Thailand Economics

Into a mid-cycle turnaround



We believe Thailand is about to enter a mid-cycle cyclical turnaround in 2023F when we see GDP growth reaching 4.0%, the current account turning positive, resilient consumption, and still-hefty excess liquidity. We see these trends lasting into 2024F with the same 4.0% GDP growth.



PIMPAKA NICHGAROON, CFA

Head of Research
662 - 779 9199
pimpaka.nic@thanachartsec.co.th

GDP growth set to reach 4% in 2023-24F

We fine-tune the key component drivers of our GDP growth forecasts and maintain our view that Thailand is entering a mid-cycle cyclical turnaround with 4.0% p.a. GDP growth in 2023-24F after its first-year turnaround of 3.2% in 2022F. Key drivers are a tourism turnaround (export of services), falling freight costs (import of services), off-peak energy prices (falling imports to be offset by weaker exports from the global slowdown), and growing consumption (the tourism multiplier effect and an election boost). We expect the areas of GDP weakness to be the export of goods and public investments. See Exhibit 1 for details.

Stability with a catch

We still view Thailand as being a safe-haven emerging economy. When its tourism industry recovers more next year, we expect déjà vu trends of a current account surplus, a strengthening baht, and a mild degree of interest rate normalization. These trends sound positive at first glance but they are actually, in our view, the products of a structural growth trap from weak public and private investments. Although we still don't foresee an outlook for a sustainable new investment cycle, we anticipate short-term hopes for an improving outlook for private investment from a weaker base of the baht, benefits from geopolitical investment diversification, and pent-up demand post-COVID.

Mild rate normalization trend

We now expect year-end Thai policy rates of 1.00/1.75/2.00% in 2022-24F, vs. 1.25% in 2019. Our previous forecasts were 1.00/2.00% in 2022-23F. Given the limited risk of capital outflows as a result of the interest rate differential between the Fed funds rate, still hefty domestic excess liquidity, and no economic bubble, we believe the Bank of Thailand (BOT) will endeavor to normalize the policy rate to follow economic momentum more than to catch up with the US rate trend. The BOT also sees inflation as more cost-push than demand-pull and forecasts it to peak this year and soften next year.

Risk factors

We factor in the global slowdown impact via our weak export growth assumptions of -1.5/1.1% (previously 4.0/3.0%) in 2023-24F with the contraction from advanced economies (40% of exports) being offset to a certain degree by growth from emerging markets (60%). Another cushion against the global slowdown is the softening of energy prices and therefore Thai import bills. Our Brent forecasts of USD101/85/80 in 2022-24F are still at an elevated level but off-peak from this year. Another risk to our GDP growth forecasts is if China doesn't relax its zero-COVID policy until the end of 2023 since this would negatively impact our 4Q23F high-season tourism growth estimate.

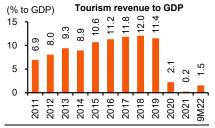
ECONOMIC MONITOR

Mid-cycle Cyclical Turnaround

(% growth)	21A	22F	23F	24F	
GDP growth	1.5	3.2	4.0	4.0	
Consumption	0.3	5.9	3.1	3.1	
Private inv.	3.3	5.2	5.2	4.6	
Govt inv.	3.8	(4.6)	1.0	1.6	
Export - US\$	19.2	7.8	(1.5)	1.1	
Import - US\$	23.9	19.5	(0.6)	2.2	
Current acc./GDP	(2.2)	(3.0)	0.9	3.3	
Bt/US\$ - avg	32.0	35.2	34.3	33.0	

Sources: Bank of Thailand, NESDC, Thanachart estimates

Large Room For Tourism Multiplier



Sources: Tourism Authority of Thailand, NESDC

Current Account Turning A Surplus



Sources: Bank of Thailand, NESDC Thanachart estimates

Into a mid-cycle turnaround

We estimate 4.0% p.a. GDP growth in 2023-24F

We expect Thailand to soon enter a mid-cycle economic turnaround in 2023F and we estimate GDP growth of 4.0% vs. its first-year post-COVID turnaround level of 3.2% in 2022F. We foresee the turnaround continuing into 2024F with the same 4.0% GDP growth.

Key drivers are tourism turnaround (export of services), falling freight costs from this year's peak (import of services), softer energy prices from this year's peak (import of goods), and growing consumption from the multiplier effect of the tourism turnaround and extra spending because of the general election. We expect areas of weakness to be export of goods which will likely experience an impact from the global slowdown and weak public investment.

