

ASEAN X Macro Decoupling from US Recession

ASEAN is emerging as a defensive harbor and partially decoupling from the US economic downturn and potential recession. We expect ASEAN-5 GDP (excl. Singapore) to remain resilient and expand by +5.3% in the second half of 2022 (vs. +5.4% in 1H22) and +4.9% in 2023, despite slowing US and global growth. GDP growth in Singapore, Malaysia and Thailand has been historically more correlated with US business cycles, as their economies are more exportoriented, while GDP growth in Indonesia and Philippines are far less correlated. Vietnam did not slip into recession in past US recessions, but the correlation and dependence on US value-added have risen over the past decade. Singapore remains the most vulnerable to a US recession, although the reopening tailwinds; recovery in foreign employment; relocation of headquarters, talent and capital inflows from HK & China; and available fiscal support are mitigating factors.

We highlight six arguments for a "partial" ASEAN-US decoupling: [1] Reopening boost still not over, with accommodation & food services, construction and air transport still below pre-pandemic levels, as ASEAN "lives with Covid"; [2] Strengthening intra-ASEAN trade will partly offset weaker G3 and China trade; [3] Rising FDI and shifting manufacturing supply chains to ASEAN; [4] Elevated energy and food prices, which benefits energy exporters (Indonesia, Malaysia) and food exporters (Thailand, Malaysia, Indonesia); [5] Less aggressive interest rate hiking cycle (except Philippines & Singapore); [6] Relocation of headquarters and talent from Hong Kong, and capital inflows from Greater China because of US-China geopolitical rivalry & divergent Covid strategies. A wildcard will be the timing of China's reopening - which will be a major boost to ASEAN's tourism and exports.

Probability of a US recession over the next 12 months has risen to 26%, based on the 3m-10y term spread. The US recession is likely to be shallow rather than deep, cushioned by labor shortages in reopening sectors and healthier household and corporate balance sheets. US household debt is much lower at 67% of GDP versus the 85% just before the global financial crisis. US households have amassed an estimated \$2.6trn of excess savings during the pandemic and have only drawn down \$160bn so far. Non-financial US corporate debt is at 78% of GDP in 1Q 2022, slightly higher than the 68% in 3Q 2007 but below its peak of 91% in 2Q 2020. Cash held by US companies have ballooned to \$1.3tn from \$840bn in 4Q 2019. The US banks are well capitalized, owing to more stringent regulatory standards imposed in the wake of the GFC.

US inflation may be slow to moderate. Supply factors are responsible for half of the difference between current headline US PCE and pre-pandemic inflation, according to a San Francisco Fed study. Demand drivers account for around one-third, with the remainder resulting from ambiguous factors. Fed tightening can only influence demand-side inflation pressures. How fast inflation falls will also depend on the speed at which global supply chain disruptions and labor shortages can be resolved. Based on the "sacrifice ratio" of 1.2x for past US recessions (excl. credit and pandemic-driven recessions) the unemployment rate would need to rise to 6.3% for trimmed mean PCE inflation to fall to the Fed's 2% target (from 4.3% in June), by our estimates. The US labor market tightness suggests that taming wage growth to prepandemic levels will be hard. Elevated inflation will make for a slower recovery from recession by constraining policy responses.

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Macro Views

ASEAN-6 Key Macroeconomic Indicators

		Real GDP growth (%)				He	eadline Ir	flation (%, averag	ge)		Policy R	ate (%, y	ear-end)	
	2019	2020	2021	2022E	2023E	2019	2020	2021	2022E	2023E	2019	2020	2021	2022E	2023E
Global	2.8	(3.1)	6.1	3.0	2.4	2.8	3.2	4.7	8.3	5.7		•	-		•
US	2.3	(3.4)	5.7	2.3	1.3	1.8	1.2	4.7	8.1	3.9	1.625	0.125	0.125	3.375	3.625
Indonesia	5.0	(2.1)	3.7	5.1	5.2	2.8	2.0	1.6	4.8	4.0	5.00	3.75	3.50	4.25	4.75
Malaysia	4.3	(5.6)	3.1	6.0	4.0	0.7	(1.2)	2.5	3.4	4.1	3.00	1.75	1.75	2.50	3.00
Philippines	6.1	(9.6)	5.7	6.5	5.2	2.4	2.4	3.9	5.3	3.9	4.00	2.00	2.00	4.00	4.00
Singapore	1.1	(4.1)	7.6	2.8	1.5	0.6	(0.2)	2.3	6.0	3.8	1.77	0.41	0.44	3.00	3.20
Thailand	2.2	-6.2	1.5	3.2	3.8	0.7	(0.8)	1.2	6.3	2.2	1.25	0.50	0.50	1.25	1.50
Vietnam	7.0	2.9	2.6	6.9	6.4	2.8	3.2	1.8	3.7	3.6	6.00	4.00	4.00	4.25	4.50
Cambodia	7.1	(3.1)	2.8	4.4	6.0	1.9	2.9	2.9	5.0	3.5	3.00	2.50	2.50	2.75	3.00
Myanmar	6.8	3.2	(18.0)	(0.0)	2.0	8.6	5.7	3.6	14.0	9.0	10.00	7.00	7.00	7.25	7.50
Laos	5.5	0.5	2.1	3.4	3.3	3.3	5.1	3.8	16.0	5.0	4.00	3.00	3.00	3.25	3.50

	Ex	Exports of Goods & Services (%)			(%)	Gross Fixed Capital Formation (%)				Private Consumption (%)					
	2019	2020	2021	2022E	2023E	2019	2020	2021	2022E	2023E	2019	2020	2021	2022E	2023E
Indonesia	(0.9)	(7.7)	24.0	11.3	6.0	4.5	(4.9)	3.8	4.0	7.5	5.0	(2.6)	2.0	5.4	5.5
Malaysia	(1.1)	(8.9)	15.9	10.1	5.0	(2.1)	(14.5)	1.3	4.2	4.3	7.6	(4.3)	1.9	7.5	5.9
Philippines	2.6	(16.3)	8.0	6.8	6.4	3.9	(27.5)	9.6	11.6	10.0	5.9	(7.9)	4.2	7.6	5.7
Singapore	0.3	(0.2)	6.8	3.6	2.4	1.7	(14.2)	19.6	2.3	3.1	3.2	(12.9)	4.5	7.5	2.4
Thailand	-3.0	-19.7	10.4	9.0	7.2	2.0	-4.8	3.4	2.1	3.0	4.0	-1.0	0.3	5.5	3.7
Vietnam	6.7	5.0	14.0	9.5	7.0	8.3	4.1	4.0	8.5	8.5	7.4	0.6	1.2	6.8	6.5
Cambodia	7.8	(10.3)	7.2	10.0	8.7	6.9	(2.7)	6.1	5.8	7.0	5.5	(4.0)	3.9	3.6	5.2
Myanmar	11.3	(4.0)	(10.5)	2.0	3.4	2.6	(0.5)	(15.5)	(5.0)	1.5	1.5	4.5	(21.8)	2.4	2.7
Laos		•	-	•	•		•	-		•			-		

Note: Total consumption shown for Myanmar, as Myanmar does not provide breakdown of private & government consumption. Laos' real GDP data is provided with breakdown by industry. Data series on breakdown of real GDP by expenditure components was discontinued since 2017. Source: CEIC, Maybank IBG Research

USD vs. Major & Regional Currencies Forecast

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	Current (as of 25 Aug)	3Q2022	4Q2022	1Q2023	2Q2023	3Q2023
DXY (Dollar Index)	108.5	105.2	103.7	102.4	100.8	99.0
Japanese Yen	136.5	135.0	132.0	128.0	125.0	122.0
Euro	1.00	1.04	1.05	1.06	1.08	1.10
Pounds Sterling	1.18	1.22	1.23	1.24	1.26	1.28
Australian Dollar	0.70	0.70	0.70	0.71	0.72	0.72
Renminbi	6.85	6.75	6.70	6.68	6.65	6.60
Indian Rupee	79.88	79.00	79.50	79.50	80.00	80.00
HK Dollar	7.85	7.80	7.80	7.80	7.80	7.80
Taiwan Dollar	30.2	30.0	29.8	29.6	29.5	29.2
Korean Won	1335	1280	1260	1240	1230	1220
Singapore Dollar	1.389	1.370	1.360	1.350	1.340	1.330
Malaysian Ringgit	4.47	4.40	4.40	4.35	4.30	4.25
Indonesian Rupiah	14823	14700	14500	14400	14300	14200
Thai Baht	35.83	35.50	35.10	34.80	34.50	34.20
Philippines Peso	56.04	54.50	54.00	53.50	53.00	52.50
Vietnamese Dong	23428	23000	22900	22900	22700	22500

Source: Bloomberg, Maybank FX Research & Strategy

Fixed Income

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Country	Rates Outlook	Rationales
China	Neutral	 China's growth outlook remains dire amid continued domestic macro headwinds and growing external uncertainties. Stimulus measures help, but not game changing. PBOC delivered surprise 10bp cut to the 7-day reverse repo and 1y MLF rates last week. Additional decline in repo fixings, which are already well below the OMO rate, is likely to be limited, but the rate cut still carries a dovish signaling effect, anchoring the CGB curve. We revise our target range for 10y CGB yield lower to 2.50-2.75% from 2.60-2.85% in the next 1-3 months, as we think growing macro headwinds and prolonged structural weakness in the property sector will continue to support the CGB.
Indonesia	Cautious	 BI finally begun policy normalization, raising the 7-day reverse repo rate by 25bp to 3.75% to contain inflation. With domestic inflation continuing on an uptrend, we expect another 50bp hike in 2022, though this will depend on the outcome of the government's plan to raise subsidized fuel prices which will add further inflationary pressure and prompt more rate hikes from BI. We maintain a 7.00-7.50% range for 10y IndoGB yield in the next 1-3 months.
Malaysia	Mildly Bullish	 On OPR, we still think the hurdle is not high for the first few hikes to 2.50-2.75%, but will likely face a higher bar to go further. Another back-to-back hike in September looks possible. Local supply profile is supportive of MGS in 3Q22 with low net supply of MGS and GII. We expect US late-cycle dynamics to drive yields lower and keep long duration supported. We maintain our 10y MGS yield forecast at 3.75% by end-2022.
Singapore	Mildly Bullish	 Inflation rose further in July. We now expect the MAS to tighten monetary policy again at the next meeting in October with a re-centering of the S\$NEER to the prevailing level, which is estimated to be around 1% above the implied mid-point. Rates market volatility will likely persist in the near term amid the evolving situation on inflation and recession risk. Medium term, we expect SGS yields to fall, in line with our expectation of lower UST yields.
US	Mildly Bullish	 The soft-landing scenario envisaged by the Fed will prove challenging to achieve. With high inflation and US interest rate going into restrictive territory, the currently tight US labour market is a sign of late cycle rather than strength. In the past seven cycles since the 1960s, excluding Covid-19 crisis, US unemployment rate bottomed out 1-16 months before the start of next recession. We maintain that 10y UST yield will fall to 2.50% by end-2022, a non-consensus view.

Focus Piece:

ASEAN: Decoupling from US Recession

"For the rest of the year, the recovery in international travel and domestic demand with the lifting of Covid-19 restrictions will help to mitigate some of the weaker external demand ... At this stage, we do not expect a recession or stagflation in 2023. Nonetheless, risks in the global economy remain significant."

Singapore Minister of State for Trade and Industry Alvin Tan addressing Parliament, 4 July 2022.

"From the corporate side as well as from our household, we are also relatively good... But, we still have to be vigilant because this condition will last until next year. Global risks regarding inflation and recession or stagflation are very real and will become one of the important topics to discuss during the Indonesian Presidency of G20."

> Indonesia Finance Minister Sri Mulyani at a G20 press conference, 13 July 2022.

ASEAN is emerging as a defensive harbor and partially decoupling from the US economic downturn and recession. We expect ASEAN-5 (excl. Singapore) growth to remain resilient and expand by +5.3% in the second half of 2022 (vs. +5.4% in 1H22) and +4.9% in 2023, despite slowing US and global growth. The economic reopening will continue to boost growth especially in consumer and tourism-related services that have yet to return to pre-pandemic levels. Strengthening intra-ASEAN travel and trade will partly offset weakening external demand from the US and Europe.

FDI to ASEAN is rising, as manufacturing supply chains reconfigure and shift to ASEAN, as reflected in the surging applications in Indonesia, Malaysia and Vietnam. The US-China trade war, the pandemic, and China's zero Covid strategy and rolling lockdowns are reinforcing the case for diversification and "China+1" supply chains. Elevated energy (Malaysia, Indonesia) and food prices (Thailand, Malaysia, Indonesia) are supporting some ASEAN commodity exports. Hong Kong's zero-Covid strategy and strict border controls are diverting more MNCs, talent and capital flows to Singapore.

ASEAN growth has been more resilient than US, EU, and China in the first half of the year. ASEAN-5 (excl. Singapore) GDP growth picked up to +5.4% in 1H22 (vs. +2.9% in 2H21), higher than the US (+2.6%) and EU (+4.7%). ASEAN-5 GDP growth overtook and was more than double China's GDP growth, which slowed to +2.6% (vs. +4.5% in 2H21) (see Fig 1). The ASEAN-China growth divergence will likely continue in the second half given the divergent "living with" versus "dynamic zero" Covid strategies.

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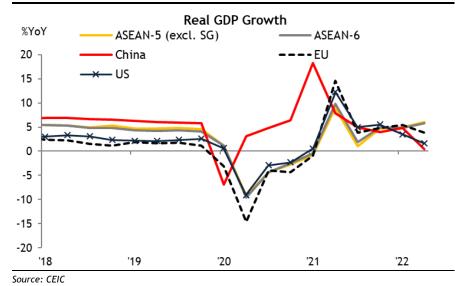
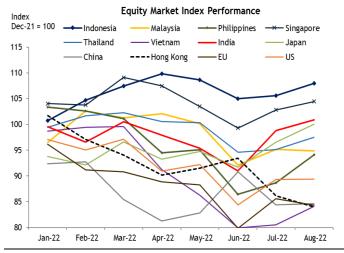
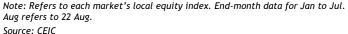


Fig 1: GDP Growth in ASEAN Surpassed US, EU & China in the First Half of 2022

ASEAN's equities and currencies have outperformed other advanced and emerging markets so far this year. Equities in Indonesia (+8% year-to-date) and Singapore (+4.4%) have outperformed. The stock market declines in Malaysia (-5.1%), Philippines (-5.9%) and Thailand (-2.5%) have been milder than the sharp corrections in Hong Kong (-16%), China (-15%), EU (-15.7%) and the US (-10.7%) (see Fig 2). While the USD has strengthened against all major and regional currencies, the depreciation has been milder in the Vietnamese VND (-1.2%), Singdollar SGD (-3.2%), and Indonesian Rupiah (-4.7%), as compared to other major currencies, including the JPY (-19.4%), EURO (-14.3%), RMB (-7.5%), and INR (-7.4%) (see Fig 3).

