

## 2 The Singapore Economy

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- Singapore's economic recovery stalled over the last two quarters amid a resurgence in COVID-19 infections in the community. GDP contracted by 1.4% q-o-q SA in Q2 2021, before turning in marginal growth of 0.8% in Q3. Domestic-oriented activity was curtailed by mobility restrictions to slow the transmission of the virus, while the external-facing trade-related and modern services sectors fared better and provided some support to overall growth. As at Q3 this year, output in the economy had returned to its pre-pandemic level on aggregate, although there remained significant disparities in performance across industries.
  - The economy is expected to continue on its expansion path in the coming quarters as movement restrictions are progressively eased in line with the government's reopening plans. The domestic-oriented sector should see a gradual pickup in activity, while prospects for the travel-related sector have also improved slightly even though its recovery is likely to be protracted. Meanwhile, the trade-related and modern services clusters will be supported by recoveries in major trade partners and continued strength in global electronics demand. Growth in the Singapore economy is expected to come in at 6–7% in 2021, and register a slower but still-above trend pace in 2022, barring the materialisation of downside risks arising from the evolution of the virus or global economic developments.
  - Singapore's merchandise trade flows have held up relatively well amid global supply chain disruptions wrought by the pandemic. Electronics exports in particular have been a source of strength since last year. The relatively upstream nature of Singapore's production, such as of semiconductors, is an important reason why domestic manufacturers are less affected by supply bottlenecks. Sources of imports of intermediate and consumption goods are also generally well-diversified, thus ensuring the resilience of domestic supply against external shocks.
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### 2.1 Recent Economic Developments

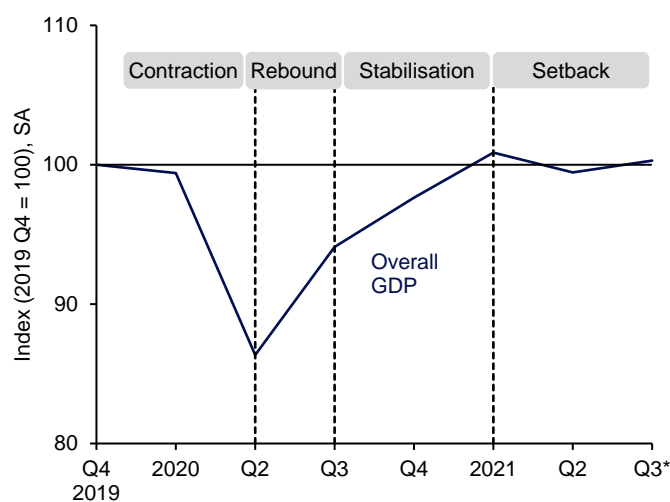
#### Singapore's economic recovery experienced a setback in Q2 and early Q3 2021

Growth in the Singapore economy has been subjected to “fits and starts” since the beginning of this year, as successive waves of infections have led to the re-imposition and subsequent lifting of movement restrictions. Disruptions to activity in certain sectors contributed to a flatlining of the overall GDP profile in Q2 and Q3 (**Chart 2.1**). However, the pullback in activity was less severe than during the circuit breaker period in Q2 2020 as this year's restrictions were generally less stringent, and firms have adapted to some extent, pivoting to alternative means of doing business in tandem with the changes in public health

measures. In addition, there was some support from the external-facing sectors, which helped offset the weakness in the sectors that were most affected by restrictions.

**Chart 2.1** The Singapore economy has gone through several phases of adjustment during the COVID-19 pandemic

Phases of economic contraction and expansion



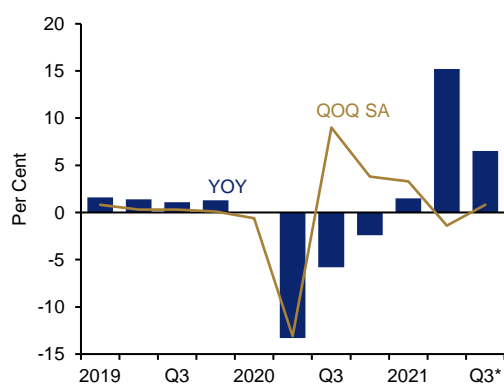
Source: DOS

\* Advance Estimates

Singapore's GDP contracted by 1.4% q-o-q SA in Q2 2021, before expanding by 0.8% in Q3 based on the *Advance Estimates (Chart 2.2)*. The domestic-oriented cluster was weak, with many industries affected by the heightened alert measures imposed in Q2 and into early Q3, before the preparatory stage of transiting to an endemic COVID-19 environment began around mid-August (**Chart 2.3**). Meanwhile, activity in the trade-related cluster levelled off in Q3 after contracting in Q2. Modern services contributed positively to overall GDP growth in both Q2 and Q3, even as growth momentum slowed at the margin. In y-o-y terms, GDP expanded by 15.2% in Q2, before moderating to 6.5% in Q3.

**Chart 2.2** GDP expanded by 0.8% q-o-q SA in Q3 2021, following the 1.4% decline in Q2

Singapore's GDP growth

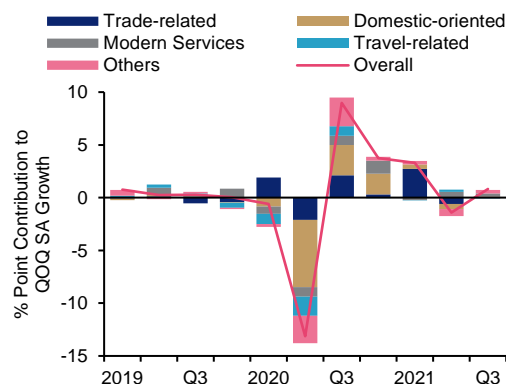


Source: DOS

\* Advance Estimates

**Chart 2.3** The domestic-oriented cluster was affected by heightened alert measures

Contribution to GDP growth



Source: EPG, MAS estimates

Overall, output in the economy returned to its pre-pandemic level in Q3 following the setback in Q2 this year. While the trade-related and modern services clusters surpassed their pre-pandemic levels by around 10% and 5% in Q3, the domestic-oriented cluster remained some 10% below its pre-crisis level. The travel-related cluster continued to lag substantially behind, with output at only half its pre-COVID level.

