ECONOMICS

Singapore

October 4, 2023

Singapore Economics

Will MAS Blink Amid a Stagnating Economy?

Analysts

Chua Hak Bin
(65) 6231 5830
chuahb@maybank.com

Brian Lee Shun Rong
(65) 6231 5846
brian.lee1@maybank.com

MAS Preview: Baseline to Maintain, But Cannot Rule Out Slight Easing

For our baseline scenario, we expect the MAS to remain focused on inflation and maintain the prevailing rate of S$NEER appreciation at the mid-October meeting. But with growth stagnating, inflation easing from their highs and 3Q GDP growth forecasted at a weak +0.1% - we cannot rule out the MAS surprising with a “slight” easing and reducing the slope of the appreciation bias. We would ascribe a 20% probability to the MAS surprising with a “slight” easing move. We expect no change to the width or center of the band.

The government will do the heavy lifting to support growth, if the economy stagnates or contracts. There is ample fiscal space to deploy additional support, given strong revenue growth that will likely exceed MOF’s projections in FY23/24. The government recently announced the Majulah Package (S$7bn) and Cost-of-Living Support Package (S$1.1bn), which included a S$800mn top-up to the S$9.6bn GST Assurance Package. The generous handouts come despite fiscal constraints from the balanced budget rule over the term of government.

The S$NEER is trading at around +1.7% above the implied mid-point, or the upper half of the band by our estimates. We expect 3M SORA to peak at 3.8% by year-end (vs. current 3.7%) and decline to 3.2% by end-2024, predicated on 100bps of Fed rate cuts in the second half of 2024. Tightening monetary conditions and rising interest rates are dampening loan demand. System-wide loans (-6% in Aug) has been contracting since Nov 2022, led by business loans.

Inflation Easing But Price Pressures Reemerging

Both headline and core inflation have been easing over the year to +4% and +3.4% respectively in August. We forecast 2024 average core inflation at +2.8%, and headline inflation at +2.9%. We see core inflation tapering to about +3% by year-end with declining import prices and cooling services costs, but inflation may be sticky downward and pick up in 2024. The commodity price downward adjustment has largely run its course, with oil and food prices rebounding in recent months.

Although global food prices remain 24% below their March 2022 peak, El Nino and climate change are disrupting agricultural output and fueling a broader increase in food costs. The 1% GST hike and fivefold increase in the carbon tax rate (to S$25 from S$5) on 1 Jan 2024 could have direct and second round effects on consumer and business costs. Wage pressures will be sustained by mandated hikes under Progressive Wage Model; higher S Pass and Employment Pass qualifying salaries; and higher wage ceiling for CPF contributions from 1 Sep 2023. Labor market remains tight with low unemployment and high vacancies, with job prospects improving. Rising private transport costs will add to headline inflation, with higher COE prices, ERP rates and fuel costs. Accommodation inflation may ease with slowing rental growth and higher housing supply.

Expect Weak Manufacturing & Export Recovery in 4Q

Flash 3Q GDP estimates will likely show the economy stagnating, coming in at a weak +0.1% YoY in 3Q (vs. +0.5% in 2Q). This implies positive but weak QoQ SA growth. Manufacturing (-6.6% in Jul-Aug) remains in contraction due to tepid external demand, although the slump could narrow from 2Q amid more upbeat business expectations. Both manufacturing and exports should recover more discernibly from the fourth quarter. Bottoming global electronics demand, a US manufacturing investment boom, and gradual run-down of China’s elevated industrial inventories should help shore up exports. Construction will remain robust with the return of foreign workers and strong pipeline of HDB projects amid a housing shortage.

Services growth will ease but remain resilient, as professional and trade-related services pick up to offset normalizing growth in “revenge spending” sectors. Recovering tourist flows with global-scale entertainment events and China’s early-Oct golden week will support retail, accommodation and F&B. Trade-related services (wholesale trade and water transport) will be boosted by a pickup in regional trade volumes, as seen by an upturn in container throughput and sea cargo from 2Q. Finance and real estate may see weaker activity, with a persistent decline in loan demand and lower property transactions due to declining affordability.

Co. Reg No: 198700034E MICA (P) : 099/03/2012

MAS Likely to Stand Pat, But Cannot Rule Out "Slight" Easing

The MAS will likely maintain the prevailing rate of S$NEER appreciation at the mid-October meeting, but we cannot rule out a surprise easing move and "slight" reduction in the slope of the appreciation bias. We would ascribe a 20% probability to a surprise easing move. Inflation has been easing from their highs while the economy is stagnating. Third quarter GDP growth may remain weak at only around +0.1%, implying full-year growth near the low end of MTI's 0.5% to 1.5% growth forecast range. We do not expect a change to the width and midpoint of the band.

There were five successive tightening moves between Oct 2021 to Oct 2022 (see Table 1). Under MAS' exchange-rate centered regime, the appreciating S$NEER will continue to provide a dampening effect on core inflation, even with a slight change to the slope.

Table 1: MAS Monetary Policy Decisions Since 2020

Date	Slope	Width	Level
14 Apr 2023	Maintain prevailing rate of appreciation	-	-
14 Oct 2022	-	-	Re-centre upwards, at prevailing level of the S$NEER
14 Jul 2022*	-	-	Re-centre upwards, at prevailing level of the S$NEER
14 Apr 2022	Increase slightly	-	Re-centre upwards, at prevailing level of the S$NEER
25 Jan 2022*	Increase slightly	-	-
14 Oct 2021	Increase slightly	-	-
30 Mar 2020	Set at 0%	-	Re-centre downwards, at prevailing level of the S$NEER

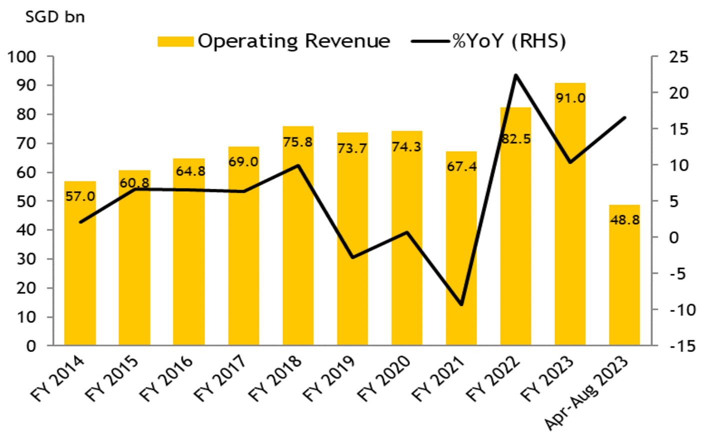
**Refers to off-cycle monetary policy decisions.*
Source: MAS

MAS has signaled that it is not switching from "inflation-fighting mode" to "growth-supporting mode". Should downside risks to the economy materialize, there is ample fiscal space to deploy additional policy support, and yet adhere to the balanced budget rule over the term of government.

Operating revenue is on track to exceed MOF's projections in FY23/24 (Apr-Mar), as total collections over the first 5 months (S$48.8bn) already amounted to 50.5% of budgeted revenue (see Fig 1 and 2). Operating revenue rose +16.5% YoY over the period, with double digit gains in corporate tax (+31.2%), personal income tax (+10.5%) and GST collections (+10.4%).

The government has leeway to provide more generous top-ups and transfers to households and firms, as seen in the recently announced S$7bn Majulah Package and Cost-of-Living Support Package (S$1.1bn), which included a S$800mn top-up to the S$9.6bn GST Assurance Package.

Fig 1: Operating Revenue Rose +16.5% in First 5 Months of FY2023/2024 to S$48.8bn



Source: CEIC

Fig 2: Total Revenue in First 5 Months of FY23/24 Reached 50% of Full-Year Budget; Double-Digit Gains in Major Components

	%YoY		% of FY23/24 Budgeted Revenue
	Apr-Aug 2022	Apr-Aug 2023	
Operating Revenue	**14.3**	**16.5**	**50.5**
Corporate Income Tax	27.5	31.2	-
Personal Income Tax	8.0	10.5	-
GST	17.6	10.4	-
Stamp Duty	-1.4	-6.0	-

Source: CEIC

Table 2: Singapore- Key Macroeconomic Indicators

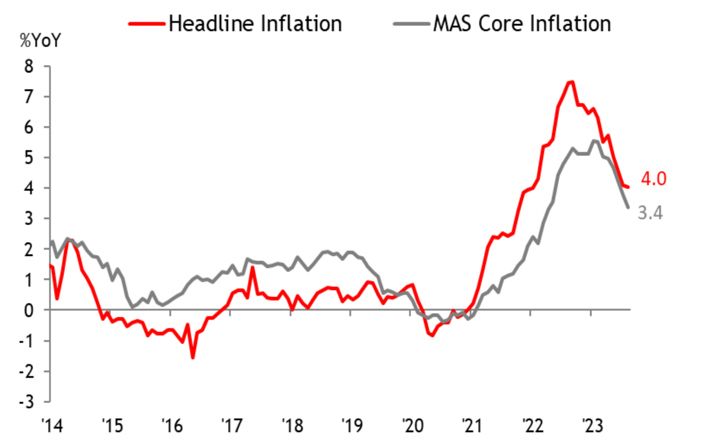
	2020	2021	2022	2023F	2024F
Real GDP (%)	-3.9	8.9	3.6	0.8	2.2
Headline CPI (%, period avg)	-0.3	2.3	6.1	4.8	2.9
Core CPI (%, period avg)	-0.2	0.9	4.1	4.2	2.8
Fiscal Balance (% of GDP)	-10.5	0.3	-0.3	-0.1	0.5
Unemployment Rate (%, period avg)	3.0	2.7	2.1	2.0	2.0
3M SORA (%, end-period)	0.13	0.19	3.10	3.80	3.20
10Y Bond Yield (%, end-period)	0.83	1.64	3.09	3.10	2.75
Exchange Rate (per USD, end-period)	1.32	1.35	1.34	1.365	1.34

Source: Maybank IBG Research

We expect core inflation tapering to about +3% by year-end with declining import prices and cooling services inflation, at the top end of MAS' +2.5% to +3% forecast. The fall will be more gradual for the rest of the year, given the rebound in energy and food prices.

Core inflation (+3.4% in Aug) and headline inflation (+4.0%) have cooled substantially from their peaks on the back of easing commodity prices and supply chain frictions (see Fig 3 and 4). However, inflation remains elevated due to wage pressures from the tight labor market.