Fig 2: ASEAN-5 Equity Markets Outperforming US and China This Year





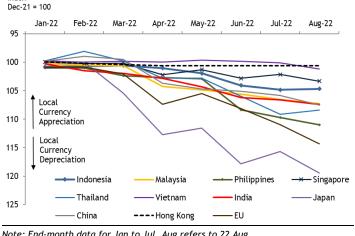


Fig 3: ASEAN Currencies More Resilient Than EUR and JPY

Local Currency/USD

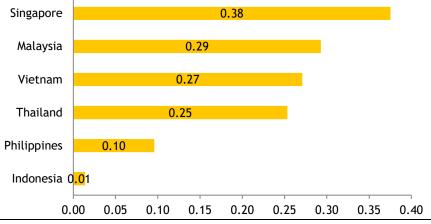
Note: End-month data for Jan to Jul. Aug refers to 22 Aug. Source: CEIC

Index

GDP growth in Singapore, Malaysia, Thailand and Vietnam are historically more correlated with US GDP growth, given that their economies are export-oriented (see Fig 4). Indonesia and the Philippines are the least correlated, as domestic demand accounts for a larger proportion of the economy.

Fig 4: GDP Growth in Singapore, Malaysia, Vietnam and Thailand Have Higher Correlations with US; Smaller Correlation for Philippines & Indonesia

Correlation Between ASEAN and US GDP Growth (1980 to 2021)



Source: Maybank IBG Research estimates

Over the past 5 decades, Singapore saw GDP growth fall sharply during US recession episodes. Singapore's economy fell into recession during the 2001 US tech recession and 2008/09 Global Financial Crisis (GFC) (see Table 1). The exportoriented economies of Malaysia (-1.5%) and Thailand (-0.7%) also experienced GDP contraction in 2009 during the global financial crisis.

Vietnam's economy did not contract in any of the past regional or global recessions, although GDP growth slowed significantly during the Global Financial Crisis and Asian Financial Crisis. However, Vietnam has become more export-oriented with increasing FDI and trade liberalization over the past two decades, with export share of real GDP rising from 40% in 2000 to 130% in 2020. The US has become increasingly important as an export market, with its share of Vietnam's exports rising to 28.6% in 2021 from 20.7% in 2015. Vietnam will likely face a sharp growth slowdown in this episode if the US slips into a recession.

Indonesia and the Philippines have been more insulated from slowing external demand and US recession, with both economies continuing to expand even in 2008/09 during the global financial crisis. Recessions in the Philippines during the 1980s and 1991 were largely due to internal political unrest, not because of an external slowdown.

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam						
1997/98 Asian Financial Crisis	-13.1	-7.4	-0.5	-2.2	-7.6	5.8						
2001 US Tech Recession	3.6	0.5	3.0	-1.1	3.4	6.2						
2008/09 Global Financial Crisis	4.6	-1.5	1.4	*-3.1	-0.7	5.4						
2020 Covid Crisis	-2.1	-5.5	-9.5	-4.1	-6.2	2.9						
Country-specific recessions			1983-85 political unrest: -7% in 1984/85 1991 political turmoil: -0.4%	1985 recession: -0.6%								

*Refers to year-on-year growth between 3Q08 and 2Q09 from a year ago, to reflect the 4 quarters of decline. 2009 full year GDP growth was still a small positive of +0.1%.

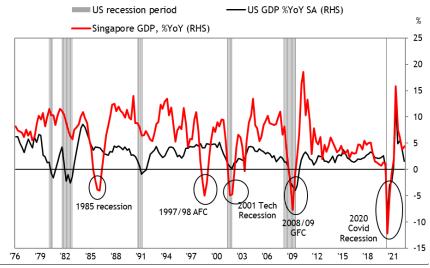
Note: Table showing annual GDP growth in 1998, 2001, 2009, and 2020.

Source: CEIC, compiled by Maybank IBG Research

Singapore will be the most vulnerable and sensitive to a US recession and downcycle in the current episode. There are arguments however that the Singapore downturn could be milder than past episodes because of the positives from the reopening tailwinds; return of foreign workers; potential fiscal support; relocation of MNCs headquarters (US, Europe), talent and capital from Hong Kong because of the divergent Covid strategies and US-China trade war.

But there are also counter-arguments why Singapore's downturn could be worse, because of a far more aggressive monetary policy to contain inflation (much stronger currency); steep increases in short-term interest rate to near 20-year highs; GST hikes in 2023-24; and institutionalized wage increases via the introduction of a local qualifying salary (de facto minimum salary) and expansion of the progressive wage model to large sectors (incl. retail and food services), which could hurt businesses.

Fig 5: Singapore GDP Growth is Highly Correlated with the US & Contracted During the 2001 Tech Recession and 2008/09 Global Financial Crisis



Source: CEIC

Fig 6: Malaysia Growth Slowed to +0.5% During 2001 Tech Recession; Fell by -1.5% in 2009 GFC

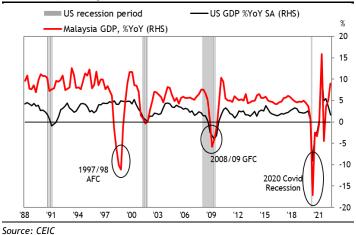


Fig 7: Thailand Among Worst Hit During Asian Financial Crisis (-7.6% in 1998); GDP Declined by -0.7% in 2009 GFC

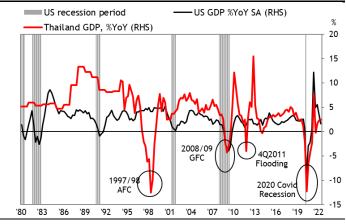
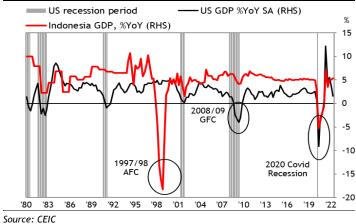
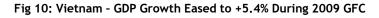
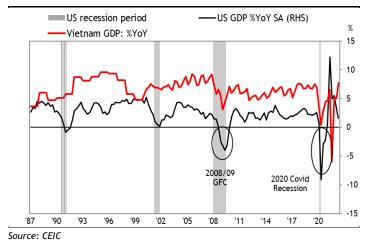
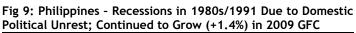


Fig 8: Indonesia GDP Plunged by -13.1% in 1998 AFC; Growth Eased to +4.6% in 2009 GFC









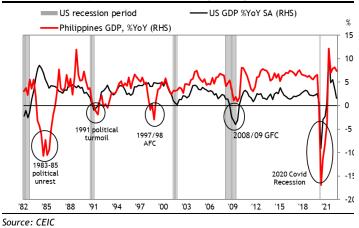


Table 2: ASEAN GDP Growth to Stay Resilient in 2H22 and 2023, Except for Singapore

	2020	2021	1H22	2H22F	2022F	2023F
Indonesia	-2.1	3.7	5.2	5.1	5.1	5.2
Malaysia	-5.5	3.1	6.9	5.5	6.0	4.0
Philippines	-9.5	5.7	7.8	5.1	6.5	5.2
Singapore	-4.1	7.6	4.1	1.5	2.8	1.5
Thailand	-6.2	1.5	2.4	4.1	3.2	3.8
Vietnam	2.9	2.6	6.4	7.7	6.9	6.4
ASEAN-5 (ex SG)	-3.8	3.3	5.5	5.2	5.3	4.9
ASEAN-6	-3.7	3.9	5.3	4.8	5.0	4.5

Source: CEIC, Maybank IBG Research forecasts

Six Reasons for an ASEAN-US Decoupling

We flesh out six arguments for an ASEAN-US "partial" decoupling:

[1] Reopening Tailwinds

The reopening tailwind still has legs, with many sectors not yet fully recovering to pre-pandemic levels. ASEAN is adopting a "living with Covid" strategy and is unlikely to resort to strict lockdowns and quarantines, as compared to China's "zero Covid" strategy. Any modest relaxation of China's strict policies and border controls in 2023 could boost the reopening tailwinds from China tourists returning to ASEAN, especially to Thailand, Vietnam and Malaysia.

Most of the ASEAN economies have climbed to above pre-pandemic levels as of 2Q (see Fig 11), except for Thailand (which remains 3.2% below 2Q19 levels, see *Thailand Economics - 2Q GDP Disappoints, Maintain 2022 GDP at +3.2% on Tourism Revival*, 15 Aug 2022).



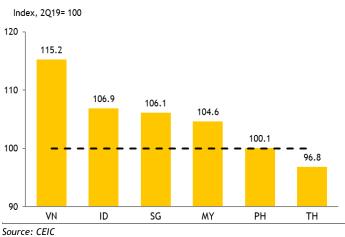
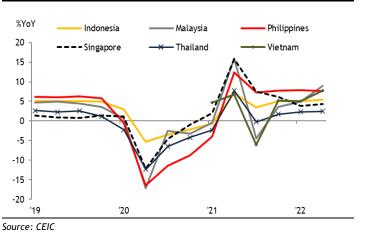
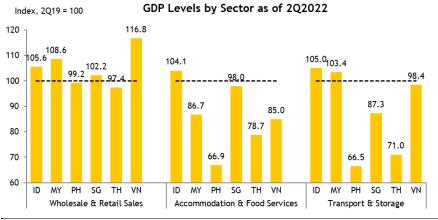


Fig 12: ASEAN GDP Growth Was Above +5% in 2Q for Most Countries, Except Singapore (+2.8%) and Thailand (+2.5%)



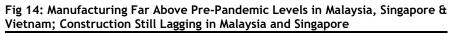
However, there are several sectors, especially consumer and tourism-related services that have yet to return to pre-pandemic levels and will continue to recover from the reopening tailwinds. Accommodation & food services sector have not yet normalized in the Philippines (67% of pre-pandemic levels in 2Q), Thailand (79%), Vietnam (85%), and Malaysia (87%). Transport & storage is also lagging in the Philippines (67%), Thailand (71%), and Singapore (87%) (see Fig 13).

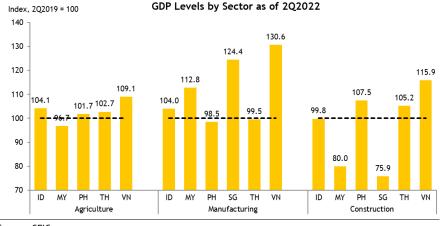




Source: CEIC

The construction sector is lagging behind in Singapore (76% of pre-pandemic levels in 2Q) and Malaysia (80%), which are facing foreign worker shortages and supply disruption (see Fig 14). Singapore's construction contracts awarded plunged by -46% in 2Q to the lowest level since 3Q2020. On the other hand, the agriculture and manufacturing sectors have mostly risen above pre-pandemic levels in most ASEAN countries, driven by the commodity boom and rebound in external demand.



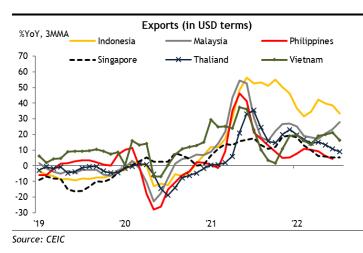


Source: CEIC

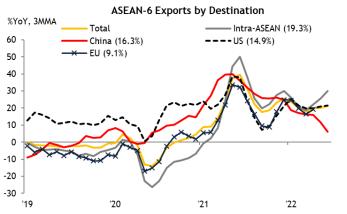
[2] Stronger Intra-ASEAN Trade and Tourism

Intra-ASEAN trade and travel will likely remain resilient despite the slowdown in major economies such as US, EU and China. Exports continue to surge at double-digit growth in Indonesia (+32% in July), Malaysia (+30.7%), although Thailand (+4.3%) Singapore (+4%) and Vietnam (+9.9%) have seen some easing as of late (see Fig 15). Intra-ASEAN exports, in particular, has been resilient, surging by +30% in 2Q (vs. +18.8% in 1Q), helping to cushion the slump in exports to China (+5.9% in 2Q vs. +16.5% in 1Q) (see Fig 16). The intra-ASEAN market is a significant source of demand, having accounted for 19% of ASEAN's exports last year, higher than exports to the US (14.9%), EU (9.1%) and China (16.3%).





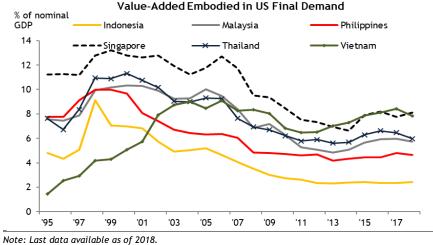




Note: Numbers in brackets refer to share of total exports in 2021. Source: CEIC Over the past two decades, the US has become a less important market for most of ASEAN, except for Vietnam. According to OECD's Trade in Value Added (TiVA) database, ASEAN economies' value-added embodied in US final demand as a share of their GDPs has declined by 20%-50% over 1995 to 2018 (see Fig 17). Share of US final demand has fallen the most for Indonesia (2.4% in 2018 vs. 4.8% in 1995) and Philippines' (4.6% vs. 7.7%).

For Singapore (8.1% vs. 11.2%), Thailand (6% vs. 7.6%) and Malaysia (5.7% vs. 7.6%), the share of US final demand has fallen alongside the rising influence of Chinese domestic demand, given the rise of China over the past twenty years. The only exception is Vietnam (7.8% vs. 1.5%) due to its rising role in global supply chains of consumer goods, but even then the share in 2018 is lower than just before the GFC (2007: 8.3%).





