, we expect strong organic growth, and 3Q22 earnings should still exceed the pre-Covid level by more than 10%.

3Q is normally the high healthcare season for both Thai and international patients, especially Middle East patients following the Ramadan period. Hospitals that participate in the Social Security Office (SSO) scheme would also benefit from the larger SSO registered member base.

We like Bangkok Dusit Medical Services (BDMS TB, BUY, TP THB31) and Bangkok Chain Hospital (BCH TB, BUY, TP THB28.5). BDMS and Bumrungrad Hospital (BH TB, BUY, TP THB210) should capture the strong recovery of international patient revenue which should reach the pre-Covid level by end of this year, led by Middle East and CLMV patients. For BCH, the stock is trading at a cheaper valuation than peers due to declining trend of Covid revenue. However, its earnings should still be much higher than the pre-Covid level by more than two-fold.

Tourism (neutral): pent-up demand and effective healthcare system

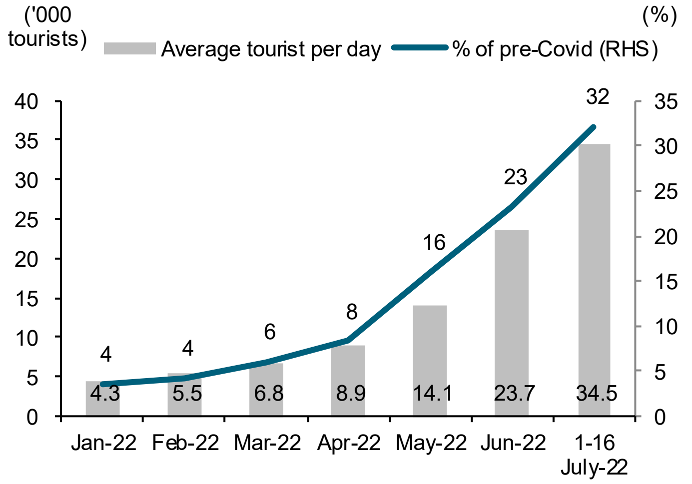
We expect a strong recovery momentum for Thai tourism based on the higher number of tourist arrivals from c15,000 tourists/day in 2Q22 to 35,000 tourists/day in July, equivalent to c32% of the pre-Covid level. Overall, the occupancy rate improved from an average of 25-30% in 1Q22 to c50% in June, and we expect stronger momentum in 3Q22.

In addition, hotels that have exposure to Europe (Minor International (MINT TB, BUY, TP THB43) and S Hotels and Resorts (SHR TB, BUY, TP THB5.2)) should benefit from the high tourism season in Europe over 2Q-3Q22. RevPAR has already exceeded the pre-Covid level since 2Q22, especially the average daily rate (ADR) which increased by 10-20% compared to the 2019 level. As a result, we expect that this should offset the rising costs of staff expenses and utilities from inflation.

For the monkeypox situation in Thailand, after the World Health Organization (WHO) declared monkeypox a global health emergency, the Thai government recently upgraded the monkeypox alert to the national level. They believe the same prevention measures used in preventing the Covid pandemic should be adequate to slow the spread of the disease. Moreover, Thailand has sufficient vaccines to handle monkeypox.

We like MINT and SHR. MINT should enjoy a high ADR over 2Q-3Q22 for its hotels in Europe. For SHR, we expect it to turn profitable in 3Q22 and capture strong earnings growth in 4Q22, led by the high tourism season in Maldives and Thailand, while it is trading at a cheap valuation below its book value.

Exhibit 61: Tourist arrivals monthly



Source: Economic Tourism and Sports Division

Exhibit 62: Tourist arrivals forecast

Source: FSSIA estimates

ICT (neutral): merger and industry consolidation

A higher interest rate would impact the ICT sector given that the companies in the sector, especially mobile network operators (MNO), fund their businesses via debt. Total Access Communication (DTAC TB, BUY, TP THB55.50) and True Corporation (TRUE TB, BUY, TP5.40) should take the biggest hit, in our view. Higher inflation would also be a key pressure point on MNOs as the purchasing power for mobile services would slow down, directly impacting their earnings.

However, the market is focusing on the merger between DTAC and TRUE over other downside risks. Therefore, we maintain our NEUTRAL view on the ICT sector.

Media (neutral): attractive valuation and demand recovery

Most of the companies in the media sector have no debt. Therefore, we expect there to be no impact or only a minimal impact from the rising interest rate. However, advertising expenditure (adex), the key revenue for the media sector, has a high correlation with the economic outlook. When inflation is manageable amid high GDP growth, consumer confidence and purchasing power, ad spenders typically increase their advertising budgets for products or services. However, at the moment, all of the drivers seem to be operating in reverse. Thus, we have some concerns about the health of the Thai economy over the next three months.

We maintain our OVERWEIGHT view on the media sector given that most media companies' share prices are trading at low P/E multiples compared to their historical P/E. We believe that once there are signs of an economic recovery, the media sector should solidly bounce back.

Auto (neutral): lower purchasing power and weaker margins

The auto sector has a tiny amount of debt. A higher interest rate should have a small impact on the sector's earnings. For inflation, it directly impacts the auto sector on both the revenue and cost sides. For revenue, we expect to see slower demand for new cars given that cars are durable goods.

When the price of products and services increases, consumers tend to save their money for necessities over durable goods. For the cost side, the risk of rising steel prices, the key raw material for auto parts production which have risen since last year, will likely continue to rise throughout this year. That would continue to pressure the GPM of the auto sector keeping it low and directly hurting the sector's earnings. Therefore, We have a NEUTRAL recommendation on the auto sector.

Transport (neutral): mass transit hit on rising interest costs

Mass transit operators should suffer a big impact when the interest rate is hiked. The project value of each mass transit line is around THB100b, which is mainly financed by debt. Therefore, we believe it will be the key pressure point on their earnings in the future.

Meanwhile, other transportation and logistics companies should have no impact as they have no debt. For inflation, we believe it should have a minimal impact on the transportation sector. The transportation cost is a necessary cost that consumers have to endure. Moreover, almost every mass transit line has a contract to adjust the ticket fare according to the inflation level. We have a NEUTRAL recommendation on the transportation sector.

Energy - oil & gas (positive): higher price and rising sales volume

The higher-for-longer energy prices of oil, coal, and gas as a result of the demand growth post the global economic reopening and the tighter supply caused by the sanctions on Russia's invasion of Ukraine, have clearly led to globally higher inflation.

The demand and war-driven price uptrends for oil, coal, and particularly gas, are likely to continue into 2023, at least until the end of the winter season (Oct-22 to Apr-23) in the Northern Hemisphere, as these fuels are key for heating during the upcoming winter. The impact from the US and its allies intensifying their sanctions against Russia should extend into 1H23, potentially supporting the high prices of oil, coal, and gas.

Our assumptions of high prices for oil, coal, and gas for 2022-24 should drive up the earnings of PTT Exploration and Production (PTTEP TB, BUY, TP THB180) significantly, given its high leverage on the oil price – ceteris paribus, we estimate a 1.3% rise in PTTEP's net profit for every 1% increase in the oil price. Coupled with strong sales volume growth from M&As, PTTEP is our top pick in the Thai upstream energy sector.

While PTT (PTT TB, BUY, TP THB50)'s earnings growth should be strong on the higher prices of oil and gas, it will have to face earnings downsides from the rising gas price of imported LNG to sell to its industrial clients, a potential gas feedstock shortage for its gas separation plants from the gas production shortfalls from Erawan in 2022-23, and the lack of new catalysts in the near term compared to PTTEP. We prefer PTTEP over PTT in 2H22.

Exhibit 63: FSSIA's commodity price assumptions

	2022E	2023E	2024E
Newcastle coal price index (USD/t)	300	250	250
Dubai crude oil price (USD/bbl)	120	110	110
Henry Hub gas price (USD/mmbtu)	7.0	6.0	6.0
Spot JKM LNG price (USD/mmbtu)	20	15	15

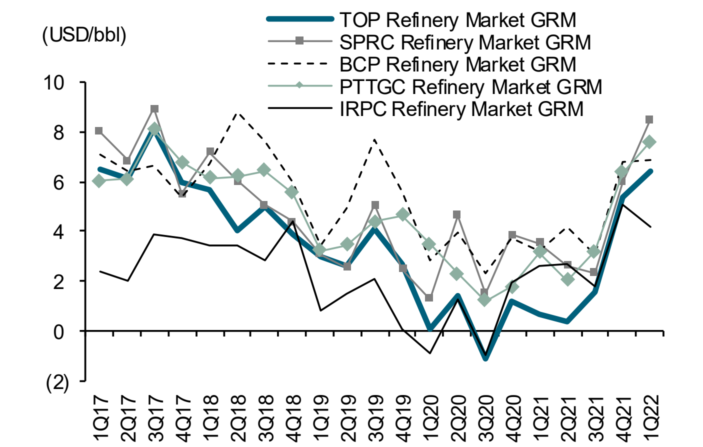
Sources: FSSIA estimates

Energy - refinery (neutral): pricing power and rising sales volume

We believe refiners will see mixed impacts from the rising interest rate (negative) that could be offset by higher selling prices (higher inflation). The high-debt refiner Thai Oil (TOP TB, BUY, TP THB70) will likely suffer from the rising interest rate and hedging losses that could be offset by the industry's higher market gross refining margin (GRM). PTT Global Chemical (PTTGC TB, REDUCE, TP THB40) and IRPC (IRPC TB, REDUCE, TP THB3) should similarly see negative impacts from the rising interest expenses due to their large debts to fund expansion projects. Star Petroleum Refining (SPRC TB, BUY, TP THB14), Esso (Thailand) (ESSO TB, BUY, TP THB12.9), and Bangchak Corporation (BCP TB, BUY, TP THB40) are three refiners that we believe will see little to no impact from the rising interest rate thanks to their zero to low debt positions.