Ex 1: Our GDP Growth Forecasts

% growth	2019	2020	2021	—— 2022F ——		<u> </u>	—— 2023F ——		—— 2024F ——	
				New	Old	New	Old	New	Old	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Real GDP growth	2.2	(6.2)	1.5	3.2	3.2	4.0	4.0	4.0	4.1	
Private consumption	4.0	(1.0)	0.3	5.9	4.3	3.1	2.5	3.1	3.1	
Private investment	2.6	(8.2)	3.3	5.2	3.1	5.2	3.0	4.6	5.0	
Government investment	0.1	5.1	3.8	(4.6)	(3.5)	1.0	2.0	1.6	3.0	
Export (nominal USD growth)	(3.3)	(6.5)	19.2	7.8	11.0	(1.5)	4.0	1.1	3.0	
Import (nominal USD growth)	(5.6)	(13.8)	23.9	19.5	17.1	(0.6)	6.2	2.2	5.0	
Export of services (nominal baht growth)	0.6	(61.7)	(18.7)	75.4	41.2	39.9	28.7	19.9	41.0	
Import of services (nominal baht growth)	(0.5)	(19.9)	48.7	5.0	5.0	(1.6)	(1.7)	3.0	3.0	
Current account (% to GDP)	7.0	4.2	(2.2)	(3.0)	(1.5)	0.9	1.4	3.3	3.9	
Headline CPI	0.7	(8.0)	1.2	6.0	6.5	3.6	4.0	2.5	n.a.	
Bt/USD - average	31.0	31.2	32.0	35.2	34.8	34.3	34.1	33.0	32.1	
Policy rate	1.25	0.50	0.50	1.00	1.00	1.75	2.00	2.00	n.a.	

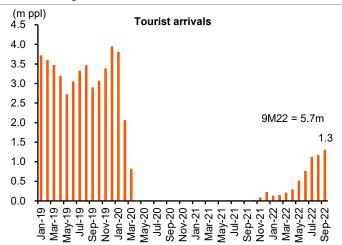
 $Sources: Bank\ of\ Thail and,\ NESDC,\ Bloomberg,\ Than a chart\ estimates$

The drivers

Tourism has started to turn around

Tourism turnaround: This is the biggest driver of GDP growth in 2023F, in our view. We estimate tourist arrivals of 9/26/39m people in 2022-24F vs. 39m in 2019. Actually, the number of arrivals in September 2022 was already at 45% of the September 2019 level without many mainland Chinese tourists returning. In the GDP number, tourism income is a part of export of services, whose value in 2Q22 recovered to 55% of the 2Q19 level.

Ex 2: Strong Tourist Arrivals Momentum



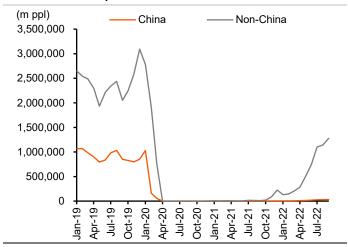
Source: Tourism Authority of Thailand

Ex 3: Tourism Is A Key GDP Growth Driver



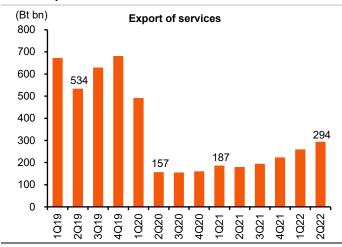
Sources: Tourism Authority of Thailand; Thanachart estimates

Ex 4: Powerful Upside If Chinese Tourists Comes Back



Source: Tourism Authority of Thailand

Ex 5: Export Of Services Now Half Of Pre-COVID Level



Source: Bank of Thailand

Falling freight costs are a plus to GDP

Falling freight costs: Thailand's freight payments jumped by 2.5x in 1H22 from the pre-COVID level and this pushed up the import of services bill. This is actually not a small item in GDP and net freight payments accounted for 6.4% of GDP in 1H22 vs. only 2.5% in 1H19. Now that freight rates have come down significantly from peak levels, freight payments and the import of services bill have started to fall. However, we are still conservative in not forecasting a large drop in the imports of services, expecting freight rates to receive some support from China's economic turnaround next year after many lockdowns this year and the 2023 IMO impact. But if freight rates continue to remain weak at the current levels into next year, our GDP growth estimate would have some potential upside.