Fig 3: Headline CPI (+4.0%) Eased to 20-Month Low in Aug, Core CPI (+3.4%) Slowed to the Lowest Level since May 2022



Source: CEIC

Table 3: Inflation by Category, %YoY

%YoY	1Q23	2Q23	Jun-23	Jul-23	Aug-23
CPI - All Items	**6.1**	**5.1**	**4.5**	**4.1**	**4.0**
Food	8.0	6.6	5.9	5.3	4.8
Clothing and Footwear	6.8	4.5	4.0	0.6	-0.5
Housing & Utilities	5.3	4.4	4.3	3.9	3.8
Household Durables & Services	2.6	1.9	2.1	2.3	1.5
Health Care	4.0	4.6	5.0	4.0	4.3
Transport	9.2	6.4	4.6	3.7	4.8
Communication	2.1	2.7	2.5	3.3	2.2
Recreation & Culture	6.8	6.5	5.7	6.5	5.1
Education	3.0	2.7	2.6	2.6	2.6
Miscellaneous Goods & Services	2.6	3.3	3.2	4.0	4.2
Core inflation	**5.4**	**4.6**	**4.2**	**3.8**	**3.4**

Source: CEIC

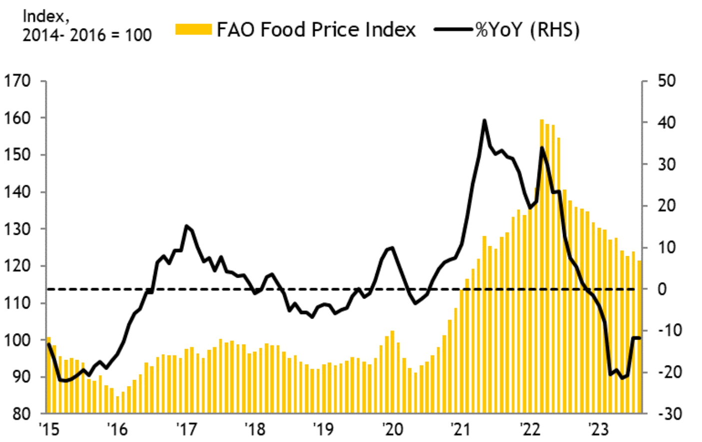
Price Pressures May Resurface in 2024

We recently lowered our forecasts to +4.8% for headline inflation (from +5.1%) and +4.2% (from +4.3%) for core inflation in 2023. We are forecasting headline inflation at +2.9% and core inflation at +2.8% in 2024.

Inflation may remain elevated and above historical norms in 2024 because:

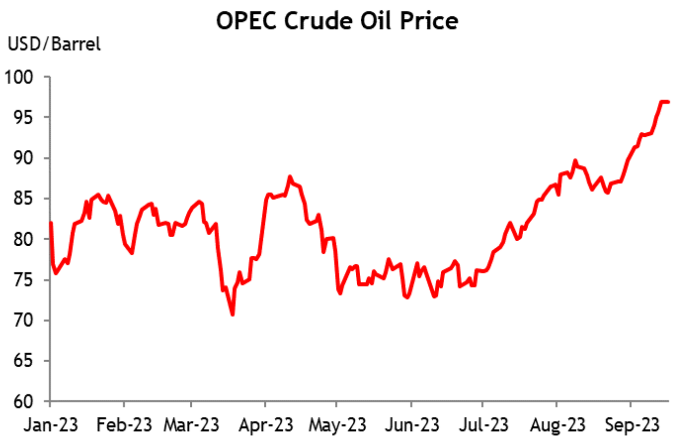
First, the commodity price downward adjustment has largely run its course. Crude oil prices have re-accelerated from prior lows on supply cuts by OPEC and Russia (see Fig 5), putting upward pressure on petrol and utilities costs. Surging rice prices have stoked fears of resurgent food inflation in the region. Although global food prices remain -24% below their March 2022 peak as of Aug (see Fig 4), there remains a risk that El Nino and climate change will disrupt agricultural production and drive a broader increase in food prices.

Fig 4: UN FAO Food Price Index Slumped -11.8% YoY in Aug, Driven by Easing Meat & Diary Products



Source: CEIC

Fig 5: Crude Oil Price Climbing Steadily since Aug, Reaching $97 per Barrel in Late September



Source: CEIC

Second, inflation pressures from the 1% GST hike and sharp increase in carbon taxes on 1 Jan 2024 will lead to a jump in price levels in early 2024.

The carbon tax will be hiked to S$25 per tonne of carbon dioxide equivalent in 2024 (from S$5 currently), and to S$45 from 2026. Next year's carbon tax hike will translate directly to a 4% hike in household electricity tariffs (S$4 per month)[1] with electricity costs making up 1.6% of the CPI basket, even though enhanced U-Save rebates under the recent Cost-of-Living Support Package should cushion the impact. Nonetheless, the overall impact on inflation may be higher, given that the combined impact of higher utility costs, the GST hike and wage pressures may pressure margins and lead businesses to raise prices of their goods and services. In addition, households and firms will have to contend with PUB's S$0.20/cubic metre hike (+7.3%) to water prices from 1 Apr 2024 and another S$0.30 hike (+10.2%) from 1 Apr 2025[2].

Third, new manpower measures and scheduled wage hikes under the Progressive Wage Model (PWM) may sustain wage cost pressures in 2024.

Minimum qualifying salaries for S Pass and Employment Pass (EP) renewals were raised from 1 Sep 2023 (see Table 7 & Fig 37 in Appendix). Firms with foreign employees earning below the floor would have to lift wages to retain workers, or

[1] The government estimates that the $25 carbon tax will lead to an increase of about $4 per month in utility bills for an average household living in a four-room HDB flat, although additional U-Save rebates will be provided to cushion the impact.
[2] Water supply accounts for 0.8% of the CPI basket.

rely more on Work Permit holders. As of Dec 2022, there were 187.3k EP holders, 177.9k S Pass holders and 765k Work Permit holders.

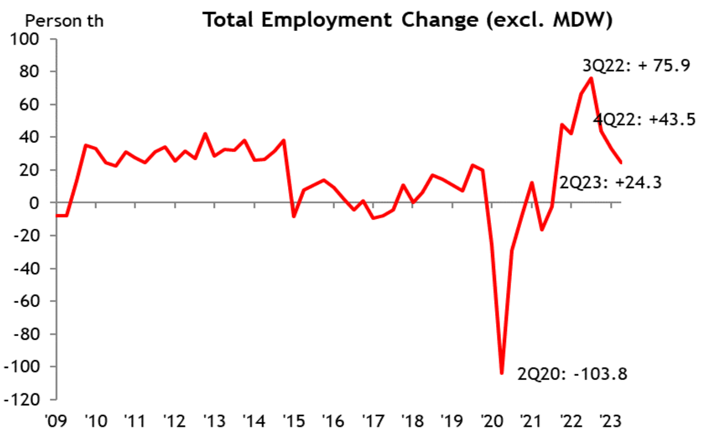
The monthly Ordinary Wage ceiling for CPF contributions was hiked to S$6,300 (from S$6,000) from 1 Sep and will rise to S$6,800 from 1 Jan 2024 (see Table 8 in Appendix), mandating employers to contribute an additional S$51 (from 1 Sep) and S$85 (from 1 Jan) for workers earning at or above the new ceiling (aged 55 or below). PWM was expanded this year to cover the food services (from Mar 2023) and waste management (from Jul 2023) sectors, and mandates annual increments for all covered sectors[3] (see Fig 38 in Appendix).

The labor market cooled in the second quarter but will likely remain resilient going forward, given the stabilizing economy. Employment (+24.3k) in 2Q rose by a slower pace than previous quarters (see Fig 6), driven by non-residents (+25,500). Resident employment (-1,200) contracted due to seasonal job shedding in the F&B and retail sectors, which is unlikely to persist.

We expect employment growth to moderate to about +100K in 2023 (1H: +57.3k), a more sustainable pace compared to the +227.8K in 2022. Employment growth may continue moderating in the third quarter but will not likely contract, as the economy looks to have dodged a recession.

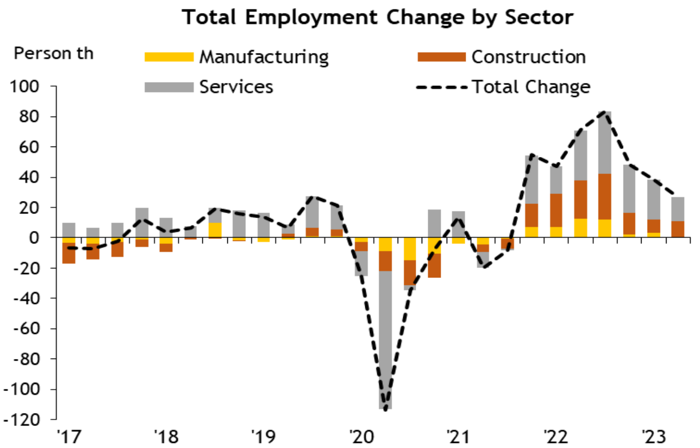
Job prospects remain upbeat, with the Manpower Group's net employment outlook for 4Q 2023 strengthening for a third consecutive quarter to +36% (vs. +34% in 3Q) (see Fig 8). Employment gains are expected across all nine surveyed sectors, led by transport, logistics & automotive (+60%) and healthcare (+53%) (see Fig 9). The pickup in tourism will likely boost labor demand in accommodation, F&B and arts, entertainment & recreation sectors.

Fig 6: Total Employment Change excl. Migrant Domestic Workers Eased to 7 Quarter Low of +24.3k in 2Q23



Source: Ministry of Manpower

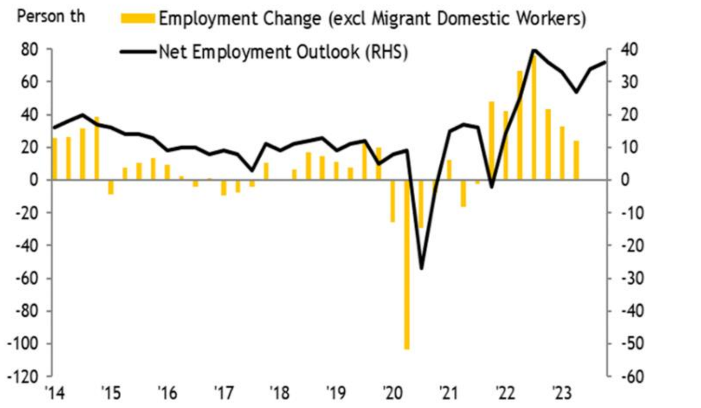
Fig 7: Services Employment Gains Have Been Easing, Led by F&B and Retail



Source: CEIC

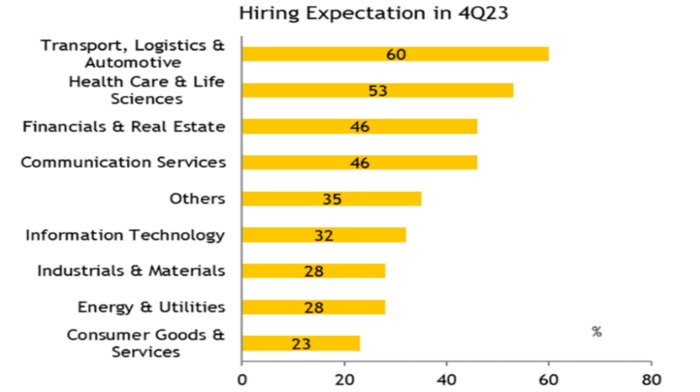
[3] For instance, workers covered by the Retail PWM can expect to see wage increases of 8.4-8.5% p.a. from 2022 to 2024. Under the Progressive Wage Credidt Scheme, the government will co-fund 30% of pay increases in 2024 for workers earning below $2,500 monthly and 15% for those earning between $2,500 and $3,000.

Fig 8: Net Employment Outlook Rose to 36% for 4Q23 from 34% in 3Q



Source: CEIC, Manpower Group

Fig 9: Transport, Logistics & Automotive and Health Care Sectors Have Brightest Prospects in 4Q23



Source: Manpower Group

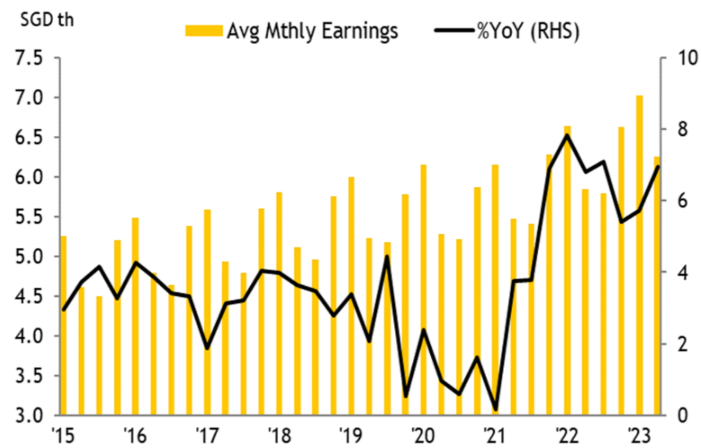
Wage pressures remain considerable as the labor market remains tight, with the unemployment rate (2% in Jul) below pre-pandemic levels (see Fig 10). Average monthly earnings rose by +7% in 2Q23 (vs. +5.7% in 1Q; see Fig 11), not far from the high of +7.8% in 1Q22.