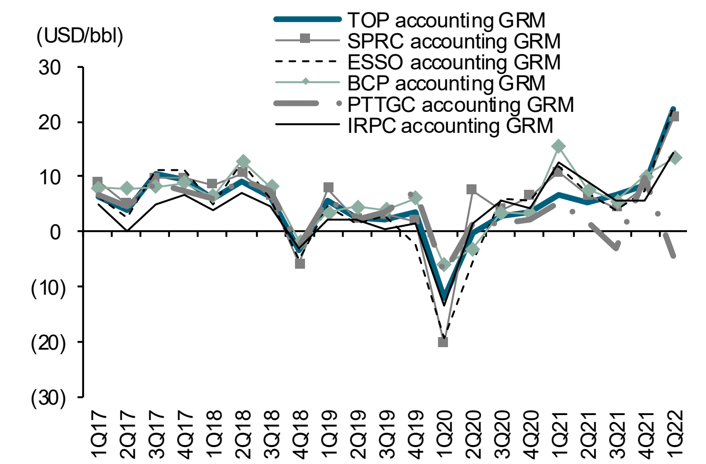
Fundamentally, the industry GRM should rebound in Sep after declined from its peak in Jun-Jul 2022 due to the sharp drop in the gasoline-crude margins and the rising crude premiums. The key drivers for the GRM rebound in Sep-Dec 2022 should be the increases in the diesel and jet-crude margins thanks to the demand growth as a substitute for heating for diesel to gas and the rising demand for travel for jet.

Exhibit 64: Thailand refinery companies' market GRMs



Source: Company data

Exhibit 65: Thailand refinery companies' accounting GRMs

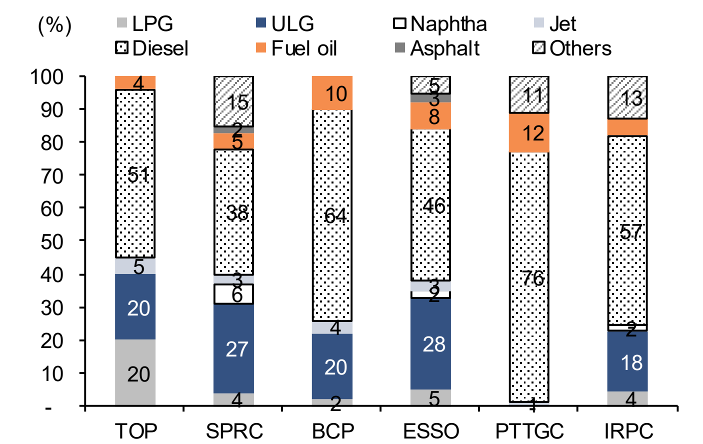


Source: Company data

The pent-up demand for jet fuel used for long-haul international flights should grow at least by 1-2mbpd from 2020-23, while we expect the demand for diesel in the coming winter to jump markedly as a key substitute energy for the heating and industrial sectors in the EU to replace the Russian gas and oil supply cuts due to sanctions.

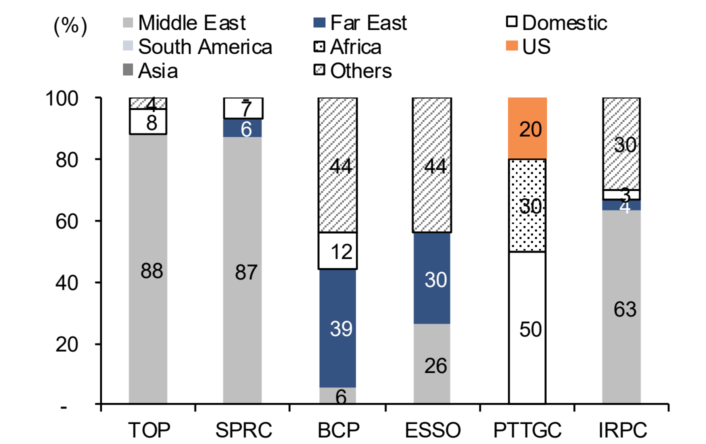
We project gasoline demand to subside in 2H22 after the high season for driving in the US ends and the rising supply comes online to capture the spike in the gasoline-oil margins from 1H22.

Exhibit 66: Product yield breakdown as of 1Q22



Source: Companies

Exhibit 67: Crude mix breakdown as of 1Q22

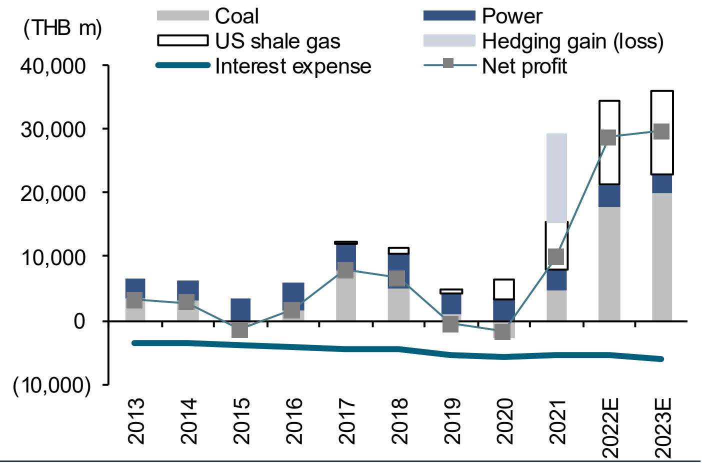


Source: Companies

Energy - coal (neutral): pricing power and rising sales volume

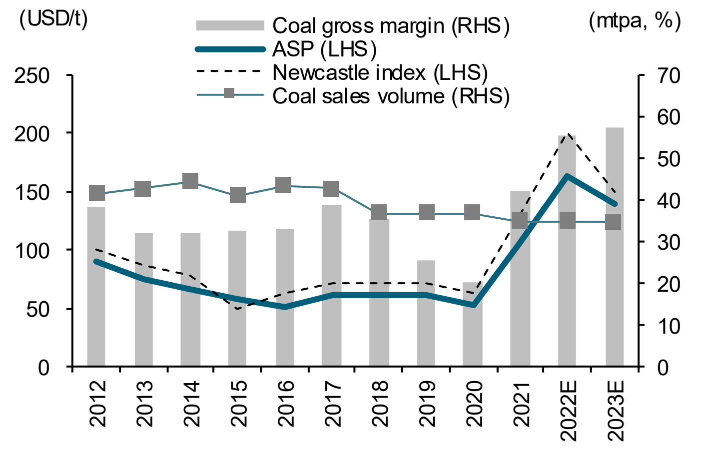
We believe coal companies will see significantly higher pricing power to raise their selling prices as a result of the global tight supply and strong demand for coal as a key substitute energy for gas to produce power. The rising interest rate could drive up the interest expense, but this should be more than offset by the earnings growth of coal and shale gas for Banpu (BANPU TB, BUY, TP THB18.8).

Exhibit 68: Net profit growth from coal and shale gas



Sources: Banpu; FSSIA estimates

Exhibit 69: Coal gross margin to surge on higher average selling price (ASP)



Sources: Banpu; FSSIA estimates

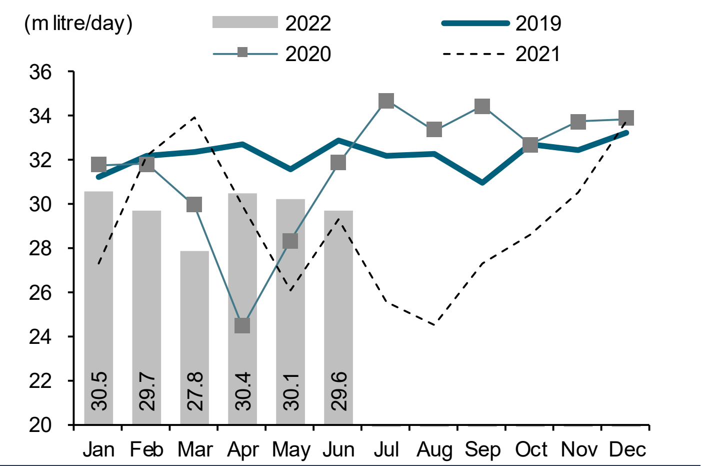
Energy – oil stations (neutral): rising sales volume and higher margins

We expect the companies in the oil station business, including PTT Oil and Retail Business (OR TB, BUY, TP THB32), PTG Energy (PTG TB, BUY, TP THB18.3), Susco (SUSCO TB, BUY, TP THB3.5), ESSO, and BCP, to benefit from the higher prices of oil, which would result in a higher marketing margin and potential inventory gains. The pent-up demand for travel in the domestic market has already proven that the rising inflation and interest rate have little to no impact on the demand for oil.

Similarly, non-oil ventures, mostly food & beverages, should also see increasing demand and sales in 2H22-2023, thanks to the tourism rebound, higher farm incomes, and strong demand for travel and transportation.