Ex 6: Net Freight Payments (US\$ m) Net freight payments 9,000 8,000 7,000 6,000 5,000 4,000 3,000 2,000 1,000 3Q19 4Q19 1Q22 3020 4Q20 019 Q20 1Q21 2Q21 3021 4Q21

Ex 7: Freight Rates Have Come Down

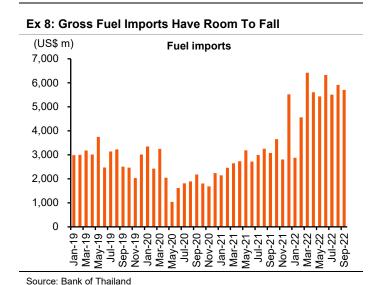


Source: Bloomberg

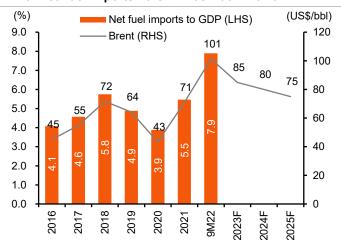
Fuel imports should fall from this year's high base

Source: Bank of Thailand

Fuel import bill to fall: Fuel imports have jumped by 92% y-y in 9M22 but we expect them to fall next year after energy prices subside from their high base. September fuel imports were already 11% off their peak in March this year. Although we do not expect energy prices to come back down to pre-Russian-Ukraine conflict levels, we expect the global slowdown to bring down the import bill in 2023F.



Ex 9: Net Fuel Imports To GDP Has Room To Fall

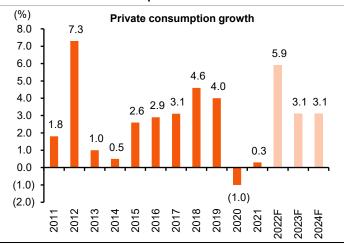


Sources: Bank of Thailand, NESDC, Thanachart estimates

Consumption support from tourism, farm income, and election money

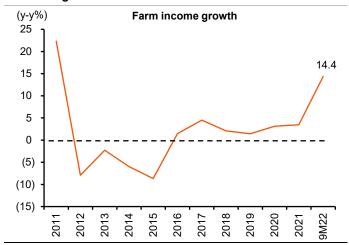
Resilient consumption: Consumption has been relatively flat during the COVID period in 2020-21 with government stimulus spending offsetting the collapsing tourism income. The turnaround this year has been strong and we expect 5.9% growth in 2022F driven by higher farm prices and income, domestic economic activities resuming post-lockdown, and spillled-over stimulus spending. With a fuller turnaround of the tourism industry, the full-year impact of a higher base of farm income, and extra spending during the upcoming election, we expect consumption growth to be able to grow from the high base to 3.1% in 2023F.

Ex 10: Resilient Consumption



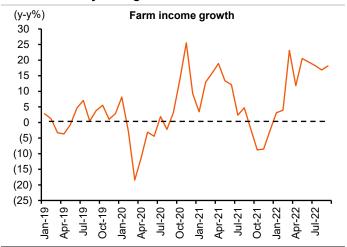
Sources: NESDC; Thanachart estimates

Ex 11: High Farm Income Growth A Good Base For 2023F



Source: Office of Agricultural Economics

Ex 12: Still Very Strong Farm Income Growth Momentum



Source: Office of Agricultural Economics

Ex 13: Tourism To Have A Large Multiplier Effect



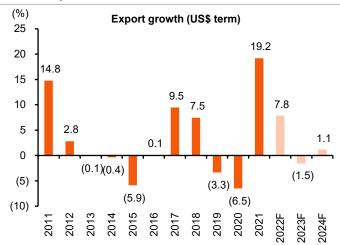
Source: Tourism Authority of Thailand

The drags

Small drop in exports

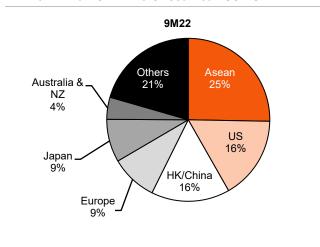
Global slowdown to hit exports: We estimate goods exports in USD terms to fall by 1.5% in 2023F from 7.8% growth in 2022F given the outlook for a global slowdown. The breakdown of the key markets in 2022F is around 34% US/EU/Japan, 25% ASEAN, and 16% China. We expect the potential drop from advanced economies to be offset to a certain degree by the still-growing ASEAN market and China opening up its economy more.

Ex 14: Export Growth To Slow Down



Sources: Bank of Thailand; Thanachart estimates

Ex 15: China/ASEAN To Offset Weak US/EU



Source: Bank of Thailand

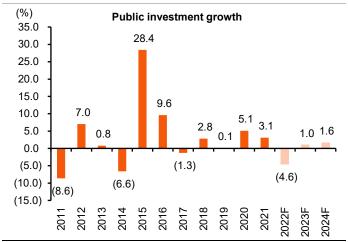
Public investment to remain weak

Weak public investment: Public investment has been weak during the COVID years as money has been spent more on cash-handout COVID-relief packages. The outlook next year isn't good either, in our view, given that project biddings might be delayed during an election year. It will also likely take time before new projects can be initiated or identified based on the new government's policies. We also note here that public investment provides a very small direct contribution to GDP growth of only 6.4%.