About 67% of the 282 surveyed firms expect to increase salaries in the next 12 months, according to Singapore Business Federation's (SBF) Survey on Manpower and Wages[4]. The average pay hike for businesses increasing salaries will be +6%, not far from the +7% average pay hike for businesses that raised salaries in the last 12 months.

Fig 10: Overall Unemployment Rate Edged Up Marginally to 2% in July But Still Below Pre-Pandemic Level

Source: CEIC

Fig 11: Average Monthly Earnings Rose by +7% to S$6.3k in 2Q23

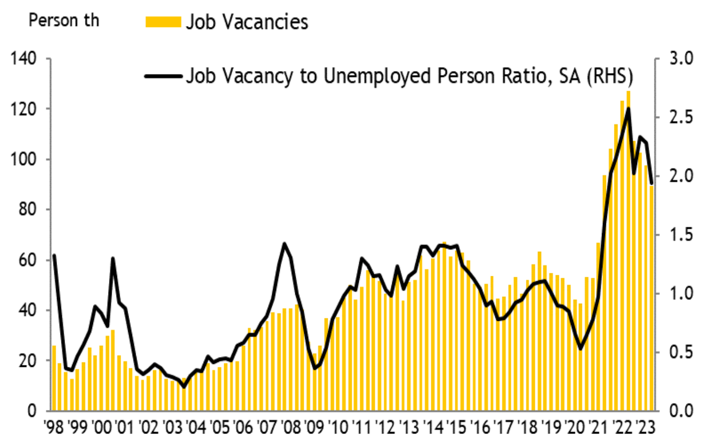


Source: CEIC

Job vacancies eased for the fifth consecutive quarter as labor demand cools, but remain some +66% above pre-pandemic levels (89.4k in 2Q23 vs. 53.9k in 2Q19). Job vacancy to unemployed persons ratio stood at 1.94 in 2Q, compared to 0.90 in 2Q19 (see Fig 12). Job vacancy rates remain elevated, particularly in health & social services (6.2 vs. 6.2 in 2Q22 vs. 3.1 in 2Q19), arts, entertainment & recreation (5.8 vs. 7.2 in 2Q22 vs. 2.1 in 2Q19) and education & public administration (6.1 vs. 5.7 in 2Q22 vs. 2.7 in 2Q19) (see Table 4).

[4] Further details can be found in the report at this link.

Fig 12: Job Vacancies Have Cooled But Remain Significantly Above Pre-Pandemic Levels



Source: CEIC

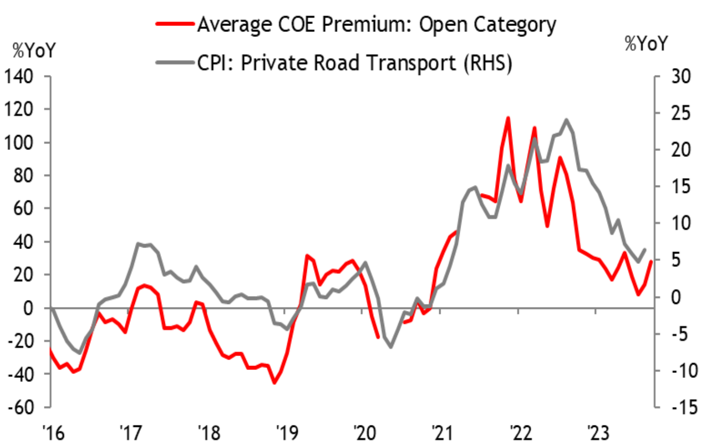
Table 4: Top Ten Sectors with Highest Job Vacancy Rates

Job Vacancy Rate (%)	2Q23	2Q22
Accommodation	8.0	11.2
IT & Other Information Services	6.8	11.5
Health & Social Services	6.2	6.2
Education & Public Administration	6.1	5.7
Community, Social & Personal Services	6.0	5.9
Infocomm	5.9	10.2
Arts, Entertainment & Recreation	5.8	7.2
Accommodation & Food Services	5.3	7.5
Real Estate Services	5.3	5.3
Clerical, Sales and Service Workers	4.8	6.5

Source: CEIC

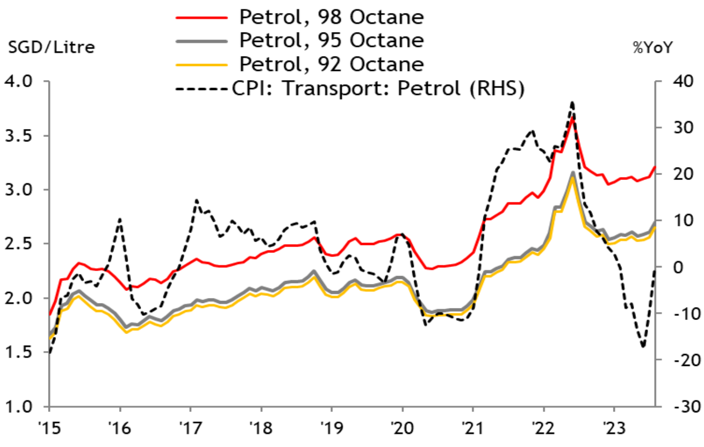
Four, rising private transport costs are adding to headline inflation, as prices for certificates of entitlement (COE) hit new records and fuel costs pick up amid higher global oil prices (see Fig 14). COE premiums are surging across the board, despite the 5.6% increase in COE quotas for Aug-Oct. Open category premiums – which can be used for any vehicle type but are mostly used for large cars – have climbed to a record high of S$144k in Sep's 2nd bidding exercise (see Fig 13). In addition, ERP rates were raised by S$1 at three locations from 28 Aug to ease congestion. Public transport fares will be hiked by +7% (up to 11 cents) from 23 December, although the impact on overall inflation will be muted given the small 1.6% basket weight.

Fig 13: Growth in Open Category COE Premiums Accelerating Again



Source: CEIC

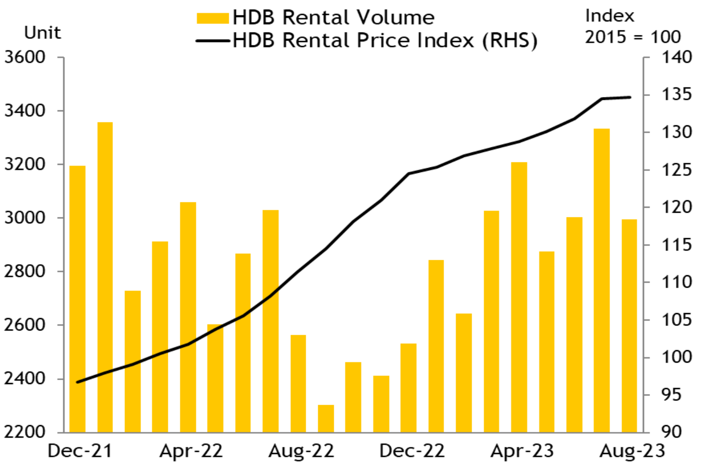
Fig 14: Petrol Costs Rising, Transport Deflation Narrowed Sharply in Aug



Source: CEIC

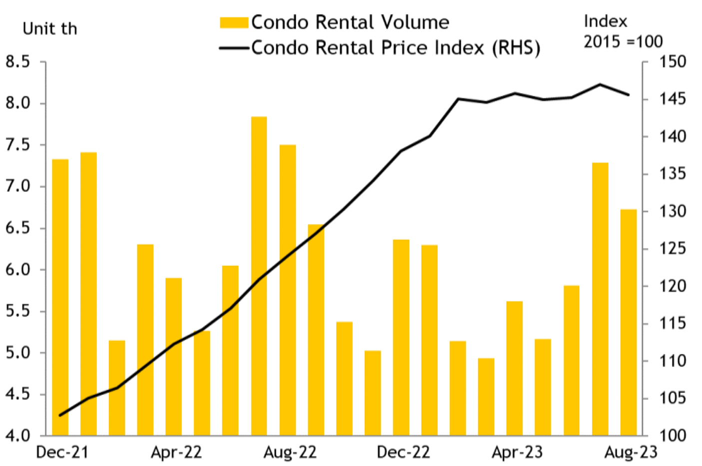
Accommodation inflation (22% weight in headline CPI basket) may ease as more supply of new units comes onstream. In August, rental price growth for HDBs (+20.8% vs. +24.3% in Jul) slowed for the 6th consecutive month to the lowest since Aug 2022 (see Fig 15) Condominium rental prices have leveled off for several months, with growth (+17.3%) cooling for the 6th straight month to the lowest since May 2022, according to monthly SRX data (see Fig 16).

Fig 15: SRX HDB Rental Price Growth Eased to a 12-Month Low in August



Source: SRX

Fig 16: SRX Condo Rental Price Growth Cooled to Lowest Since May 2022 in August



Source: SRX

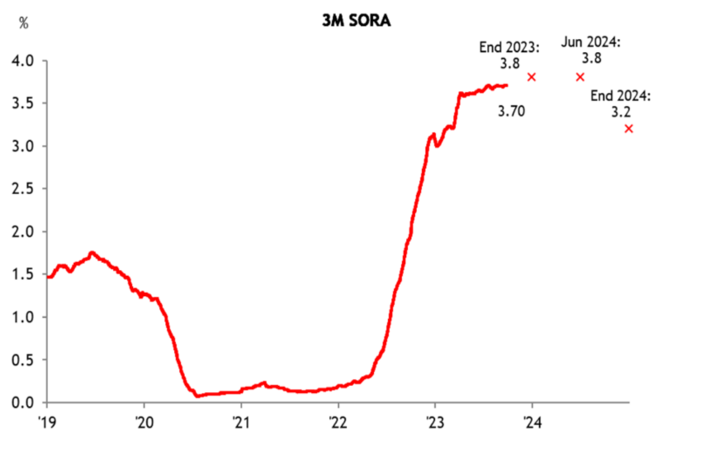
SORA Rates Near Peak, Fall in Second Half 2024

Short-term interest rates are near their peak as the Fed nears the end of its hiking cycle. The SORA rates will however remain higher for longer and probably only start falling in the second half of 2024, when the Fed begins easing.

We expect 3-month SORA to peak at 3.8% by year-end, close to the current level of 3.7% (see Fig 17), predicated on one more Fed rate hike in 2023 (see *US FOMC Meeting, 19-20 Sep 2023: Pause again, but not signaling end to hike cycle just yet*, 21 Sep 2023). The 3-month SORA will track Fed rate cuts in 2024, declining to around 3.2% by end-2024, assuming that the Fed cuts by -100bps in the second half of next year.