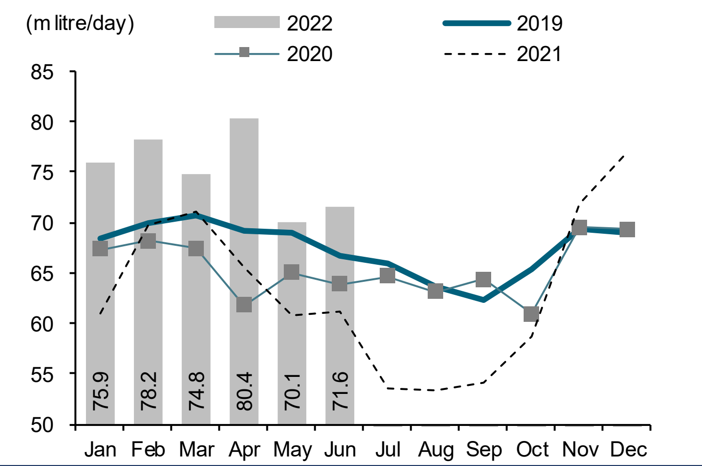
OR is our top pick in the oil station segment, backed by 1) its strong earnings growth from Café Amazon in terms of both sales volumes and margins; 2) a higher marketing margin and sales volume for its oil stations; 3) piecemeal benefits and synergies from acquisitions; and 4) the continued expansion in the number of oil stations and Café Amazon outlets, both domestically and overseas.

Exhibit 70: Thailand's gasoline consumption



Source: Department of Energy Business (DOEB)

Exhibit 71: Thailand's diesel consumption



Source: DOEB

Petrochemical (negative): margin squeeze and rising interest expense

Among five petrochemical companies under our coverage (Siam Cement (SCC TB, BUY, TP THB466), PTTGC, Indorama Ventures (IVL TB, BUY, TP THB65), IRPC, and Eastern Polymer Group (EPG TB, BUY, TP THB16)), we prefer only IVL and EPG as our top picks based on:

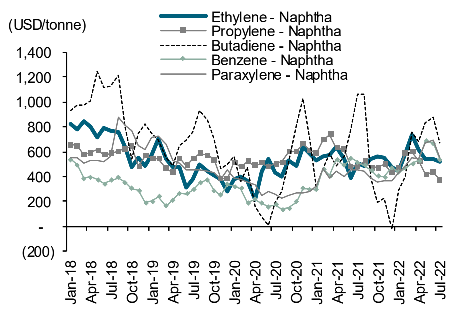
1) their highly visible earnings growth momentum in 2H22 into 2023 on the back of their organic expansions
2) M&As for IVL into the integrated oxide and derivatives segment
3) most importantly, the structurally higher margins from the rising "import parity" cost as a result of the higher prices of oil and gas as fuels for shipping and transportation and the rising import tariffs and duties among countries in the now dual blocs of the "West" led by the US, the EU and its allies against the "East", led by China and Russia.

We believe this structural change in the "de-globalisation" trend will be permanent, not transient, and hence should result in a much higher margin gap between continents and blocs. IVL is the only true global company listed on the SET with regional production hubs that aim to serve the demand in each continent. De-globalisation would clearly lead IVL's margin to rise, as already seen in the jumping margin gaps of integrated PET-PTA between Asia and the EU and US markets.

SCC, PTTGC, and IRPC are all olefin-driven companies, and we expect them to face a weak margin outlook for their naphtha-based olefins production due to the high oil price and industry oversupply.

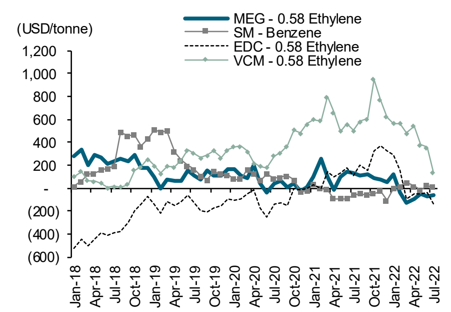
We project EPG to see earnings growth y-y after posting record high earnings in FY22 (Apr-21 to Mar-22). We see the key drivers for EPG's net profit growth momentum in FY23-24 as 1) a gradual increase in the utilisation rate and sales volume of its 4,000tpa insulator plant in the US; and 2) continued strong automotive demand, including for EVs, and demand for insulators in order to save on electricity and energy costs for both the household and industrial sectors.

Exhibit 72: Upstream product margins



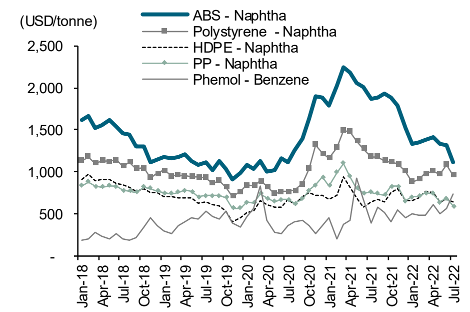
Source: Bloomberg

Exhibit 73: Intermediate product margins



Source: Bloomberg

Exhibit 74: Downstream product margins



Source: Bloomberg

Utilities (negative): higher gas cost and rising interest expense

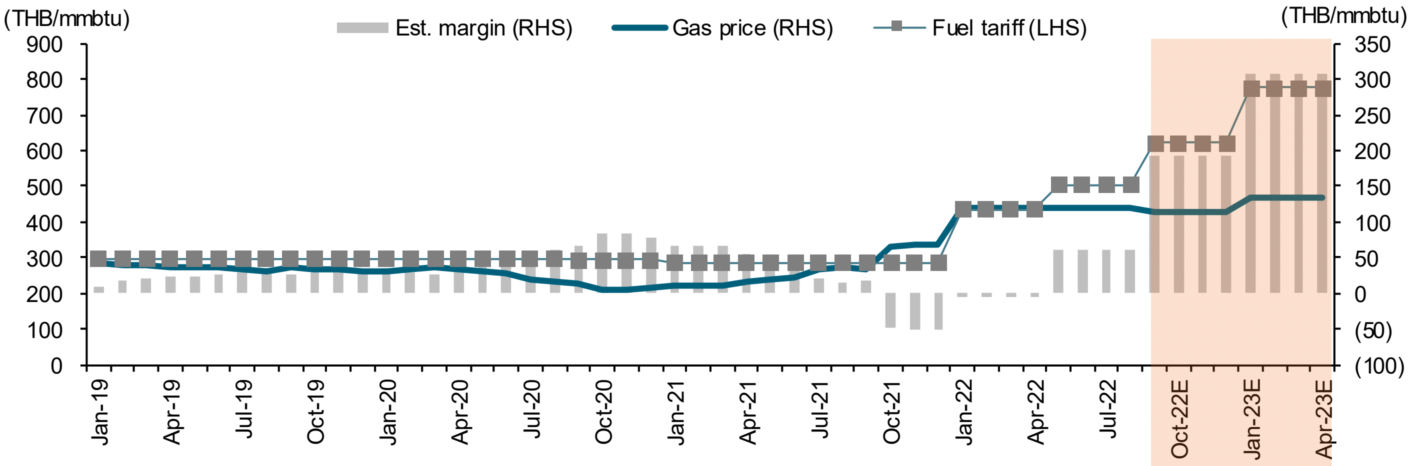
The small power producer (SPP) segment could see either a bright or dark outlook for earnings, depending on the government's decision whether to maintain or raise the fuel tariff (Ft), and by what degree, to allow SPPs and the Electricity Generating Authority of Thailand (EGAT) to retroactively cover their accumulated losses from the mismatch between the rising gas cost and the Ft-driven electricity tariff.

Independent power producers (IPPs) should have no concern over the higher gas cost and the Ft change, but lacking significant capacity growth could continue to cap the upsides for their earnings and share prices, in our view.

The renewable segment should see a positive earnings impact from the higher selling price if the government decides to lift the Ft, given that most of the electricity tariffs will be linked to the Ft-driven national grid price.

The EV segment is the most promising sector in the Thai power sector, in our view, thanks to the government's strong support via subsidies, tax cuts or reductions, and the early adoption of EVs for Thailand's transportation and consumer industries.

Exhibit 75: Pool gas price, fuel tariff, and estimated margins



Sources: BGRIM; EGAT; PTT; FSSIA estimates

Preferred stocks with strong 2Q22E net profit

Based on the 2Q22 earnings forecasts (128 companies) from FSSIA and the Bloomberg consensus the aggregate net profit could grow to THB238b (+16% q-q and +26% y-y), driven by the energy, food & beverage, media, transportation, and construction services, and banking sectors. Meanwhile, the petrochemical sector could post q-q poorer results.

We estimate that three sectors will likely post 2Q22 earnings results that could potentially beat the market's expectations: finance (retail finance – stronger loan demand), commerce (cost reduction program upside), and healthcare (more non-Covid patients and improving EBITDA margin as pricing power).

Among the stocks under FSSIA's coverage, we expect companies with strong 2Q22 earnings results, in terms of a q-q basis, to include MAJOR, GPSC, CK, BEM and CRC, while PR9, BANPU, SPRC, VGI, TOP and BH should have strong earnings on a y-y basis.