To remain a populist country

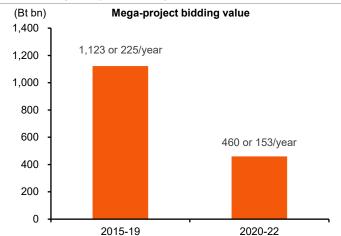
This is the area of weakness over the long term, in our view. We see it as a structural problem of weak politics in Thailand where politicians don't dare cut back on populism. In fact, many political parties have already come up with some election-campaign policies and they are highly populist. Populist policies are good for near-term consumption but reduce the country's investments in the foundations for long-term growth. There was a major investment attempt by the coup government during 2016-19 to press ahead with phase 1's Bt1.1trn of mega-project biddings. However, phase 2 never officially materialized and bids fell to Bt460bn in 2020-22.

Ex 16: Public Investment To Remain Weak



Sources: NESDC; Thanachart estimates

Ex 17: Mega-project Bidding Value Falls



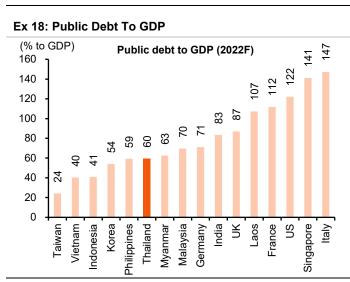
Source: Thanachart compilation

Stability with a catch

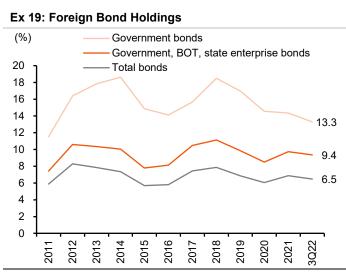
We still believe Thailand is a safe-haven emerging economy and that the COVID crisis has only caused hiccups rather than permanently worsening the country's financial position.

Strong financial position

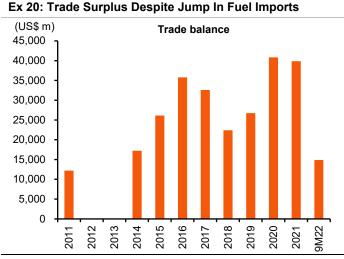
From a big-picture perspective, Thailand has a low debt position of 60% compared to the much higher levels of other economies amid the post-COVID global standard, a low foreign bond holding ratio of 7%, a current account having turned back to a surplus following the recovery in the tourism industry, a trade surplus position despite a jump in fuel imports, substantial foreign reserves to GDP at within the world's top-ten rankings at 42%, and still hefty excess liquidity at 14% of GDP. Although these figures already show Thailand's strong financial position, the trend is also improving along with the country's reopening.



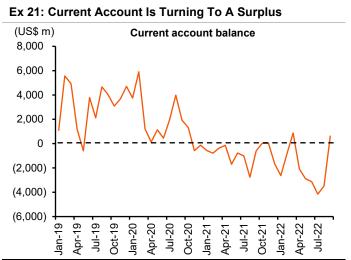




Sources: Asian Bonds Online; Bank of Thailand

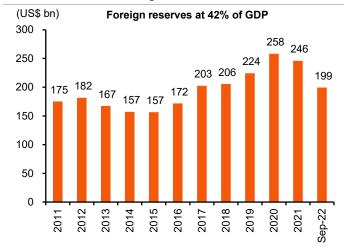


Source: Bank of Thailand



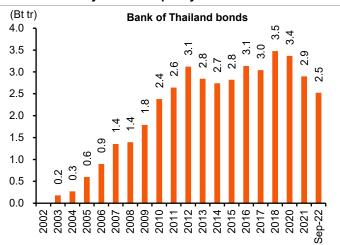
Source: Bank of Thailand

Ex 22: COVID And Strong USD Weakens Int'l Reserves



Source: Bank of Thailand

Ex 23: Still Hefty Excess Liquidity At 14% Of GDP



Source: Bank of Thailand

Weak baht looks set to reverse its trend

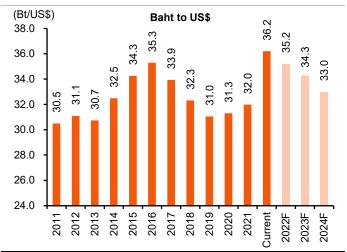
A weak baht is actually net positive for Thailand, in our view

The baht has weakened by 8.4% YTD against the US dollar because of the strong greenback as a result of sharp interest rate hikes vs. Thailand's mild increases and Thailand's current account deficit due to weak tourism income against a sharp jump in freight costs. Note that because of the lack of capital outflow concerns for Thailand due to its low foreign debt level, the Bank of Thailand doesn't have the inclination to support the baht and it isn't under strong pressure to hike the policy rate beyond just a mild normalization trend. Actually, a weak baht is a net positive for Thailand as exports, tourism, and investment competitiveness outweigh the impact of fuel imports and freight costs.