### Mobility fluctuated in line with the stringency of social restrictions

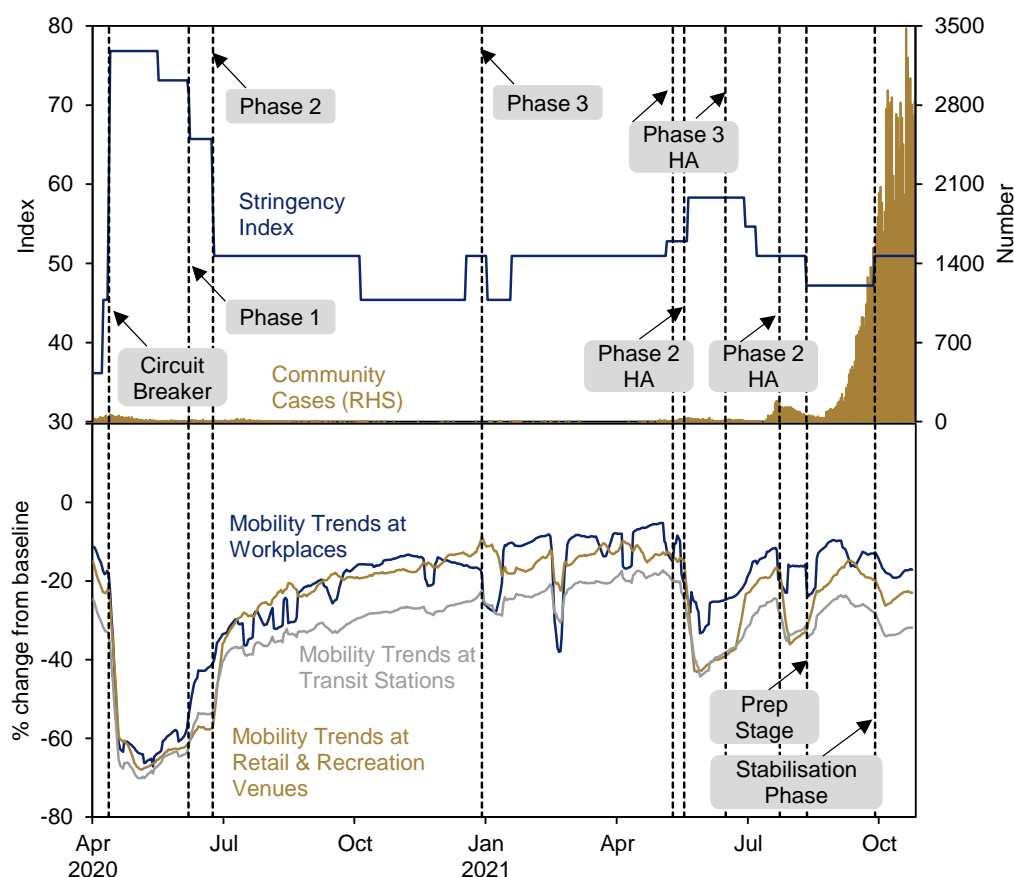
Over the last two quarters, Singapore went through several phases of social restrictions. The move to Phase 2 (Heightened Alert) (P2HA) status in mid-May included a ban on dining-in at food establishments, limits on gatherings to two persons, and suspension of personalised mask-off services. The stringency index saw an uptick from 50 in early May 2021 to 60 by the end of the month (**Chart 2.4**), but remained considerably below the level during the circuit breaker in Q2 last year. However, data on footfall from Google's location notification services showed that mobility at retail and recreational venues fell sharply to 40% below the pre-pandemic baseline from around 20% previously, suggesting a higher degree of voluntary social distancing as caution set in among the public amid the increase in community infections. While footfall recovered in the second half of June after the transition back to Phase 3 (Heightened Alert), it fell again in early Q3 as the emergence of large COVID-19 clusters linked to multiple entertainment establishments, the Jurong fishery port, wet markets and hawker centres prompted a reversion to P2HA from 22 July to mid-August.

In mid-August, Singapore entered the "preparatory stage", the first of a four-stage reopening plan to transit to a COVID-resilient state. The steps included a resumption of dining-in at food establishments for up to five fully-vaccinated persons, raising the size of social gatherings and capacity limits for large events, and allowing up to half of employees working from home to return to the workplace. Google's mobility index showed an uptick in footfall in workplaces, retail and recreational venues and bus and train stations. Towards late August however, daily community cases began to rise sharply again. Despite the high level of vaccination coverage in the population (about 80%), the government delayed plans to open up the economy further in early September, with the public urged to reduce non-essential

social activities. Subsequently towards end-September, mobility measures were tightened to stabilise the health situation. As a result, the stringency index saw a marginal uptick from 47 to 50, and mobility also dipped.

**Chart 2.4** Mobility levels fell in tandem with tightened restrictions

Stringency index, daily community cases & Google mobility trends (as at 25 Oct 2021)



Source: University of Oxford Blavatnik School of Government, MOH and Google Community Mobility Report (Singapore)

Note: The baseline for the mobility index is the median value for the corresponding day of the week during the five-week period from 3 Jan – 6 Feb 2020.

### The recovery in the domestic-oriented cluster was held back by several rounds of heightened alert measures

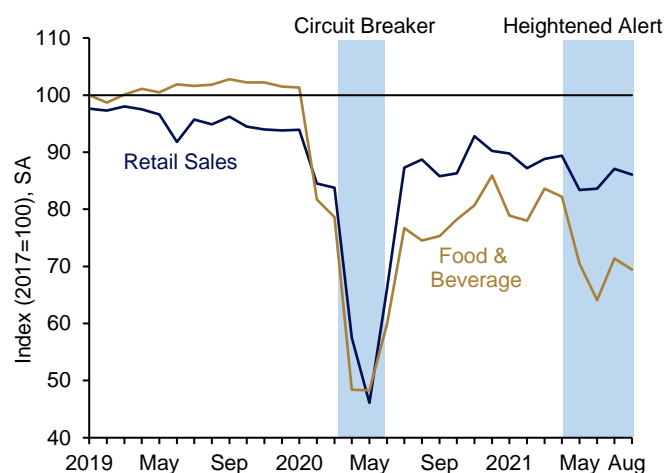
In the consumer-facing sector, food & beverage services sales contracted by 9.9% q-o-q SA in Q2, reflecting the prohibition on dining-in during P2HA (**Chart 2.5**). Sales were also adversely affected by the cessation of dining-in at all establishments from mid-July to 9 August during the second round of P2HA, and by the restrictions on group sizes depending on vaccination status thereafter. F&B sales declined by 2.6% in Jul–Aug compared to Q2, with restaurants recording the largest fall (–8.9%), while sales at fast food restaurants saw a slight uptick (+1.2%).

