

24 September 2024

Global Economics & Market Strategy

Singapore: Minimal Impact of Higher GST rates on Consumer Spending

- ◆ Our quantitative work suggests that GST rate hikes had limited impact on inflation and real wages in Singapore.
- ◆ Previous GST rate hike had limited impact on private consumption spending in Singapore due to; (1) consumers frontloading behaviour and (2) government’s support measures by providing vouchers and rebates to mitigate the impact of higher prices.
- ◆ Across sectors, GST rate hikes have limited impact on the consumption spending of essentials items, but the impact on semi-discretionary and discretionary items is significant.

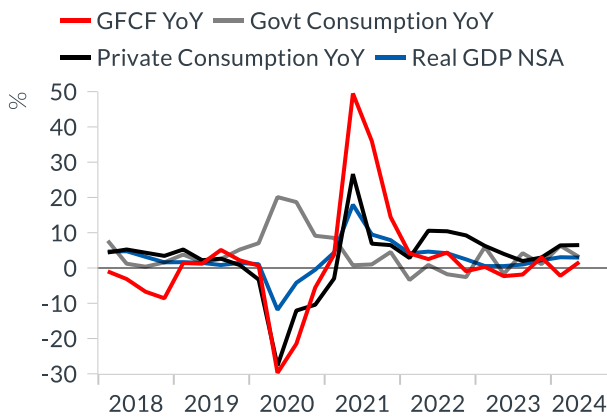
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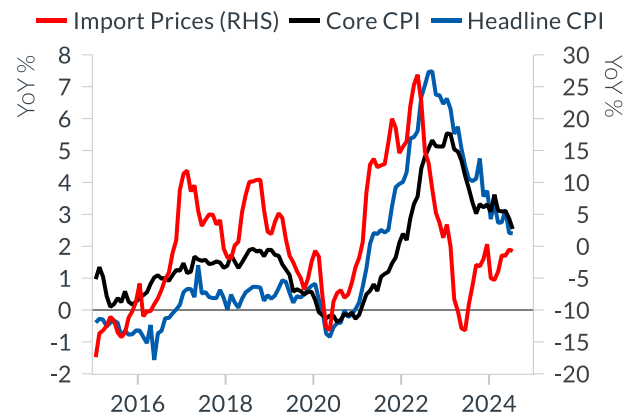
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Figure 1: Continued rebound in private consumption expected to support GDP growth in 2H24



Source: Macrobond, RHB Economics & Market Strategy

Figure 2: Headline and Core inflation YoY growth has been softening



Source: Macrobond, RHB Economics & Market Strategy

GST Rates in Singapore – A Brief History

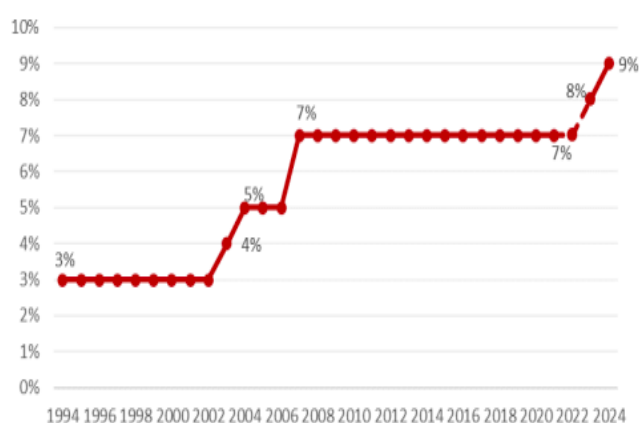
This thematic report discusses the implications of the Good Services Tax (GST) rate hike on consumer spending behaviour and Singapore's private consumption prognosis in 2H24. We assess the impact of a GST rate hike on the economy through several key aspects: (1) inflation & real wages, (2) private consumption, and (3) consumer spending on specific types of goods.

Key conclusions that can be drawn from our findings are: (1) past increase in GST rate had little impact on consumer prices and real wages in Singapore, (2) while also having a limited effect on private consumption in Singapore, attributed to consumers front-loading purchases before the increase and government support measures, including vouchers to offset price increase. Across sectors, (3) the effect on the consumption spending of essentials items appears insignificant, but the likely impact on semi-discretionary and discretionary items is material.

Singapore's GST policy has gradually taken shape over the last two decades. GST was introduced in 1994 at 3%, and this rate was not raised till 2003 at 4%, and subsequently at 7% in 2007 (Narayanan, 2014). The increase in the GST rate, then, was accompanied by offsets to the lower middle-income levels, such as the GST Voucher Scheme and to the companies, such as the tourist refund scheme and special scheme related to export to minimise its impact at the early implementation stage (Jenkins & Khadka, 1998). Singapore subsequently increased its GST rate from 7% to 8% in 2023, then 9% in January 2024. Notwithstanding the higher GST rates, we found that inflation dynamics have been shaped mainly by external factors, rather than GST rate hikes. For instance, our quantitative analysis discussed below suggests the trend cycle in inflation is driven by broad movements in global commodity markets, the level of aggregate economic activity, which subsequently impacts Singapore's demand-pull and cost-push factors.