But it has started to reverse

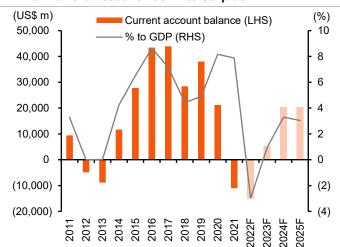
That being said, we expect the Thai baht to reverse its weakening trend in 2023F. The first reason is that US dollar strength should reverse its trend after the interest rate hike cycle peaks in 1H23F. The second reason is that we expect Thailand's current account to turn to a surplus with the turnaround in tourism, falling fuel prices and imports, and also lower freight expenses.

Ex 24: Baht To Reverse Its Trend

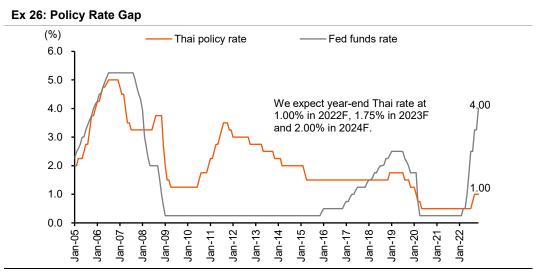


Sources: Bloomberg; Thanachart estimates

Ex 25: Current Account Back Into Surplus



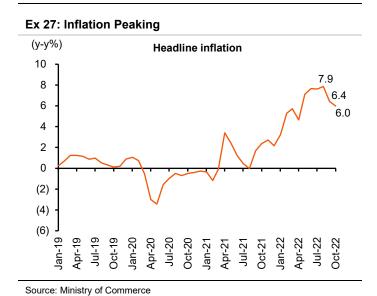
Sources: Bank of Thailand; Thanachart estimates



Sources: Bank of Thailand, Bloomberg, Thanachart estimates

Mild rate normalization trend

We see no solid reasons for sharp rate hikes in Thailand Given the limited risk of substantial capital outflows from Thailand due to the differential between US and Thai rates, the continued output gap from the tourism industry, and the regulator's view of cost-push inflation peaking, we don't expect the Thai policy rate to play catch-up with the Fed funds rate. We expect only a mild normalization of the year-end policy rate to 1.00/1.75/2.00% in 2022-24F vs. 1.75% at the start of 2019 and 1.25% at the end of 2019. We expect the policy rate at the tourism industry's full recovery point in 2024F to exceed 2019's level due to the higher inflation outlook base. Inflation saw a lost decade at an average of 1.1% in Thailand in 2010-19 but, given heightened geopolitical risks reducing globalization cost benefits, we expect inflation going forward to be above that over the past decade.



Headline inflation growth 7.0 6.2 6.0 5.0 3.8 4.0 3.0 2.6 3.0 2.0 1.2 1.1 0.7 1.0 0.2 0.0 (1.0)(8.0)(0.9)(2.0)(1.9)(3.0)2019 2017 201 201 201

Ex 28: Inflation To Subside At A Higher Level

Source: Ministry of Commerce; Bank of Thailand

Excess liquidity also still remains substantial at 14% of GDP

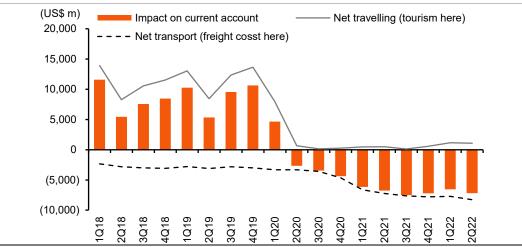
Another factor that has kept interest rates at low levels in Thailand is excess liquidity, as reflected in outstanding Bank of Thailand bonds (see Exhibit 23). Despite the figure falling from the pre-COVID peak of Bt3.7tr to Bt2.5tr or 14% of GDP in September 2022, there is still a very large amount of excess liquidity that will continue to be a factor resisting the rising interest rate trend in Thailand. The drop in excess liquidity from the peak level pre-COVID is

Two mechanisms to reverse current account into a surplus

due to a mixture of the effect of the current account turning to a deficit and a part of it indirectly going to finance the government's COVID-stimulus debt. Therefore, the increase in government debt didn't put too much upward pressure on the interest rate levels in Thailand.

There is also a chance that excess liquidity could increase again if the current account turns to a surplus quickly. Exhibit 29 below shows two mechanisms that caused the current account to turn to a deficit during the COVID period. The first was a drop in net travelling, or tourism income. The other was a result of a jump in net transport payments because of a surge in freight rates. As both factors are now reversing, ie, tourism income is rising and freight rates are coming back down, the current account is starting to turn to a surplus. Actually, the current account already turned to a small surplus in September this year, which was still very early in the tourism turnaround and not even the high season yet.