Retail sales contracted by 3.5% q-o-q SA in Q2, but returned to growth of 1.3% in Jul–Aug. Outturns varied across the retail categories. While sales volumes of discretionary goods such as wearing apparel & footwear, watches & jewellery, and items in department stores

expanded sequentially by 3–8% in Jul–Aug, due mainly to promotional events, retailers of furniture & household equipment and computer & telecommunication equipment reported sales declines. Meanwhile, motor vehicles sales contracted by 7.0% in the first two months of Q3, extending the decline from the previous quarter. Major automobile producers have reported production disruptions due to the shortage of semiconductor chips, resulting in a backlog of car shipments to Singapore.

### Chart 2.5 Recovery in the retail and F&B sectors stalled

Retail and F&B sales volumes



Source: DOS

### Construction activity remained lacklustre as supply-side constraints continued to weigh on the sector

Activity in the construction sector declined by 2.4% q-o-q SA in Q2, dampened by supply-side disruptions following the suspension of the entry of foreign workers from India since late April and from other South Asian countries since early May. Further, construction companies that are heavily reliant on building materials from Malaysia were hit by its strict nationwide Movement Control Order. In Q3, Singapore's border restrictions on the entry of migrant workers and a rising number of COVID-19 infections in worker dormitories continued to constrain manpower. Raw material costs for cement, granite and steel reinforcement bars also saw steep increases of 11–47% in Q3 2021 compared to Q4 2020. As a result, the construction sector contracted further by 0.4% in Q3. Nonetheless, there was some improvement in private sector construction activity. Private certified payments rose at a faster clip of 14.1% in Jul–Aug compared to Q2, underpinned by strength in industrial building works.

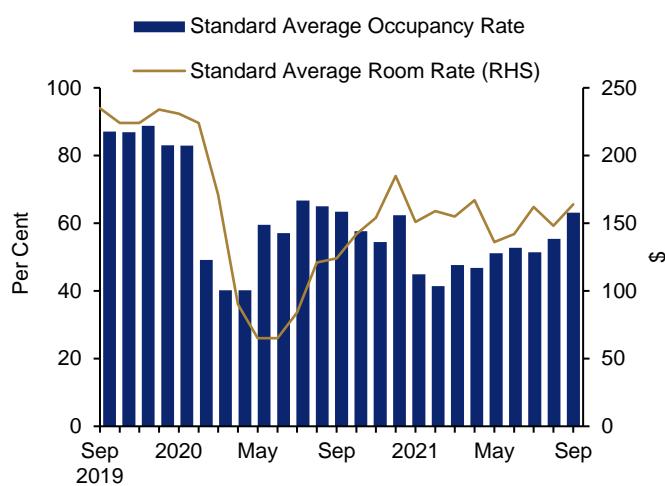
### The travel-related cluster remained sluggish

With the added border restrictions in place, monthly visitor arrivals averaged 17,224 in Apr–Sep, a 25% reduction from Q1. The fall in arrivals from South Asia and ASEAN more than offset increased arrivals from China. In the accommodation sector, hotel occupancy rates rose by 6% points to 50% in Q2 and increased further to 57% in Q3 (Chart 2.6). In the absence

of a discernible improvement in visitor arrivals, government bookings and staycation activities continued to be the main support for the accommodation industry. Meanwhile, the air transport industry saw a pickup from Q1. Monthly air passengers carried rose by around 50% to 204,273 in Q2, and a further 14% in Jul–Aug 2021. Air cargo increased by 14% in Q2 and posted a marginal increment of 0.3% in the first two months of Q3. Nonetheless, the number of aircraft landings and air passengers carried remained extremely low relative to pre-COVID levels, at 35% and 4.5% respectively.

**Chart 2.6** Hotel occupancy has inched up since the beginning of the year

Hotel statistics



Source: STB

### Trade-related activity saw some pullback, although the electronics-related industries continued to expand

Singapore's Index of Industrial Production (IIP) expanded by 2.3% q-o-q SA in Q2 2021, before contracting slightly by 0.3% in Q3 2021.<sup>1</sup> A large part of the decline was due to weakness in the chemicals and biomedical clusters, which outweighed growth in electronics and precision engineering (**Chart 2.7**). After expanding by 1.3% q-o-q SA in Q2, output in the chemicals cluster shrank by 7.6% in Q3, affected by plant maintenance shutdowns in the petrochemicals and specialty chemicals industries. Similarly, output in the biomedical cluster fell by 7.5% in Q3, a reversal from the 10.2% expansion in Q2. The recent weakness in biomedical output was attributable to a different mix of active pharmaceutical ingredients produced.

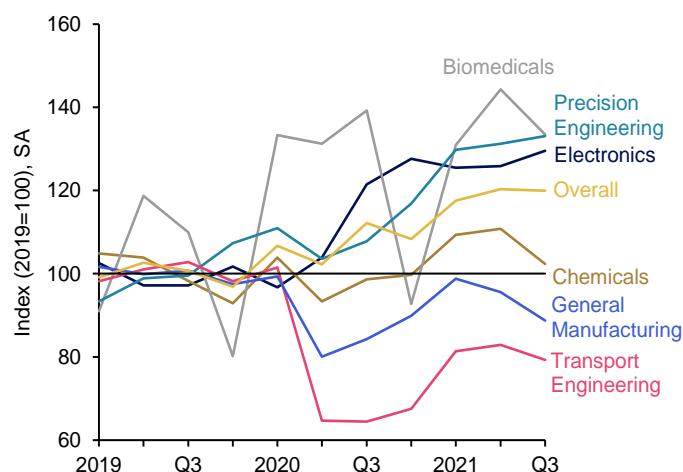
In contrast, growth in electronics production rose from 0.3% q-o-q SA in Q2 to 3.0% in Q3, supported by strong underlying global chip demand. The precision engineering industry grew by 1.4% in Q3, up from 1.1% in the previous quarter, with the machinery & systems sub-segment ramping up production of semiconductor equipment to meet strong capital

<sup>1</sup> Sequential SA growth rates of manufacturing VA are not the same as those of IIP due to different seasonal factors, but their y-o-y growth rates are similar.

investment demand globally, though this was partially offset by weakness in the modules & components sub-segment.