Exhibit 76: 2Q22E earnings estimates by sector (highlighted sectors are those likely to beat BBG consensus' 2Q22 estimates, in our view)

(THB m)	------------------------ Net profit ---------------------			---------- *Change* ---------	
Sector	**2Q22E**	**1Q22**	**2Q21**	***(q-q %)***	***(y-y %)***
Food & Beverage	10,960	4,308	6,420	154.4	*70.7*
Construction Services	717	349	338	105.1	*112.3*
Media & Publishing	488	257	(94)	89.8	*(617.5)*
Tourism & Leisure	(174)	(561)	(1,868)	69.0	*90.7*
Energy & Utilities	97,955	72,844	50,985	34.5	*92.1*
Commerce	14,319	12,711	8,087	12.7	*77.1*
Construct	12,282	11,118	20,206	10.5	*(39.2)*
Professional Service	69	63	65	9.2	*5.4*
Packaging	2,094	1,948	2,437	7.5	*(14.1)*
Finance & Securities	7,827	7,281	7,041	7.5	*11.2*
Agribusiness	485	457	230	6.1	*111.0*
Services	178	171	156	4.2	*14.4*
Information & Comm Tech	10,247	9,951	11,724	3.0	*(12.6)*
Industrials	17	17	37	1.8	*(54.3)*
Petrochem & Chemical	18,679	18,769	33,454	(0.5)	*(44.2)*
Banking	43,483	44,199	35,631	(1.6)	*22.0*
Electronic Component	3,898	4,054	3,231	(3.8)	*20.6*
Property Development	8,812	9,789	7,781	(10.0)	*13.3*
Automotive	903	1,135	871	(20.4)	*3.7*
Technology	22	28	17	(20.6)	*30.6*
Transport & Logistic	(1,641)	(2,231)	(1,918)	(26.4)	*(14.5)*
Healthcare Services	5,934	8,239	3,740	(28.0)	*58.7*
Grand Total	**237,554**	**204,895**	**188,570**	**16**	**26**

FSSIA estimates from 128 companies whose combined market capitalisation accounted for 72.4% of SET Index
Sources: Bloomberg consensus; FSSIA estimates for companies under coverage

Exhibit 77: Strong 2Q22E results forecasts, q-q

(THB m)	Net profit			Change	
Stocks	2Q22E	1Q22	2Q21	(q-q %)	(y-y %)
ZEN	31	4	(68)	642	(146)
MAJOR	139	24	(218)	477	(164)
GPSC	909	313	2,302	190	(61)
CK	335	121	318	176	5
BEM	716	336	200	113	257
PTTEP	20,600	10,519	7,140	96	189
CRC	2,200	1,204	(471)	83	(567)
TEAMG	33	18	19	81	79
PYLON	38	21	1	80	2,992
M	460	271	(99)	70	(562)
TTA	1,541	980	530	57	190
STEC	350	232	1	51	24,618
PTTGC	6,291	4,212	25,035	49	(75)
ICHI	153	104	164	47	(7)
SC	570	388	520	47	10
BCP	6,370	4,356	1,765	46	261
CPF	3,957	2,842	4,737	39	(16)

Sources: Bloomberg; FSSIA estimates

Exhibit 78: Strong 2Q22 results forecasts, q-q

(THB m)	Net profit			Change	
Stocks	2Q22E	1Q22	2Q21	(q-q %)	(y-y %)
DTAC	1,004	726	1,531	38	(34)
TTW	844	613	856	38	(1)
PTT	34,442	25,571	24,579	35	40
CPALL	4,547	3,453	2,190	32	108
TOP	9,420	7,183	2,123	31	344
SCCC	1,000	802	1,445	25	(31)
OR	4,730	3,845	3,225	23	47
PSL	1,589	1,294	826	23	92
AEONTS	1,115	911	1,149	22	(3)
OSP	912	750	820	22	11
KCE	709	590	618	20	15
TFG	737	619	430	19	72
SPRC	6,292	5,284	773	19	714
PLANB	124	104	(71)	19	(275)
JMT	425	367	289	16	47
HANA	420	365	737	15	(43)
ITEL	62	55	47	13	31
SCC	9,938	8,844	17,136	12	(42)
SCGP	1,856	1,658	2,263	12	(18)

Sources: Bloomberg; FSSIA estimates

Exhibit 79: Strong 2Q22E results forecasts, y-y

(THB m)	Net profit			Change	
Stocks	2Q22E	1Q22	2Q21	(q-q %)	(y-y %)
PR9	115	157	12	(27)	876
BANPU	11,353	10,264	1,325	11	757
SPRC	6,292	5,284	773	19	714
GGC	405	487	80	(17)	409
VGI	49	(45)	10	(207)	383
TOP	9,420	7,183	2,123	31	344
BCP	6,370	4,356	1,765	46	261
BEM	716	336	200	113	257
BH	738	725	216	2	241
TKN	67	63	22	7	203
TTA	1,541	980	530	57	190
PTTEP	20,600	10,519	7,140	96	189
GFPT	469	456	182	3	158
LEO	94	90	43	5	120
TH	46	46	22	1	111
CPALL	4,547	3,453	2,190	32	108

Sources: Bloomberg; FSSIA estimates

Exhibit 80: Strong 2Q22E results forecasts, y-y

(THB m)	Net profit			Change	
Stocks	2Q22E	1Q22	2Q21	(q-q %)	(y-y %)
PSL	1,589	1,294	826	23	92
BDMS	2,673	3,443	1,452	(22)	84
TEAMG	33	18	19	81	79
TFG	737	619	430	19	72
SVI	278	262	165	6	68
ILM	160	161	101	(0)	58
GULF	2,192	3,395	1,407	(35)	56
CHG	870	1,356	576	(36)	51
AMATA	372	553	247	(33)	51
BJC	1,238	1,246	822	(1)	51
KKP	2,033	2,055	1,354	(1)	50
JMT	425	367	289	16	47
DELTA	2,431	2,780	1,655	(13)	47
OR	4,730	3,845	3,225	23	47
RBF	156	163	108	(4)	44
IVL	11,983	14,070	8,340	(15)	44
WICE	160	158	111	1	44
MAKRO	1,848	2,050	1,287	(10)	44
CPN	1,781	2,328	1,269	(24)	40
PTT	34,442	25,571	24,579	35	40

Sources: Bloomberg; FSSIA estimates

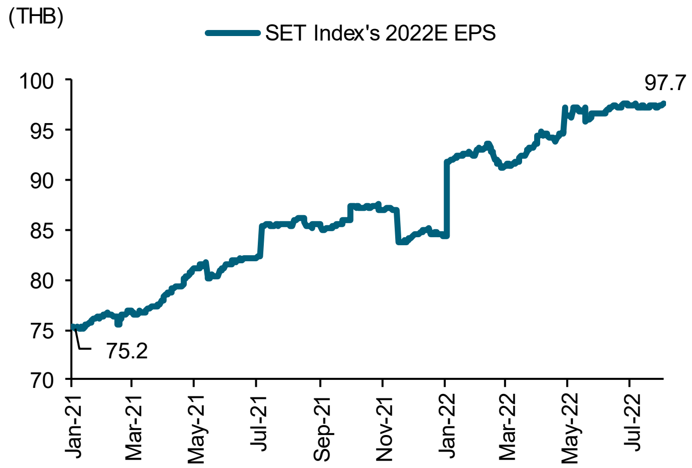
Maintain Overweight with our 2022 SET index target of 1,629

We retain our 2022 SET index target of 1,629, based on 16.1x 2022E P/E, -0.25SD, reflecting the higher risks from rising inflation and a more aggressive BoT rate hike that could jeopardise the earnings growth of corporates on the SET, with FSSIA's SET EPS 2022 forecast at THB101 per share, based on the companies under FSSIA's coverage (127 companies which account for c74% of the SET's market cap), higher than the Bloomberg consensus' forward EPS forecast of THB97.7 in 2022, as of 1 Aug-22.

With the ongoing Thai economic recovery, our solid corporate earnings growth projections, inflation likely peaking in 3Q22 due to the low base effect, and a higher crude oil price, we think the BoT's move to lift its policy rate in the August meeting should moderately impact GDP growth but effectively curb inflation.

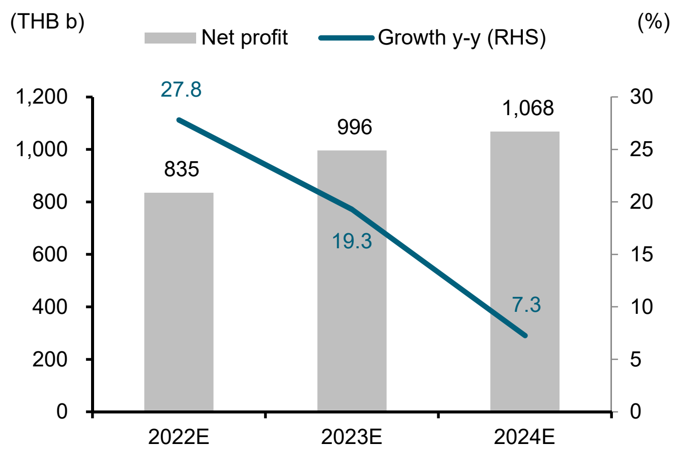
Looking into 3Q22, we project Thai economic growth to rebound meaningfully, mainly on export strength and a tourism recovery, according to the BoT's governor who said that Thailand's 2Q22 was expected to grow by more than 3%. We believe the tighter monetary policy should be less necessary, opening room for the economy to grow amid the global economic weakness.