Ex 29: Two Mechanisms To Reverse Current Account To A Surplus



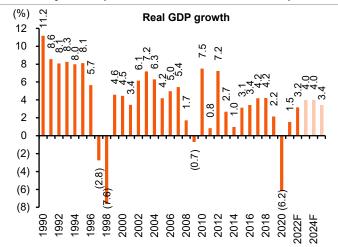
Source: Bank of Thailand

Stability's catch

Strong financial position comes with structural growth trap

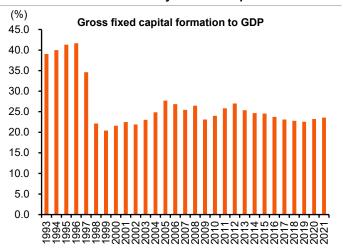
We believe Thailand's strong financial position has come along with its weak investments and subpar GDP growth for an emerging economy. Its GDP averaged only 3.6% p.a. over the past decade from 2010-19. Combined public and private investment growth came to only 3.9% p.a. and investment accounted for 24.5% of GDP during the period. There was an attempt to spur mega-project spending with as much as Bt1tn (USD30bn based on the currency level at the time) in combined bidding during 2016-19, but there was a lack of continuity after that. Weak investment resulted in excess liquidity which the central bank sterilized over the years and it stood at Bt2.5tn (14% GDP) in September of this year. In a nutshell, Thailand didn't reinvest much of the money it earned from tourism and exports to generate economic growth.

Ex 30: Cyclical Upturn In A Structural Growth Trap



Sources: NESDC; Thanachart estimates

Ex 31: Low Investment A Key Growth Trap Factor



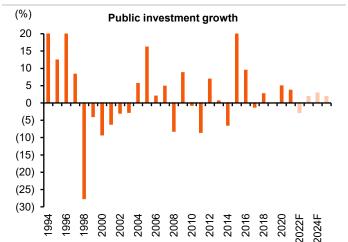
Source: NESDC

Short-term room for opportunities for private investment

Next year is an election year and public investment looks set to remain weak Looking ahead, we still do not envisage an investment boom. The government's Eastern Economic Corridor (EEC) scheme has only been active in maintaining organic investment growth rather than creating a boom cycle. Nearer term, however, we should see more investment from pent-up demand after weak investment during the COVID years. The very weak baht now compared to the pre-COVID level should also help support demand for FDI. However, this room of opportunity in our view, unfortunately, won't last too long as we expect the baht to reverse its trend and in the next few years head back toward Bt30/USD again.

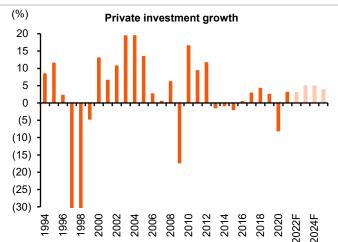
As for public investment, it has been soft since the end of the first phase of mega-project bidding in 2019. There hasn't been an announcement regarding the timing of the second phase and the bidding value has been on the decline since. Looking forward, as the current government's term is scheduled to end in March 2023 and next year is also an election year, we do not expect a strong push for major biddings. Therefore, public investment will likely remain weak over the next two years at least.

Ex 32: No Government Investment Boom



Sources: NESDC; Thanachart estimates

Ex 33: No Private Investment Boom



Sources: NESDC; Thanachart estimates

Risk factors

We see key the risk factors for Thailand being more related to global factors. These include a global slowdown or even recessions in some economies, elevated energy prices, and China not relaxing its zero-COVID policy.

Global slowdown

As for the global slowdown, as discussed in an earlier section of this report, we already factor this in with our weak export growth assumptions of -1.5/+1.1% in 2023-24F. However, we still expect the contraction in exports to advanced economies (40% of total exports) to be offset to a certain degree by growth from emerging markets (60%). Key emerging markets for Thai exports are ASEAN and China, which combined account for 41% of total exports.

Elevated energy prices

As for energy prices, which are reflected directly in import bills, we already assume that Brent oil prices remain elevated, though below the peak level seen this year because of the global slowdown's impact next year. Our assumptions are USD101/85/80 per barrel in 2022-24F. We also assume that the prices of other energy import products, including gas, will remain high. This is reflected in our import growth estimates that fall by less than export growth in 2023F and rise by more than export growth in 2024F. While our export growth projections stand at 7.8/-1.5/1.1%, our import growth projections are at 19.5/-0.6/2.2% in 2022-24F. Note that net energy imports accounted for 7.9% in 9M22.