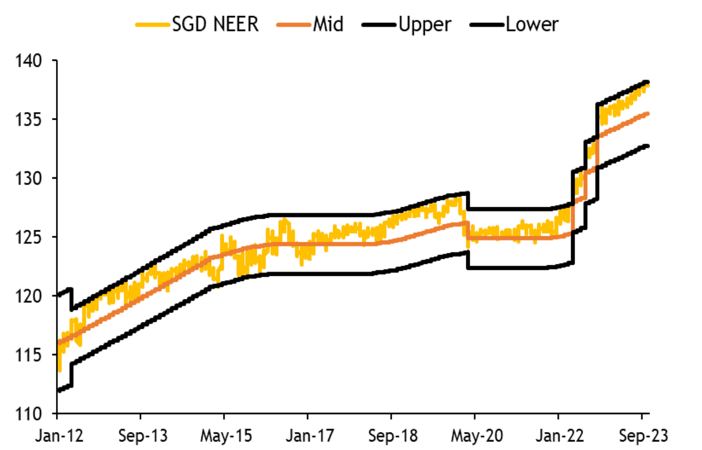
Our FX team expects the USD/SGD to remain around current levels at 1.365 by end-2023, amid a stronger for longer greenback. The S$NEER is trading at around +1.7% above the implied mid-point, or at the upper half of the band, by our estimates (see Fig 18).

Fig 17: 3M SORA Stable Around 3.7% Since Mid-July, Expected to Peak at 3.8% By Year-End and Ease to 3.2% by end-2024



Source: MAS, Maybank IBG Research

Fig 18: S$NEER Trading at +1.7% Above the Midpoint



Source: Maybank FX team, Maybank IBG Research

Expect Flash 3Q GDP at +0.1%, With Manufacturing Contracting But Services Resilient

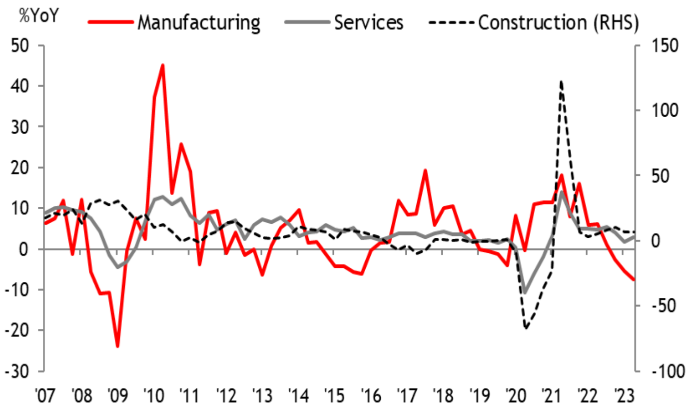
Flash 3Q23 GDP growth estimate is expected to come in at around +0.1% from a year ago (vs. +0.5% in 2Q), as a slightly narrower manufacturing contraction is outweighed by easing services growth. The +0.1% growth estimate would imply positive but weak quarter-on-quarter seasonally adjusted GDP growth (vs. +0.1% in 2Q). But there is a risk of outright growth contraction in 3Q given forecast errors.

We expect full-year GDP growth of +0.8% in 2023 and +2.2% in 2024. Growth in the upcoming year will be underpinned by a manufacturing and trade recovery, easing domestic interest rates alongside the Fed, and moderate reopening tailwinds in tourism and construction. MTI will likely set the full-year GDP forecast range of +1% to +3% in 2024, when final 3Q GDP growth is published in late November.

Fig 19: 3Q GDP Growth Could Come in At Weak +0.1% YoY (vs. +0.5% in 2Q)

Source: CEIC

Fig 20: Manufacturing Decline Could Narrow Slightly, Services to Remain Resilient



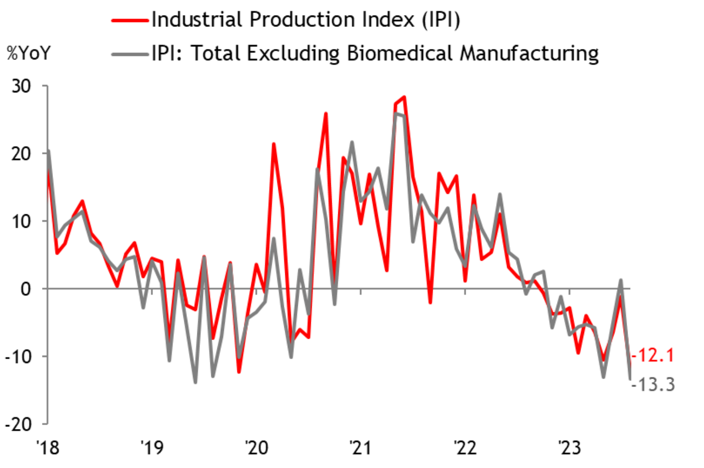
Source: CEIC

Singapore will likely avoid a recession as the manufacturing slump eases. We expect manufacturing (-6.6% in Jul-Aug) to remain tepid in 3Q, but the slump could narrow slightly compared to the first half. Industrial production slumped by -12.1% from a year ago in Aug, the worst contraction since Nov 2019 (see Fig 21). The decline was led by the electronics cluster (-20%), which was hit by a renewed contraction in semiconductors after two months of growth.

Nonetheless, it is unclear whether the outsized fall in August's industrial production was the result of any idiosyncratic or firm-specific factors, given the much poorer performance than suggested by leading indicators such as the PMI and more upbeat business expectations.

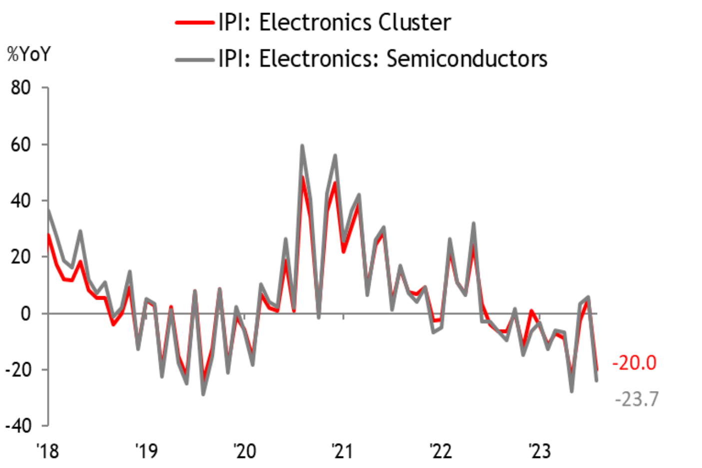
Both overall (49.9) and electronics PMI (49.5) saw shallower contractions in August (see Fig 23), with the electronics new export orders index (49.7) hitting a 12-month high (see Fig 24). The improving PMIs stand in stark contrast with semiconductor output, which suffered its sharpest month-on-month plunge (-25.5%) since Feb 2020 at the advent of Covid-19.

Fig 21: Industrial Production (-12.1%) Fell Sharply in Aug to the Lowest Level since Feb 2023



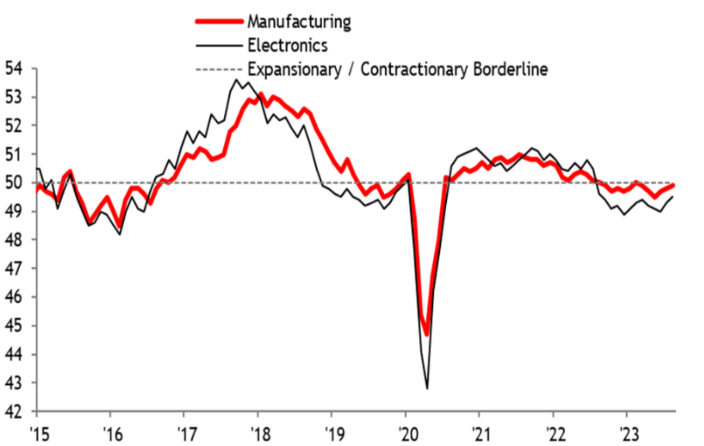
Source: CEIC

Fig 22: Electronics Production Flipped Back to Red with Double-Digit Drop in Aug, Semiconductors Slumped -23.7%



Source: CEIC

Fig 23: Manufacturing and Electronics PMI Saw Shallower Contractions in Aug



Source: CEIC

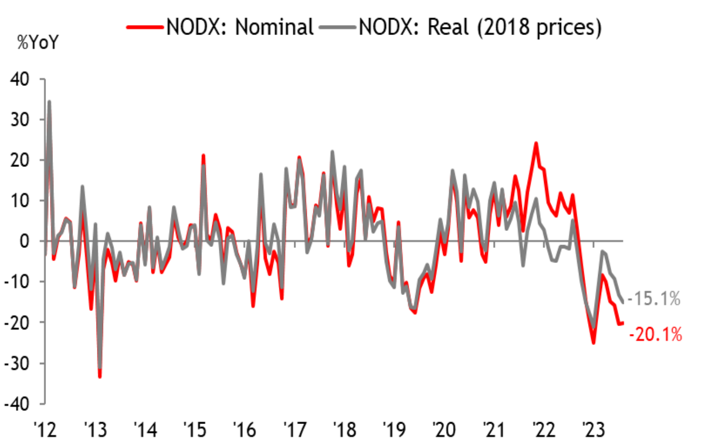
Fig 24: Electronics New Export Orders Hit 12-Month High in Aug

Source: CEIC

Exports have been in the red for 11 straight months. NODX plunged by -20.1% from a year ago in August, weighed down by a renewed contraction in shipments to the US and persistent declines in EU and China-bound exports. The volatile pharmaceuticals segment, which contracted -37.7%, weighed heavily on headline exports.

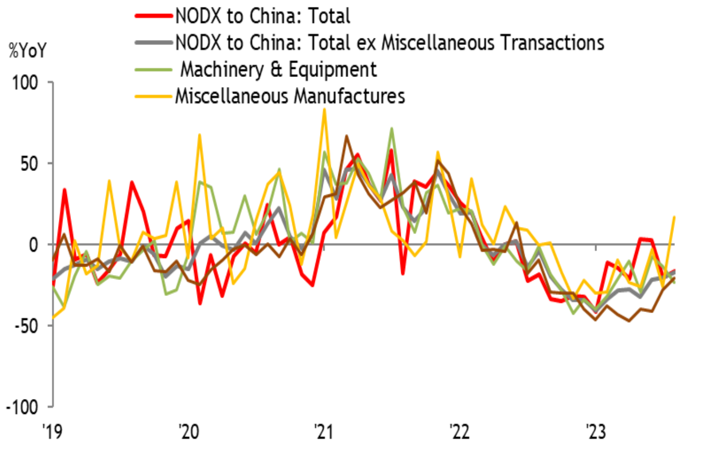
Nonetheless, falling commodity prices have amplified the NODX decline, overstating the weakness in external demand. NODX in real terms has fallen by a smaller magnitude of -10.5% in the first 8 months of 2023 compared to -16.2% in nominal terms (see Fig 25).

Fig 25: Real NODX (-15.1% in Aug) Falling at Smaller Magnitude Than Nominal NODX (-20.1%)



Source: CEIC

Fig 26: Fall in NODX to China ex-Gold Smallest Since Aug 2022, With Improvements in Misc. Manufactures and Chemicals



Source: CEIC

China's reopening boost to exports has been limited due to its services-led recovery. After two months of growth in May and June, NODX to China fell back into the red (-16.4% in Aug). However, we are encouraged by narrowing declines when the miscellaneous transactions category (i.e. non-monetary gold) is stripped out to obtain a better measure of 'genuine' demand. The fall in NODX to China ex-gold (-16.7% vs. -20.2% in Jul) was the smallest since August 2022, with improvements seen in misc. manufactures (+17.3% vs. -25.9% in Jul) and chemicals (-20.4% vs. -27.9% in Jul) (see Fig 26).