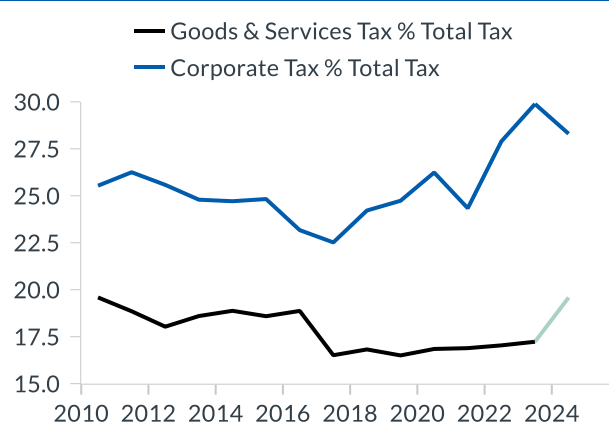
The Finance Ministry has announced that GST rates will increase from 7% to 8% effective 1 January 2023 in the FY2022 Budget. This will rise further to 9% effective 1 January 2024. Prime Minister Lawrence Wong stated that while increasing GST does lead to a temporary rise in prices, this effect is a "once-off" and "not permanent".¹ At the same time, the recent inflation trends indicate that the GST hike was not the primary cause of the price surge and will not result in sustained high inflation". The Monetary Authority of Singapore (MAS), during its Macroeconomic Review in April 2024, highlighted that the GST hike to 9% has likely been fully passed through to most consumer prices as of March. While some residual pass-through remains due to several retailers' decisions to absorb the GST increase until 2024 temporarily, this is unlikely to raise inflation in the upcoming months significantly. For 2024, officials expect core inflation to average 2.5–3.5%, while CPI-All Items inflation should average 2.0–3.0%. Excluding the transitory effects of the 1%-point increase in the GST rate to 9%, both core and CPI-All Items inflation is expected to average at 1.5 - 2.5%.

Figure 3: Singapore GST rate hike over the years



Source: Singapore Business Review

Figure 4: GST % total tax revenue is small, as tax rates stay competitive on the global arena



Source: Macrobond, RHB Economics & Market Strategy

¹ The Straits Times, [No need for further GST increases up to 2030: DPM Lawrence Wong](#), 28 Feb 2024

(1) Limited GST impact on inflation indicates Minimal Spread to Real Wages

On the inflation front, we see that the recent GST rate hikes do not dictate the fluctuating trend in Singapore's headline consumer prices. Specifically, higher GST rates may support consumer prices, but the year-on-year impact will likely be washed out in the subsequent years. A hypothesis explaining the limited impact of GST on inflation trends may be seen from Singapore's economic structure - Singapore's consumer prices are primarily driven by imported prices and depend on global trade demand and commodity prices. However, the relatively stronger SGD Nominal Effective Exchange Rate (S\$NEER) has effectively cushioned said imported inflation.

Our aforementioned hypothesis is proven by the quantitative analysis via the Ordinary Least Square (OLS) regression (Figure 5). We found that import prices and S\$NEER primarily drive Singapore's headline inflation. Our OLS model for Singapore's inflation function takes on three variables across 98 quarterly observations (Q1 2000 - Q2 2024), with an adjusted R-squared of 0.50. The model suggests Singapore's exchange rate has the highest beta in influencing the nation's inflation (coefficient: 0.66), and import prices (coefficient: 0.09) positively correlate with consumer prices in Singapore. The high coefficient seen for S\$NEER suggests that Singapore's monetary policy tool has effectively guided inflation pressures, as the upside impact from higher imported prices is relatively cushioned by stronger S\$NEER. Disposable income, proxied by average monthly earnings, enjoys a positive coefficient suggesting that demand-led conditions may influence inflation. However, we found this independent variable statistically insignificant (p -value > 0.05).

Our regression analysis also supports the official rhetoric citing that the increase in GST rate may temporarily raise prices and is not permanent. The officials emphasised that recent inflation trends show the GST hike is not the main driver of price increases and will not lead to sustained high inflation. We concur with this view, backed by our quantitative tools, which signalled that the rise in the GST rate is likely a one-off impact and does not impact the overall inflation trend.

In the same vein, GST's limited impact on inflation suggests little spillover effect on real wages. Real wages reflect the amount of goods and services that can be purchased with nominal wages, taking into account changes in price levels. As mentioned above, our analysis showed that the inflationary climate in Singapore is mainly influenced by the import prices and its S\$NEER. Increased GST rates might initially drive up consumer prices, but their limited impact on inflation will diminish over time. Hence, we view that the increase in the GST rate has no significant effect on the real wage trend as the rate hikes do not primarily influence the inflation pattern.

Figure 5: Singapore's Inflation Function - Import Prices and S\$NEER Drive Consumer Prices

Regression Statistics				
R Square	0.52198			
Adjusted R Square	0.50142			
Standard Error	1.54982			
Observations (Quarterly)	98			

Dependent Variable	Consumer Price Index (YoY)			
	Coeff	Std Error	t Stat	P-value
Intercept	0.82269	0.27150	3.03019	0.00316
Import Prices (YoY)	0.08545	0.02408	3.54931	0.00061
Average Monthly Earnings (YoY)	0.02855	0.07055	0.40474	0.68659
S\$ Nominal Effective Exchange Rate Index (YoY)	0.66203	0.08898	7.44067	0.00000