China's economic growth and its zero-COVID policy

As for China risks, these can be seen in both exports (China accounted for 16% of total exports in 9M22) and tourism income, where we estimate a strong recovery in tourist arrivals to 26m people in 2023F (vs. 40m in 2019). We assume China's economy will recover from this year onward as a result of fewer lockdowns as COVID outbreaks ease. We also assume that China will start relaxing its zero-COVID policy in 2H23F, in time for the 4Q23 high travelling season. Note that there were 11m (or 27% of 40m) arrivals of mainland Chinese people to Thailand in 2019. Assuming 75% or 22m non-Chinese tourists return to Thailand in 2023F, our assumption of 26m tourists would require 4m Chinese to come back next year.

DISCLAIMER PIMPAKA NICHGAROON, CFA

General Disclaimers And Disclosures:

This report is prepared and issued by Thanachart Securities Public Company Limited (TNS) as a resource only for clients of TNS, Thanachart Capital Public Company Limited (TCAP) and its group companies. Copyright © Thanachart Securities Public Company Limited. All rights reserved. The report may not be reproduced in whole or in part or delivered to other persons without our written consent.

This report is prepared by analysts who are employed by the research department of TNS. While the information is from sources believed to be reliable, neither the information nor the forecasts shall be taken as a representation or warranty for which TNS or TCAP or its group companies or any of their employees incur any responsibility. This report is provided to you for informational purposes only and it is not, and is not to be construed as, an offer or an invitation to make an offer to sell or buy any securities. Neither TNS, TCAP nor its group companies accept any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents.

The information and opinions contained herein have been compiled or arrived at from sources believed reliable. However, TNS, TCAP and its group companies make no representation or warranty, express or implied, as to their accuracy or completeness. Expressions of opinion herein are subject to change without notice. The use of any information, forecasts and opinions contained in this report shall be at the sole discretion and risk of the user.

TNS, TCAP and its group companies perform and seek to perform business with companies covered in this report. TNS, TCAP, its group companies, their employees and directors may have positions and financial interest in securities mentioned in this report. TNS, TCAP or its group companies may from time to time perform investment banking or other services for, or solicit investment banking or other business from, any entity mentioned in this report. Therefore, investors should be aware of conflict of interest that may affect the objectivity of this report.

Note: Thanachart Securities Public Company Limited act as a Market Maker and Derivative Warrants Issuer. At present, TNS has issued 94 Derivative Warrants which are ADVANC16C2211A, ADVANC16C2301A, ADVANC16C2302A, AMATA16C2212A, AOT16C2212A, AOT16C2302A, BCH16C2211A, BANPU16C2212A, BANPU16C2302A, BBL16C2212A, BGRIM16C2212A, BGRIM16C2301A, BANPU16C2303A, BGRIM16C2302A, BH16C2303A, BH16C2212A, BH16C2212B, BLA16C2212A, BLA16C2302A, BTS16C2301A, CBG16C2301A, CBG16C2301B, CBG16C2302A, COM716C2211A, COM716C2211B, COM716C2211C, COM716C2302A, CPALL16C2211A, CPN16C2301A, CRC16C2303A, DOHOME16C2301A, DOHOME16C2303A, DTAC16C2212A, EA16C2211A, EA16C2303A, ESSO16C2303A, ESSO16C2302A, FORTH16C2211A, GPSC16C2301A, GPSC16C2302A, GULF16C2301A, GULF16C2302A, GULF16C2302B, GUNKUL16C2301A, GUNKUL16C2302A, HANA16C2211A, HANA16C2301A, HANA16C2303A, IVL16C2211A, IVL16C2212A, IVL16C2301A, JMART16C2211A, JMART16C2303A, JMT16C2211A, JMT16C2302A, KBANK16C2211A, KBANK16C2301A, KBANK16C2302A, KCE16C2211A, KCE16C2301A, KCE16C2301B, KCE16C2302A, KTB16C2303A, KTC16C2211A, MINT16C2211A, MINT16C2301A, MINT16C2302A, MTC16C2212A, MTC16C2301A, PSL16C2212A, PTG16C2211A, PTTEP16C2212A, PTTEP16C2303A, RCL16C2303A, SAWAD16C2211A, SAWAD16C2302A, SCB16C2211A, SCB16C2301A, SCGP16C2212A, SCGP16C2303A, SET5016P2303A, SET5016C2303A, SET5016C2212A, SET5016C2212B, SET5016C2212C, SET5016P2212A, SET5016P2212B, SINGER16C2212A, SPRC16C2212A, TIDLOR16C2212A, TOP16C2211A, TRUE16C2212A, TTA16C2211A, VGI16C2301A (underlying securities are (ADVANC, AMATA, AOT, BANPU, BBL, BCH, BGRIM, BH, BLA, BTS, CBG, COM7, CPALL, CPN, CRC, DOHOME, DTAC, EA, ESSO, FORTH, GPSC, GULF, GUNKUL, HANA, IVL, JMART, JMT, KBANK, KCE, KTB, KTC, MINT, MTC, PSL, PTG, PTTEP, RCL. SAWAD, SCB, SCGP, SET50, SINGER, SPRC, TIDLOR, TOP, TTA, VGI, TRUE). before making investment decisions.