Source: OECD TiVA, Maybank IBG Research

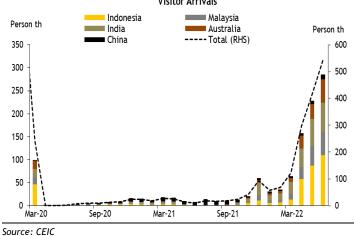
ASEAN's tourism rebound so far has also been driven by regional tourists. Thailand's top source of visitors in the first half of 2022 were from India (11.3% of total), Malaysia (9.6%), and Singapore (6.2%), while China accounted for only 2.8% of total arrivals (see Table 3). Singapore's visitor arrivals in the first half of 2022 were mainly from Indonesia (18.7% of total), India (14.6%), and Malaysia (9.2%) (see Fig 18). Asian countries made up 65% of Vietnam's visitor arrivals in the first half. The top source was South Korea, which accounted for 18% of total foreign visitors.

Table 3: Thailand Visitor Arrivals by Nationality: Tourists from India, Malaysia & Singapore Leading Recovery

	Apr-22	May-22	Jun-22	1H22	1H22
	Person th	Person th	Person th	Person th	% of total
Total	293.4	521.4	767.5	2,080	100%
India	27.3	78.3	113.4	236	11.3%
Malaysia	10.8	57.9	124.2	201	9.6 %
Singapore	17.9	38.0	60.2	128	6.2%
UK	29.6	23.7	27.9	123	5.9 %
USA	17.1	24.3	34.4	106	5.1%
Germany	19.8	15.6	19.1	96.8	4.7%
Australia	17.2	19.0	26.8	79.9	3.8%
France	14.1	13.0	13.0	72.2	3.5%
Russia	5.2	7.1	8.2	71.4	3.4%
Korea	8.7	16.2	25.7	58.7	2.8%
China	8.7	14.9	20.0	57.4	2.8%

Source: CEIC





China has been making tweaks to its pandemic management strategy, such as reducing quarantine requirements for inbound arrivals by half. Starting late June, travelers only need to spend 7 days (down from 14 days) in a quarantine facility, and then monitor their health at home for another 3 days¹. As the country achieves more progress on vaccination rates and healthcare capacity, China could move away from its zero-COVID stance. There has been speculation that the zero-COVID stance could be eased to some degree after the Communist Party Congress in October or November.

While a China reopening over the next few months remains a wildcard, it would provide a substantial boost to ASEAN tourism and exports. China accounted for more than one fifth of ASEAN's visitor arrivals before the pandemic (see Fig 19). The biggest tourism boost will be to Thailand (27.6% of tourists from China), Vietnam (32.2%), and Singapore (19%) where China accounts for the dominant share of tourist arrivals pre-pandemic.

A China reopening and fewer lockdowns will help revive China import demand. China is the largest export market for Indonesia (23.2% of total exports in 2021), Malaysia (15.5%) and Singapore (14.8%), and the second-largest export market after the US for Thailand (13.7%) and Vietnam (16.6%) (see Fig 20).

Fig 19: China Accounted for More than One Fifth of ASEAN's Visitor Arrivals Pre-Pandemic

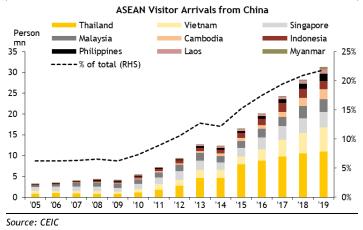
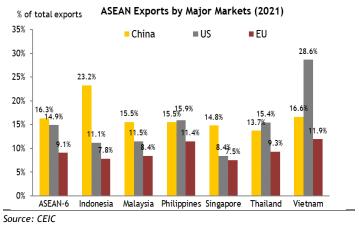


Fig 20: China Largest Export Destination for ASEAN (16.3% of Total Exports in 2021)



[3] Rising FDI & Shifting Supply Chains to ASEAN

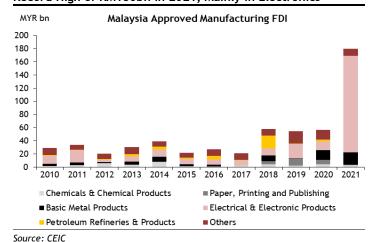
Foreign investment continues to flow into ASEAN, bolstered by supply chain diversification away from China and development of Electric Vehicle industries. Indonesia's foreign investment realization surged by +42% in 2Q22 (see Fig 21), driven by the manufacturing (+61%) sector particularly basic metal, amid the government's push to develop downstream industries such as nickel ore processing for EV batteries and energy storage systems.

¹ Bloomberg, "China Cuts Travel Quarantine in Biggest Covid Zero Shift Yet", 28 Jun 2022. August 26, 2022

Fig 21: Indonesia - Foreign Investment Realization Accelerated by +42% in 2Q22, Mainly Driven by Manufacturing (+61%)



Fig 22: Malaysia - Approved Manufacturing FDI Soared to Record High of RM180bn in 2021, Mainly in Electronics



<u>Malaysia</u>'s manufacturing FDI is gaining momentum following the record high approvals worth RM180bn (US\$26bn) in 2021 (see Fig 22). Samsung SDI Energy opened its Phase Two EV battery cell manufacturing facility (RM6bn) in July 2022. Infineon started construction of a new state-of-the-art wafer fab that will be completed by 3Q 2024.

Vietnam's FDI applications in the manufacturing sector continues to rise, surging by +26.6% in the first 7 months of 2022 from the same period a year ago, extending the +33.2% jump in 2021 (see Fig 23). Apple's suppliers Foxconn and Luxshare Precision Industry are in talks to produce Apple Watch and MacBook in Vietnam for the first time, according to a recent Nikkei Asia article².

Thailand is seeing less foreign interest, with FDI applications into the manufacturing sector plunging by -31% from a year ago as electronics and chemicals saw steep declines (see Fig 24). However, investment pledges in EVs (+212%) and the digital sector (+202%) are gaining traction with the government's promotion of high-tech sectors and support of EVs³. The Board of Investment in August approved investment pledges worth Bt44.5bn (US\$1.3bn), including a Bt18bn project from China's BYD to produce EVs.

Fig 23: Vietnam - FDI Application into Manufacturing Remained Firm, Surging by +27% in 7M22 (vs. +33% in 2021)

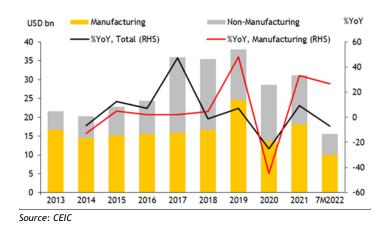
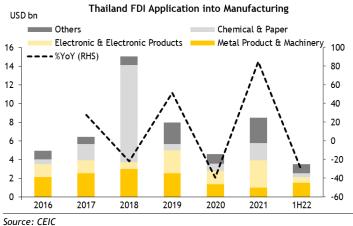


Fig 24: Thailand - FDI Application into Manufacturing Fell by - 31% in the First Half of 2022



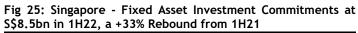
² Nikkei Asia, "Vietnam to make Apple Watch and MacBook for first time ever", 17 Aug 2022.

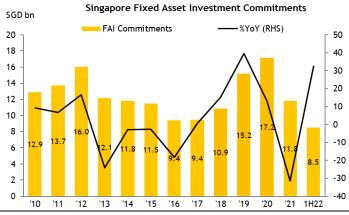
³ Bangkok Post, "Investment pledges slump in H1 as foreign projects wane", 17 Aug 2022.

August 26, 2022

The US CHIPS Act, a US\$52bn package to boost semiconductor manufacturing in the US and improve competitiveness against China, will help reinforce the supply chain shifts to ASEAN. The bill provides financial incentives to make manufacturing facilities in the US, while specifying that companies accepting federal subsidies will be restricted from making any "significant transaction" to expand their chip-making capacity in China or any other foreign country of concern for 10 years⁴.

Singapore continues to see large inflows of fixed asset investment in the electronics cluster. Investment commitments jumped by +33% in 1H 2022, half of which was from the electronics cluster alone (see Fig 25 and Table 4). In Feb 2022, chipmaker United Microelectronics Corporation (UMC) announced plans to build a new a S\$6.8bn (US\$5bn) wafer fab facility in Singapore to commence in late 2024⁵. In Oct 2021, German chipmaker Siltronic announced a S\$3bn investment until end 2024 for a new 300mm wafer manufacturing facility.





Source: EDB, Singstat

Table 4: Singapore - Investment in 2021 Dominated by Electronics, Commitments in Services Jumped in 1H22

	2021	1H22	2021	1H22
	SGD mn	SGD mn	% of total	% of total
Total	11,796	8,513	100%	100%
Manufacturing	8,486	5,178	72%	61%
Electronics	4,986	4,281	42%	50%
Biomedical Manufacturing	1,769	489	15%	5.7%
Chemicals	980	114	8.3%	1.3%
Transport Engineering	367	-	3.1%	-
General Manufacturing	315	237	2.7%	2.8%
Precision Engineering	69	57	0.6%	0.7%
Services	3,310	3,336	28%	39 %

Source: EDB, Maybank IBG Research. Media reports suggest large MNC investments include Micron, Infineon, ST Microelectronics, Exxon Mobil and Neste (biofuels).

[4] Elevated Energy and Food Prices

Energy and food prices may remain elevated and not fall as sharply as in past recessions, because of the Russia-Ukraine war, climate change and green transition. Strong commodity prices have boosted the external balances of net commodity exporters including Indonesia and Malaysia.

Indonesia's current account balance extended its surplus for the 4th straight quarter to 1.1% of GDP in 2Q22 (bringing 1H22 to 0.7% of GDP), as goods surplus widened to a historical high of US\$16.8bn (see Fig 26). Malaysia's gas trade surplus has widened significantly in recent months as natural gas prices soared to decade highs (see Fig 27).

⁴ Nikkei Asia, "CHIPS Act leaves chipmakers facing choice between U.S. and China", 2 Aug 2022.

⁵ Business Times, "Global chipmakers' investments in Singapore", 22 Jul 2022.



Fig 26: Indonesia - Current Account Stays in Surplus of 0.7% of GDP in 1H22

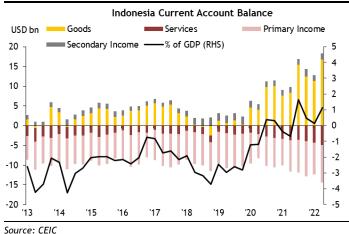
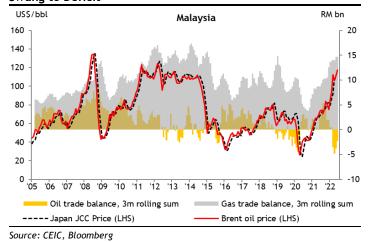


Fig 27: Malaysia - Gas Trade Surplus Widening, But Oil Trade Swung to Deficit



For <u>Indonesia</u>, high commodity prices have also kept the fiscal balance in a surplus (0.57% of GDP in 7M22), thanks to the +49% surge in revenue driven by both the commodity windfall and firming economic activities. In <u>Malaysia</u>, high oil prices will provide a boost to government revenue (see Fig 29) with Petronas expected to contribute as much as RM59bn (US\$13.3bn) in 2022 (vs. RM48.2bn in 2021), according to the minister for economy, Mustapa Mohamed⁶.

Fig 28: Indonesia - Tax Revenue Mainly Driven by Mining and Trade Sectors

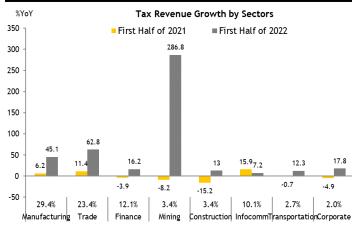
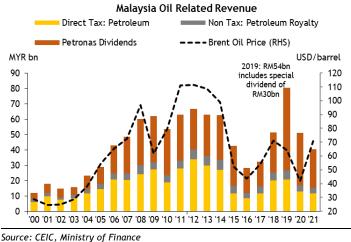


Fig 29: Malaysia - Petronas and Oil-Related Revenue Highly Correlated with Energy Prices



Source: Ministry of Finance

High food prices are also benefiting net food exporters in the region, including Myanmar (5.9% of GDP), Thailand (3.8%), Malaysia (2.5%) and Indonesia (2.3%) (see Table 5 & <u>ASEAN Economics - Soaring Food Prices: More an Opportunity than Crisis</u> in <u>ASEAN 17</u>, Jun 2022). Theiland, the <u>13th Jargest food exporter globally in</u>

<u>in ASEAN</u>, 17 Jun 2022). <u>Thailand</u>, the 13th largest food exporter globally, is benefiting from rising food demand and prices, with agriculture exports (+14.6%) extending its double-digit surge in July, helping to offset the weakening in industrial exports (+0.1%). Farm income soared by +16.3% in 2Q thanks to high agricultural prices, which has helped to drive the uptick in private consumption.

⁶ Reuters, "Petronas payout to Malaysia govt seen higher at 55-59 bln rgt this year", 22 Jul 2022.

Maybank

Table 5: ASEAN Food Exports and Imports, 2021

	Net Expor	ts of Food	Food Exports	Food Imports
	% of GDP	USD mn	USD mn	USD mn
Myanmar	5.9%	4,089	5,122	1,033
Thailand	3.8%	19,395	39,726	20,331
Malaysia	2.5%	9,473	28,399	18,926
Indonesia	2.3%	27,852	47,737	19,885
Vietnam	0.9%	3,296	25,467	22,171
Singapore	-0.7%	-2,857	8,749	11,606
Laos	-1.5%	-285	745	1,030
Philippines	-2.0%	-7,830	4,911	12,741
Cambodia	-2.7%	-700	1,820	2,520

Note: Food exports/imports generally refer to the sum of food & live animals and animal & vegetable oils, and excludes rubber. Data for Cambodia and Laos are 2020 data from the OEC. Source: CEIC, Observatory of Economic Complexity (OEC), compiled by Maybank IBG Research

[5] Less Aggressive Monetary Tightening & Rate Hike Cycle

Monetary policy tightening in most of ASEAN - except Singapore and the Philippines - has not been as aggressive as other emerging markets. Core inflation - which excludes energy and food prices - has not risen as sharply which has allowed the ASEAN central banks to be more measured in their interest rate hikes. The US Fed and BoE have hiked by +225bps and +150bps year-to-date respectively, and are not done yet with their hiking cycle (see Table 5).