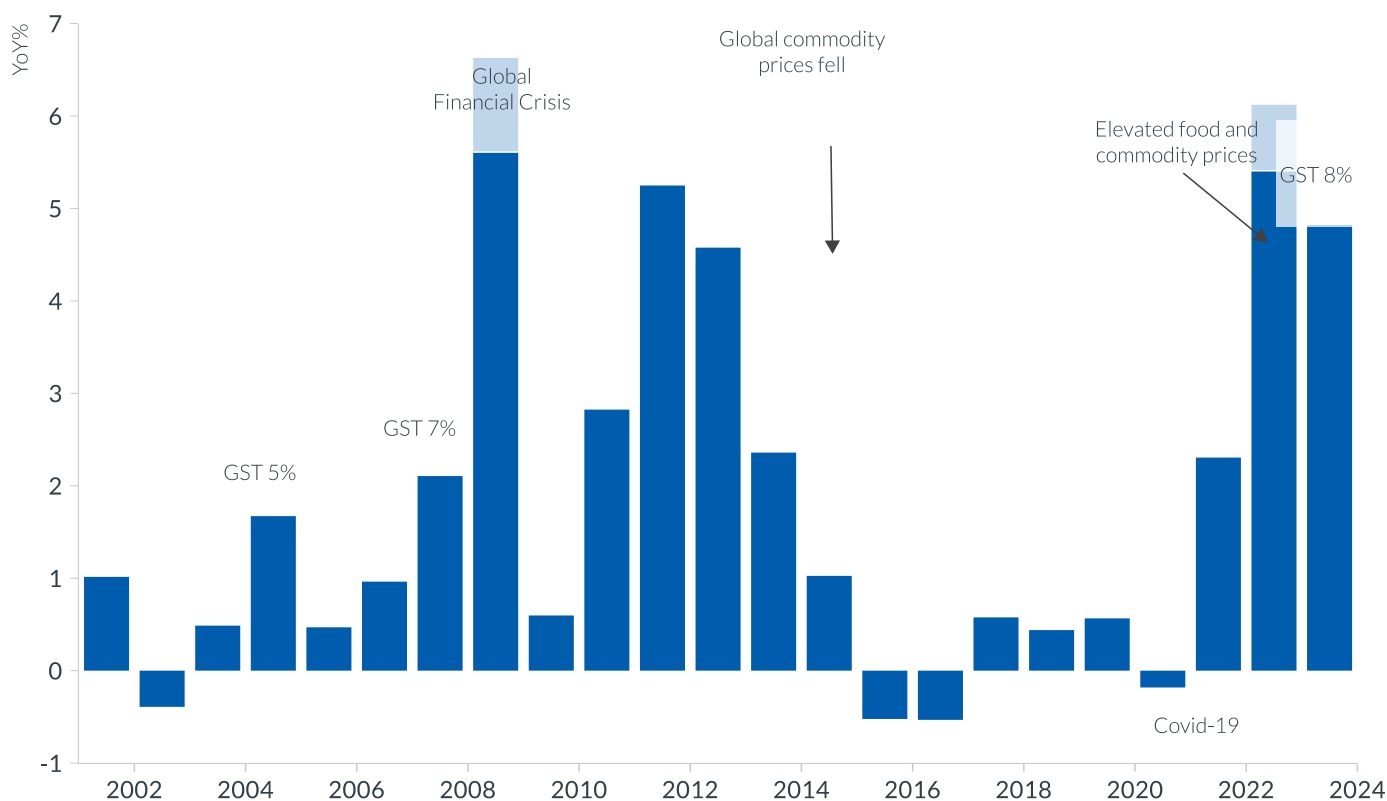
Source: RHB Economics & Market Strategy, YoY stands for Year-On-Year growth rates

Figure 6: GST rate hikes has limited effect on Singapore's MoM% headline inflation trend

	GST Rate		7%										8%	9%
	Mean	Median	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Jan	-0.12	0.08	0.10	-0.22	-0.22	0.17	-0.19	-0.30	-0.24	-0.03	0.03	0.19	-0.67	
Feb	0.38	0.09	-0.02	0.10	-0.10	0.00	0.47	0.57	0.07	0.57	0.87	0.56	1.05	
Mar	0.18	0.08	0.27	0.24	0.04	0.04	-0.20	0.02	-0.35	0.22	1.25	0.50	-0.10	
Apr	-0.29	0.08	-0.41	-0.62	-0.05	-0.30	-0.47	-0.22	-0.92	-0.17	-0.13	0.08	0.09	
May	0.45	0.18	0.34	0.46	-0.65	0.34	0.62	0.57	0.47	0.80	0.99	0.32	0.70	
Jun	0.12	0.09	-0.17	-0.11	0.74	-0.14	0.06	-0.29	0.02	-0.01	1.00	0.48	-0.22	
Jul	-0.24	0.15	-0.30	-0.36	-0.28	-0.23	-0.15	-0.45	-0.32	-0.19	0.15	-0.24	-0.25	
Aug	0.55	0.20	0.53	0.09	0.49	0.33	0.42	0.62	0.63	0.55	0.94	0.88		
Sep	0.14	0.16	-0.19	0.00	0.01	-0.02	-0.03	-0.06	0.33	0.42	0.43	0.50		
Oct	-0.22	0.18	-0.30	-0.43	-0.29	-0.29	-0.31	-0.22	-0.43	0.29	-0.40	0.20		
Nov	0.39	0.20	0.19	0.20	0.32	0.58	0.16	0.32	0.40	0.98	0.97	-0.17		
Dec	0.16	0.17	-0.11	0.01	0.16	-0.10	0.08	0.19	0.36	0.46	0.20	0.38		