**Chart 2.7** Industrial production was supported by strength in the electronics and precision engineering clusters

Index of industrial production



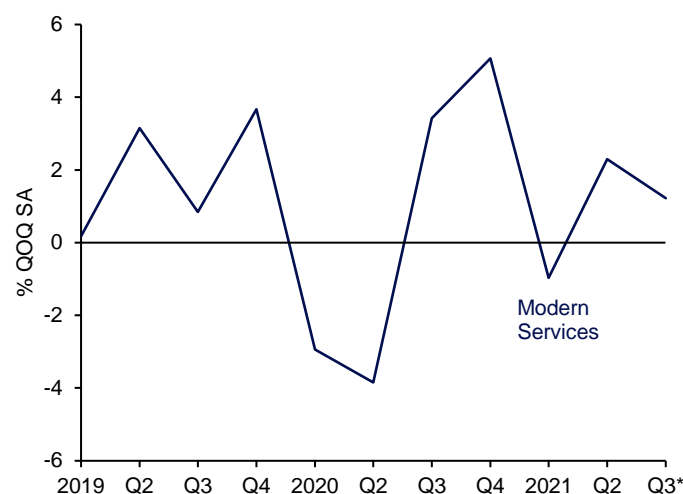
Source: EDB

## Overall GDP growth in the past two quarters was largely supported by modern services

The finance & insurance, information & communications, and professional services sectors collectively expanded by 2.3% q-o-q SA in Q2, before moderating to 1.2% in Q3 (**Chart 2.8**). The loss in momentum was mainly attributable to the finance & insurance sector. Specifically, the banks segment was weighed down by a decline in net fees and commissions. Meanwhile, the sentiment-sensitive segments turned in a mixed performance. While security dealing activities continued to decline on account of weaker futures trading volumes, the forex segment surged on the back of strong global forex turnover. Further pockets of resilience were found in the insurance and other auxiliary activities segments. The former benefitted from continued strength in the life insurance sub-segment, bolstered by robust demand for single-premium life insurance products that paid out competitive interest returns amid the fall in bank deposit rates, while the latter was supported by the continued shift towards e-payments.

## Chart 2.8 Growth of modern services held up

VA growth of the modern services cluster



Source: DOS

\* Advance Estimates

The rest of modern services expanded in Q2 and gained momentum in Q3. The information & communications sector was supported by firm growth in the IT & information services segment amid the ongoing digitalisation push and 5G-related initiatives which spurred demand for application development and web-hosting. The other information services segment also saw stronger revenue streams for gaming software publishers. In professional services, growth was buoyed by the improved performances of the headquarters & business representative offices and architectural & engineering segments, though the legal and accounting segments remained lacklustre.

### Private consumption expenditure bore the brunt of mobility restrictions

From the expenditure perspective, the impact of the P2HA measures enacted in Q2 2021 fell mainly on private consumption expenditure (PCE) (**Chart 2.9**). Services consumption, including food services and public transport, was hit particularly hard. Accordingly, PCE fell by 3.5% in Q2 2021, reversing the 2.1% growth in the preceding quarter. Based on MAS' estimates, it is likely that PCE remained weak in Q3 as the measures were still largely in place.<sup>2</sup>

In comparison, government consumption expenditure (GCE) and net exports helped bolster economic activity in Q2. These two components were the main support to growth during the pandemic and were already more than 10% above Q4 2019 levels as at Q2 this year (**Table 2.1**). GCE was underpinned by Budget measures, while the boost to net exports resulted from a smaller decline in real exports compared to imports.

Gross fixed capital formation (GFCF) recovered from its trough of around 74% of the pre-crisis level in Q2 2020 to 97% in Q2 this year, driven by the gradual improvement in residential

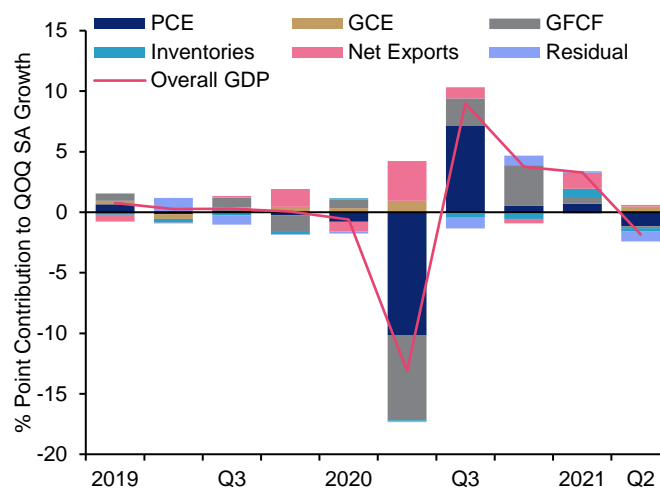
<sup>2</sup> However, resident spending in Singapore is estimated to have already returned to its pre-pandemic level, while expenditures of residents abroad remained about 85% below pre-crisis level.



investment. Private structures investment remained sluggish, while private equipment investment<sup>3</sup> had already exceeded its pre-crisis level by the end of last year, reflecting firms' capital expenditure on machinery including on the continued automation of processes.