Exhibit 81: Bloomberg consensus' EPS revisions of SET index in 2022



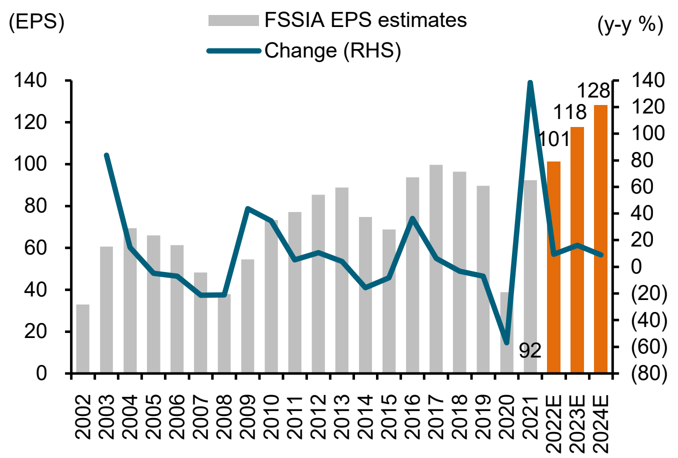
As of 1 Aug-22
Source: Bloomberg consensus

Exhibit 82: SET index net profit and growth forecasts in 2022 to 2024



Source: FSSIA estimates as of 1 Aug-22

Exhibit 83: SET index net profit growth projections



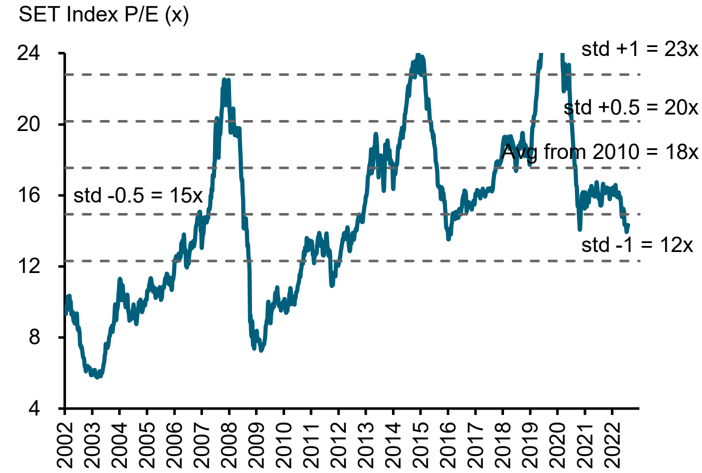
Sources: Bloomberg; FSSIA estimates

Exhibit 84: FSSIA's SET index target for 2022

		----------------- Earnings per share ----------------		
		2022E	2023E	2024E
	EPS	101.12	117.60	128.06
		Target index based on FSSIA estimates		
	P/E (x)	2022E	2023E	2024E
SD+1.0	22.4	2,260	2,629	2,863
SD+0.5	19.9	2,008	2,335	2,543
SD+0.25	18.6	1,882	2,188	2,383
Avg. from 2010	17.4	1,755	2,042	2,223
SD-0.25	16.1	1,629	1,895	2,063
SD-0.5	14.9	1,503	1,748	1,904
SD-1.0	12.4	1,251	1,454	1,584

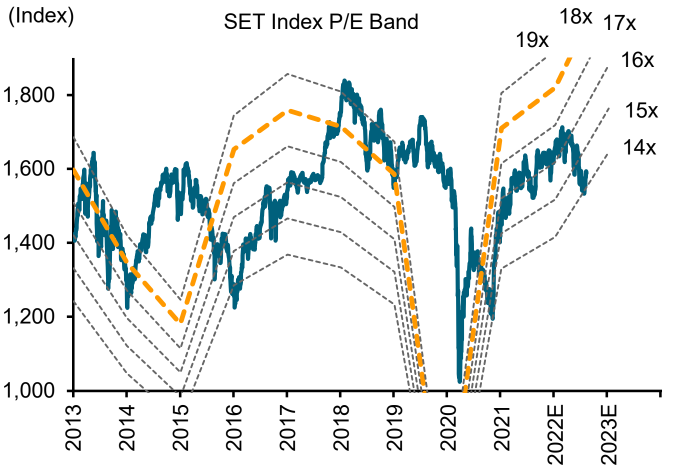
Source: FSSIA estimates

Exhibit 85: SET rolling one-year forward P/E band



Sources: Bloomberg; FSSIA estimates

Exhibit 86: SET rolling one-year forward P/E band



Sources: Bloomberg; FSSIA estimates

Our preferred stocks for August 2022

Exhibit 87: Our tactical portfolio of select stock picks for Aug-22

Company	BBG code	Key rationale
Bangkok Chain Hospital	BCH TB, TP THB28.5	There are four catalysts to drive BCH's share price: 1) expect 2Q22 organic revenue to exceed pre-Covid by 16%; 2) potential upside from pent-up demand from international patients, especially Middle East patients; 3) a possible rate hike for the SSO scheme; and 4) cheap valuation; 2023 profit to exceed pre-Covid level by 72%.
Bumrungrad Hospital	BH TB, TP THB4.70	We think BH's operation have already bottomed out. BH is a leading private hospital in the premium segment. Key growth drivers include 1) the recovery of international patient numbers; and 2) its new business model, which should enable BH to capture the middle-class patient segment. BH is trading at 34x 2023E P/E, lower than the 5-yr avg. of 38x. A short-term catalyst is the high season for Middle East medical tourism in 3Q22, while a long-term upside is BH's potential to attract Saudi Arabian patients.
Minor International	MINT TB, TP THB43	We recommend BUY on MINT due to its share price trading at a discount to the historical average and expect it to turn profitable with a THB1.1b core profit in 2Q22, led by European hotels whose RevPAR should exceed the pre-Covid level. We believe MINT's earnings have already passed the bottom and its operation is now in a recovery mode. We expect core profit to turn around in 2022, led by the European hotel portfolio and its food business.
Bangkok Airways	BA TB, TP THB16	BA offers air transportation services. The company operates flights and airports to various resort destinations, including Thailand, CLMV, China and India. Rising revenue from its airport business should be a key catalyst for BA as it would reduce the earnings volatility from its airline business. BA is transferring leaseholder rights for Samui Airport to REI. Overall, we see this deal as positive as it should allow BA to unlock Samui Airport's value, while keeping the upside and a higher number of passengers carried following a global tourism recovery. Thus, we recommend BUY on BA.
S Hotels and Resorts	SHR TB, TP THB5.20	We expect SHR to turn profitable in 3Q22, led by the high tourism season in the UK where 3Q22 RevPAR should grow by 20% q-q to cTHB2,600, a new record high and exceeding the pre-Covid level by 18%. This momentum should continue in 4Q22 during the tourism high season in Maldives, Thailand and Fiji. SHR is trading at an attractive valuation of 0.8x 2023E P/BV (vs its peers' average of 2.5x). Although its share price has plunged by 11% over the past month, we think this provides an opportunity to accumulate.
Energy Absolute	EA TB, TP THB101	EA's solar and wind farms should see a positive earnings impact from the higher selling price if the government decides to lift the Ft, given that most of the electricity tariffs will be linked to the Ft-driven national grid price. The EV segment is the most promising sector in the Thai power sector, in our view, thanks to the government's strong support in the form of subsidies, tax cuts or reductions, and the early adoption of EVs in Thailand's transportation and consumer industries.
Nex Point	NEX TB, TP THB21.60	NEX, as a major seller and marketer, with a 45% stake in an EV manufacturing plant, is an attractive investment on 1) a projected earnings turnaround in 3Q22 onward on significant earnings from the expected 800 e-bus delivery; 2) earnings growth in 2022-23, driven by the pent-up demand for e-buses, and the launch of e-truck products to be delivered in 4Q22 onward.
CK Power	CKP TB, TP THB6.60	CKP should see strong 2Q22 and 3Q22 net profits from stronger-than-expected electricity production from the seasonally high water flows. Low-cost electricity generated from hydropower plants should partly replace the high-cost electricity produced from imported LNG, which should further strengthen CKP's net profit outlook in 2H22, in our view.
Krung Thai Bank	KTB TB, TP THB18.20	Amid the economic uncertainty, we see KTB as a safe place to invest, based on its lower-than-peers' downside risk of asset deterioration thanks to its concentrated low-risk government and corporate portfolio. We think KTB should ride the economic upturn, both from the monetisation of its Pao Tang app and as one of the top beneficiaries of rising interest rates. We maintain KTB as one of our top picks and reiterate our 2023 GGM-based TP of THB18.2. Upside risks to our net profit forecasts and target price are declining ECL and OPEX.

Source: FSSIA estimates

Exhibit 88: Summary of key valuations of FSSIA's top picks in respective order of the above exhibit

Company	BBG	-----Share price -----		*Upside*	----------- Recurring profit -----------			-- Profit growth --		---------------- 2022E ----------------			
	Code	Current	Target		21A	22E	23E	22E	23E	P/E	Yield	ROE	P/BV
		(THB)	(THB)	*(%)*	(THB m)	(THB m)	(THB m)	(%)	(%)	(x)	(%)	(%)	(x)
Bangkok Chain Hospital	BCH TB	20.80	28.50	*37*	6,846	4,656	1,977	(32.0)	(57.5)	26.2	5.8	33.7	3.5
Bumrungrad Hospital	BH TB	185.00	210.00	*14*	1,274	3,045	4,200	139.0	37.9	35.0	1.7	17.4	8.3
Minor International	MINT TB	34.00	43.00	*26*	(9,315)	1,063	6,330	111.4	495.4	30.9	0.2	1.6	2.6
Bangkok Airways	BA TB	10.00	16.00	*60*	(3,899)	(471)	1,631	87.9	(446.5)	12.9	0.0	(3.6)	1.7
S Hotels and Resorts	SHR TB	3.98	5.20	*31*	(1,229)	117	512	109.5	339.1	27.9	0.3	0.7	0.9
Energy Absolute	EA TB	82.75	101.00	*22*	5,983	11,873	11,834	98.4	(0.3)	26.1	0.8	31.5	7.2
Nex Point	NEX TB	17.00	21.60	*27*	(107)	655	1,269	712.8	93.8	22.4	1.2	20.1	7.8
CK Power	CKP TB	5.20	6.60	*27*	2,213	3,103	3,121	40.2	0.6	13.5	1.9	11.8	1.5
Krung Thai Bank	KTB TB	15.70	18.20	*16*	21,588	27,322	29,973	26.6	9.7	7.3	4.4	7.4	0.6