Source: CEIC, RHB Economics & Market Strategy

Figure 7: The YoY inflation rate growth has been relatively volatile over the years



Source: Macrobond, RHB Economics & Market Strategy

(2) Little Effect on Consumption Spending due to Front-loading behaviour and Govt Measures

We acknowledge that lower disposable income will dampen consumer spending. When inflation outpaces disposable income growth, consumers may reduce their spending in view of the decreasing purchasing power. Our previous thematic [report](#) on private consumption in Singapore proves this on a quantitative approach - wages are affected by manufacturing, retail sales and construction activities, which in turn determines Singapore's consumption function.

To analyse the impact of GST rate hikes on consumption patterns in Singapore, we constructed a modified retail sales indicator (see Appendix for details) to exclude tourism and price impact, as a proxy to measure private consumption expenditure. It is imperative to remove tourism impact (1) in order to illustrate domestic demand, (2) whereby tourism demand should be less impacted from GST rate hikes due to the existence of tourism tax claims. We adjusted the nominal retail sales figures to real terms using inflation data to exclude the impact of inflation, thereby measuring the volume rather than price and volume. Subsequently, we calculated the year-on-year percentage change and expressed it in basis points.

Based on Figure 11, our analysis showed that retail sales, excluding (tourism impact), increased before the GST hikes in 2007 and 2023, likely due to the front-loading behaviour where consumers purchased items before the tax increase. Thereafter, following the GST rate hike, retail sales declined in 2007 and 2023 but not in 2024. We think this difference may be attributed to some maturing of consumer expectations over price impact to demand, since the recent GST rate increase was announced in 2022 with a clear path of a two-step GST hike in 2023 and 2024, thus allowing consumers to (1) exhibit most front-loading behaviour in 2022 (rather than in 2023), with (2) consumer behaviour seeing little impact in 2024 given the early signalling bias experienced in 2022.

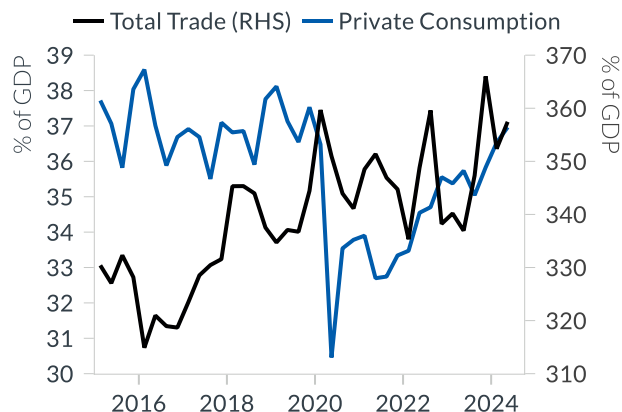
Our findings further support our view that higher GST rates have little impact on consumer expenditure and overall growth. Singapore's economy is primarily driven by externally-facing industries, which depend on global trade. This is observed as Singapore's total trade is over three times GDP, while domestic expenditure is comparatively small (around 35% of GDP), as shown in Figure 8. Empirical evidence in our previous [report](#) on GST indicated that retail sales were only minimally affected by GST rate increase, with the exception of 1994. Specifically, after GST hikes in January 2003 and July 2007, retail sales returned to pre-hike levels within six months. Similarly, the January 2004 rate increase showed no significant negative impact on retail sales. Overall, Singapore's economic outlook largely depends on global trade conditions, while past GST rate hikes have had little effect on consumer spending.

Moreover, the Singaporean government has implemented various measures to cushion the impact of GST hikes on consumption expenditure. The government provides GST vouchers and rebates to lower-income households to support private consumption in Singapore. For instance, targeted relief measures under the Assurance Package, such as the GST Voucher scheme, U-Save rebates, MediSave top-ups and Community Development Council (CDC) Voucher scheme, are introduced to help households deal with increased out-of-pocket expenses and partially offset the drag on consumption from higher prices. Do note that the Singapore Budget FY2024 emphasised the additional enhancement of the Assurance Package to address these concerns. The Budget has effectively addressed household's apprehensions regarding the heightened inflationary environment. The package to counteract the effects of the GST hike will receive an additional \$1.9 billion boost. This includes an extra \$600 in CDC vouchers for all households. There is also a MediSave top-up for adults and MediSave Accounts for senior citizens under the Majulah Package. These measures are expected to bolster consumer spending by cushioning the effect of higher prices across sectors. This supports our view that GST rate hikes do not dampen private consumption spending, thanks to the government's targeted relief measures that mitigate the impact of price increases.

Overall, the GST rate hike had a limited impact on private consumption behaviour in Singapore due to (1) consumers front-loading behaviour and (2) the government's support measures by providing vouchers and rebates to mitigate the impact of higher prices. As aforementioned, Singapore's economic prognosis rests primarily on global trade winds, while a GST rate increase did little to dent consumer expenditure in the past years.