**Chart 2.9** Private consumption weighed on GDP growth in Q2 2021

Contribution of expenditure components to GDP growth



Source: DOS and EPG, MAS estimates

**Table 2.1** Private structures investment and private consumption remained below pre-pandemic levels

Expenditure components of real GDP

| Component (share of 2020 GDP)                        | Index (Q4 2019=100), SA |         |         |
|--|-------------------------|---------|---------|
|  | Q2 2020                 | Q4 2020 | Q2 2021 |
| Private Consumption (33.0%)                          | 70.8                    | 88.7    | 87.4    |
| Government Consumption (12.4%)                       | 111.9                   | 110.2   | 113.9   |
| Gross Fixed Capital Formation (21.5%)                | 73.8                    | 95.1    | 96.6    |
| Residential Building Investment (Pte and Pub) (2.8%) | 41.8                    | 92.4    | 103.1   |
| Private Structures Investment (2.2%)                 | 47.1                    | 81.0    | 76.1    |
| Private Equipment Investment (13.3%)                 | 92.0                    | 104.9   | 101.0   |
| Public Structures Investment (2.2%)                  | 57.0                    | 68.3    | 99.7    |
| Public Equipment Investment (0.9%)                   | 105.7                   | 96.0    | 115.5   |
| Net Exports (31.9%)                                  | 108.8                   | 110.5   | 115.5   |

Source: DOS and EPG, MAS estimates

Note: Shares in GDP do not sum up to 100% as changes in inventories and statistical discrepancy are not shown in the table.

<sup>3</sup> Structures investment refers to non-residential buildings and other construction & works, while equipment investment refers to machinery and transport equipment as well as intellectual property products.

## 2.2 Economic Outlook

### The Singapore economy is expected to continue growing at an above-trend pace in 2022

Amid a surge in COVID-19 cases, social restrictions were tightened for two months from late September in a bid to slow the number of new infections and allow new healthcare protocols to become effective. These “stabilisation phase” measures are expected to dampen domestic economic activity in early Q4 2021. As the strategy of treating the virus as endemic remains intact, there will likely be a gradual relaxation of the current restrictions in the latter part of this quarter and into next year. For 2021 as a whole, Singapore’s GDP growth is projected to come in at 6–7%. The economy is expected to expand at a more moderate but still above-trend pace in 2022, barring the materialisation of downside risks, such as further mutations of the virus which are resistant to existing vaccines. The domestic-oriented and travel-related clusters should see a gradual improvement as the economy progressively reopens, while growth in the trade-related and modern services sectors will be supported by the recovery in the global economy.

### The consumer-facing industries should see a pickup in activity in the coming quarters

The recovery of the consumer-facing industries such as F&B, retail and land transport will be held back in early Q4 by the prevailing high number of COVID-19 cases in the community. For around two months from 27 September, the size of social gatherings and dining-in was reduced from five to two persons, and working from home became the default for employees again. In addition, with effect from 13 October, unvaccinated individuals would not be able to dine in, even at hawker centres or coffee shops, nor enter malls or visit attractions. Nevertheless, there should be some support from online food and retail sales, which businesses and consumers have increasingly pivoted towards. As at August 2021, online transactions accounted for about 14% of retail sales and 39% of F&B sales, up from 7% and 10% in Q4 2019. Consumer confidence is likely to pick up when there is more evidence that the rise in infections is not resulting in higher intensive care unit admissions sufficient to overtax the healthcare system. A more extensive reopening of the economy towards the end of this year should improve footfall for retail businesses and eateries. However, demand from foreign travellers is expected to recover only gradually.

### The recovery of the travel-related cluster will be protracted

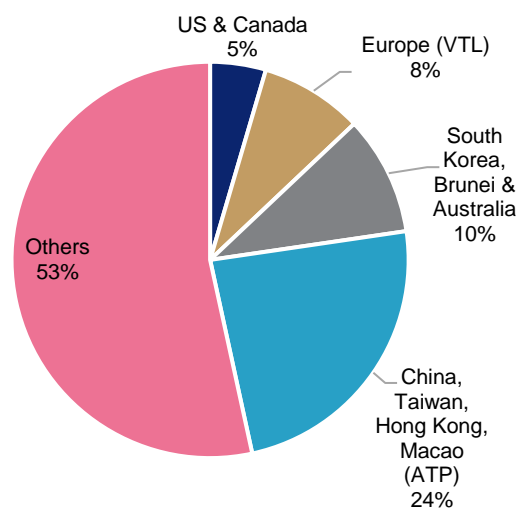
Some lifting of Singapore’s border restrictions began in late Q3 2021. The recently announced Vaccinated Travel Lane (VTL)<sup>4</sup> arrangements, which permit quarantine-free travel, marks an important milestone towards the gradual normalisation of cross-border travel. Together with economies under the Air Travel Pass (ATP) scheme, they accounted for 47% of the 1.6 million average monthly short-term visitors to Singapore in 2019 prior to the pandemic (**Chart 2.10**). Nevertheless, travel demand is not expected to return quickly or substantially in the near term. As at 25 October 2021, about 7,000 Vaccinated Travel Passes

<sup>4</sup> The VTLs have been extended to nine more countries in North America and Europe from 19 October, Switzerland and Australia from 8 November and South Korea from 15 November. This was in addition to those with Germany and Brunei implemented on 8 September. Short-term visitors from China, Taiwan, Hong Kong and Macao are also already allowed to enter Singapore via the Air Travel Pass (ATP) scheme.

have been issued to short-term visitors, making up less than 1% of monthly visitor arrivals pre-COVID.

**Chart 2.10** Economies with travel arrangements with Singapore accounted for 47% of visitor arrivals pre-COVID

Visitor arrivals to Singapore, 2019



Source: STB, CAAS

Note: VTL and ATP arrangements announced as at 26 October 2021. Countries in Europe under the VTL scheme are Denmark, France, Germany, Italy, Netherlands, Spain, Switzerland and the UK.

The travel-related sector is accordingly expected to see a bumpy road to recovery, with the evolution of the COVID-19 pandemic remaining central. Currently, the US, Europe and Japan, which accounted for 20% of inbound tourist arrivals in 2019, have achieved average vaccination rates of about 65%. Vaccination rates in ASEAN-5 are only around 35%, and consequently tourist arrivals from these markets, which comprised about a third of visitors to Singapore in 2019, are expected to see slower recovery. Most tour operators in Singapore remain wary of prematurely scaling up operations and have continued to lean on domestic tourism. A stronger rebound in the travel-related sector may only materialise over the course of next year when border barriers are removed more substantially, and a recovery to pre-COVID output level is only anticipated after 2022.