Malaysia's BNM has hiked by +50bps so far, while Thailand's BoT and Indonesia's BI only started hiking by +25bps in their recent August meetings. Vietnam's SBV has yet to start raising policy rates, though it has maintained a conservative credit growth cap for this year.

The only exception is the Philippines' BSP, which has hiked +175bps so far to contain inflation (see <u>Philippines Economics - Another +50bps rate hike to 3.75%</u>, 18 Aug 2022). Singapore's short-term interest rates have also risen sharply on the back of higher US interest rates, with the 3-month SIBOR rising to 2.56 (as of 25 Aug) from 0.4% at the trough.

	2020	2021	1H22	2H22F	2022F	2023F
Indonesia	2.0	1.6	3.0	6.4	4.8	4.0
Malaysia	-1.1	2.5	2.5	4.3	3.4	4.1
Philippines	2.4	3.9	4.4	6.2	5.3	3.9
Singapore	-0.2	2.3	5.2	6.7	6.0	3.8
Thailand	-0.8	1.2	5.6	7.0	6.3	2.2
Vietnam	3.2	1.8	2.4	5.0	3.7	3.6
ASEAN-5 (excl. SG)	1.3	2.1	3.6	6.1	4.8	3.7
ASEAN-6	1.2	2.1	3.7	6.1	4.9	3.7

Table 6: ASEAN CPI to Pick Up Significantly in 2H 2022

Source: CEIC, Maybank IBG Research forecasts

Major Economies &		Ben	chmark Inter	est Rates, %	p.a.	
ASEAN-6	2019	2020	2021	Current	2022F	2023F
US	1.50-1.75	0.00-0.25	0.00-0.25	2.25-2.50	3.25-3.50	3.50-3.75
Eurozone	(0.50)	(0.50)	(0.50)	0	0.50	0.75-1.00
Japan	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	0.00
UK	0.75	0.10	0.25	1.75	2.25	2.75
China	3.25	2.95	2.95	2.75	2.75	2.75
Malaysia	3.00	1.75	1.75	2.25	2.50	3.00
Singapore	1.77	0.40	0.44	2.56	3.00	3.20
Indonesia	5.00	3.75	3.50	3.75	4.25	5.00
Thailand	1.25	0.50	0.50	0.75	1.25	1.75
Philippines	4.00	2.00	2.00	3.75	4.00	4.00
Vietnam	6.00	4.00	4.00	4.00	4.25	4.50

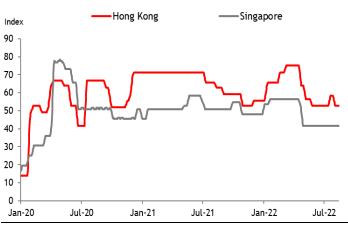
Table 7: US Fed-Led Global Monetary Policy Tightening

Note: Interest rate for China refers to 1-year MLF rate. Singapore's interest rate refers to 3M SIBOR. Source: CEIC (for 2019-2021 & Current), US Fed's FOMC (forecast for US), Consensus (forecasts for Eurozone, Japan, UK, China), Maybank IBG Research (forecasts for ASEAN-6

[6] Flows from Hong Kong & China

More expats and multinationals are exiting from Hong Kong because of strict Covid restrictions, US-China tensions and the imposition of the national security law in 2020 (see Figures 30 & 31 and Singapore Economics - A Bottleneck Economy, 4 Apr 2022). Singapore and, to a lesser extent, Malaysia and Thailand may benefit from the relocation of MNCs, talent and capital.

Fig 30: Hong Kong's Covid-19 Measures Consistently Stricter than Singapore Since July 2020



Note: A higher score indicates a stricter response (i.e. 100 = strictest response). Source: CEIC, Oxford Covid-19 Government Response Tracker

15

Hongkong Airport



Fig 31: Net Departures from Hong Kong Gathered Pace in 2022

Net Departure from Hong Kong (Weekly)

-Hongkong all border

Thousands

25

More family offices and wealth management firms are setting up shop in Singapore, with the number of new family offices doubling to 203 in 2020 and 453 in 2021, according to data from Handshakes⁷ (see Table 8). In particular, there has been a huge influx of wealth from China in recent years. New family offices from Greater China accounted for about 44% of new total family offices in the first 4 months of 2022, up from 19% in 2018. Singapore's assets under management has climbed to \$\$4.7tn in 2020, double the amount in 2014 (see Fig 32).

Note: Last datapoint as of 18 August. Source: Hong Kong Immigration Department

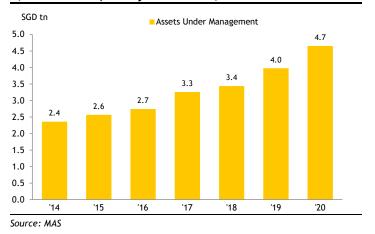
⁷ Business Times, "China's new rich drawn to Singapore", 23 May 2022.

August 26, 2022

Table 8: Family	Offices 8	£ Wealth	Flows	from	Greater	China	to
Singapore							

Year	Total number of new Fos	New FOs from Greater China	Proportion from Greater China (%)
2018	27	5	19%
2019	110	33	30%
2020	203	76	37%
2021	453	175	39%
4M 2022	143	63	44%

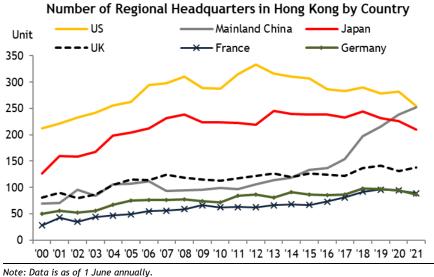
Fig 32: Singapore - Assets Under Management Climbed to S\$4.7tn in 2020, Nearly Double the \$2.4tn in 2014



Source: Business Times, Handshakes

Non-Chinese multinationals have been leaving Hong Kong for other cities, including Singapore, Sydney, Shanghai or Seoul. As of June 2021, the number of US companies with regional headquarters in Hong Kong fell to a 18-year low of 254 (from 282 in June 2020), according to the Hong Kong Census and Statistics Department (see Fig 33). Number of Japanese companies fell to 210 from 226 in 2020. Chinese firms with regional headquarters in Hong Kong, however, climbed to 252, a significant increase from 137 in 2016.





Note: Data is as of 1 June annually. Source: Hong Kong Census and Statistics Department

Stress and Vulnerabilities

ASEAN central banks have been stepping in to defend their currencies against a strong US dollar and have seen their foreign reserves falling from their highs (see Fig 34). In particular, Thailand's reserves plunged by -10.6% year-to-date to a 3-year low of US\$220bn in July, while Philippines (-9.9%), Indonesia (-8.8%), and Malaysia (-6.6%) have also seen declines.

11.0

10.0

9.0

8.0

7.0

6.0

5.0

4.0

MY 10Y Yield

-ID 10Y Yield (RHS)

Fig 34: Foreign Reserves Across ASEAN Have Fallen in 2022

Fig 35: ASEAN 10Y-Bond Yields Have Climbed in 2022 as US Yield Jumped

US 10Y Yield

TH 10Y Yield

Nominal rates (%)

2013 taper tantrums

5.0

4.5

4.0

3.5

3.0

2.5

2.0

1.5

1.0

0.5

12

'13

Source: Bloomberg

'14

'15

'16

'17

'18

8.0

-7.0

-16.4

5.2

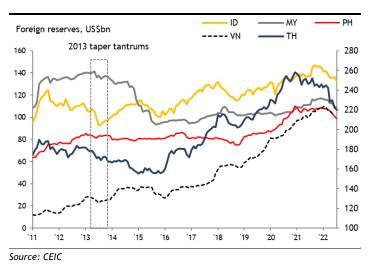
-1.7

'19

'20

21

'22



Rising bond yields will be negative for ASEAN countries with high public debt and debt servicing ratios, reducing fiscal space to respond to any impending downturn. Increased borrowings by ASEAN governments to finance the Covid-19 fiscal support packages have raised their public debt and debt servicing ratios. For instance, Indonesia's Budget 2023 draft is factoring in a weak currency (Rp14,750 against the USD) and high 10Y government bond yield (7.85%), which will add to the debt burden (see Indonesia Economics - Biting the Bullet: Fuel Price Hike, 24 Aug 2022).

Public debt has climbed the most in the Philippines (61.3% of GDP in 2Q22 from 42.9% in 2019), Thailand (61.1% of GDP in 2Q22 from 41.2% in 2019) and Malaysia (61% in 1Q22 from 52.5% in 2019) (see Table 9 & Fig 36). However, leverage in this region is relatively low compared to other emerging markets or advanced economies.

Table 9: Balance	e snee	ταιLe	evera	ge kat	105 IN	ASEA	N (AS	ian Cr	isis, G	lodal	Finan	icial C	risis,	Pre-Pa	ander		Curre	nt)		
As % of GDP		Indo	nesia			Mala	aysia			Philip	pines			Thai	land			Viet	nam	
AS /0 OF ODF	2Q97	4Q07	4Q19	Latest	2Q97	4Q07	4Q19	Latest	2Q97	4Q07	4Q19	Latest	2Q97	4Q07	4Q19	Latest	2Q97	4Q07	4Q19	Latest
Public Debt	72.5*	34.1	30.7	37.8	31.4	38.0	52.1	61.0	52.4	66.9	42.9	61.3	40.5^	37.4	41.2	61.1	-	-	55	43.1
Govt debt - Foreign	26.3**	14.4	11.3	4.3	3.1	2.9	1.9	1.8	23.3	30.8	14.8	19.7	8.8	3.0	0.8	0.7	-	-	47.1	38.4
External Debt	56.1	32.7	36.1	31.8	43.6	28.8	62.3	65.8	44.2	36.9	22.2	27.5	-	26.4	31.6	39.7	81.1	29.8	47.1	38.4
Household Debt	-	10.9	16.4	16.0	-	63.6	82.7	89.0	-	2.0	9.7	9.6	-	51.7	79.8	89.1	-	-	-	51
Domestic Credit	-	39.4	42.9	39.2	156	113	137	143	-	51.0	69.6	70.5	-	104.5	155	140	21.2	96.2	142	140
Foreign Bank Claims	26.2	15.5	16.3	14.8	35.3	56.9	48.3	46.0	21	20.7	12.9	11.4	42.9	19.5	33.6	37.5	-	21.6	25.5	25.0
*Corporate Debt	-	14.7	26.0	24.6	-	58.2	68.5	69.5	-	36.8	45.3	44.4	150.1	74.0	74.4	88.7	-	-	-	-

15.2 *Indonesia public/govt debt as at end 1997. **Indonesia foreign govt debt as at end 1996. ^ Thailand public debt as of 3Q97.

1.9

-6.5

For Vietnam, latest figures computed using newly-reevaluated GDP series that was released in 2021. 2Q97, 4Q07 and 4Q19 computed using old GDP series, as new GDP series only available from 2021.

-3.5

5.7

-0.3

-5.0

-7.0

9.4

1.0

Note: Malaysia household debt figures as at end of respective year. Indonesia and Philippines household debt estimated using outstanding consumer loans. Thailand household debt includes loans from commercial and state banks, credit card companies, saving corporations and other non-bank institutions. Vietnam, latest figures computed using the new GDP data that released in 2021, other data computed using old GDP series.

Corporate debt (refers to total credit to non-financial corporations, or core debt) as of 4Q21, foreign bank claims as of 1Q22.

Source: BIS, CEIC, World Bank, Maybank IBG estimates

-1.8

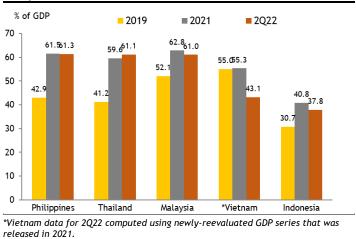
3.1

-2.8

1.1

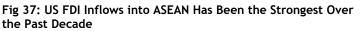
Current Account

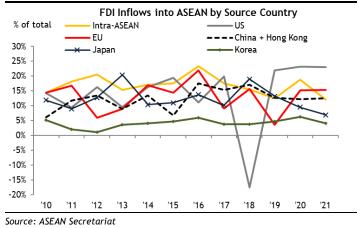
Source: CEIC



recession will dampen FDI flows into the region.

Fig 36: Public Debt Has Ballooned in Philippines, Thailand and Fig Malaysia Fig





The US is also the largest foreign investor in ASEAN, accounting for around 14.5% of total FDI inflows over the past decade (2012 to 2021), surpassing Japan (12.5%) and the EU (12.3%), based on data from the ASEAN Secretariat (see Fig 37). A US

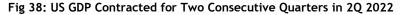
A US Recession Is Increasingly Probable

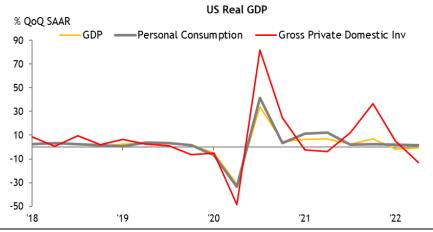
"(Recession is) certainly a possibility, it's not our intended outcome at all, it's certainly a possibility, and frankly the events of the last few months around the world have made it more difficult to achieve what we want, which is 2% inflation and still a strong labor market."

Fed Chair Jerome Powell addressing the Senate Banking, Housing, and Urban Affairs Committee, 22 June 2022.

With inflation elevated and the Fed tightening policy aggressively, the US economy will likely enter a recession over the next 12 months. The debate will shift to the depth and duration of a US recession and potential impact on the rest of the world, including ASEAN and Asia.

The US is already in a "technical recession", after real GDP contracted for the second consecutive quarter in 2Q 2022 (-0.6% QoQ SAAR vs. -1.6% in 1Q) (see Fig 38), due to slowing consumption growth and declining business investment.

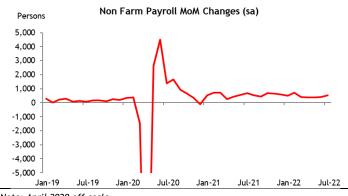




Source: Bureau of Economic Analysis

Nonetheless, the National Bureau of Economic Research (NBER) is unlikely to classify 2Q as the beginning of an official recession, due to the strong labor market. Employment and the unemployment rate have recovered to their February 2020 pre-pandemic levels. Non-farm payroll employment rose +528k in July, strengthening from +398k in Jun (see Fig 39). Unemployment rate declined to a historic low of 3.5% from 3.6% in June (see Fig 40).