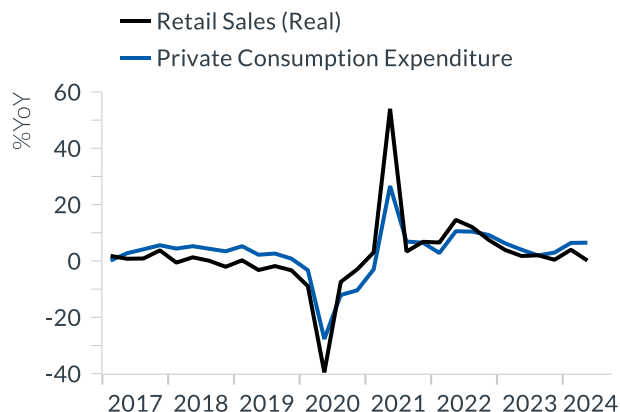
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Figure 8: Singapore's economy is primarily driven by externally-facing industries



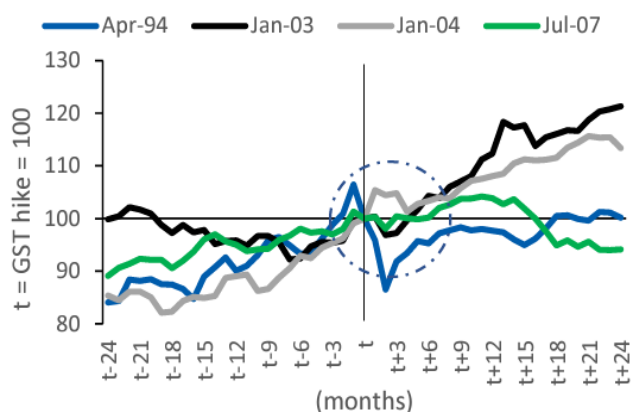
Source: Macrobond, RHB Economics & Market Strategy

Figure 9: Retail sales as an important indicator to measure the consumption behaviour



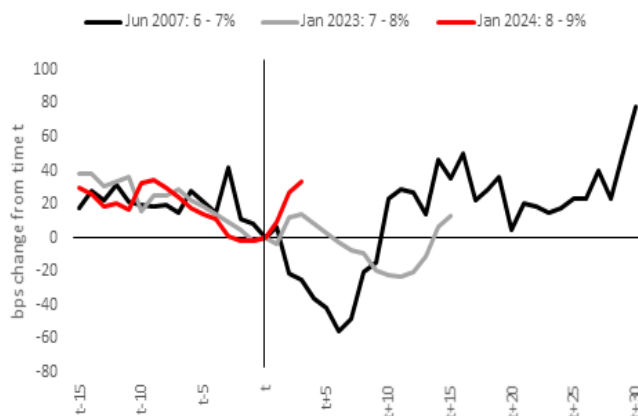
Source: Macrobond, RHB Economics & Market Strategy

Figure 10: Retail sales took approximately six months to return to pre-GST hike levels



Source: Macrobond, RHB Economics & Market Strategy

Figure 11: Retail sales rising prior to GST hike likely due to front-loading behaviour (see Appendix)



Source: Macrobond, RHB Economics & Market Strategy

Figure 12: SGD \$6.6 billion Assurance Package announced in FY 2022 Budget

Components	Beneficiaries	Total quantum	Payout period
Cash payout	All 2.8 million adult Singaporeans aged 21 and above	\$700 to \$1600	Over 5 years, starting in 2022
GST Voucher - Cash (Seniors' Bonus)	About 850,000 lower-income senior Singaporeans aged 55 and above	\$600 to \$900	Over 3 years, starting in 2023
Additional GST Voucher - U-Save rebates	About 950,000 Singaporean households in HDB flats	\$330 to \$570	Over 4 years, starting in 2023
MediSave top-ups	All Singaporean children below age 21 and seniors aged 55 and above - about two million total	\$450	Over 3 years, starting in 2023
Community Development Council Vouches scheme	All 1.3 million Singaporean households	Two tranches of \$200 each	2023 and 2024

Source: FY 2022 Budget, Ministry of Finance Singapore

(3) GST's Differing Impact on Inelastic (Mild) and Elastic (Significant) Goods

To further study the consumption spending behaviour after the GST rate hike, we conducted statistical analysis to see the effect on specific spending impact on (1) Essentials, (2) Semi-Discretionary and (3) Discretionary items.

We run a regression analysis to investigate the relationship between real wages (Average monthly earnings – Consumer Price) and spending impact on specific items mentioned above. We adopted a similar econometric approach to understand Singapore's consumption spending behaviour on Essentials, Semi-Discretionary and Discretionary items.

As aforementioned, Singapore's consumption function is primarily led by wages, which suggests that average monthly earnings positively correlate with private consumption GDP as highlighted in our previous thematic paper. Hence, in this section, we assessed how wages affect private consumption behaviour in the three categories. We conducted OLS to see the correlation between salaries and consumption behaviour on (1) Essentials, (2) Semi-Discretionary and (3) Discretionary items in Singapore by analysing the key dependent variables separately. This model uses monthly earnings (YoY) as the independent variable across 34 yearly observations (1990 – 2023), with a higher adjusted R-square observed for essential items. A brief description of the above-mentioned items is defined below:

- (1) **Essential items tend to be inelastic in terms of price.** This means price changes have little impact on the quantity demanded because these items are crucial for survival and well-being. Consumers will continue to purchase these items even if prices rise.
- (2) **Semi-discretionary items are semi-elastic.** They exhibit moderate price sensitivity; if prices increase, consumers might cut back on spending in these areas but will not stop purchasing them. Conversely, if prices decrease, they might spend more or opt for higher-quality options.
- (3) **Discretionary items, including luxury goods, high-end electronics, and extravagant vacations, are elastic.** Consumers are more sensitive to price changes for these items. When prices rise, demand for discretionary goods tends to drop significantly as consumers may choose to forgo or delay these purchases. On the other hand, lower prices can lead to increased spending in this category.