### Supply-side constraints are likely to persist in the construction sector

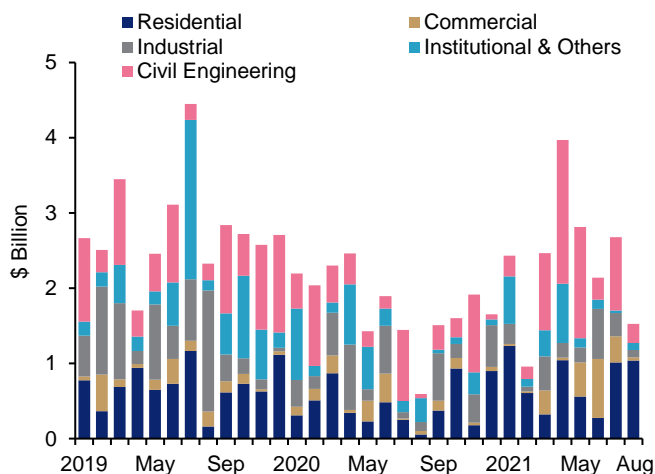
The recovery in the construction sector is expected to be hampered by elevated raw material costs and manpower shortages for the rest of the year. Moreover, safe management measures at worksites continue to hinder productivity, disrupting ongoing construction projects and preventing some companies from bidding for new contracts. While the Business Optimism Index compiled by the Singapore Commercial Credit Bureau (SCCB) showed that sentiment in the construction sector for Q4 had improved slightly, it remained largely depressed, with three out of six indicators, namely sales, net profit and inventory, signalling contraction.<sup>5</sup> Within the sector, outturns have been uneven—some listed firms chalked up

<sup>5</sup> The Business Optimism Index measures the net percentage of survey respondents expecting higher sales, profits, etc. (i.e. the share expecting increases minus the share expecting decreases), compared with the same quarter of the previous year.

profits in H1 while others continued to post losses. Beyond 2021, the easing of some supply-side constraints should support higher levels of construction activity given the strong pipeline of contracts awarded for projects, including for major public infrastructure works, public housing projects, healthcare facilities, and redevelopment of past en-bloc sites (**Chart 2.11**).

**Chart 2.11** The pipeline of contracts awarded since 2019 should support construction output beyond 2021

Contracts awarded



Source: BCA

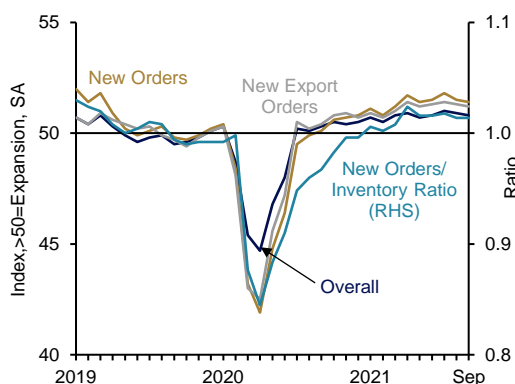
### Trade partners' recoveries and strength in global electronics demand should continue to support the trade-related cluster

The outlook for the manufacturing sector remains bright. All sub-indicators of the SCCB's Business Optimism Index for Q4 2021 were in positive territory, underpinned by firm global demand. Singapore's manufacturing PMI also held up in September, with demand sub-indicators such as new orders and new export orders signalling expansion (**Chart 2.12**). On the supply side, inventory has been built up at a slower rate in recent months, alongside rising input prices. Nevertheless, supply-side constraints do not appear to be binding, with the new orders to inventory ratio remaining close to historical levels.

Ongoing strength in the global electronics cycle supports the outlook for the trade-related cluster in the remainder of 2021 and 2022. Global chip sales continued to expand on a sequential basis in Jul–Aug, although at a slower pace than in previous quarters (**Chart 2.13**). Global semiconductor investment will likely remain firm, underpinned by demand from 5G smartphone manufacturers, the automotive market, cloud services, and data centres. The tight supply situation should also ease gradually with more capacity coming on-stream as chipmakers expand and upgrade their facilities. In line with this outlook, Gartner, a business research firm, has upgraded its forecast for global semiconductor revenue growth to 26.9% for 2021 and is projecting growth of 8.9% for 2022. Semiconductor equipment manufacturers in Singapore have invested in new production capacity in anticipation that global demand will remain firm.

**Chart 2.12** New orders to inventory ratio remained at close to historical levels

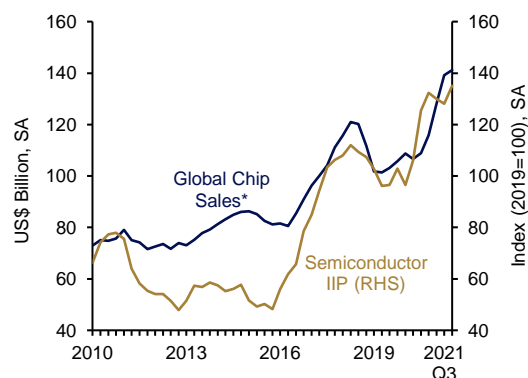
Manufacturing PMIs



Source: Singapore Institute of Purchasing and Materials Management (SIPMM)

**Chart 2.13** Global chip sales continued to expand in Jul–Aug 2021

Global chip sales and Singapore's semiconductor IIP



Source: EDB, World Semiconductor Trade Statistics and Haver Analytics

Note: Q3 2021 is estimated based on Jul–Aug data.

### Modern services are expected to be lifted by the broader economic recovery...

The anticipated pickup in domestic and regional economic activity in the coming quarters should benefit the banks and insurance segments. The former should be supported by more credit and fee-based banking services, while the latter is expected to see higher demand for general insurance from firms as they boost operations. However, the market for single-premium life insurance products could become increasingly saturated and dampen the recent strong momentum in the life insurance sub-segment.