Further, exports to China look more resilient in real terms, with domestic exports (includes oil) falling by a considerably smaller -6.7% in August (vs. -13.5% in Jul).

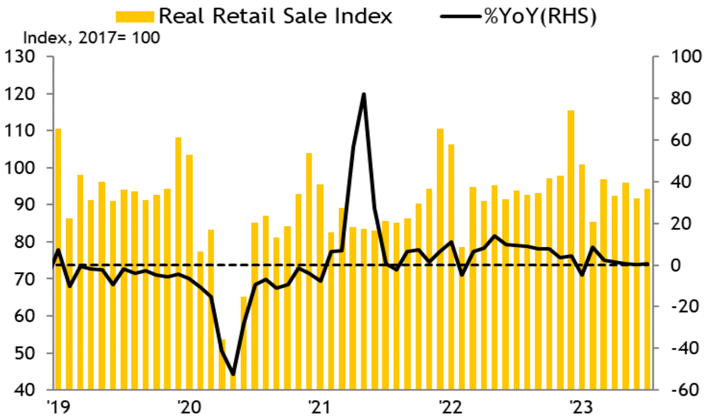
The manufacturing and export slump should narrow more discernibly from 4Q, as base effects turn supportive. Bottoming global electronics demand, a US manufacturing investment boom and gradual run-down of elevated industrial inventories in China should help shore up Singapore's and Asian exports.

The relationship between Asia's exports and the US economic cycle has broken down over the year-to-date, as US resilience has been fueled by consumption of domestic services rather than goods. However, the US manufacturing investment and construction boom fueled by CHIPS Act and Inflation Reduction Act could shore up import demand for raw materials, equipment and components, benefiting Singapore's and Asian exports (see *ASEAN Economics - On the Cusp of a Green Manufacturing Renaissance?*, 1 Sep 2023).

Services growth will ease but remain resilient in the second half, as professional and trade-related services pick up to offset normalizing growth rates in "revenge spending" sectors.

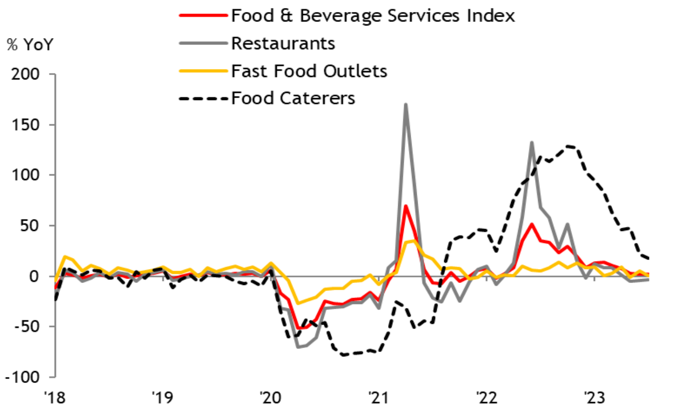
Consumer spending is cooling off as the reopening tailwind fades. Real retail sales growth grew just +0.4% in July (vs. +0.2% in Jun) but fell into contraction (-0.2%) when excluding motor vehicles (see Fig 27). Real F&B services sales growth eased to +1.9% (vs. +3.1% in May and +1.8% in Jun) (see Fig 28).

Fig 27: Real Retail Sales Still Expanding But At Much Slower Pace since May



Source: CEIC

Fig 28: Real F&B Sales Easing Markedly since May but Food Caterers Sales Growth Still Robust at +17.7% in July

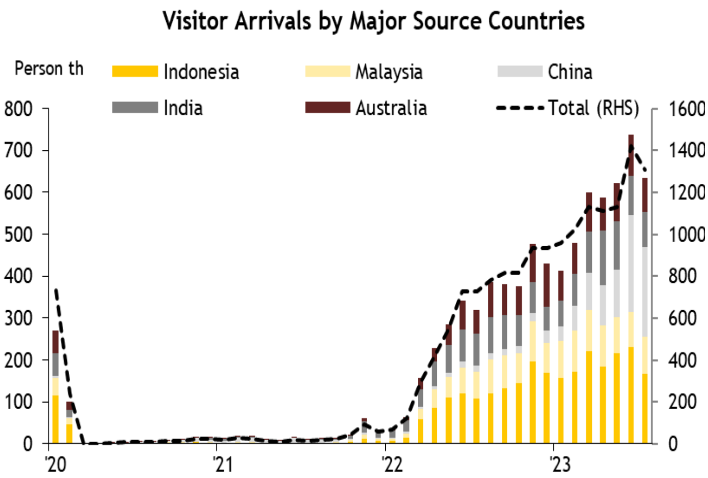


Source: CEIC

Nonetheless, the tourism recovery tailwind remains intact, suggesting that growth in the retail, accommodation and F&B services sectors will remain robust in the second half. Visitor arrivals have climbed to 1.31mn in Aug (75.4% of pre-pandemic levels), due to the strong return of Chinese tourists (see Fig 29). Hotel occupancy rate climbed to 89.9% in July, from 79.1% in July 2022 (see Fig 30).

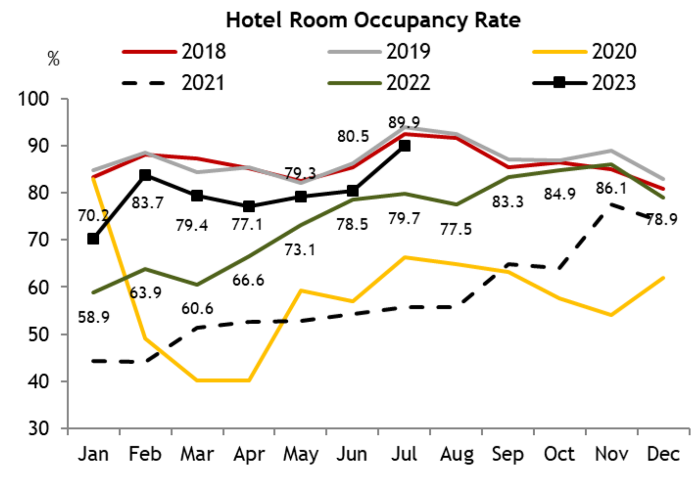
Visitor arrivals will likely improve further in coming months, amid added flight capacity and major events such as the Formula 1 Grand Prix and the slew of upcoming concerts. Visitors from China have recovered to about 60% of pre-pandemic levels as of July, with a further upswing expected in the fourth quarter, particularly during the 7-day Golden Week Holiday in early October.

Fig 29: Total Visitors Climbed to 1.31mn in Aug, or 75% of Aug 2019 Levels



Source: CEIC

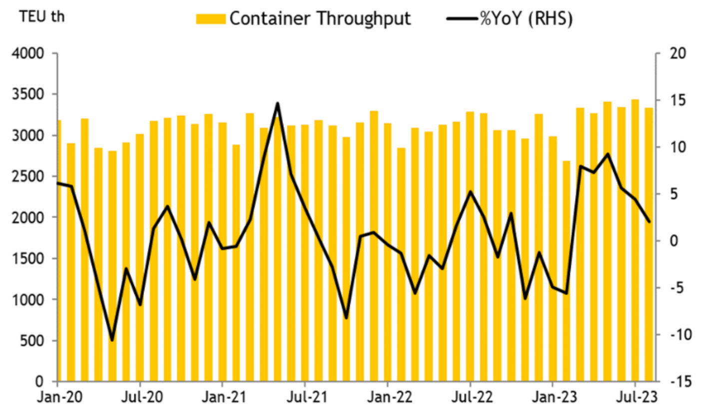
Fig 30: Hotel Room Occupancy Rate Jumped to 90% in July



Source: CEIC

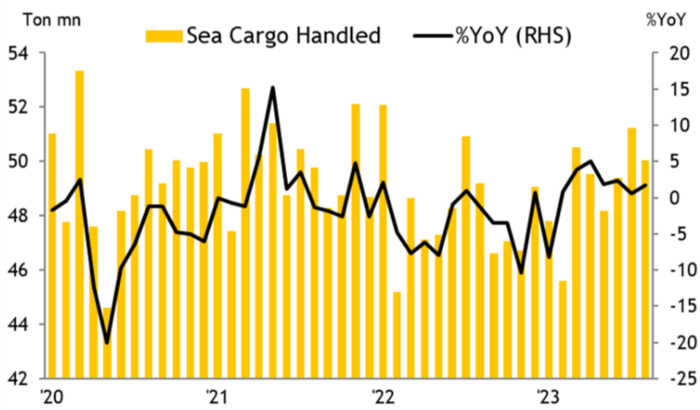
Trade-related services sectors including wholesale trade and water transport will likely be boosted by a pickup in regional trade volumes. Regional trade and shipping activity is picking up despite a slump in NODX, as seen by an upturn in container throughput and total sea cargo handled from the second quarter. Container throughput (+2% vs. +4.4% in Jul) expanded for the 6th consecutive month in August (see Fig 31) while sea cargo (+1.7%) rose for the 7th straight month (see Fig 32). Real non-oil re-exports fell by -7.7% from a year ago in August, the softest contraction in five months.

Fig 31: Container Throughput (+2%) Grew for 6th Consecutive Month in Aug, Albeit at a Slower Pace



Source: CEIC

Fig 32: Sea Cargo Handled (+1.7%) Rose for 7th Straight Month in Aug



Source: CEIC

The finance & insurance sector will likely register a third consecutive quarter of contraction amid weak loan demand, but may recover in 4Q on a low base. System-wide loan growth (-6% in Aug) has remained constantly in the red since Nov 2022 (see Table 5), dampened by both loans to residents (-6.7%) – mainly to businesses (-9.7%) – as well as loans to non-residents (-4.9%). Domestically, consumer loans (-1.7%) have been weighed down by declining car loans (-5.7%) and slowing housing loans (+1.1%). Credit card loan growth is cooling but remains robust at +14.8% in Aug, suggesting that the revenge spending momentum remains intact.

Deposit growth has eased to +3.1% in Aug, from the peak of +11.8% in Aug 2022 during the rising interest rate environment (see Table 6). Demand for fixed deposits remains robust, although growth has cooled to +36.9% for residents (excluding government and non-bank financial institutions) in Singapore and +53.5% for residents outside Singapore.