Figure 13: RHB's classification of Essentials, Semi – Discretionary and Discretionary Items

Essentials	Semi - Discretionary	Discretionary
Food & Non - Alcoholic Beverages	Alcoholic Beverages & Tobacco	Recreation & Culture
Clothing & Footwear	Furnishings & Household Equipment	Food Serving Services
Housing & Utilities	Transport	Accommodation Services
Health	Communication	Miscellaneous Goods & Services
Education		

Source: Macrobond, RHB Economics & Market Strategy

Through our quantitative analysis via the OLS regression, we found that average monthly earnings have a smaller beta in influencing consumer spending on essential items (coefficient: 0.23492) and (p-value < 0.05). We also modelled the impact of monthly earnings on Singapore's semi-discretionary and discretionary items, albeit with poorer goodness of fit under the R-square parameter. Still, monthly earnings have the highest beta in influencing the spending for semi-discretionary goods with a coefficient of 0.76962, with a moderately statistically relevant P-value of > 0.1. Subsequently, our regression models show that the dependent variables for the discretionary goods were statistically irrelevant (p-value = 0.83), suggesting inadequate impact on monthly earnings on these variables. These models indicate that a GST rate increase, which negatively impacts real wages, has a very limited effect on the consumption spending for essential items. In contrast, real wages highly impact the spending on semi-discretionary, but is inconclusive for discretionary goods.

In a nutshell, the results suggest that a change in wages have a limited impact on the consumption spending of essential items due to its price inelasticity. In comparison, the effect on semi-discretionary and (by nature of relation) discretionary items is significant due to the higher elasticity of demand in these products.

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While higher GST rates may have a minimal impact on Singapore's GDP and inflation in the short term, such a hike could positively influence the country's medium to long-term outlook. We project that Singapore might see an uptick in the government's growth revenue and greater flexibility in its Budget, given the latest GST rate hike in January 2024. This GST hike (from 7% - 8% in 2023 and 9% in 2024) is expected to generate approximately 0.7% of the GDP in annual revenue (around \$3.5 billion) once fully implemented in 2024, cited by the Finance Minister during the FY2022 Budget speech.² However, our estimates pencil a \$4.0 billion increase in government revenue, beating the government estimate. Although the additional revenue may be modest, it will strengthen Singapore's social safety nets, enhance competitiveness, and foster new capabilities in an increasingly digital global economy.

Figure 14: Correlation between Monthly Earnings (YoY) and Consumption Expenditure on Essentials, Semi - Discretionary and Discretionary items

Regression Statistics	
R Square	0.15234
Adjusted R Square	0.09765
Standard Error	1.53023
Observations (Yearly)	34

Dependent Variable	Essentials (YoY)			
	Coeff	Std Error	t Stat	P-value
Intercept	2.97596	0.38012	7.82898	0.00000
Average Monthly Earnings (YoY)	0.23492	0.09796	2.39808	0.02249

Regression Statistics	
R Square	0.09179
Adjusted R Square	0.03319
Standard Error	6.68500
Observations (Yearly)	34

Dependent Variable	Semi - Discretionary (YoY)			
	Coeff	Std Error	t Stat	P-value
Intercept	0.96653	1.66061	0.58203	0.56462
Average Monthly Earnings (YoY)	0.76962	0.42796	1.79836	0.08156

Regression Statistics	
R Square	0.00147
Adjusted R Square	-0.06296
Standard Error	6.70753
Observations (Yearly)	34

Dependent Variable	Discretionary (YoY)			
	Coeff	Std Error	t Stat	P-value
Intercept	4.53928	1.66620	2.72433	0.01035
Average Monthly Earnings (YoY)	0.09307	0.4294	0.21674	0.82979

Source: RHB Economics & Market Strategy, YoY stands for Year-On-Year growth rates

We expect Singapore's consumption patterns to exhibit a cautious but steady recovery. Following the initial impact of GST rate hikes and inflationary pressures, consumer spending will likely stabilise as households adjust to the new economic environment. Increased employment and income stability and supportive government measures could help restore consumer confidence and spending power. This stabilisation is anticipated to result in a modest uptick in consumer expenditure, shifting towards increased spending on essential goods and services and a gradual rebound in discretionary spending as consumers adapt to higher costs.