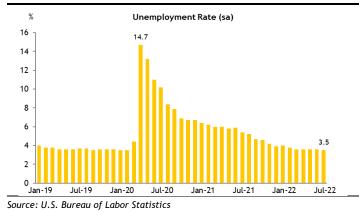




Note: April 2020 off-scale.

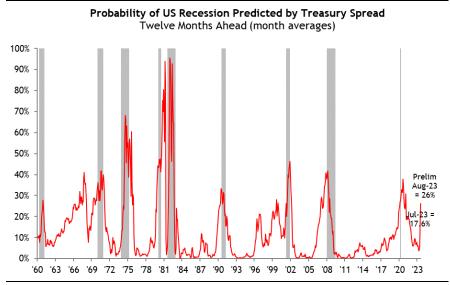
Source: U.S. Bureau of Labor Statistics

Fig 40: Unemployment Rate at Historic Low of 3.5% in July



Probability of US recession by August 2023 has climbed to 26%, based on the average term spread for August which has fallen to 0.18. In July, the average 10 year-3 month treasury spread ("term spread") shrank to 0.6 from 1.6 in June, due to the fall in 10 year treasury yield on growth fears. This has led the New York Fed's 12-month ahead Recession Probability Index to forecast a 17.6% probability of a US recession in July 2023 (see Fig 41), sharply higher than 5.9% in the preceding month.

Fig 41: New York Fed's Recession Probability Index Predicts 18% Likelihood of US Recession in July 2023, Our Preliminary Estimates Indicate Recession Probability Rose Further to 26% in Aug 2023



Note: We computed the Aug 2023 recession probability based on the average term spread over 1-Aug to 25-Aug. Recession probabilities for the preceding months are computed by NY Fed based on full-month average term spreads.

Shaded bars indicate past US recessions as classified by NBER. Recession Probability Index forecasts probability of US recession using the 10 year-3 month treasury spread as a predictor. Source: New York Fed, Maybank IBG Research calculations

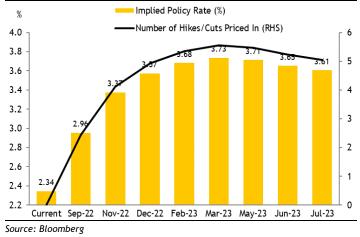
The Fed hopes to achieve a soft landing, slowing growth without causing a recession. However, 5 out the 9 US recessions since 1960 followed shortly after aggressive Fed tightening cycles (see Fig 44).

Our chief economist Suhaimi is looking at the Fed to tighten by another +100bps this year to 3.25%-3.50%, followed by another +25bps hike in 2023 to 3.50%-3.75%, before easing in 2024 to 2.75%-3.00%. The fed funds futures-implied fed funds rate (as of 24 Aug) by Dec 2022 is 3.57%, rising to a peak of 3.73% by Mar 2023, before easing to 3.61% by Jul 2023 (see Fig 42).

The Fed started its balance sheet reduction or Quantitative Tightening (QT 2.0) in April 2022, following the tapering and eventual ending of its Quantitative Easing in Nov 2021 to Mar 2022. The Fed began with monthly balance sheet runoff of US\$47.5bn (i.e. \$30bn for Treasuries and \$17.5bn for mortgage backed securities) until Sep 2022, before doubling the pace to \$95bn (i.e. \$60nb for Treasuries and \$35bn for mortgage-backed securities) afterwards (see <u>US FOMC Meeting - Pedal</u> to the Metal, 16 Jun 2022).

As at end July, Fed's balance sheet was at \$8.9tn (35% of GDP) (see Fig 43) and the mechanics of QT2.0 implies \$380bn reduction in balance sheet in Aug-Dec 2022 and \$1.14tn run off per annum thereafter. Fed Chairman Jerome Powell told US Congress in early Mar 2022 that QT2.0 could take three years. Based on the above monthly quantum of balance sheet run off, this implies a total of \$3.2tn reduction, implying Fed's balance sheet size will fall to \$5.7tn (20% of GDP) by mid-2025.

Fig 42: Fed Funds Futures (as of 24 Aug) Suggest that Fed Will Fig 43: US Fed's Balance Sheet (USD trillion & % of GDP) -Start Cutting Rates in 2Q 2023



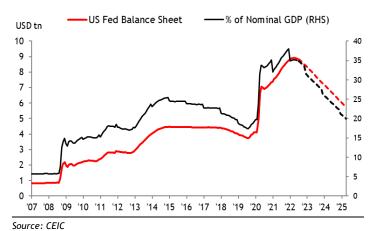
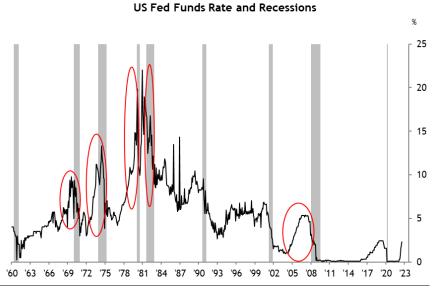


Fig 44: Five Out of Nine US Recessions Since 1960 Followed Shortly After Aggressive Fed Tightening Cycles



Note: Shaded bars indicate past US recessions as classified by NBER. Red circles indicate aggressive Fed tightening cycles.

Source: Federal Reserve, NBER, Maybank IBG Research

During past US recessions, a decline in inflation with the GDP slowdown translated to shedding of jobs and a rise in the unemployment rate. The unemployment-inflation "sacrifice ratio" (i.e. unemployment increase per unit decline in inflation) ranged from 0.5 to 28 for the series of US recessions from 1980 till 2020 (see Table 10).

Excluding the credit-driven recessions (2001 dot-com and GFC) and the pandemic-driven recession of 2020, the average sacrifice ratio was 1.2, implying that the US unemployment rate would need to hit 6.3% for trimmed mean personal consumption expenditure (PCE) inflation to reach the Fed's target of 2% (from 4.3% in June). This would be on par with the peak unemployment rate in June 2003 after the 2001 recession, but only a fraction of the 10% peak in the wake of GFC.

Recession	Inflation at Biz Cycle Peak	Inflation two-years later	Difference	Unemployment Rate at Biz Cycle Peak (%)	Unemployment Rate two-years later (%)	Difference (% point)	Sacrifice Ratio	GDP Decline (Peak to Trough %)
Mar-80	8.6	6.2	-2.4	6.3	9	2.7	1.1	-2.2
Jul-81	8.1	3.8	-4.3	7.2	9.4	2.2	0.5	-2.5
Jul-90	4	2.8	-1.2	5.5	7.7	2.2	1.8	-1.4
Mar-01	2.5	2	-0.5	4.3	5.7	1.4	2.8	-0.4
Dec-07	2.6	1.4	-1.2	5	9.9	4.9	4.1	-3.8
Feb-20*	2.1	1.7	-0.4	3.5	14.7	11.2	28.0	-10.1
2022	4.3^			3.5^				

Table 10: US Inflation and Unemployment During Past Recessions

Note: Inflation as measured by trimmed mean PCE inflation. First datapoint for trimmed mean series is 1978.

* Here instead of two years, we put the inflation trough reached in Feb 2021, and the unemployment peak reached in Apr 2020. ^ We assume that trimmed mean PCE inflation peaked at 4.3 in June 2022 and unemployment rate of

3.5% in July 2022 is the cycle low. Source: IIS Bureau of Labor Statistics Federal Reserve Bank of Dallas Maybank IBG Research

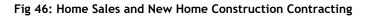
Source: U.S. Bureau of Labor Statistics, Federal Reserve Bank of Dallas, Maybank IBG Research calculations

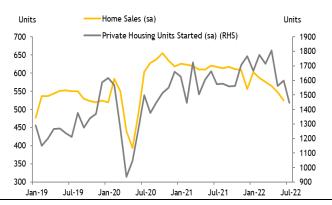
The impact from monetary policy tightening is already being felt in the interest rate-sensitive US housing market. The housing market has slowed as borrowing costs climb, with 30-year fixed mortgage rates climbing to 5.1% as of the week ending 18 Aug from 3.1% at the start of the year (see Fig 45). Home sales contracted -4.3% MoM in June, while new home construction in July as measured by annualized housing starts fell -9.6% MoM (see Fig 46). Median home prices dipped -0.5% MoM in June after 3 months of slowing price appreciation (see Fig 47), and are vulnerable to further declines as home-buying demand softens.

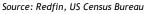
Fig 45: 30-Year Fixed Mortgage Rate Climbed to 5.1% from 3.1% in Early 2022



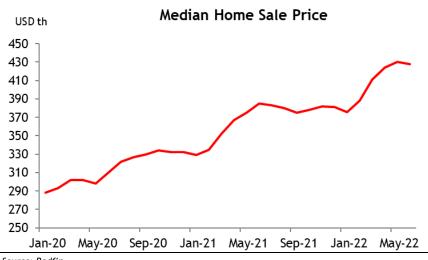
Source: Federal Home Loan Mortgage Corporation









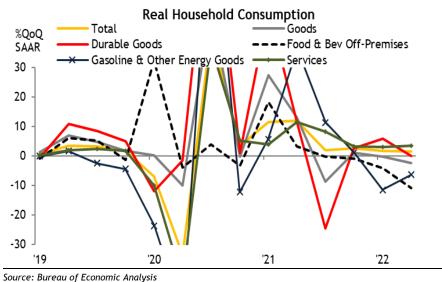


Source: Redfin

But the impact of rising rates has yet to be significantly felt in other segments of the economy, implying that further slowing of domestic demand is in store as policy tightening filters through.

The softening in real household consumption over the second quarter (+1.5% QoQ SAAR vs. +1.8% in 1Q) masked a +4.1% rise in services spending (1Q: +3%) due to pent-up demand for travel and restaurants (see Fig 48). Goods spending contracted -2.4% (1Q: -0.3%), but this was largely driven by food & beverage for consumption at home (-10.8% vs. -4.2% in 1Q) and gasoline & other energy goods (-6.4% vs. -11.5% in 1Q), an indication of belt tightening due to surging food and energy prices, rather than being caused by interest rate hikes. Durable goods consumption fell by a much slower pace of -0.1% (1Q: +5.9%).

Fig 48: Reopening Shifts: Services Consumption Picked Up While Goods Consumption Contracted



Median year-ahead nominal household spending growth expectations in the New York Fed's Survey of Consumer Expectations fell by -1.5% points to 6.9% in July, substantially below its series high of 9% in May.

Depth and Duration of the Next US Recession

"The labor market is now extremely strong... This is not an economy that's in recession. But we're in a period of transition in which growth is slowing and that's necessary and appropriate... Credit quality remains very strong. Household balance sheets are generally in good shape."

US Treasury Secretary Janet Yellen on NBC's Meet the Press, 24 July 2022.

The impending US recession is likely to be shallow rather than deep, cushioned by a strong labor market and robust household and business balance sheets.

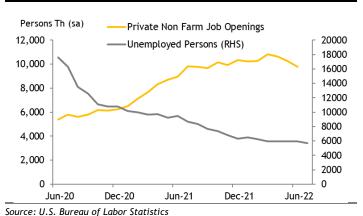
Given the shortage of workers, businesses may have some scope to moderate labor demand by reducing job openings while retaining most of their existing workers, mitigating the rise in unemployment. In June, there were 1.8 non-farm job openings per unemployed person, compared to 0.7 in June 2007 before the GFC hit, and 1.2 in Feb 2020 before the onset of the COVID-19 recession (see Fig 49).

This has already been happening as growth began to slow over the past few months. The job openings per unemployed ratio has fallen every month by a cumulative - 0.2 points from its peak of 2.0 in March. As of June, private job openings have fallen -9.7% from their record high in March, to hit the lowest since September 2021 (see Fig 50). At the same time, unemployment has continued to fall from 5.95 mil to 5.67 mil persons (-4.7%).

Fig 49: Job Openings Per Unemployed Are Higher Than Before Past Recessions



Fig 50: Job Openings Falling Alongside Unemployment Since March 2022



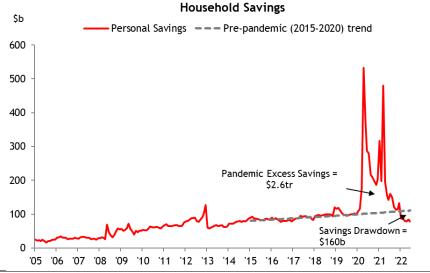
Sectors that hired aggressively during the pandemic have already begun to shed workers or impose hiring freezes. Tech companies like Amazon and Shopify have announced job cuts as the boom from businesses' digitalization efforts during the pandemic fades, while investment banks have reduced headcount as stock markets flounder and IPOs dry up. Mortgage staffers have been trimmed as refinancing volumes collapse with rising rates. Some retailers, such as Best Buy and Walmart are cutting jobs as consumers skip over big-ticket goods and work-from-home equipment purchases.

On the flipside, consumer services industries, which instituted mass layoffs during the pandemic, are eager to ramp up headcount as they face a shortage of workers. Airlines, restaurants and hospitality companies are unable to find workers fast enough to meet demand, partly because former employees have switched to other industries with less demanding work environments or retired early, and do not want to return.

Source: U.S. Bureau of Labor Statistics

Household balance sheets are in good shape to weather a recession. US households accumulated substantial savings over the pandemic as they were unable to spend on dining out, travel and other services, while benefiting from government handouts during the three substantial rounds of fiscal stimulus. By constructing a counterfactual savings level using the 2015-19 pre-pandemic trend, we estimated that households amassed \$2.6tn of excess savings (11.5% of 2021 GDP) over Mar 2020 to Dec 2021 (see Fig 51).





Source: Federal Reserve Bank of St. Louis, Maybank IBG Research calculations

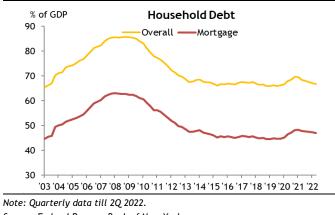
Over the first half of this year, households have dipped into around \$160bn (6%) of their savings pool to finance higher consumption in the face of higher inflation and pent-up demand (see Fig 52). The remaining stock of excess savings remains substantial at \$2.5tn, which could provide a buffer to foot rising living costs from elevated inflation and rising borrowing costs as the Fed hikes interest rates.