Table 5: Loans to Residents & Non-Residents by Sector

	Aug-23	Aug-23	May-23	Jun-23	Jul-23	Aug-23
	SGD bn	% of total loans	%YoY	%YoY	%YoY	%YoY
Total Loans	**1254**	**100%**	**-5.3**	**-5.0**	**-5.5**	**-6.0**
A) Loans to Residents	**786**	**63%**	**-4.9**	**-5.0**	**-6.1**	**-6.7**
Loans to Businesses	476	38%	**-6.8**	**-6.9**	**-8.7**	-9.7
Building And Construction	169	13.5%	-2.5	-1.3	-2.4	-1.9
General Commerce	86	6.9%	-24.6	-22.1	-24.1	-25.9
Financial And Insurance	124	9.9%	9.2	4.3	1.1	1.4
Consumer Loans	**310**	**25%**	**-1.6**	**-1.9**	**-1.8**	**-1.7**
Housing & Bridging Loans	223	17.8%	1.5	1.2	1.1	1.1
Car Loans	7.4	0.6%	-7.7	-7.2	-6.5	-5.7
Credit Cards	13.5	1.1%	14.9	14.5	14.1	14.8
Share Financing	1.0	0.1%	-22.0	-25.9	-28.0	-23.1
Others	65	5.2%	-12.2	-12.3	-12.1	-11.9
B) Loans to Non-Residents	**468**	**37%**	**-6.0**	**-4.9**	**-4.4**	**-4.9**
Loans to Businesses	**412**	**33%**	**-4.6**	**-3.2**	**-2.7**	**-3.3**
Building And Construction	39	3.1%	-4.4	-1.2	-1.3	-2.1
General Commerce	25	2.0%	-14.7	-9.3	-10.0	-6.6
Financial And Insurance	194	15.5%	-3.3	-2.6	-2.7	-4.6
Consumer Loans	**56**	**4.4%**	**-15.0**	**-15.9**	**-15.7**	**-15.1**

Source: CEIC

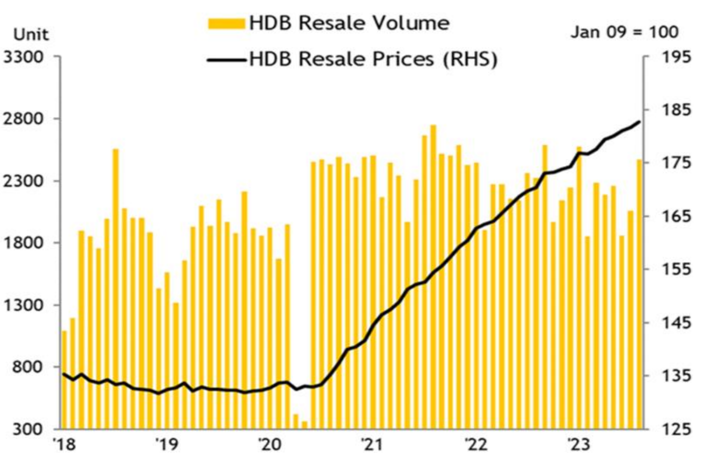
Table 6: Deposits to Residents and Non-Residents

	Aug-23	Aug-23	May-23	Jun-23	Jul-23	Aug-23
	SGD bn	% of total	%YoY	%YoY	%YoY	%YoY
Total Deposits & Balances	**1776**	**100%**	**5.2**	**3.6**	**3.2**	**3.1**
In S$	819	46%	2.7	2.3	2.2	3.7
In Foreign Currencies	957	54%	7.6	4.8	4.2	2.6
By Non-Bank Customers:						
A) Singapore Government & Statutory Boards	37	2%	-6.9	-15.3	-14.1	-6.9
B) Non-Bank Financial Institutions	210	12%	1.1	6.6	5.7	6.6
C) Other Residents In Singapore	970	55%	6.5	2.8	1.8	0.8
Demand Deposits	284	16%	-17.8	-18.6	-18.8	-17.7
Fixed Deposits	441	25%	66.8	51.8	45.8	36.9
Savings & Other Deposits and Balances	245	14%	-19.1	-18.4	-18.4	-16.9
D) Residents Outside Singapore	559	31%	5.6	5.5	6.4	6.7
Demand Deposits	173	10%	-38.0	-35.1	-33.8	-31.0
Fixed Deposits	313	18%	85.5	71.9	66.2	53.5
Savings & Other Deposits and Balances	72	4%	12.5	4.1	5.4	5.2

Source: CEIC

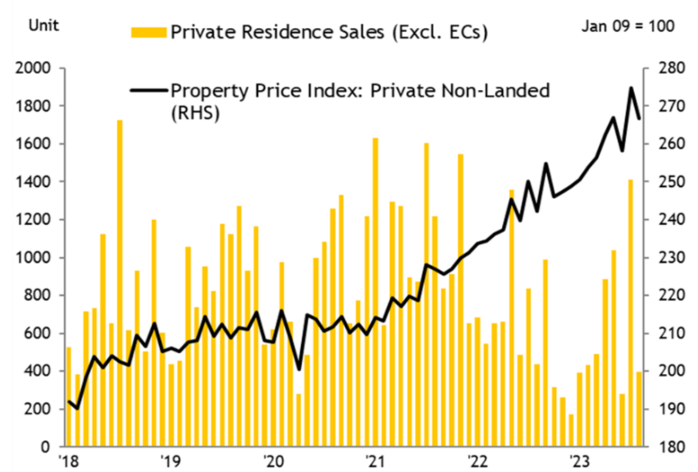
Business services, particularly real estate may see easing growth due to lower property transactions, as affordability declines on the back of elevated interest rates and the doubling of additional buyer's stamp duty (ABSD) to 60% for foreigners. According to SRX data, private residence sales volume (excl. ECs) surged by +41.8% in Jul-Aug (vs. -12% in 2Q), but momentum could be coming off. August volumes plunged -72% MoM due to fewer home launches during the Hungry Ghost Month and more cautious buyer sentiment (see Fig 34). HDB resale volume fell -3.4% in Jul-Aug (vs. -4% in 2Q), with resale price increases easing to +7.2% in Aug (see Fig 33).

Fig 33: HDB Resale Volume Fell -3.4% YoY in Jul-Aug, With Resale Price Growth Easing to +7.2% in Aug



Source: SRX

Fig 34: Private Residence Sales Volume Surged by +42% YoY in Jul-Aug, But Aug Volumes Plunged -72% MoM



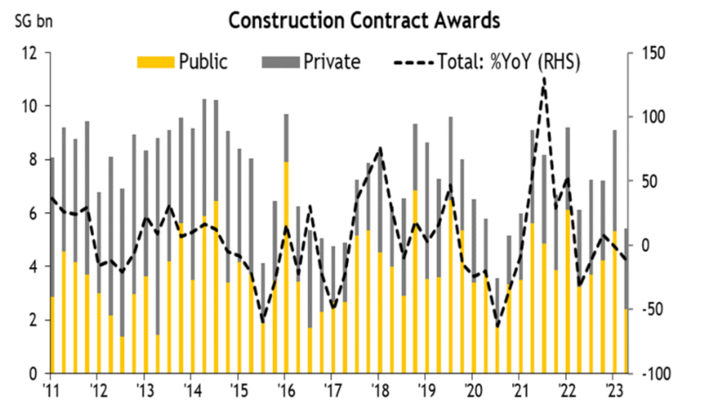
Source: CEIC, URA, SRX

There remain moderate reopening tailwinds in construction, with sectoral value-added still about -20% below pre-pandemic levels (2Q19) due to shortage of foreign workers. Construction demand in terms of contracts awarded fell by -11.6% in 2Q (vs. -1% in 1Q) (see Fig 35), led by the public sector (-25.4%) which outweighed private demand (+3.9%).

Nonetheless, construction demand will be supported by a robust pipeline of public and private sector projects. The gradual return of construction workers should help to speed up completion of existing projects (see Fig 36). The Building & Construction Authority (BCA) projects construction demand to range between S$27bn and S$32bn in 2023 (vs. S$29.8bn in 2022), supported by a strong pipeline of public housing projects as the Housing Development Board ramps up BTO flat supply.

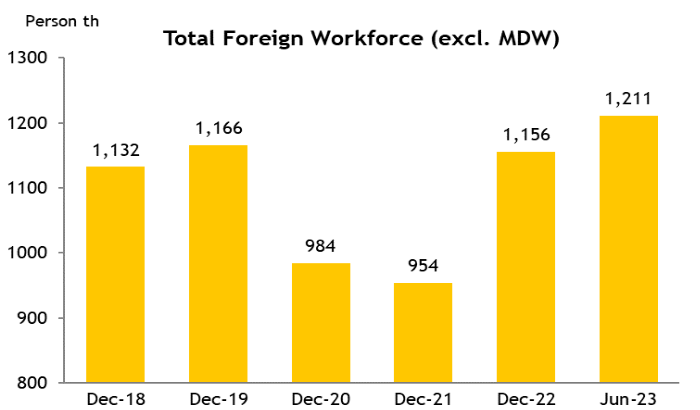
The Housing & Development Board (HDB) has been expediting the release of more BTO housing amid a supply shortage. HDB will launch 13k flats in 2H (vs. ~10k in the first half). In addition, private housing supply in the Government Land Sales (GLS) programme has been ramped up by +26% in 2H (vs. 1H). Total confirmed list supply of around 9,250 for the whole of 2023 will be the highest in a decade.

Fig 35: Construction Contracts Awarded Slumped -11.6% in 2Q23, Led By Public Sector (-25.4%)



Source: CEIC

Fig 36: Aggregate Foreign Workforce (excl. MDW) Rose to 1.2mn in 1H23, Above the Pre-Pandemic Level



Note: MDW = Migrant Domestic Workers
Source: CEIC

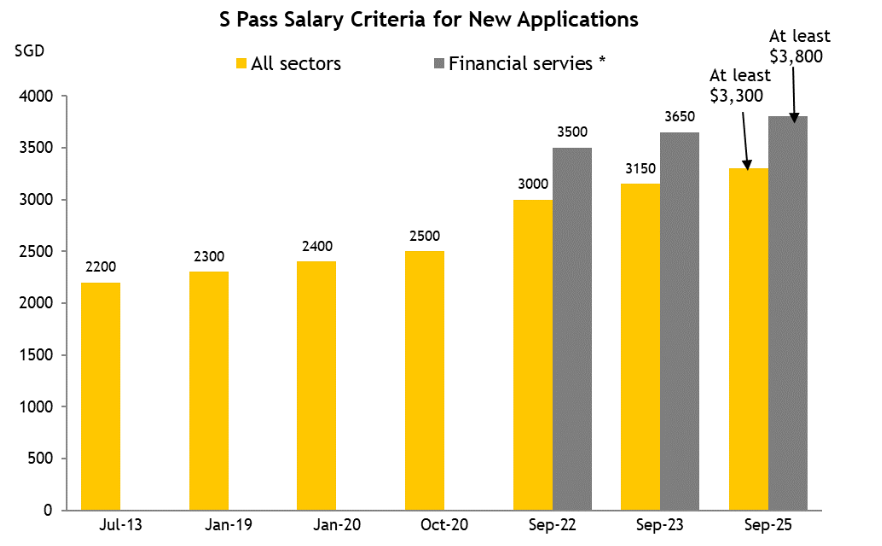
Appendix: Details of New Manpower Measures

Table 7: S Pass Holders Criteria

Sector(s)	Revised Minimum Qualifying Salary			
EP Holders	**From 1 Sep 2022 (New applications)/From 1 Sep 2023 (Renewals)**			
All sectors, except for Financial Services	S$5,000 (vs. S$4,500 previously) (increases up to S$10,500 for a candidate in mid-40s)			
Financial Services sector	S$5,500 (vs. S$5,000 previously) (increases up to S$11,500 for a candidate in mid-40s)			
S Pass Holders (Renewals)^	**1 Sep 2022**	**1 Sep 2023**	**1 Sep 2024**	**1 Sep 2026**
All sectors, except for Financial Services	S$2500	S$3,000 (increases up to S$4,500 for a candidate in mid-40s)	S$3,150 (increase up to S$4,650 for a candidate in mid-40s)	At least S$3,300*
Financial Services sector	S$2500	S$3,500 (increases up to S$5,500 for a candidate in mid-40s)	S$3,650 (increase up to S$5,650 for a candidate in mid-40s)	At least S$3,800*
Tier 1 S Pass Levy Rate	**1 Sep 2022**	**1 Sep 2023**	**1 Sep 2025**	
	S$450	S$550	From S$550 to S$650	

^ Minimum S Pass qualifying salary for new applications takes effect 1 year earlier, e.g. minimum qualifying salary hike to S$3,150 takes effect from 1 Sep 2023.
**The finalized values will be announced closer to the implementation date based on prevailing local APT wages at the time.*
Source: MOM, Business Times