The global macroeconomic backdrop should support Singapore's growth over the year's second half. The trade-related cluster will ride the broadening upturn in the worldwide tech cycle. Growth in the modern services cluster should also strengthen, as the gradual interest rate cuts by the major central banks support activity in financial services in particular. Meanwhile, the travel-related cluster will continue to see above-trend growth, supported by the ongoing recovery in

² The Strait Times, [Budget 2022: Singapore to raise GST from 7% to 9% in two stages in 2023 and 2024](#), 18 Feb 2022

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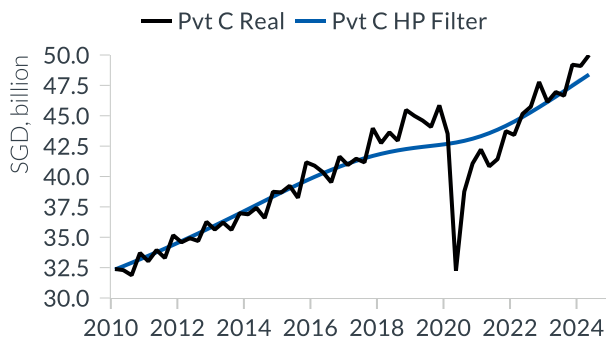
international travel. Growth in consumer-facing domestic services is expected to moderate to pre-pandemic rates in 2024. For 2024, GDP growth is likely to come closer to its potential rate between 2–3%, following the 1.1% growth in 2023. We expect consumer demand to improve in 2H24 as GDP momentum improves; we forecast 2H24 consumption growth at 5.0% YoY vs an expansion of 6.4% YoY in 1H24.

The future inflation trajectory will likely depend on (1) Singapore's GDP growth in 2H24, (2) the potential boost in demand resulting from stronger-than-expected labour market conditions and (3) the effects of higher global commodity and food prices. Accelerating GDP growth will create demand-pull inflation, where the demand for goods and services outstrips supply, pushing prices. Domestically, if the labour market performs better than anticipated, it could lead to a resurgence in wage growth, which might drive up inflation.

As aforementioned, a recovering global economic backdrop is anticipated to boost Singapore's private consumption in 2H24. Our projections leverage the RHB SG-CLI model alongside Singapore's consumption and wage functions as we have employed in the previous thematic paper. Using the Hodrick-Prescott Filter (lambda=1600, quarterly data) (Figure 15), we assess private consumption's overall direction and growth trajectory for the year. Our analysis indicates that private consumption is expected to experience a positive output gap in the second half of 2024, supported by our assumptions regarding resilient global growth and interest rates.

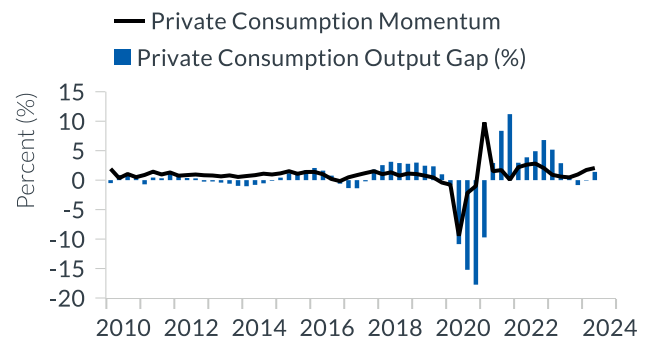
In summary, we conclude that Singapore's economic outlook largely hinges on the fluctuations in global trade dynamics. Historically, increases in the GST have had minimal impact on consumer spending patterns, suggesting that the country's economic resilience is robust despite changes in domestic tax policy. As Singapore navigates future economic challenges, its reliance on international trade will remain a critical factor. At the same time, its consumer market's relative stability in response to tax adjustments indicates a strong underlying economic foundation.

Figure 15: Private Consumption to rebound steadily in 2H24



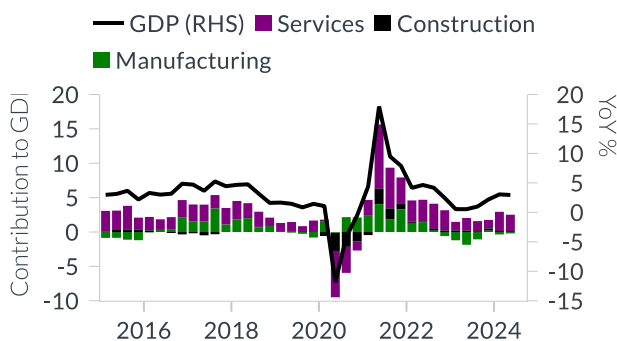
Source: Macrobond, RHB Economics & Market Strategy

Figure 16: Private consumption is seen to have positive output gap on a 3QMA basis



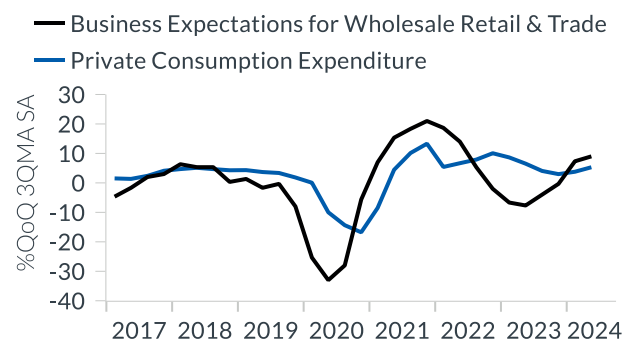
Source: Macrobond, RHB Economics & Market Strategy

Figure 17: Singapore's GDP growth accelerated in 2Q24, primarily driven by the expansion in services sector



Source: Macrobond, RHB Economics & Market Strategy

Figure 18: Business outlook for wholesale retail & trade continues to be positive