Consumers' borrowing costs look manageable. Household debt is around 67% of GDP as of 2Q 2022, significantly lower than 85% in 3Q 2007, shortly before the GFC (see Fig 53). The household debt servicing ratio, which measures debt payments during a given quarter as a proportion of quarterly disposable income, is close to a historic low at 9.5% in 1Q 2022, compared to 13% in 3Q 2007 (see Fig 14). The debt servicing ratio fell to a record low of 8.4% in 1Q 2021 as many households refinanced to cheaper fixed rate mortgages with borrowing costs at a record low over 2020-21.

Savings buffers and low leverage will not stop households from cutting back on spending in a recession amid heightened uncertainty and weak sentiment. But these buffers may cushion the consumption loss and allow the economy to avoid a deep and lasting recession, unlike after the GFC, when GDP took 3 years (peak-to-peak) to recover to its pre-crisis peak, partly because households were forced to reduce consumption to pay down debt and repair balance sheets.



Fig 52: Household Debt Significantly Lower than 2007



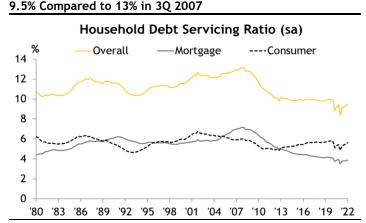


Fig 53: Household Debt Servicing Ratio Close to Historic Low at

Note: Quarterly data till 1Q 2022. Source: Federal Reserve Board

Corporate balance sheets are generally in a decent shape. Corporate indebtedness has risen over the past decade as companies took advantage of low borrowing costs amid the accommodative monetary policy environment post-GFC. Non-financial corporate debt stands at 78% of GDP in 1Q 2022 (vs. 68% of GDP in 3Q 2007) (see Fig 54). But reassuringly, debt has declined significantly from its 2Q 2020 peak of 91% of GDP. In 2021, companies reduced debt maturing this year by about 27% (-\$250b) by refinancing at lower rates and longer durations, making them less sensitive to rising interest rates⁸.

Despite higher debt, US corporates are in a better position to cover their debt obligations. The debt servicing ratio of non-financial corporations was at 40.1% as of 4Q 2021, lower than 43.4% in 3Q 2007 (see Fig 55). After the pandemic cash buildup, companies have significantly more cash on hand as compared to a decade ago (\$1.26tn in 1Q 2022 vs. \$591 bn in 4Q 2009), providing ample liquidity to buffer against lower earnings and higher borrowing costs (see Fig 56).

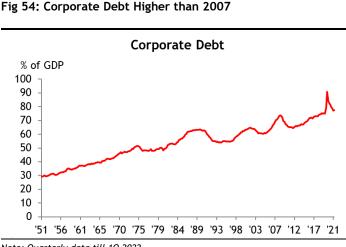
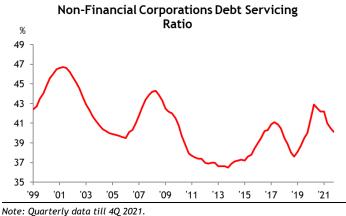


Fig 55: Non-Financial Corporations' Debt Servicing Ratio Lower Than 2007



With the easy credit environment, BBB-rated corporate bonds, the lowest investment grade represent a record 58% of the total investment grade bond market, compared to just 40% in 2007⁹. BBB- debt represent 16% of the market. Some market watchers believe that mass downgrades to junk status when a recession hits could exacerbate the impact on the bond market. However, not

Source: Federal Reserve Bank of New York

Note: Quarterly data till 1Q 2022. Source: Federal Reserve Board

Source: Bank for International Settlements

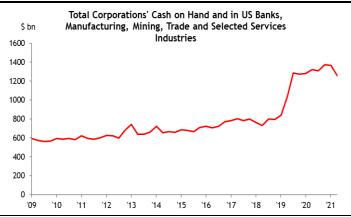
⁸ The Economist, "What America's next recession will look like", 1 Jun 2022.

⁹ Fitch Ratings, "Investment grade issuance continues despite rising interest rates", 25 May 2022

August 26, 2022

many companies are at risk of downgrades, which reduces the near-term risk to the bond market. Taking the example of Fitch Rating's 114 publicly-rated BBBissuances, only seven have a Negative Rating Outlook or are on Rating Watch Negative as of May 2022.

Fig 56: US Companies Have Significantly More Cash on Hand Fig 57: US Banks Are Much Better Capitalized Than 2007 Than in A Decade Earlier



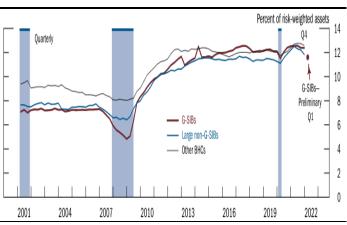
Note: Quarterly data till 1Q 2022. Refers to corporations in manufacturing, mining, wholesale trade, retail trade, information and all professional and technical services except legal services.

Source: U.S. Census Bureau's Quarterly Financial Report: U.S. Corporations

Note: Seasonally adjusted by Federal Reserve Board staff. G-SIBs are global systemically important U.S. banks. Large non-G-SIBs are BHCs and IHCs with greater than \$100bn in total assets that are not G-SIBs.

Source: Federal Reserve Board, Form FR Y-9C, Consolidated Financial Statements for Holding Companies

The financial system has become more resilient to stresses that would accompany a recession, owing to more stringent regulatory standards imposed in the wake of the GFC. US banks are well-capitalized, with holding core lossabsorbing equity worth around 12% of total risk-weighted assets as of 4Q 2021, a much higher margin of safety compared to around 8% in 2007 (see Fig 57). Recently-concluded Fed stress tests suggested that participating banks are capable of absorbing losses from a severe recession while maintaining capital ratios above regulatory minimums¹⁰.



¹⁰ Referenced from Minutes of Federal Open Market Committee's July 26-27 meeting, released 17 Aug 2022.

Inflation May Be Slow to Moderate

"The world is not likely to return anytime soon to the low inflation levels and interest rates that we have enjoyed in recent decades"

Excerpt from Singapore Prime Minister Lee Hsien Loong's National Day Message 2022, 8 Aug 2022.

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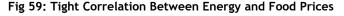
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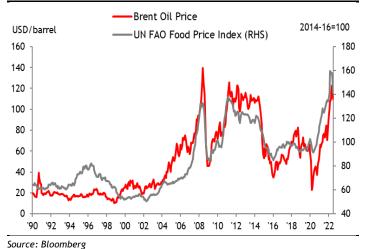
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Inflation may have peaked or are close to peaking, with cooling energy and food prices. WTI crude oil futures prices have moderated on global growth concerns since peaking in June. The UN FAO Food Price Index fell to a 6-month low in July after peaking in March (see Fig 58). Slowing global growth and stabilizing energy prices will help keep food prices in check, given the tight correlation between energy and food prices (+0.88 between Jan 1990 and May 2022) (see Fig 59 and <u>ASEAN Economics - Soaring Food Prices: More an Opportunity than Crisis in ASEAN</u>, 17 Jun 2022).









Source: UN Food & Agriculture Organization

130

120

110

100

90

Retailer markdowns to clear excess inventory may be another source of disinflation. Retailer inventories have risen steadily since Oct 2021 as sales slow and supply chain delays ease, to a record high of \$723b (+18.4% from Oct 2021) in June 2022 (see Fig 60). Walmart, Target and Gap have announced plans for more markdowns¹¹.

'21

Consumers' long-term inflation expectations remain stable, reducing the risk of a persistent upward spiral that will be more difficult for the Fed to tackle. According to the University of Michigan's Consumer Sentiment Index, median expected inflation over the next 5 years stands at 3% per annum as of Aug 2022, within the 2.9-3.1% range seen over the past twelve months (see Fig 61). Though inflation expectations are higher than pre-pandemic levels of around 2.5%, they are nowhere near the beginning of the Volcker era. Inflation 5-year ahead expectations climbed from 7.2% in early 1979 to a peak of 9.7% a year later, as trimmed-mean PCE inflation rose from 7.2% to 8.4%.

¹¹ CNBC, "People are paying more for clothes even as retailers like Walmart and Gap mark down prices to cut inventory", 13 July 2022.

Fig 60: Retailer Inventories Building Up

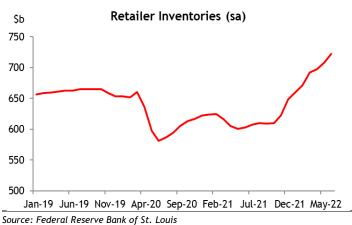
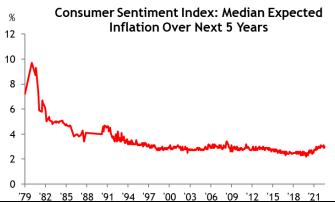


Fig 61: 5-Year Ahead Inflation Expectations Have Risen But Remain Nowhere Near Beginning of Volcker Era



Note: Survey question was "By about what percent per year do you expect prices to go up or down, on the average, during the next 5 to 10 years?" Source: University of Michigan

But inflation may be slow to moderate to the Fed's target. By separating the PCE price index into supply- and demand-driven categories, a June 2022 San Francisco Fed study¹² found that supply factors are responsible for about half of the difference between June 2022 12-month headline PCE inflation and pre-pandemic inflation levels (see Fig 62). Demand drivers account for only around one-third of the run-up in inflation, with the remainder resulting from ambiguous factors that can neither be labeled as demand nor supply.

Fig 62: US - Supply Factors Explain About Half of the Run-Up in **Current Inflation Levels**

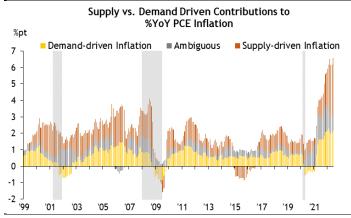


Fig 63: Global Supply Chain Pressures Have Eased But Not Fully Dissipated



These findings imply that inflationary pressures will not subside entirely with Fed tightening, because monetary policy can only influence demand. The path of inflation will be dependent on how quickly global supply chain disruptions and labor shortages can be resolved.

Supply chain pressures are easing as goods demand moderates and logistics facilities catch up, but remain elevated relative to pre-disruption levels. The New York Fed's Global Supply Chain Pressure Index (GSCPI) indicated that supply chain stresses continued to decline in July for the third consecutive month, down -57% from its Dec 2021 peak (see Fig 63). However, the index remains higher than early last year and much higher than pre-pandemic levels, at 1.8 standard deviations above the average value. Average shipping container freight rates from Shanghai to US have declined -42% from their Sep 2021 peaks (see Fig 64), but remain +75% above end-2020 levels.

Note: Grev shaded areas indicate NBER recession dates. Source: Federal Reserve Bank of San Francisco

¹² Shapiro, Adam Hale, "How Much Do Supply and Demand Drive Inflation?", Federal Reserve Bank of San Francisco (21 Jun 2022).

The Empire State Manufacturing Survey of manufacturers in New York State revealed that delivery times held steady in August for the first time after worsening every month for nearly two years (see Fig 65). About 19.1% of firms reported shorter delivery times compared to the previous month against 18.2% of firms reporting lengthier delivery times. It's important to note though that this does not mean that delivery times have returned to pre-pandemic levels, remaining elevated compared to before.

Fig 64: Container Freight Rates Have Declined But Remain Elevated Compared to End-2020

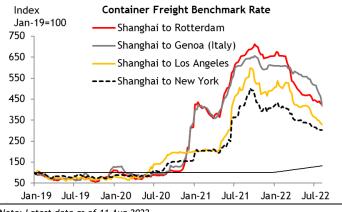
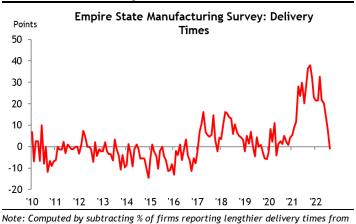


Fig 65: Empire State Delivery Times Held Steady in August After Two Years of Worsening



Note: Latest data as of 11 Aug 2022

Source: Bloomberg

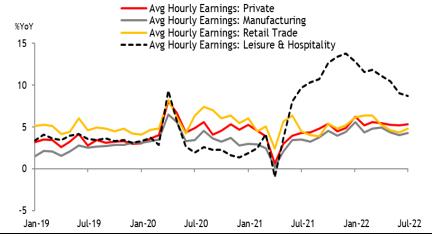
% of firms reporting shorter delivery times

Source: New York Fed

There remain a number of factors that may hold back a complete normalization of supply chains, such as the Russia-Ukraine War, factory disruptions induced by renewed COVID-19 outbreaks in China, a flare-up of US-China geopolitical tensions and year-end holiday shipping pressures.

Accelerating wage growth since mid-2021 has contributed to services inflation. Growth in private average hourly earnings shows little sign of cooling, having risen between 5% - 5.5% YoY each month since its series high of +6.2% in January 2022 (see Fig 66).

Fig 66: Overall Wage Growth Shows Little Sign of Cooling



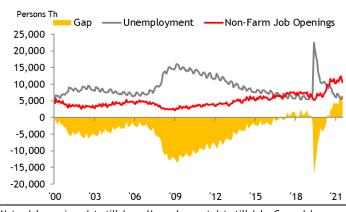
Source: U.S. Bureau of Labor Statistics

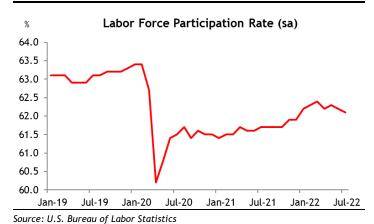
The tight labor market has put upward pressure on wages. With widespread temporary business closures at the height of the pandemic, more than 30 million US workers lost their jobs. As businesses ramped up hiring with reopening, the number of job openings rose sharply from the start of 2021, surpassing the number of unemployed workers in June last year. As of June this year, there are 10.6 million job openings, but only 6.3 million unemployed persons, implying that

businesses face a shortage of around 4.3 million workers, only slightly below the record high shortage of 6.9 million workers in April 2022 (see Fig 67).