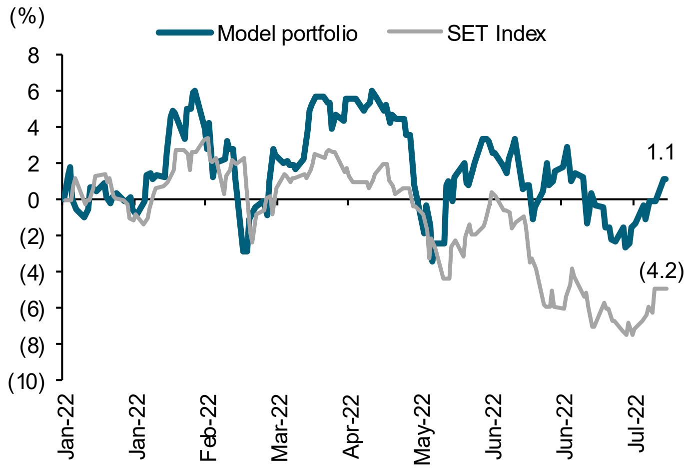
Share prices as close of 3 Aug-22

Source: FSSIA estimates

FSSIA's basket and asset allocations for 2022 (annual portfolio)

Our stock selection is based on a mixed bottom-up and top-down approach, favouring stocks with solid fundamentals that we think should carry through in 2022-23. We retain our long-term top picks: CPN, AOT, MINT, BA, JMT, BGRIM, IVL, SCB, KBANK, GULF, CKP, GUNKUL and EA

Exhibit 89: FSSIA's 2022 model portfolio performance



As of 2 Aug-22
Source: FSSIA; Bloomberg

Exhibit 90: FSSIA's 2022 model portfolio (1 Jan-22 to 2 Aug-22)

Top BUY	Performance (% change from 1 Jan-22 to 2 Aug-22)
MINT	17.4
AOT	15.6
JMT	11.7
CPN	7.8
GULF	4.4
IVL	2.9
KBANK	2.1
BA	2.1
CKP	(1.8)
BGRIM	(3.7)
GUNKUL	(9.5)
EA	(13.8)
SCB	(20.9)

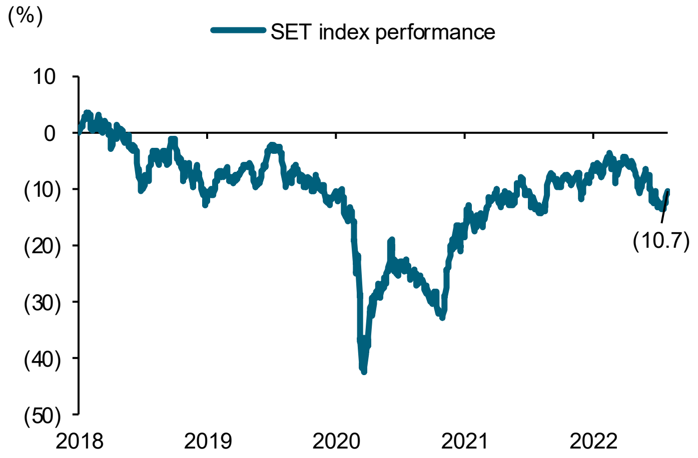
Source: FSSIA

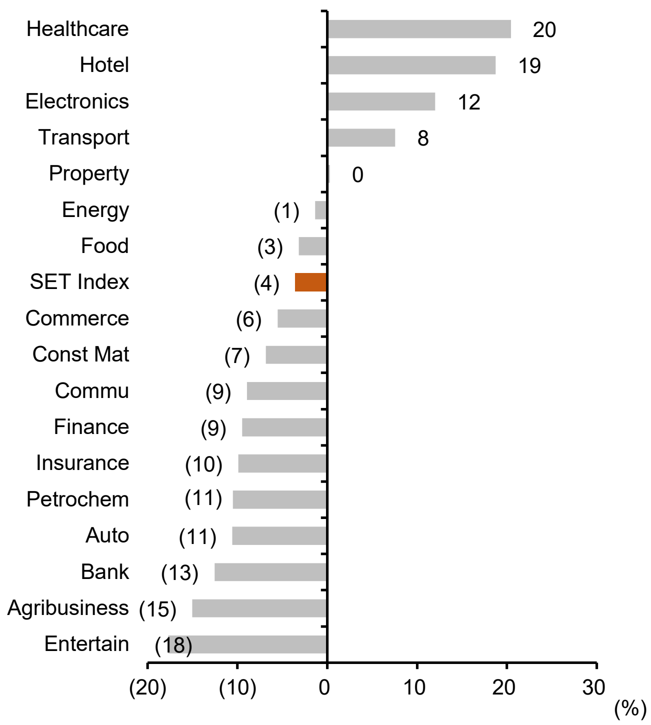
Exhibit 91: Model portfolio sector tilts in Aug-22

Overweight	Key rationale
Healthcare	We expect strong organic growth and 3Q22 earnings should still exceed the pre-Covid level by more than 10%. 3Q is normally the high healthcare season for both Thai and international patients, especially Middle East patients following the Ramadan period. Hospitals that participate in the SSO scheme would also benefit from the larger SSO registered member base.
Tourism	We expect a strong recovery momentum for Thai tourism based on the higher number of tourist arrivals from c15,000 tourists/day in 2Q22 to 35,000 tourists/day in July, equivalent to c32% of the pre-Covid level. Overall, the occupancy rate improved from an average of 25-30% in 1Q22 to c50% in June, and we expect stronger momentum in 3Q22.
Banking	SETBANK is trading at an undemanding valuation at 0.6x 2022E P/BV, despite the ROE recovery and benefits from the rate uptrend. We maintain OVERWEIGHT for long-term investment and retain KTB and BBL as top picks. We believe they should both benefit the most from future rate hikes and face the lowest risk from asset deterioration.
Neutral	
Commerce	Within the commerce sector, we like shopping malls and department stores over convenience stores, modern trade and the home improvement segment, given their high pricing power on strong traffic, lower cost structure following the post-Covid cost restructuring, and growth from new project expansions.
Oil & Gas and Refinery	While we project the prices of oil, gas, and coal to remain high in Aug-22, we think the upsides will be limited given the already high levels of commodity prices, the demand risk from recession and the higher interest rate, and the lower pricing power compared to other sectors.
ICT	A higher interest rate would impact the ICT sector given that the companies in the sector, especially mobile network operators, fund their businesses via debt.
Diversified Financials	We believe the recent plummet in the sector's share prices have mostly priced in the potential downside risks over rate hikes. As for lending operators, we prefer secured lenders whose main clients are in the agricultural sector, as farm incomes should slightly increase in line with the increase in product costs. Thus, the ability to repay debt in this segment should be relatively the same as before the high inflation.
Construction Services	Expect strong 2Q22 results, while long-term outlook remains unclear as there is no new project bidding.
Underweight	
Rubber Gloves	The glove price continues to decline on lower demand and oversupply from the new additional capacity globally.
Construction Materials	Lacklustre new investment projects from the government and private sector, reflected in lower demand. Meanwhile, higher energy costs will squeeze margins.
Auto	With the expectation that car production should remain weak in 3Q22, possibly continuing into 4Q22, we believe auto companies under our coverage will be pressured by the stale industry outlook.

Source: FSSIA

Exhibit 92: SET index performance from Jan-18 to 2 Aug-22; now nearly trading at the pre-Covid-19 level





Source: Bloomberg

Corporate Governance report of Thai listed companies 2021

EXCELLENT LEVEL – Score range 90-100

AAV	BCPG	CPALL	GCAP	K	MSC	PLANET	SAMART	SPI	THRE	TVD
ADVANC	BDMS	CPF	GFPT	KBANK	MST	PLAT	SAMTEL	SPRC	THREL	TVI
AF	BEM	CPI	GGC	KCE	MTC	PORT	SAT	SPVI	TIPCO	TVO
AH	BGC	CPN	GLAND	KKP	MVP	PPS	SC	SSSC	TISCO	TWPC
AIRA	BGRIM	CRC	GLOBAL	KSL	NCL	PR9	SCB	SST	TK	U
AKP	BIZ	CSS	GPI	KTB	NEP	PREB	SCC	STA	TKT	UAC
AKR	BKI	DDD	GPSC	KTC	NER	PRG	SCCC	STEC	TMT	UBIS
ALT	BOL	DELTA	GRAMMY	LALIN	NKI	PRM	SCG	STI	TNDT	UV
AMA	BPP	DEMCO	GULF	LANNA	NOBLE	PROUD	SCGP	SUN	TNITY	VGI
AMATA	BRR	DRT	GUNKUL	LH	NSI	PSH	SCM	SUSCO	TOA	VIH
AMATAV	BTS	DTAC	HANA	LHFG	NVD	PSL	SDC	SUTHA	TOP	WACOAL
ANAN	BTW	DUSIT	HARN	LIT	NWR	PTG	SEAFCO	SVI	TPBI	WAVE
AOT	BWG	EA	HMPRO	LPN	NYT	PTT	SEAOIL	SYMC	TQM	WHA
AP	CENTEL	EASTW	ICC	MACO	OISHI	PTTEP	SE-ED	SYNTEC	TRC	WHAUP
ARIP	CFRESH	ECF	ICHI	MAJOR	OR	PTTGC	SELIC	TACC	TRU	WICE
ARROW	CHEWA	ECL	III	MAKRO	ORI	PYLON	SENA	TASCO	TRUE	WINNER
ASP	CHO	EE	ILINK	MALEE	OSP	Q-CON	SHR	TCAP	TSC	ZEN
AUCT	CIMBT	EGCO	ILM	MBK	OTO	QH	SIRI	TEAMG	TSR	
AWC	CK	EPG	INTUCH	MC	PAP	QTC	SIS	TFMAMA	TSTE	
AYUD	CKP	ETC	IP	MCOT	PCSGH	RATCH	SITHAI	TGH	TSTH	
BAFS	CM	FPI	IRPC	METCO	PDG	RS	SMK	THANA	TTA	
BANPU	CNT	FPT	ITEL	MFEC	PDJ	S	SMPC	THANI	TTB	
BAY	COM7	FSMART	IVL	MINT	PG	S & J	SNC	THCOM	TTCL	
BBL	COMAN	GBX	JSP	MONO	PHOL	SAAM	SONIC	THG	TTW	
BCP	COTTO	GC	JWD	MOONG	PLANB	SABINA	SPALI	THIP	TU	