Source: Macrobond, RHB Economics & Market Strategy

Appendix

Constructing RHB Modified Singapore Real Retail Sales Index

Singapore publishes the following indicators:

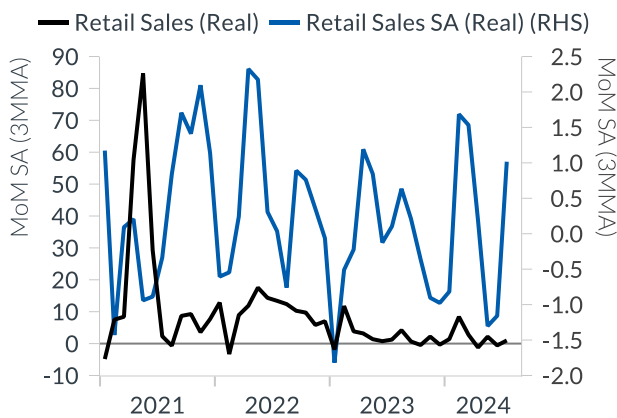
1. Nominal Retail Sales (NR) in value terms
2. Tourism Receipts isolated for only F&B and Shopping (TR) in value terms
3. Consumer Price Index (CPI)

The mode of modification consists of the steps below:

1. Subtracting NR and TR in value terms to remove tourism effects from retail sales. $(NR - TR) = NR[Mod]$.
2. Transformation of $NR[Mod]$ to real terms, indicated now as $RR[Mod]$, via accounting for base year changes indicated in CPI. The real terms data is now a measure of volume, rather than Price X Volume (PV).
3. Calculating $RR[Mod]$ on a YoY % and expressing it as a basis point change.

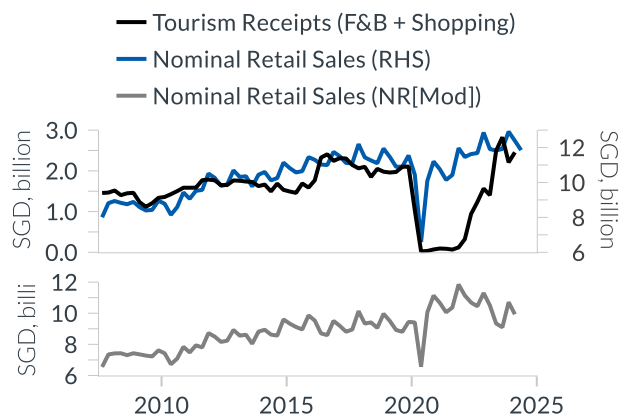
Figure 22 shows that retail sales (excluding tourism impact) rose prior to the GST hike in 2007, 2023, and 2024, whereby suggesting the presence of frontloading behaviour. After GST hike is effective, retail sales fall for both 2007 and 2023, but this is not observed not for 2024. This phenomenon may be due the structure of the GST hike, whereby it was announced in 2022 for two rate hike cycles (1% in 2023, and 1% in 2024), thus suggesting that any front-loading behaviour may be concentrated in 2022.

Figure 19: Retail sales momentum has picked up strongly from a seasonally-adjusted perspective



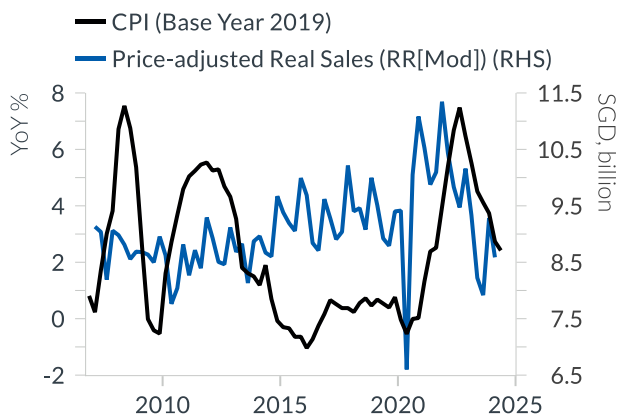
Source: Macrobond, RHB Economics & Market Strategy

Figure 20: We isolated TR from NR, to accurately gauge retail sales from domestic demand



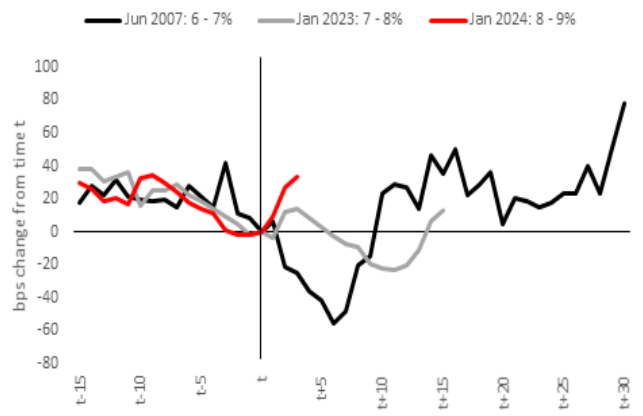
Source: Macrobond, RHB Economics & Market Strategy

Figure 21: We price-adjusted $NR[Mod]$ to $RR[Mod]$ to remove inflation effects



Source: Macrobond, RHB Economics & Market Strategy

Figure 22: Front-loading consumer behaviour appears to be apparent in 2007 and 2023, but not 2024



Source: Macrobond, RHB Economics & Market Strategy

24 September 2024

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