Fig 37: S Pass Qualifying Salaries For New Applicants Raised by S$150 in Sep 2023



** For Sep 2025, the finalized values will be announced closer to the implementation date based on prevailing local APT wages at the time.*
Source: The Straits Times, Maybank IBG Research

Table 8: Ordinary Wage Ceiling for CPF Contributions Will Rise to S$8000 By 2025

	CPF Monthly salary ceiling	CPF annual salary ceiling
Current	S$6,000	
From Sept 1,2023	S$6,300	
From Jan 1, 2024	S$6,800	S$102,000
From Jan 1, 2025	S$7,400	
From Jan 1, 2026	S$8,000	

Note: The Ordinary Wage (OW) ceiling limits the amount of OW that attract CPF contributions (20% by employee + 17% by employer) in a calendar month for all employees.
Source: Ministry of Finance, The Straits Times

Table 9: Roadmap for Progressive Wage Model Implementation

2021	1 Sep 2022	1 Mar 2023	1 Jul 2023
28,000	Cumulatively: 164,000 Local Qualifying Salary: 99,000 workers	Cumulatively: 234,000	Cumulatively: 237,000
Existing PWMs (Cleaners, security officers, landscape maintenance workers): 28,000 workers	Retail PWM: 13,000 workers In-house PWM (Cleaners, security officers, landscape maintenance workers): 24,000 workers	Occupational PWM (Administrators, drivers): 55,000 workers Food services PWM: 15,000 workers	Waste management PWM: up to 3,000 workers

Source: Business Times

Research Offices

ECONOMICS

Suhaimi ILIAS
Chief Economist
Malaysia | Philippines | Global
(603) 2297 8682
suhaimi_ilias@maybank-ib.com

CHUA Hak Bin
Regional Thematic Macroeconomist
(65) 6231 5830
chuahb@maybank.com

Dr Zamros DZULKAFLI
Malaysia | Philippines
(603) 2082 6818
zamros.d@maybank-ib.com

Erica TAY
China | Thailand
(65) 6231 5844
erica.tay@maybank.com

Brian LEE Shun Rong
Indonesia | Singapore | Vietnam
(65) 6231 5846
brian.lee1@maybank.com

Fatin Nabila MOHD ZAINI
(603) 2297 8685
fatinnabila.mohdzaini@maybank-ib.com

Luong Thu Huong
(65) 6231 8467
hana.thuhuong@maybank.com

FX

Saktiandi SUPAAT
Head of FX Research
(65) 6320 1379
saktiandi@maybank.com

Fiona LIM
(65) 6320 1374
fionalim@maybank.com

Alan LAU
(65) 6320 1378
alanlau@maybank.com

Shaun LIM
(65) 6320 1371
shaunlim@maybank.com

STRATEGY

Anand PATHMAKANTHAN
ASEAN
(603) 2297 8783
anand.pathmakanthan@maybank-ib.com

FIXED INCOME

Winson PHOON, FCA
Head of Fixed Income
(65) 6340 1079
winsonphoon@maybank.com

SE THO Mun Yi, CFA
(603) 2074 7606
munyi.st@maybank-ib.com

PORTFOLIO STRATEGY

ONG Seng Yeow
(65) 6231 5839
ongsengyeow@maybank.com

MIBG SUSTAINABILITY RESEARCH

Jigar SHAH
Head of Sustainability Research
(91) 22 4223 2632
jigars@maybank.com

Neerav DALAL
(91) 22 4223 2606
neerav@maybank.com

REGIONAL EQUITIES

Anand PATHMAKANTHAN
Head of Regional Equity Research
(603) 2297 8783
anand.pathmakanthan@maybank-ib.com

WONG Chew Hann, CA
Head of ASEAN Equity Research
(603) 2297 8686
wchewh@maybank-ib.com

MALAYSIA

Anand PATHMAKANTHAN *Head of Research*
(603) 2297 8783
anand.pathmakanthan@maybank-ib.com
• Strategy

WONG Chew Hann, CA
(603) 2297 8686
wchewh@maybank-ib.com
• Non-Bank Financials (stock exchange)
• Construction & Infrastructure

Desmond CH'NG, BFP, FCA
(603) 2297 8680
desmond.chng@maybank-ib.com
• Banking & Finance

ONG Chee Ting, CA
(603) 2297 8678
ct.ong@maybank-ib.com
• Plantations - Regional

YIN Shao Yang, CPA
(603) 2297 8916
samuel.y@maybank-ib.com
• Gaming – Regional
• Media • Aviation • Non-Bank Financials

TAN Chi Wei, CFA
(603) 2297 8690
chiwei.t@maybank-ib.com
• Power • Telcos

WONG Wei Sum, CFA
(603) 2297 8679
weisum@maybank-ib.com
• Property • Glove

Jade TAM
(603) 2297 8687
jade.tam@maybank-ib.com
• Consumer Staples & Discretionary

Nur Farah SYIFAA
(603) 2297 8675
nurfarahsyifaa.mohamadfuad@maybank-ib.com
• Renewable Energy • REITs

LOH Yan Jin
(603) 2297 8687
lohyanjin.loh@maybank-ib.com
• Ports • Shipping • Automotive

Arvind JAYARATNAM
(603) 2297 8692
arvind.jayaratnam@maybank.com
• Petrochemicals • Technology

Jeremie YAP
(603) 2297 8688
jeremie.yap@maybank-ib.com
• Oil & Gas Services

TEE Sze Chiah *Head of Retail Research*
(603) 2082 6858
szechiah.t@maybank-ib.com
• Retail Research

Nik Ihsan RAJA ABDULLAH, MSTA, CFTe
(603) 2297 8694
nikmohdihsan.ra@maybank-ib.com
• Chartist

Amirah AZMI
(603) 2082 8769
amirah.azmi@maybank-ib.com
• Retail Research

SINGAPORE

Thilan WICKRAMASINGHE *Head of Research*
(65) 6231 5840
thilanw@maybank.com
• Banking & Finance - Regional
• Consumer

Eric ONG
(65) 6231 5849
ericong@maybank.com
• Healthcare • Transport • SMIDs

Kelvin TAN
(65) 6231 5837
kelvin.tan1@maybank.com
• Telcos • Industrials

LI Jialin
(65) 6231 5845
jialin.li@maybank.com
• REITs

Jarick SEET
(65) 6231 5848
jarick.seet@maybank.com
• Technology

Krishna GUHA
(65) 6231 5842
krishna.guha@maybank.com
• REITs

PHILIPPINES

Jacqui de JESUS *Head of Research*
(63) 2 8849 8840
jacqui.dejesus@maybank.com
• Strategy • Conglomerates

Rachelleen RODRIGUEZ, CFA
(63) 2 8849 8843
rachelleen.rodriguez@maybank.com
• Banking & Finance • Transport • Telcos
• Utilities

Daphne SZE
(63) 2 8849 8847
daphne.sze@maybank.com
• Consumer

Alexa Mae CARVAJAL
(63) 2 8849 8838
alexamae.carvajal@maybank.com
• Consumer • Gaming • Property • REITs

THAILAND

Chak REUNGSINPINYA *Head of Research*
(66) 2658 5000 ext 1399
chak.reungsinpinya@maybank.com
• Strategy • Energy

Jesada TECHAHUSDIN, CFA
(66) 2658 5000 ext 1395
jesada.t@maybank.com
• Banking & Finance

Wasu MATTANAPOTCHANART
(66) 2658 5000 ext 1392
wasu.m@maybank.com
• Telcos • REITs

Surachai PRAMUALCHAROENKIT
(66) 2658 5000 ext 1470
surachai.p@maybank.com
• Auto • Conmat • Contractor • Steel

Suttatip PEERASUB
(66) 2658 5000 ext 1430
suttatip.p@maybank.com
• Food & Beverage • Commerce

INDONESIA

Jeffrosenberg CHENLIM *Head of Research*
(62) 21 8066 8680
jeffrosenberg.lim@maybank.com
• Strategy • Banking & Finance • Property

Willy GOUTAMA
(62) 21 8066 8500
willy.goutama@maybank.com
• Consumer

Etta Rusdiana PUTRA
(62) 21 8066 8683
etta.putra@maybank.com
• Telcos • Internet • Construction

William Jefferson W
(62) 21 8066 8563
william.jefferson@maybank.com
• Property

Adi WICAKSONO
(62) 21 8066 8686
adi.wicaksono@maybank.com
• Plantations

Satriawan HARYONO, CEWA, CTA
(62) 21 8066 8682
satriawan@maybank.com
• Chartist

VIETNAM

Quan Trong Thanh *Head of Research*
(84 28) 44 555 888 ext 8184
thanh.quan@maybank.com
• Strategy • Banks

Hoang Huy, CFA
(84 28) 44 555 888 ext 8181
hoanghuy@maybank.com
• Strategy • Technology

Le Nguyen Nhat Chuyen
(84 28) 44 555 888 ext 8082
chuyen.le@maybank.com
• Oil & Gas • Logistics

Nguyen Thi Sony Tra Mi
(84 28) 44 555 888 ext 8084
trami.nguyen@maybank.com
• Consumer Discretionary

Tran Thi Thanh Nhan
(84 28) 44 555 888 ext 8088
nhan.tran@maybank.com
• Consumer Staples

Nguyen Le Tuan Loi
(84 28) 44 555 888 ext 8182
loi.nguyen@maybank.com
• Property

Nguyen Thanh Hai
(84 28) 44 555 888 ext 8081
thanhhai.nguyen@maybank.com
• Industrials

Nguyen Thanh Lam
(84 28) 44 555 888 ext 8086
thanhlam.nguyen@maybank.com
• Retail Research

APPENDIX I: TERMS FOR PROVISION OF REPORT, DISCLAIMERS AND DISCLOSURES

DISCLAIMERS

This research report is prepared for general circulation and for information purposes only and under no circumstances should it be considered or intended as an offer to sell or a solicitation of an offer to buy the securities referred to herein. Investors should note that values of such securities, if any, may fluctuate and that each security's price or value may rise or fall. Opinions or recommendations contained herein are in form of technical ratings and fundamental ratings. Technical ratings may differ from fundamental ratings as technical valuations apply different methodologies and are purely based on price and volume-related information extracted from the relevant jurisdiction's stock exchange in the equity analysis. Accordingly, investors' returns may be less than the original sum invested. Past performance is not necessarily a guide to future performance. This report is not intended to provide personal investment advice and does not take into account the specific investment objectives, the financial situation and the particular needs of persons who may receive or read this report. Investors should therefore seek financial, legal and other advice regarding the appropriateness of investing in any securities or the investment strategies discussed or recommended in this report.

The information contained herein has been obtained from sources believed to be reliable but such sources have not been independently verified by Maybank Investment Bank Berhad, its subsidiary and affiliates (collectively, "Maybank IBG") and consequently no representation is made as to the accuracy or completeness of this report by Maybank IBG and it should not be relied upon as such. Accordingly, Maybank IBG and its officers, directors, associates, connected parties and/or employees (collectively, "Representatives") shall not be liable for any direct, indirect or consequential losses or damages that may arise from the use or reliance of this report. Any information, opinions or recommendations contained herein are subject to change at any time, without prior notice.