Departures of unemployed workers from the labor force during the pandemic has contributed to the labor crunch. The labor force participation rate (LFPR) plunged to 60% in April 2020, a level last seen in 1973, from 63.3% just two months earlier (see Fig 68). LFPR has been on a rising trend since the beginning of 2021 as the job market improved, but remains below pre-pandemic levels, at 62.6% in July 2022. By our estimates, there would be 1.9 million more workers in July if LFPR was the same as in February 2020.

Fig 67: Businesses Face Shortage of 4.3 mil Workers as of June





Note: Job openings data till June. Unemployment data till July. Gap = Job openings minus unemployment.

Source: Federal Reserve Bank of St. Louis, Maybank IBG Research calculations

Workers left the labor force due to a variety of factors such as enhanced unemployment benefits, stimulus checks, lack of access to reliable childcare due to pandemic closures, early retirements or to open their own businesses¹³.

A balanced labor market will be required for wage growth to significantly cool. However, it will not be easy to balance demand and supply, given the high degree of tightness. Even if LFPR was equivalent to February 2020, businesses would need to reduce their demand for workers by 2.4 mil (4.3 mil – 1.9 mil), or 1.5% of the labor force to balance the job market.

The gap between the Congressional Budget Office's estimate of the "natural" (noncyclical) rate of unemployment (NAIRU)¹⁴ and the actual unemployment rate is the most commonly used measure of US labor market slack. Plotting this gap against nominal wage growth since 2007, we observe that periods of slack are associated with declining or constant wage growth (with a lag), while periods of tightness (2017 - 2019 and 2021 - present) imply accelerating wage growth¹⁵(see Fig 69).

The chart implies that the unemployment rate will need to rise +0.9% point from the current level to hit the current NAIRU estimate of 4.4%, in order for job market tightness to dissipate fully. The average elasticity of change in wage growth per unit change in slack is 0.3, suggesting that roughly 5.5% point increase in labor market slack is needed for wage growth to reach its 1Q 2020 level of 3.6% (from 5.3% currently). Mathematically¹⁶, this would require the unemployment rate to

Fig 68: Labor Force Participation Rate Remains Below Pre-Pandemic Levels

¹³ US Chamber, "Understanding America's Labor Shortage", 5 Aug 2022.

¹⁴ NAIRU is an estimate of conditions that would prevail in the labor market if the effects of the business cycle were removed.

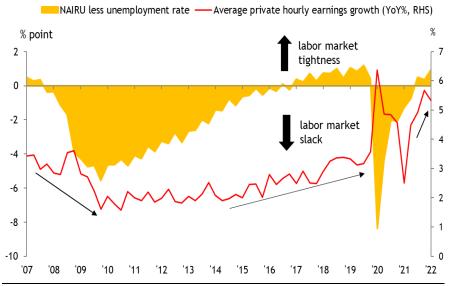
¹⁵ In 2Q2020, nominal wage growth rose alongside increasing labor market slack, because millions of relatively low paid workers lost their jobs, while relatively high salaried workers remained employed.

 $^{^{16}}$ This solution is obtained by simply multiplying the average elasticity of 0.3 by the August 26, 2022

hit 9% (i.e. today's rate of 3.5% + 5.5%), illustrating the high degree to which demand would need to cool, in order to bring down wage inflation.

This exercise serves to illustrate that elevated wage growth may be hard to tame to pre-pandemic levels. A rise in the unemployment rate to 9% is not our base case. Our base case as mentioned above is a moderate rise in unemployment accompanied by a shallow recession.





Note: Quarterly data till 2Q 2022.

All in, supply chain stresses and wage pressures may be slow to dissipate, meaning that inflation may stay well above the Fed's 2% target for an extended period even as the economy slows, raising the risk of stagflation.

Elevated inflation will make for a slower recovery from recession, by constraining policy responses. The Fed may not have appetite to ease policy much, for fear of worsening inflation. Fiscal policy may not be able to do the heavy lifting for the same reason, given that multiple rounds of stimulus over the past two years is perceived to have exacerbated inflationary pressures. In addition, political gridlock may be a constraining factor if Republicans win Congress in the November midterm elections.

Source: U.S. Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, Maybank IBG Research calculations

difference between current wage growth and 1Q 2020 wage growth to get the required increase in unemployment, and does not consider other technicalities which would be difficult to quantify, like the dampening effect of this year's high base on next year's growth.

Appendix: Summary Tables

Table 11: Indonesia - Key Macroeconomic Indicators

	2018	2019	2020	2021	2022E	2023E
Real GDP (%)	5.2	5.0	(2.1)	3.7	5.1	5.2
Private Consumption (%)	5.1	5.0	(2.6)	2.0	5.4	5.5
Government Consumption (%)	4.8	3.3	1.9	4.2	(4.1)	1.3
Gross Fixed Capital Formation (%)	6.7	4.5	(4.9)	3.8	4.0	7.5
Exports of Goods & Services (%)	6.5	(0.9)	(7.7)	24.0	11.3	6.0
Imports of Goods & Services (%)	12.1	(7.4)	(14.7)	23.3	11.1	8.9
Current Account Balance (% of GDP)	(2.9)	(2.7)	(0.4)	0.3	0.1	(1.5)
Fiscal Balance (% of GDP)	(1.8)	(2.2)	(6.1)	(4.7)	(3.5)	(3.0)
Inflation Rate (%, period average)	3.2	2.8	2.0	1.6	4.8	4.0
Unemployment Rate (%, period average)	5.2	5.1	6.0	6.4	5.5	5.3
Exchange Rate (per USD, end-period)	14,390	13,866	14,050	14,253	14,500	14,100
10-Year Government Bond Yield (%, end-period)	7.98	7.04	5.86	6.36	7.00	6.50
Benchmark Interest Rate (% p.a., end-period)	6.00	5.00	3.75	3.50	4.25	4.75

Source: CEIC, Maybank IBG Research

Table 12: Malaysia - Key Macroeconomic Indicators

	2018	2019	2020	2021	2022E	2023E
Real GDP (%)	4.8	4.4	(5.6)	3.1	6.0	4.0
Private Consumption (%)	8.0	7.7	(4.3)	1.9	7.5	5.9
Government Consumption (%)	3.4	1.8	3.9	6.6	4.1	2.3
Gross Fixed Capital Formation (%)	1.4	(2.1)	(14.5)	(0.9)	4.2	4.3
Exports of Goods & Services (%)	1.9	(1.0)	(8.9)	15.9	10.1	5.0
Imports of Goods & Services (%)	1.5	(2.4)	(8.4)	18.5	10.8	5.5
Current Account Balance (% of GDP)	2.3	3.4	4.4	3.5	1.3	2.5
Fiscal Balance (% of GDP)	(3.7)	(3.4)	(6.2)	(6.5)	(6.0)	(5.0)
Inflation Rate (%, average)	1.0	0.7	(1.2)	2.5	3.4	4.1
Unemployment Rate (%)	3.3	3.3	4.5	4.6	3.8	3.5
Exchange Rate (per USD, end-period)	4.14	4.09	4.02	4.17	4.40	4.20
10-Year Government Bond Yield (%, end-period)	4.08	3.31	2.65	3.59	3.65	3.80
Benchmark Interest Rate (% p.a., end-period)	3.25	3.00	1.75	1.75	2.50	3.00

Source: CEIC, Maybank IBG Research

Table 13: Philippines - Key Macroeconomic Indicators

	2018	2019	2020	2021	2022E	2023E
Real GDP (%)	6.2	6.1	(9.6)	5.7	6.5	5.2
Private Consumption (%)	5.6	5.9	(7.9)	4.2	7.6	5.7
Government Consumption (%)	13.0	9.1	10.5	7.1	7.8	5.6
Gross Fixed Capital Formation (%)	12.9	3.9	(27.5)	9.9	11.6	10.0
Exports of Goods & Services (%)	11.5	2.6	(16.3)	8.0	6.8	6.4
Imports of Goods & Services (%)	16.0	2.3	(21.6)	13.0	13.8	9.8
Current Account Balance (% of GDP)	(2.5)	(0.9)	3.3	(1.7)	(3.5)	(2.8)
Fiscal Balance (% of GDP)	(3.1)	(3.3)	(7.6)	(8.6)	(7.5)	(6.0)
Inflation Rate (%, period average)	5.2	2.4	2.4	3.9	5.3	3.9
Unemployment Rate (%, period average)	5.3	5.1	10.4	7.8	5.5	5.3
Exchange Rate (per USD, end-period)	52.6	50.7	48.0	51.0	54.0	52.0
10-Year Government Bond Yield (%, end-period)	7.01	4.34	2.87	4.69	5.00	5.00
Benchmark Interest Rate (% p.a., end-period)	4.75	4.00	2.00	2.00	4.00	4.00

Source: CEIC, Maybank IBG Research

Table 14: Singapore - Key Macroeconomic Indicators

	2018	2019	2020	2021	2022E	2023E
Real GDP (%)	3.7	1.1	(4.1)	7.6	2.8	1.5
Private Consumption (%)	4.0	3.2	(12.9)	4.5	7.5	2.4
Government Consumption (%)	3.0	3.4	13.3	4.5	0.5	3.0
Gross Fixed Capital Formation (%)	(5.1)	1.7	(14.2)	19.6	2.3	3.1
Exports of Goods & Services (%)	7.6	0.3	(0.2)	6.8	3.6	2.4
Imports of Goods & Services (%)	7.2	0.1	(2.3)	7.6	4.4	3.0
Current Account Balance (% of GDP)	15.1	14.5	16.8	18.1	17.0	17.0
Fiscal Balance (% of GDP)	0.7	(0.3)	(10.9)	(0.9)	(0.5)	1.0
Inflation Rate (%)	0.4	0.6	(0.2)	2.3	6.0	3.8
Unemployment Rate (%)	2.1	2.3	3.0	2.7	2.1	2.1
Exchange Rate (per USD, end-period)	1.36	1.35	1.32	1.35	1.36	1.33
10-Year Government Bond Yield (%, end-period)	2.03	1.73	0.83	1.64	2.50	2.00
3M SIBOR (% p.a., end-period)	1.89	1.77	0.41	0.44	3.00	3.20

Source: CEIC, Maybank IBG Research

Table 15: Thailand - Key Macroeconomic Indicators

	2018	2019	2020	2021	2022E	2023E
Real GDP (%)	4.2	2.2	(6.2)	1.5	3.2	3.8
Private Consumption (%)	4.6	4.0	(1.0)	0.3	5.5	3.7
Government Consumption (%)	2.7	1.6	1.4	3.2	3.0	0.8
Gross Fixed Capital Formation (%)	3.9	2.0	(4.8)	3.4	2.1	3.0
Exports of Goods & Services (%)	3.4	(3.0)	(19.7)	10.4	9.0	7.2
Imports of Goods & Services (%)	8.3	(5.2)	(14.1)	17.9	4.6	6.0
Current Account Balance (% of GDP)	5.6	7.0	4.2	(2.2)	(2.2)	2.0
Fiscal Balance (% of GDP)	(3.0)	(3.0)	(5.2)	(4.8)	(4.3)	(3.8)
Inflation Rate (%)	1.1	0.7	-0.8	1.2	6.3	2.2
Unemployment Rate (%)	1.1	1.0	1.7	1.9	1.4	1.2
Exchange Rate (per USD, end-period)	32.3	30.0	30.0	33.4	35.1	34.0
10-Year Government Bond Yield (%, end-period)	2.48	1.47	1.32	1.89	2.75	2.75
Benchmark Interest Rate (% p.a., end-period)	1.75	1.25	0.50	0.50	1.25	1.50

Source: CEIC, Maybank IBG Research

Table 16: Vietnam - Key Macroeconomic Indicators

	2018	2019	2020	2021	2022E	2023E
Real GDP (%)	7.1	7.0	2.9	2.6	6.9	6.4
Private Consumption (%)	7.3	7.4	0.5	1.9	6.8	6.5
Government Consumption (%)	6.3	5.8	6.2	5.0	5.6	5.0
Gross Fixed Capital Formation (%)	8.7	8.3	4.1	4.0	8.5	8.5
Exports of Goods & Services (%)	14.3	6.7	5.0	14.0	9.5	7.0
Imports of Goods & Services (%)	12.8	9.5	3.4	16.2	9.5	7.2
*Current Account Balance (% of GDP)	2.4	4.6	5.6	(1.1)	0.7	1.2
*Fiscal Balance (% of GDP)	(2.8)	(2.7)	(4.5)	(4.1)	(4.0)	(3.8)
Inflation Rate (%)	3.5	2.8	3.2	1.8	3.7	3.6
Unemployment Rate (%)	2.2	2.2	2.6	3.1	2.3	2.2
Exchange Rate (per USD, end-period)	23,175	23,173	23,098	22,826	22,900	22,500
10-Year Government Bond Yield (%, end-period)	5.15	3.56	2.61	2.18	3.50	4.00
Benchmark Interest Rate (% p.a., end-period)	6.25	6.00	4.00	4.00	4.25	4.50

*Vietnam started using new nominal GDP series in 2021.

Source: CEIC, Maybank IBG Research

Table 17: Cambodia - Key Macroeconomic Indicators

	2018	2019	2020	2021E	2022E	2023E
Real GDP (%)	7.5	7.1	(3.1)	3.0	4.4	6.0
Private Consumption (%)	4.6	5.5	(4.3)	3.9	3.6	5.2
Government Consumption (%)	6.5	5.8	13.0	13.0	5.8	5.5
Gross Fixed Capital Formation (%)	6.1	6.9	(2.7)	6.1	5.8	7.0
Exports of Goods & Services (in USD terms, %)	5.3	7.8	(10.3)	7.2	10.0	8.7
Imports of Goods & Services (in USD terms, %)	4.1	6.0	(9.5)	9.0	8.9	8.1
Current Account Balance (% of GDP)	(11.8)	(15.0)	(8.2)	(43.7)	(20.4)	(15.3)
Fiscal Balance (% of GDP)	0.7	2.3	(4.0)	(6.4)	(6.6)	(6.2)
Inflation Rate (%)	2.5	1.9	2.9	2.9	5.0	3.5
Unemployment Rate (%)	0.1	0.1	0.3	0.6	0.5	0.4
Exchange Rate (per USD, end-period)	4,040	4,070	4,046	4,074	4,040	4,020
*Benchmark Interest Rate (% p.a., end-period)	3.00	3.00	2.50	2.50	2.75	3.00

* Refers to one-year interest rate applied under Liquidity-Providing Collateralized Operation (LPCO) mechanism.