The broader global economic recovery has raised the prospect of some removal of monetary policy accommodation by major central banks, which could interrupt the rally in global equities. Consequently, the fund management segment may see some softening in the near term, although funds' assets under management are expected to continue trending upwards on the back of growing wealth in the region. Meanwhile, the other sentiment-sensitive segments, such as forex and security dealing activities, could benefit from the potential rise in volatility and trading volumes brought about by market expectations of policy tightening.

While growth in the professional services sector has been sluggish over the past year, the outlook is expected to improve with the coming of VTL arrangements and easing of various public health restrictions. Exports of certain segments of professional services, such as business consultancy and head offices functions, should see some strengthening in the coming quarters as business travel gradually recovers.

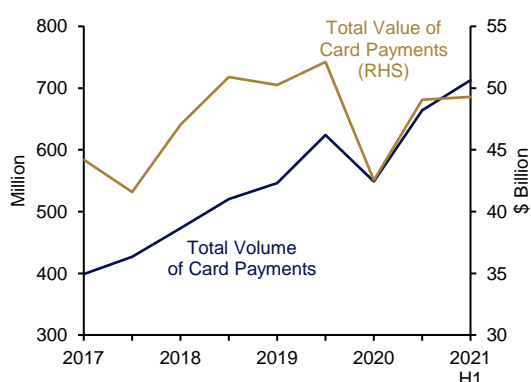
### ... with certain segments further buttressed by structural trends

In addition to the positive impulse from the cyclical upturn of the broader economy, the burgeoning of digitalisation, cloud computing and artificial intelligence (AI) is expected to support modern services growth in both the short and medium term. Within the finance & insurance sector, the other auxiliary activities segment—which mainly comprises payments processing players—is expected to continue to benefit from the ongoing shift to online

business platforms. According to payment transactions data, total card payments have rebounded strongly after declining in H1 2020 alongside the implementation of circuit breaker measures. In the same period, ATM transactions contracted and remained flat subsequently, which suggest a shift in consumer preferences for cashless payment modes that could become permanent (**Charts 2.14 and 2.15**). The payments industry is also likely to benefit from the advancement of e-payments in other economies. For instance, PayPal recently announced its plans to increase its Singapore-based workforce by 25% over the next three years<sup>6</sup>, in response to the growing demand for digital solutions in the region.

**Chart 2.14** Total card payments rebounded after the decline in H1 2020...

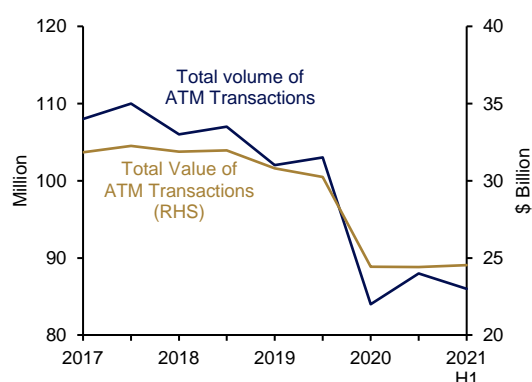
Total card payments transaction volumes and values



Source: MAS

**Chart 2.15** ... while ATM transactions remained flat

Transaction volumes and values at ATMs



Source: MAS

Similarly, the information & communications sector has continued to see demand from tech-related capex and has added headcount. For instance, in June 2021, the Singapore government announced \$3.8 billion in ICT investments<sup>7</sup>, a 10% increase from a year before, with the bulk of the projected spending going towards improving cloud infrastructure and developing AI applications for the public sector. Meanwhile, NCS has announced plans to hire up to 2,000 people over 2021 and 2022 in the areas of 5G mobile, AI and cloud computing, as part of its expansion plans in the Asia-Pacific region.<sup>8</sup>

<sup>6</sup> Chia, O (2021), "PayPal to offer 150 new job openings to Singaporeans and PRs", *The Straits Times*, August 24.

<sup>7</sup> GovTech (2021), "Increased ICT spending in FY2021 to accelerate Government digitalisation", June 23.

<sup>8</sup> Chee, K (2021), "Local employment in infocomm media sector grew 5% in Singapore amid Covid-19", *The Straits Times*, July 8.

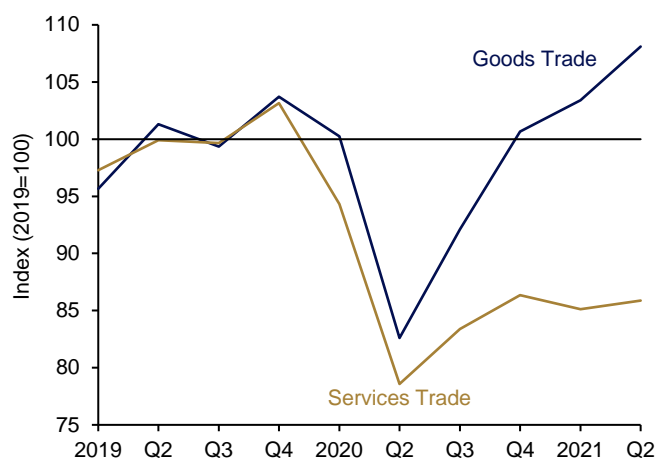
## 2.3 Impact of COVID-19 on Goods Trade in Singapore

### Singapore's trade in goods was less affected by COVID-19 than that in services

The onset of COVID-19 led to a temporary sharp decline in global trade. As a very open economy, Singapore was not insulated from this shock, with trade in services bearing the brunt of the impact. Singapore's trade in goods was about 20% below its average 2019 levels at the trough in Q2 2020, but had returned to pre-COVID levels in Q4 last year (**Chart 2.16**). Meanwhile, services trade has not risen substantially from the trough and was still about 15% below pre-pandemic levels as at Q2 2021, reflecting weakness in transport and travel services amid movement and border restrictions.

**Chart 2.16** Singapore's goods trade has recovered faster than services trade

Exports and imports of Singapore's goods and services (NSA)



Source: DOS

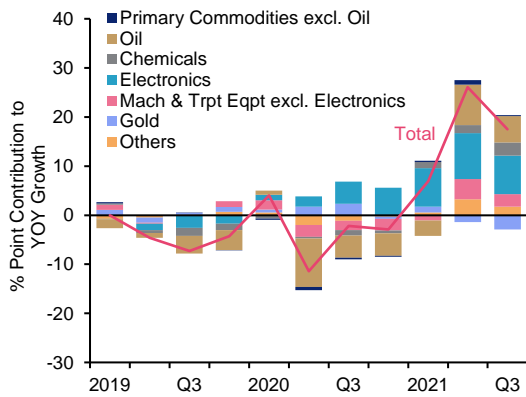
### Goods trade was supported by strong global demand for electronics ...