VERY GOOD LEVEL – Score range 80-89

2S	ASIMAR	CHOW	FLOYD	IT	LOXLEY	OCC	RPC	SKY	TCC	TVT
7UP	ASK	CI	FN	ITD	LRH	OGC	RT	SLP	TCMC	TWP
ABICO	ASN	CIG	FNS	J	LST	PATO	RWI	SMIT	TEAM	UEC
ABM	ATP30	CMC	FORTH	JAS	M	PB	S11	SMT	TFG	UMI
ACE	B	COLOR	FSS	JCK	MATCH	PICO	SA	SNP	TFI	UOBKH
ACG	BA	CPL	FTE	JCKH	MBAX	PIMO	SAK	SO	TIGER	UP
ADB	BAM	CPW	FVC	JMART	MEGA	PJW	SALEE	SORKON	TITLE	UPF
AEONTS	BC	CRD	GEL	JMT	META	PL	SAMCO	SPA	TKN	UPOIC
AGE	BCH	CSC	GENCO	KBS	MFC	PM	SANKO	SPC	TKS	UTP
AHC	BEC	CSP	GJS	KCAR	MGT	PMTA	SAPPE	SPCG	TM	VCOM
AIT	BEYOND	CWT	GYT	KEX	MICRO	PPP	SAWAD	SR	TMC	VL
ALL	BFIT	DCC	HEMP	KGI	MILL	PPPM	SCI	SRICHA	TMD	VPO
ALLA	BJC	DCON	HPT	KIAT	MITSIB	PRIME	SCN	SSC	TMI	VRANDA
ALUCON	BJCHI	DHOUSE	HTC	KISS	MK	PRIN	SCP	SSF	TMILL	WGE
AMANAH	BLA	DOD	HYDRO	KOOL	MODERN	PRINC	SE	STANLY	TNL	WIIK
AMARIN	BR	DOHOME	ICN	KTIS	MTI	PSG	SFLEX	STGT	TNP	WP
APCO	BROOK	DV8	IFS	KUMWEL	NBC	PSTC	SFP	STOWER	TOG	XO
APCS	CBG	EASON	IMH	KUN	NCAP	PT	SFT	STPI	TPA	XPG
APURE	CEN	EFORL	IND	KWC	NCH	QLT	SGF	SUC	TPAC	YUASA
AQUA	CGH	ERW	INET	KWM	NETBAY	RBF	SIAM	SWC	TPCS	
ASAP	CHARAN	ESSO	INSET	L&E	NEX	RCL	SINGER	SYNEX	TPS	
ASEFA	CHAYO	ESTAR	INSURE	LDC	NINE	RICHY	SKE	TAE	TRITN	
ASIA	CHG	ETE	IRC	LEO	NRF	RML	SKN	TAKUNI	TRT	
ASIAN	CHOTI	FE	IRCP	LHK	NTV	ROJNA	SKR	TBSP	TSE	

GOOD LEVEL – Score range 70-79

A	BGT	CITY	GIFT	JTS	MDX	PK	SGP	SUPER	TQR	YGG
AI	BH	CMAN	GLOCON	JUBILE	MJD	PLE	SICT	SVOA	TTI	ZIGA
AIE	BIG	CMO	GREEN	KASET	MORE	PPM	SIMAT	TC	TYCN	
AJ	BLAND	CMR	GSC	KCM	MUD	PRAKIT	SISB	TCCC	UKEM	
ALPHAX	BM	CPT	GTB	KK	NC	PRAPAT	SK	THMUI	UMS	
AMC	BROCK	CRANE	HTECH	KKC	NDR	PRECHA	SMART	TNH	UNIQ	
APP	BSBM	CSR	HUMAN	KWI	NFC	PTL	SOLAR	TNR	UPA	
AQ	BSM	D	IHL	KYE	NNCL	RJH	SPACK	TOPP	UREKA	
ARIN	BTNC	EKH	IIG	LEE	NOVA	RP	SPG	TPCH	VIBHA	
AS	BYD	EMC	INGRS	LPH	NPK	RPH	SQ	TPIPL	W	
AU	CAZ	EP	INOX	MATI	NUSA	RSP	SSP	TPIPP	WIN	
B52	CCP	F&D	JAK	M-CHAI	PAF	SABUY	STARK	TPLAS	WORK	
BEAUTY	CGD	FMT	JR	MCS	PF	SF	STC	TPOLY	WPH	

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* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, and corruption SEC imposed a civil sanction against insider trading of director and executive

Sources: Thai Institute of Directors Association (IOD); FSSIA's compilation; data as of 26 October 2021

Anti-corruption Progress Indicator

CERTIFIED										
2S	BCH	CPALL	GC	K	MFC	PE	QLT	SNP	THCOM	TU
7UP	BCP	CPF	GCAP	KASET	MFEC	PG	QTC	SORKON	THIP	TVD
ADVANC	BCPG	CPI	GEL	KBANK	MILL	PHOL	RATCH	SPACK	THRE	TVI
AF	BE8	CPN	GFPT	KBS	MINT	PK	RML	SPALI	THREL	TVO
AI	BEYOND	CSC	GGC	KCAR	MONO	PL	RWI	SPC	TIDLOR	TWPC
AIE	BGC	DCC	GJS	KCE	MOONG	PLANB	S & J	SPI	TIPCO	U
AIRA	BGRIM	DELTA	GPI	KGI	MSC	PLANET	SAAM	SPRC	TISCO	UBE
AKP	BJCHI	DEMCO	GPSC	KKP	MST	PLAT	SABINA	SRICHA	TKS	UBIS
ALPHAX	BKI	DIMET	GSTEEL	KSL	MTC	PM	SAPPE	SSF	TKT	UEC
AMA	BLA	DRT	GUNKUL	KTB	MTI	PPP	SAT	SSP	TMD	UKEM
AMANAH	BPP	DTAC	HANA	KTC	NBC	PPPM	SC	SSSC	TMILL	UOBKH
AMATA	BROOK	DUSIT	HARN	KWC	NEP	PPS	SCB	SST	TMT	UPF
AMATAV	BRR	EA	HEMP	KWI	NINE	PR9	SCC	STA	TNITY	UV
AP	BSBM	EASTW	HENG	L&E	NKI	PREB	SCCC	STOWER	TNL	VGI
APCS	BTS	ECL	HMPRO	LANNA	NMG	PRG	SCG	SUSCO	TNP	VIH
AQUA	BWG	EGCO	HTC	LH	NNCL	PRINC	SCN	SVI	TNR	WACOAL
ARROW	CEN	EP	ICC	LHFG	NOBLE	PRM	SEAOIL	SYMC	TOG	WHA
AS	CENTEL	EPG	ICHI	LHK	NOK	PROS	SE-ED	SYNTEC	TOP	WHAUP
ASIAN	CFRESH	ERW	IFEC	LPN	NSI	PSH	SELIC	TAE	TOPP	WICE
ASK	CGH	ESTAR	IFS	LRH	NWR	PSL	SENA	TAKUNI	TPA	WIIK
ASP	CHEWA	ETE	ILINK	M	OCC	PSTC	SGP	TASCO	TPP	XO
AWC	CHOTI	FE	INET	MAKRO	OGC	PT	SINGER	TBSP	TRU	ZEN
AYUD	CHOW	FNS	INSURE	MALEE	ORI	PTG	SIRI	TCAP	TRUE	
B	CIG	FPI	INTUCH	MATCH	PAP	PTT	SITHAI	TCMC	TSC	
BAFS	CIMBT	FPT	IRC	MBAX	PATO	PTTEP	SKR	TFG	TSTE	
BAM	CM	FSMART	IRPC	MBK	PB	PTTGC	SMIT	TFI	TSTH	
BANPU	CMC	FSS	ITEL	MC	PCSGH	PYLON	SMK	TFMAMA	TTA	
BAY	COM7	FTE	IVL	MCOT	PDG	Q-CON	SMPC	TGH	TTB	
BBL	COTTO	GBX	JKN	META	PDJ	QH	SNC	THANI	TTCL	
DECLARED										
AJ	CHG	DDD	ETC	JR	MAJOR	NUSA	RS	SSS	TQM	YUASA
ALT	CPL	DHOUSE	FLOYD	JTS	NCAP	NYT	SAK	STECH	TSI	ZIGA
APCO	CPR	DOHOME	GULF	KEX	NCL	OR	SCGP	STGT	VARO	
B52	CPW	ECF	III	KUMWEL	NOVA	PIMO	SCM	TKN	VCOM	
BEC	CRC	EKH	INOX	LDC	NRF	PLE	SIS	TMI	VIBHA	

Level	
Certified	This level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.
Declared	This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

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Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of 26 October 2021) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Sources: The Securities and Exchange Commission, Thailand; * FSSIA's compilation

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Songklod Wongchai FSS International Investment Advisory Securities Co., Ltd

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 Investment in securities has risks. Investors are advised to consider carefully before making investment decisions.