Note: Our major shareholder TCAP (Thanachart Capital Pcl) which holding 89.96% of Thanachart Securities and also TCAP holding 100% of Thanachart SPV1 Co. Ltd. TCAP and Thanachart SPV1 Co. Ltd has stake in THANI for 60% and being the major shareholder of THANI.

Note: Thanachart Capital Public Company Limited (TCAP), TMBThanachart Bank Public Company Limited (TTB), are related companies to Thanachart Securities Public Company Limited (TNS). Thanachart Securities Pcl is a subsidiary of Thanachart Capital Pcl (TCAP) which holds 24.33% of the shareholding in TMBThanachart Bank Pcl.

Thanachart Capital Public Company Limited (TCAP), Ratchthani Leasing Public Company Limited (THANI), MBK PUBLIC COMPANY LIMITED (MBK) and PATUM RICE MILL AND GRANARY PUBLIC COMPANY LIMITED (PRG) are related companies to Thanachart Securities Public Company Limited (TNS). Since TNS covers those securities in research report, consequently TNS incurs conflicts of interest.

Disclosure of Interest of Thanachart Securities

Investment Banking Relationship

Within the preceding 12 months, Thanachart Securities has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: The One Enterprise Pcl. (ONEE TB)

DISCLAIMER PIMPAKA NICHGAROON, CFA

Recommendation Structure:

Recommendations are based on absolute upside or downside, which is the difference between the target price and the current market price. If the upside is 10% or more, the recommendation is BUY. If the downside is 10% or more, the recommendation is SELL. For stocks where the upside or downside is less than 10%, the recommendation is HOLD. 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 the market price and the formal recommendation.

For sectors, an "Overweight" sector weighting is used when we have BUYs on majority of the stocks under our coverage by market cap. "Underweight" is used when we have SELLs on majority of the stocks we cover by market cap. "Neutral" is used when there are relatively equal weightings of BUYs and SELLs.

Thanachart Securities Pcl.

Research Team

18 Floor, MBK Tower

444 Phayathai Road, Pathumwan Road, Bangkok 10330

Tel: 662 - 779-9119

Email: thanachart.res@thanachartsec.co.th

Pimpaka Nichgaroon, CFA

Head of Research Tel: 662-779-9199

pimpaka.nic@thanachartsec.co.th

Pattarawan Wangmingmat

Senior Technical Analyst Tel: 662-779-9105

pattarawan.wan@thanachartsec.co.th

Phannarai Tiyapittayarut

Property, Retail
Tel: 662-779-9109
phannarai.von@thanachartsec.co.th

Sarachada Sornsong

Bank, Finance Tel: 662-779-9106 sarachada.sor@thanachartsec.co.th

Witchanan Tambamroong

Technical Analyst
Tel: 662-779-9123
witchanan.tam@thanachartsec.co.th

Adisak Phupiphathirungul, CFA

Retail Market Strategy
Tel: 662-779-9120
adisak.phu@thanachartsec.co.th

Nuttapop Prasitsuksant

Telecom, Utilities
Tel: 662-483-8296
nuttapop.pra@thanachartsec.co.th

Rata Limsuthiwanpoom

Auto, Industrial Estate, Media, Prop. Fund Tel: 662-483-8297 rata.lim@thanachartsec.co.th

Siriporn Arunothai

Small Cap, Healthcare, Hotel Tel: 662-779-9113 siriporn.aru@thanachartsec.co.th

Sittichet Rungrassameephat

Analyst, Quantitative Tel: 662-483-8303 sittichet.run@thanachartsec.co.th

Chak Reungsinpinya

Strategy, Insurance, Paper Tel: 662-779-9104 chak.reu@thanachartsec.co.th

Pattadol Bunnak

Electronics, Food & Beverage, Shipping Tel: 662-483-8298 pattadol.bun@thanachartsec.co.th

Saksid Phadthananarak

Construction, Transportation Tel: 662-779-9112 saksid.pha@thanachartsec.co.th

Yupapan Polpornprasert

Energy, Petrochemical Tel: 662-779-9110 yupapan.pol@thanachartsec.co.th

Thaloengsak Kucharoenpaisan

Analyst, Retail Market Tel: 662-483-8304 thaloengsak.kuc@thanachartsec.co.th