Note: 2020 values for real GDP growth, current account balance, inflation rate, exchange rate and

policy rate are actual.

Source: CEIC, Maybank IBG Research

Table 18: Myanmar - Key Macroeconomic Indicators

	FY17/18	FY18/19	FY19/20	FY20/21E	FY21/22E	FY22/23E
Real GDP (%)	6.8	6.8	3.2	(18.0)	(0.0)	2.0
*Consumption (%)	4.3	1.5	4.5	(21.8)	2.4	2.7
Gross Fixed Capital Formation (%)	6.6	2.6	(0.5)	(15.5)	(5.0)	1.5
Exports of Goods & Services (in USD terms, %)	19.0	11.3	(4.0)	(10.5)	2.0	3.4
Imports of Goods & Services (in USD terms, %)	9.4	(7.7)	(3.5)	(18.0)	3.0	5.0
Current Account Balance (% of GDP)	(5.7)	(0.2)	(2.5)	(1.8)	(1.1)	(0.8)
Fiscal Balance (% of GDP)	(2.7)	(3.6)	(6.2)	(7.8)	(6.9)	(6.3)
Inflation Rate (%)	4.0	8.6	5.7	3.6	14.0	9.0
Unemployment Rate (%)	1.6	1.5	0.5	1.8	3.5	3.0
Exchange Rate (per USD, end-period)	1,331	1,532	1,325	1,780	2,000	1,920
^Benchmark Interest Rate (% p.a., end-period)	10.00	10.00	7.00	7.00	7.25	7.50

Note: Underlying months that constitute a fiscal year were changed in 2018 and 2022. Fiscal year is from April 1 to March 31, up to FY 2017/18. From FY 2018/19 to FY 2020/2021, the fiscal year is from

October 1 to September 30. FY19/20 values for inflation rate, exchange rate & benchmark interest rate

are actual. From FY 2021/2022, the fiscal year was changed back to April 1 to March 31.

* Myanmar does not provide breakdown of private & government consumption.

^ Refers to Central Bank of Myanmar (CBM) Central Bank Rate

Source: CEIC, Maybank IBG Research

Table 19: Laos - Key Macroeconomic Indicators

	2018	2019	2020	2021E	2022E	2023E
Real GDP (%)	6.2	5.5	0.5	2.1	3.4	3.3
*Agriculture (%)	1.3	1.2	3.2	2.5	1.5	1.5
*Industry (%)	7.8	5.6	4.0	2.2	5.0	4.0
*Services (%)	6.8	6.9	(3.5)	2.0	3.0	3.7
Current Account Balance (% of GDP)	(9.1)	(7.0)	(1.2)	1.9	(6.0)	(6.5)
Fiscal Balance (% of GDP)	(4.7)	(3.2)	(5.2)	(1.4)	(5.2)	(4.8)
Inflation Rate (%)	2.0	3.3	5.1	3.8	16.0	5.0
Unemployment Rate (%)	0.8	0.9	1.0	1.3	1.2	1.1
Exchange Rate (per USD, end-period)	8,545	8,885	9,300	11,197	14,500	13,000
^Benchmark Interest Rate (% p.a., end-period)	4.00	4.00	3.00	3.00	3.25	3.50

* Laos' real GDP data is provided with breakdown by industry. Data series on breakdown of real GDP by

expenditure components was discontinued since 2017.

^ Refers to Bank of Lao PDR (BOL) Short-Term Lending Rate for < 1 Week

Source: CEIC, Maybank IBG Research

Performance and Valuation Summary

Equity performance by Country (in local currency terms)

								urrency)		
Name	Index level	FX rate	-1w	-1m	-3m	-6m	-1y	MTD	QTD	YTD
MSCI All Country World	643		(2)	4	5	(9)	(13)	1	(1)	(15)
MSCI Emerging Market	1,003		(1)	2	(1)	(11)	(21)	1	(6)	(19)
MSCI Asia Pac (inc Japan)	160		(1)	1	1	(11)	(19)	(1)	(5)	(17)
MSCI Asia Pac (ex Japan)	523		(1)	1	(1)	(10)	(20)	(0)	(6)	(17)
MSCI Asia x JP	642		(1)	0	(3)	(10)	(22)	0	(6)	(19)
MSCI Far East (ex Japan)	571		(0)	(1)	(5)	(11)	(25)	(0)	(8)	(21)
MSCI ASEAN	645		(1)	4	3	(9)	(8)	1	(4)	(8)
MSCI Emerging Asia	537		(1)	0	(3)	(10)	(22)	0	(6)	(19)
MSCI EM Latin America	2,243		1	11	9	(16)	(9)	6	(8)	5
MSCI EMMEA	206		(1)	4	5	(12)	(26)	1	(4)	(25)
MSCI Frontier	535		(1)	4	4	(12)	(19)	2	(3)	(20)
MSCI Asia x JP Small Cap	1,176		(1)	2	2	(12)	(17)	1	(7)	(19)
China - Shanghai Composite	3,246	6.9	(1)	(0)	(3)	1	(8)	(0)	2	(11)
China - H-shares	6,849	7.8	2	(3)	(10)	(6)	(25)	(0)	(7)	(17)
Hong Kong - HSI	19,968	7.8	1	(3)	(8)	(7)	(22)	(1)	(6)	(15)
Taiwan - TAIEX	15,200	30.2	(1)	2	(1)	(14)	(11)	1	(9)	(17)
Korea - KOSPI	2,477	1,335.2	(1)	3	5	(9)	(21)	1	(8)	(17)
Singapore - STI	3,248	1.4	(1)	2	4	(5)	5	0	0	4
Malaysia - KLCI	1,495	4.5	(1)	2	4	(7)	(5)	(0)	(4)	(5)
Thailand - SET	1,644	35.8	0	5	5	(2)	3	3	(1)	(1)
Indonesia - JCI	7,174	14,822.5	(0)	5	2	2	17	3	0	9
Philippines - PSEi	6,706	56.0	(2)	8	8	(6)	(2)	6	(0)	(6)
India - Sensex	58,775	79.9	(3)	5	11	2	5	1	6	1
Vietnam - Ho Chi Minh	1,289	23,428.0	1	8	9	(14)	(2)	5	(1)	(14)
Australia ASX 200	7,048	1.4	(1)	4	7	(5)	(6)	1	(3)	(5)
New Zealand - NZX50	11,627	1.6	(2)	4	8	(4)	(12)	1	2	(11)
Japan - Nikkei 225	28,479	136.7	(2)	3	8	1	3	2	4	(1)
Japan - TOPIX	1,977	136.7	(1)	2	6	(0)	2	1	2	(1)
S&P 500	4,199	1.0	(2)	6	7	(8)	(7)	2	2	(12)
Russell 2000	1,965	1.0	(2)	8	11	(5)	(12)	4	6	(13)
FTSE 100	7,480	0.8	(1)	2	4	(0)	5	1	(1)	1
Euro Stoxx	3,675	1.0	(3)	2	4	(5)	(12)	(1)	(2)	(15)

Source: Maybank IBG Research, Factset, MSCI, data as of 25 August 2022

Equity performance by Country (in USD terms)

		Absolute performance (USD)								
Name	Index level	FX rate	-1w	-1m	-3m	-6m	-1y	MTD	QTD	YTD
MSCI All Country World	643		(2)	4	5	(9)	(13)	1	(1)	(15)
MSCI Emerging Market	1,003		(1)	2	(1)	(11)	(21)	1	(6)	(19)
MSCI Asia Pac (inc Japan)	160		(1)	1	1	(11)	(19)	(1)	(5)	(17)
MSCI Asia Pac (ex Japan)	523		(1)	1	(1)	(10)	(20)	(0)	(6)	(17)
MSCI Asia x JP	642		(1)	0	(3)	(10)	(22)	0	(6)	(19)
MSCI Far East (ex Japan)	571		(0)	(1)	(5)	(11)	(25)	(0)	(8)	(21)
MSCI ASEAN	645		(1)	4	3	(9)	(8)	1	(4)	(8)
MSCI Emerging Asia	537		(1)	0	(3)	(10)	(22)	0	(6)	(19)
MSCI EM Latin America	2,243		1	11	9	(16)	(9)	6	(8)	5
MSCI EMMEA	206		(1)	4	5	(12)	(26)	1	(4)	(25)
MSCI Frontie	535		(1)	4	4	(12)	(19)	2	(3)	(20)
MSCI Asia x JP Small Cap	1,176		(1)	2	2	(12)	(17)	1	(7)	(19)
China - Shanghai Composite	3,246	6.9	(2)	(2)	(5)	(6)	(13)	(2)	(0)	(17)
China - H-shares	6,849	7.8	2	(3)	(10)	(6)	(25)	(0)	(7)	(17)
Hong Kong - HSI	19,968	7.8	1	(3)	(8)	(7)	(23)	(1)	(6)	(15)
Taiwan - TAIEX	15,200	30.2	(2)	1	(2)	(19)	(18)	1	(12)	(24)
Korea - KOSPI	2,477	1,335.2	(2)	1	2	(17)	(31)	(1)	(15)	(26)
Singapore - STI	3,248	1.4	(1)	2	4	(7)	2	(1)	(1)	1
Malaysia - KLCI	1,495	4.5	(1)	1	3	(12)	(10)	(1)	(6)	(11)
Thailand - SET	1,644	35.8	(0)	8	4	(8)	(6)	4	(5)	(8)
Indonesia - JCI	7,174	14,822.5	(0)	6	2	(1)	14	3	(1)	5
Philippines - PSEi	6,706	56.0	(2)	8	6	(12)	(13)	5	(6)	(14)
India - Sensex	58,775	79.9	(3)	5	9	(2)	(2)	0	3	(6)
Vietnam - Ho Chi Minh	1,289	23,428.0	1	8	8	(16)	(4)	4	(2)	(16)
Australia ASX 200	7,048	1.4	(1)	4	8	(12)	(10)	(0)	(6)	(9)
New Zealand - NZX50	11,627	1.6	(2)	3	6	(14)	(21)	(1)	(2)	(19)
Japan - Nikkei 225	28,479	136.7	(3)	3	6	(10)	(17)	(2)	(1)	(17)
Japan - TOPIX	1,977	136.7	(2)	2	5	(11)	(18)	(3)	(3)	(16)
S&P 500	4,199	1.0	(2)	6	7	(8)	(7)	2	2	(12)
Russell 2000	1,965	1.0	(2)	8	11	(5)	(12)	4	6	(13)
FTSE 100	7,480	0.8	(2)	1	(0)	(10)	(10)	(3)	(6)	(12)
Euro Stoxx	3,675	1.0	(4)	(0)	(2)	(14)	(25)	(4)	(9)	(25)

Source: Maybank IBG Research, Factset, MSCI, data as of 25 August 2022

Equity performance by Country - relative performance

					-	erformance		•		
Name	Index level	FX rate	-1w	-1m	-3m	-6m	-1y	MTD	QTD	YTD
MSCI All Country World	643		(1)	4	8	1	9	1	5	4
MSCI Emerging Market	1,003		0	2	2	(1)	0	1	(0)	0
MSCI Asia Pac (inc Japan)	160		(0)	1	3	(1)	2	(1)	1	2
MSCI Asia Pac (ex Japan)	523		(0)	1	1	(0)	2	(0)	(0)	2
MSCI Asia x JP	642				(0)				(0)	
MSCI Far East (ex Japan)	571		0	(1)	(2)	(1)	(3)	(0)	(2)	(2)
MSCI ASEAN	645		(0)	4	6	1	13	1	2	10
MSCI Emerging Asia	537		0	0	(0)	(0)	(0)	0	(0)	(1)
MSCI EM Latin America	2,243		1	11	12	(6)	12	6	(2)	24
MSCI EMMEA	206		(0)	4	8	(2)	(4)	1	2	(7)
MSCI Frontier	535		0	4	6	(1)	3	2	3	(1)
MSCI Asia x JP Small Cap	1,176		(0)	2	4	(2)	5	1	(1)	(1)
China - Shanghai Composite	3,246	6.9	(1)	(2)	(3)	4	8	(2)	6	2
China - H-shares	6,849	7.8	3	(3)	(8)	4	(4)	(0)	(1)	1
Hong Kong - HSI	19,968	7.8	2	(3)	(5)	3	(1)	(1)	(0)	3
Taiwan - TAIEX	15,200	30.2	(1)	1	0	(9)	4	1	(6)	(5)
Korea - KOSPI	2,477	1,335.2	(2)	1	4	(7)	(10)	(1)	(9)	(7)
Singapore - STI	3,248	1.4	(1)	2	7	3	23	(1)	5	20
Malaysia - KLCI	1,495	4.5	(1)	1	5	(2)	11	(1)	0	7
Thailand - SET	1,644	35.8	0	8	6	2	15	4	1	11
Indonesia - JCI	7,174	14,822.5	1	6	5	9	35	3	5	24
Philippines - PSEi	6,706	56.0	(1)	8	8	(2)	9	5	(0)	4
India - Sensex	58,775	79.9	(2)	5	12	8	19	0	9	13
Vietnam - Ho Chi Minh	1,289	23,428.0	2	8	10	(6)	17	4	4	2
Australia ASX 200	7,048	1.4	0	4	10	(2)	11	(0)	0	9
New Zealand - NZX50	11,627	1.6	(2)	3	9	(4)	0	(1)	4	(0)
Japan - Nikkei 225	28,479	136.7	(2)	3	9	0	4	(2)	5	2
Japan - TOPIX	1,977	136.7	(1)	2	7	(1)	4	(3)	3	2
S&P 500	4,199	1.0	(1)	6	10	2	15	2	8	7
Russell 2000	1,965	1.0	(1)	8	14	5	9	4	12	6
FTSE 100	7,480	0.8	(2)	0	2	(0)	12	(3)	(0)	7
Euro Stoxx	3,675	1.0	(3)	(0)	1	(4)	(4)	(4)	(3)	(6)

Source: Maybank IBG Research, Factset, MSCI, data as of 25 August 2022

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