This report may contain forward looking statements which are often but not always identified by the use of words such as "anticipate", "believe", "estimate", "intend", "plan", "expect", "forecast", "predict" and "project" and statements that an event or result "may", "will", "can", "should", "could" or "might" occur or be achieved and other similar expressions. Such forward looking statements are based on assumptions made and information currently available to us and are subject to certain risks and uncertainties that could cause the actual results to differ materially from those expressed in any forward looking statements. Readers are cautioned not to place undue relevance on these forward-looking statements. Maybank IBG expressly disclaims any obligation to update or revise any such forward looking statements to reflect new information, events or circumstances after the date of this publication or to reflect the occurrence of unanticipated events.

Maybank IBG and its officers, directors and employees, including persons involved in the preparation or issuance of this report, may, to the extent permitted by law, from time to time participate or invest in financing transactions with the issuer(s) of the securities mentioned in this report, perform services for or solicit business from such issuers, and/or have a position or holding, or other material interest, or effect transactions, in such securities or options thereon, or other investments related thereto. In addition, it may make markets in the securities mentioned in the material presented in this report. One or more directors, officers and/or employees of Maybank IBG may be a director of the issuers of the securities mentioned in this report to the extent permitted by law.

This report is prepared for the use of Maybank IBG's clients and may not be reproduced, altered in any way, transmitted to, copied or distributed to any other party in whole or in part in any form or manner without the prior express written consent of Maybank IBG and Maybank IBG and its Representatives accepts no liability whatsoever for the actions of third parties in this respect.

This report is not directed to or intended for distribution to or use by any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation. This report is for distribution only under such circumstances as may be permitted by applicable law. The securities described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. Without prejudice to the foregoing, the reader is to note that additional disclaimers, warnings or qualifications may apply based on geographical location of the person or entity receiving this report.

Malaysia

Opinions or recommendations contained herein are in the form of technical ratings and fundamental ratings. Technical ratings may differ from fundamental ratings as technical valuations apply different methodologies and are purely based on price and volume-related information extracted from Bursa Malaysia Securities Berhad in the equity analysis.

Singapore

This report has been produced as of the date hereof and the information herein may be subject to change. Maybank Research Pte. Ltd. ("MRPL") in Singapore has no obligation to update such information for any recipient. For distribution in Singapore, recipients of this report are to contact MRPL in Singapore in respect of any matters arising from, or in connection with, this report. If the recipient of this report is not an accredited investor, expert investor or institutional investor (as defined under Section 4A of the Singapore Securities and Futures Act), MRPL shall be legally liable for the contents of this report, with such liability being limited to the extent (if any) as permitted by law.

Thailand

Except as specifically permitted, no part of this presentation may be reproduced or distributed in any manner without the prior written permission of Maybank Securities (Thailand) Public Company Limited. Maybank Securities (Thailand) Public Company Limited ("MST") accepts no liability whatsoever for the actions of third parties in this respect.

Due to different characteristics, objectives and strategies of institutional and retail investors, the research products of MST Institutional and Retail Research departments may differ in either recommendation or target price, or both. MST reserves the rights to disseminate MST Retail Research reports to institutional investors who have requested to receive it. If you are an authorised recipient, you hereby tacitly acknowledge that the research reports from MST Retail Research are first produced in Thai and there is a time lag in the release of the translated English version.

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information. The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey may be changed after that date. MST does not confirm nor certify the accuracy of such survey result.

The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of the Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, MST does not confirm, verify, or certify the accuracy and completeness of the assessment result.

US

This third-party research report is distributed in the United States ("US") to Major US Institutional Investors (as defined in Rule 15a-6 under the Securities Exchange Act of 1934, as amended) only by Wedbush Securities Inc. ("Wedbush"), a broker-dealer registered in the US (registered under Section 15 of the Securities Exchange Act of 1934, as amended). All responsibility for the distribution of this report by Wedbush in the US shall be borne by Wedbush. This report is not directed at you if Wedbush is prohibited or restricted by any legislation or regulation in any jurisdiction from making it available to you. You should satisfy yourself before reading it that Wedbush is permitted to provide research material concerning investments to you under relevant legislation and regulations. All U.S. persons receiving and/or accessing this report and wishing to effect transactions in any security mentioned within must do so with: Wedbush Securities Inc. 1000 Wilshire Blvd, Los Angeles, California 90017, +1 (646) 604-4232 and not with the issuer of this report.

UK

This document is being distributed by Maybank Securities (London) Ltd ("MSUK") which is authorized and regulated, by the Financial Conduct Authority and is for Informational Purposes only. This document is not intended for distribution to anyone defined as a Retail Client under the Financial Services and Markets Act 2000 within the UK. Any inclusion of a third party link is for the recipients convenience only, and that the firm does not take any responsibility for its comments or accuracy, and that access to such links is at the individuals own risk. Nothing in this report should be considered as constituting legal, accounting or tax advice, and that for accurate guidance recipients should consult with their own independent tax advisers.

DISCLOSURES

Legal Entities Disclosures

Malaysia: This report is issued and distributed in Malaysia by Maybank Investment Bank Berhad (15938- H) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets and Services License issued by the Securities Commission in Malaysia. **Singapore:** This report is distributed in Singapore by MRPL (Co. Reg No 198700034E) which is regulated by the Monetary Authority of Singapore. **Indonesia:** PT Maybank Sekuritas Indonesia ("PTMSI") (Reg. No. KEP-251/PM/1992) is a member of the Indonesia Stock Exchange and is regulated by the Financial Services Authority (Indonesia). **Thailand:** MST (Reg. No.0107545000314) is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. **Philippines:** Maybank Securities Inc (Reg. No.01-2004-00019) is a member of the Philippines Stock Exchange and is regulated by the Securities and Exchange Commission. **Vietnam:** Maybank Securities Limited (License Number: 117/GP-UBCK) is licensed under the State Securities Commission of Vietnam. **Hong Kong:** MIB Securities (Hong Kong) Limited (Central Entity No AAD284) is regulated by the Securities and Futures Commission. **India:** MIB Securities India Private Limited ("MIBSI") is a participant of the National Stock Exchange of India Limited and the Bombay Stock Exchange and is regulated by Securities and Exchange Board of India ("SEBI") (Reg. No. INZ000010538). MIBSI is also registered with SEBI as Category 1 Merchant Banker (Reg. No. INM 000011708) and as Research Analyst (Reg No: INH000000057). **UK:** Maybank Securities (London) Ltd (Reg No 2377538) is authorized and regulated by the Financial Conduct Authority.

Disclosure of Interest

Malaysia: Maybank IBG and its Representatives may from time to time have positions or be materially interested in the securities referred to herein and may further act as market maker or may have assumed an underwriting commitment or deal with such securities and may also perform or seek to perform investment banking services, advisory and other services for or relating to those companies.

Singapore: As of 4 October 2023, Maybank Research Pte. Ltd. and the covering analyst do not have any interest in any companies recommended in this research report.

Thailand: MST may have a business relationship with or may possibly be an issuer of derivative warrants on the securities /companies mentioned in the research report. Therefore, Investors should exercise their own judgment before making any investment decisions. MST, its associates, directors, connected parties and/or employees may from time to time have interests and/or underwriting commitments in the securities mentioned in this report.

Hong Kong: As of 4 October 2023, MIB Securities (Hong Kong) Limited and the authoring analyst do not have any interest in any companies recommended in this research report.

India: As of 4 October 2023, and at the end of the month immediately preceding the date of publication of the research report, MIBSI, authoring analyst or their associate / relative does not hold any financial interest or any actual or beneficial ownership in any shares or having any conflict of interest in the subject companies except as otherwise disclosed in the research report.

In the past twelve months MIBSI and authoring analyst or their associate did not receive any compensation or other benefits from the subject companies or third party in connection with the research report on any account what so ever except as otherwise disclosed in the research report.

Maybank IBG may have, within the last three years, served as manager or co-manager of a public offering of securities for, or currently may make a primary market in issues of, any or all of the entities mentioned in this report or may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to the investment concerned or a related investment and may receive compensation for the services provided from the companies covered in this report.

OTHERS

Analyst Certification of Independence

The views expressed in this research report accurately reflect the analyst's personal views about any and all of the subject securities or issuers; and no part of the research analyst's compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in the report.

Reminder

Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct its own analysis of the product and consult with its own professional advisers as to the risks involved in making such a purchase.

Definition of Ratings

Maybank IBG Research uses the following rating system

BUY	Return is expected to be above 10% in the next 12 months (including dividends)
HOLD	Return is expected to be between 0% to 10% in the next 12 months (including dividends)
SELL	Return is expected to be below 0% in the next 12 months (including dividends)

Applicability of Ratings

The respective analyst maintains a coverage universe of stocks, the list of which may be adjusted according to needs. Investment ratings are only applicable to the stocks which form part of the coverage universe. Reports on companies which are not part of the coverage do not carry investment ratings as we do not actively follow developments in these companies.

Malaysia

Maybank Investment Bank Berhad
(A Participating Organisation of
Bursa Malaysia Securities Berhad)
33rd Floor, Menara Maybank,
100 Jalan Tun Perak,
50050 Kuala Lumpur
Tel: (603) 2059 1888;
Fax: (603) 2078 4194

Stockbroking Business:
Level 8, Tower C, Dataran Maybank,
No.1, Jalan Maarof
59000 Kuala Lumpur
Tel: (603) 2297 8888
Fax: (603) 2282 5136

Singapore

Maybank Securities Pte Ltd
Maybank Research Pte Ltd
50 North Canal Road
Singapore 059304

Tel: (65) 6336 9090

London

Maybank Securities (London) Ltd
PNB House
77 Queen Victoria Street
London EC4V 4AY, UK

Tel: (44) 20 7332 0221
Fax: (44) 20 7332 0302

Hong Kong

MIB Securities (Hong Kong) Limited
28/F, Lee Garden Three,
1 Sunning Road, Causeway Bay,
Hong Kong

Tel: (852) 2268 0800
Fax: (852) 2877 0104

Indonesia

PT Maybank Sekuritas Indonesia
Sentral Senayan III, 22nd Floor
Jl. Asia Afrika No. 8
Gelora Bung Karno, Senayan
Jakarta 10270, Indonesia

Tel: (62) 21 2557 1188
Fax: (62) 21 2557 1189

India

MIB Securities India Pte Ltd
1101, 11th floor, A Wing, Kanakia
Wall Street, Chakala, Andheri -
Kurla Road, Andheri East,
Mumbai City - 400 093, India

Tel: (91) 22 6623 2600
Fax: (91) 22 6623 2604

Philippines

Maybank Securities Inc
17/F, Tower One & Exchange
Plaza
Ayala Triangle, Ayala Avenue
Makati City, Philippines 1200

Tel: (63) 2 8849 8888
Fax: (63) 2 8848 5738

Thailand

Maybank Securities (Thailand) PCL
999/9 The Offices at Central World,
20th - 21st Floor,
Rama 1 Road Pathumwan,
Bangkok 10330, Thailand

Tel: (66) 2 658 6817 (sales)
Tel: (66) 2 658 6801 (research)

Vietnam

Maybank Securities Limited
Floor 10, Pearl 5 Tower,
5 Le Quy Don Street,
Vo Thi Sau Ward, District 3
Ho Chi Minh City, Vietnam

Tel : (84) 28 44 555 888
Fax : (84) 28 38 271 030

Sales Trading

Indonesia
Helen Widjaja
helen.widjaja@maybank.com
(62) 21 2557 1188

London
Greg Smith
gsmith@maybank.com
Tel: (44) 207-332-0221

Philippines
Keith Roy
keith_roy@maybank.com
Tel: (63) 2 848-5288

India
Sanjay Makhija
sanjaymakhija@maybank.com
Tel: (91)-22-6623-2629

www.maybank.com/investment-banking
www.maybank-keresearch.com