Company	Ticker	Price	Rating	Valuation & Risks
Airports of Thailand	AOT TB	THB 70.75	BUY	Downside risks to our DCF-based target price include 1) a slowdown in the recovery of international passengers; 2) delays in the Suvarnabhumi Airport expansions (satellite terminal and northern expansion); and 3) the termination of the duty-free concession contracts from King Power.
PTT Explor & Prod	PTTEP TB	THB 161.50	BUY	Risks our TP, which is based on EV/EBITDA, are a sharp decline in oil price and a potential earnings downside from government intervention.
CK Power	CKP TB	THB 5.20	BUY	The downside risks to our SoTP-based TP include lower-than-expected demand for electricity in Thailand and lower-than-expected water supply for hydro projects.
Banpu	BANPU TB	THB 13.30	BUY	We see downside risks to our SoTP-based TP from lower coal prices, higher diesel costs and any unplanned shutdowns of its power plants.
Indorama Ventures	IVL TB	THB 44.50	BUY	The key downside risks to our EV/EBITDA-based TP are weaker-than-expected margins for PX-PTA and PET-PTA, lower demand for polyester, and delays in IVL?s projects.
Bangkok Dusit Medical Services	BDMS TB	THB 27.75	BUY	Downside risks to our DCF-based target price include 1) a slowdown in international patients due to economic concerns, political protests or floods; 2) regulatory risks from drug price and medical bill controls; and 3) higher-than-expected capex and opex for CoE projects.
Bumrungrad Hospital	BH TB	THB 185.00	BUY	Downside risks to our DCF-based target price include 1) a slowdown in international patients due to economic concerns, political protests or floods; 2) regulatory risks from drug prices and medical bill controls; and 3) higher medical fee discount promotions, leading to a weaker EBITDA margin.
Bangkok Chain Hospital	BCH TB	THB 20.80	BUY	Downside risks to our DCF-based target price include 1) a slowdown in international patients due to economic concerns, political protests or floods; 2) regulatory risks from drug prices and medical bill controls; and 3) SSO provision expenses following a limited SSO budget.
Chularat Hospital	CHG TB	THB 3.84	BUY	Downside risks to our DCF-based target price include 1) a slowdown in Thai patient volume due to economic concerns; 2) regulatory risks from drug price and medical bill controls; and 3) SSO provision expenses following limited budgets from the SSO.
S Hotels and Resorts	SHR TB	THB 3.98	BUY	Downside risks to our DCF-based target price include 1) extraordinary events such as political turmoil and natural disasters; 2) a higher hotel room supply, which may result in price competition; and 3) the slower-than-expected recovery of international tourist numbers.
Bangkok Bank	BBL TB	THB 131.50	BUY	Downside risks to our GGM-based TP are 1) prolonged economic sluggishness affecting loan growth and asset quality; and 2) the impact of new regulations from the Bank of Thailand.
Krung Thai Bank	KTB TB	THB 15.70	BUY	Downside risks to our GGM-based TP are 1) prolonged economic sluggishness affecting loan growth and asset quality; and 2) the impact of new regulations from the Bank of Thailand.
Kasikornbank	KBANK TB	THB 145.00	BUY	Downside risks to our GGM-based TP are 1) prolonged economic sluggishness affecting loan growth and asset quality; and 2) the impact of new regulations from the Bank of Thailand.
SCB X	SCB TB	THB 100.50	BUY	Downside risks to our GGM-based TP are 1) prolonged economic sluggishness affecting loan growth and asset quality; and 2) the impact of new regulations from the Bank of Thailand.
TMBThanachart Bank	TTB TB	THB 1.17	BUY	Downside risks to our GGM-based TP are 1) prolonged economic sluggishness affecting loan growth and asset quality; and 2) the impact of new regulations from the Bank of Thailand.
Kiatnakin Bank	KKP TB	THB 65.00	BUY	Downside risks to our GGM-based target price include weakening asset quality and lower fee income.
Tisco Financial	TISCO TB	THB 89.00	HOLD	Downside risks to our GGM-based TP are 1) prolonged economic sluggishness affecting loan growth and asset quality; and 2) the impact of new regulations from the Bank of Thailand. An upside risk to our GGM-based TP would be lower-than-expected policy rate hikes.

Total Access Communication	DTAC TB	THB 46.00	BUY	The key downside risks to our DCF-based TP are if the amalgamation between DTAC and TRUE is unable to proceed, if there is stronger-than-expected competition in the mobile market, and if there is a faster or slower-than-expected adoption of 5G use cases
True Corporation	TRUE TB	THB 4.88	BUY	The key downside risks to our DCF-based TP are if the 5G subscription gains and ARPU are worse than our expectation, if the company can reduce its costs worse than we expect, and if there is a slower-than-expected adoption of 5G use cases.
PTT PCL	PTT TB	THB 35.25	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downsides from government intervention.
Thai Oil	TOP TB	THB 52.00	BUY	Downside risks to our EV/EBITDA-based TP are a sharp fall in oil price and weak demand for refined oil products.
PTT Global Chemical	PTTGC TB	THB 45.50	REDUCE	The key upside risks to our EV/EBITDA-based TP are a stronger-than-expected HDPE price and HDPE-naphtha margin.
IRPC PCL	IRPC TB	THB 3.38	REDUCE	Key risks to our bearish view and EV/EBITDA-based target price are rising margins of PP-naphtha, SM and ABS-benzene, and a higher market GRM.
Star Petroleum Refining	SPRC TB	THB 11.60	BUY	TP is based on EV/EBITDA. Downside risks are a sharp rise in oil price and weak demand for refined oil products.
Esso Thailand	ESSO TB	THB 11.00	BUY	The downside risks to our SoTP-based TP on ESSO include 1) lower-than-expected demand for petroleum products; 2) a higher crude premium; and 3) unplanned shutdowns of its refinery and petrochemical plants.
Bangchak Corp	BCP TB	THB 30.25	BUY	The downside risks to our SoTP-based TP include: 1) lower-than-expected demand for petroleum products; 2) higher crude premiums; and 3) unplanned shutdowns of the company’s refinery plants.
PTT Oil and Retail Business	OR TB	THB 26.75	BUY	The downside risks to our SOTP-based TP include: 1) lower-than-expected demand for petroleum products; 2) a lower marketing margin; and 3) weaker-than-expected jet demand.
PTG Energy	PTG TB	THB 15.00	BUY	The downside risks to our SoTP-based TP include 1) a government cap on oil prices; and 2) weaker demand for diesel and gasoline.
Susco	SUSCO TB	THB 3.64	BUY	The downside risks to our SOTP-based TP include: 1) lower-than-expected demand for petroleum products; 2) a lower marketing margin; and 3) weaker-than-expected jet fuel demand.
Siam Cement	SCC TB	THB 363.00	BUY	Downside risks to our SOTP based TP include 1) a lower-than-expected demand for chemicals, CBM, and packaging; 2) rising coal costs for its cement and packaging units; and 3) weaker demand from the automobile industry that could erode the demand for SCC’s chemical unit and its dividend contributions.
Eastern Polymer Group	EPG TB	THB 9.40	BUY	Downside risks to our EV/EBITDA-based target price include 1) a sharp rise in feedstock prices, driven mostly by a higher oil price; and 2) lower-than-expected demand for plastics used for insulators and the automobile and packaging industries.
B.Grimm Power	BGRIM TB	THB 39.50	BUY	The downside risks to our SoTP-based TP include 1) lower-than-expected demand for electricity in Thailand, 2) a lower crude price, and 3) unplanned shutdowns of its SPPs.
JMT Network Services	JMT TB	THB 76.50	BUY	Downside risks to our GGM-based TP include 1) lower cash collection from its fully amortised portfolio; and 2) the lower-than-expected acquisition of new bad debt.
Gulf Energy Development	GULF TB	THB 48.25	BUY	The downside risks to our SoTP-based TP on GULF include 1) lower-than-expected demand for electricity in Thailand; 2) a lower crude price; and 3) delays in project commercial operation dates.
Central Pattana	CPN TB	THB 65.25	BUY	Key downside risks to our DCF-derived TP are deviations to our estimates on rental rate, occupancy rate, returns on its new investments, capex and interest rate.
Minor International	MINT TB	THB 34.00	BUY	Downside risks to our DCF-based target price include 1) extraordinary events such as political turmoil and natural disasters; 2) a higher hotel room supply and higher competition in the F&B business, which may result in price competition; and 3) the slower-than-expected recovery of international tourist numbers.
Bangkok Airways	BA TB	THB 10.00	BUY	Downside risks to our SoTP-based TP include 1) extraordinary events such as political turmoil and natural disasters; 2) higher-than-expected fuel expenses following an increase in oil prices; and 3) the slower-than-expected recovery of international tourist numbers.
Gunkul Engineering	GUNKUL TB	THB 4.94	BUY	The downside risks to our SoTP-based TP on GUNKUL include 1) lower-than-expected demand for electricity in Thailand, 2) declining EPC backlogs, and 3) lower-than-expected utilisation rates for solar and wind farms
Energy Absolute	EA TB	THB 82.75	BUY	Downside risks to our SoTP-based TP include: 1) lower-than-expected demand for electricity in Thailand; 2) lower crude prices; and 3) lower-than-expected demand for batteries.
Nex Point	NEX TB	THB 17.00	BUY	Downside risks to our SOTP-based TP include: 1) a lower-than-expected bus sales volume; 2) delays in bus deliveries; and 3) risk from regulatory changes.

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an ‘FSS’ before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 3-Aug-2022 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / current price.

BUY (B). The upside is 10% or more.
HOLD (H). The upside or downside is less than 10%.
REDUCE (R). The downside is 10% or more.
Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.
Neutral. The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.
Underweight. The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.