The resilience in Singapore's goods trade was part of a broader global picture of strong demand for goods relative to services amid the constraints of the pandemic. There was strong demand for electronics goods amid global lockdowns and the attendant switch to working from home and domestic leisure activities. Strong electronics trade flows were observed consistently throughout the pandemic. Singapore's electronics exports rose by 11% and imports by 13% in 2020 (**Charts 2.17 and 2.18**). Trade in electronics has remained robust and a major driver of overall trade growth in 2021. Over Q1–Q3 2021, electronics exports expanded by around 25% and imports by 20%, compared to the same period a year ago.

Meanwhile, the boost to gold trade was more evident in the earlier part of the pandemic. Singapore's gold exports and imports surged by 32% and 38% respectively in 2020. The strength in demand for gold during this period may reflect its safe haven properties. Trade in gold has eased since the start of 2021 while gold prices have fallen, which may indicate a decline in demand for safe-haven assets amid global macroeconomic stabilisation.

**Chart 2.17 Exports of electronics and gold surged in 2020**

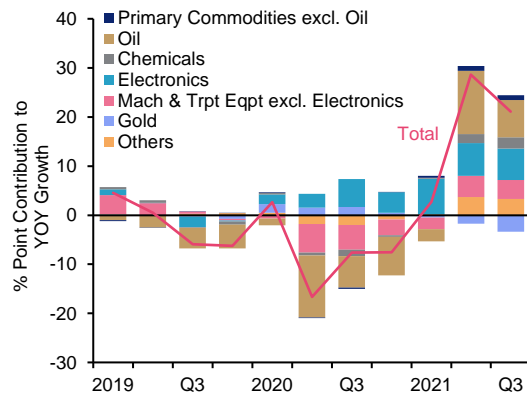
Exports by product type



Source: ESG and EPG, MAS estimates

**Chart 2.18 Goods imports saw similar fluctuations as exports in the past year**

Imports by product type



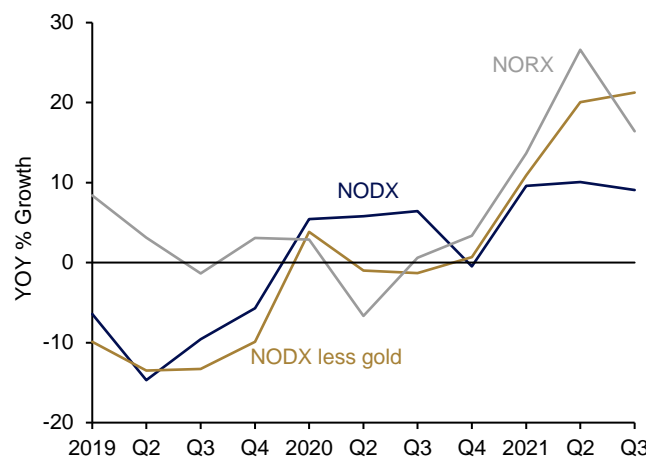
Source: ESG and EPG, MAS estimates

... and reflects Singapore's role as an entrepôt and a production node for the region

A sizeable part of Singapore's trade flows is due to re-exports, reflecting the country's role as an entrepôt. NORX accounted for 73% of Singapore's total non-oil imports and 62% of its non-oil exports in 2020. Despite some support from electronics trade, NORX growth was badly hit by the regional downturn in 2020, growing marginally by 0.1%, compared to the 4.3% growth in NODX. Both NORX and NODX have expanded strongly since the start of this year (Chart 2.19). NORX grew by 19% y-o-y in the first three quarters of 2021, a faster pace than the 9.6% rate for NODX. Excluding gold, NODX chalked up a comparable double-digit growth of 17%.

**Chart 2.19 NODX and NORX have recovered strongly in 2021**

NODX and NORX



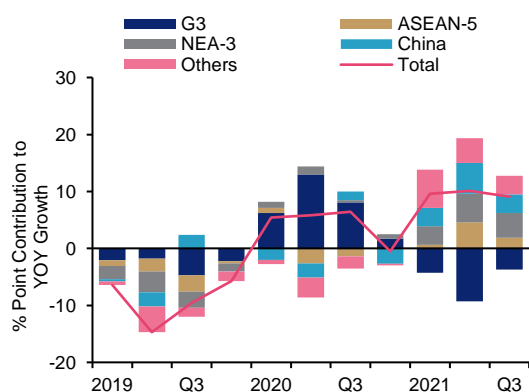
Source: ESG



The impact of the pandemic on trade flows has varied by destination. NODX to the G3 underpinned growth in 2020, even as NODX to China and ASEAN-5 contracted. This performance reversed in the first three quarters of 2021, in part because of base effects (Chart 2.20). Meanwhile, NORX to the NEA-3 and China held up well during the pandemic (Chart 2.21). NORX to ASEAN-5, which shrank for the most part of 2020, have rebounded since the start of this year, alongside stronger NORX growth to the NEA-3 and China.

**Chart 2.20** G3 was the main contributor to NODX growth in 2020, while exports to the region provided strong support this year

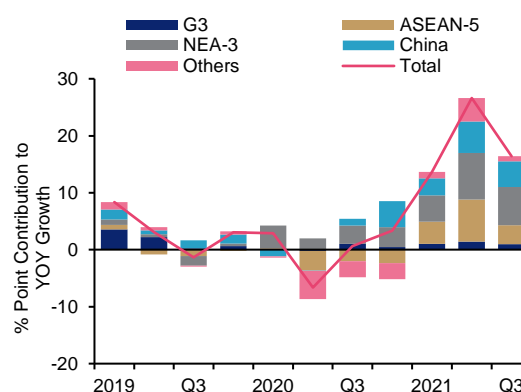
NODX by region



Source: ESG

**Chart 2.21** NORX to ASEAN recovered in 2021

NORX by region



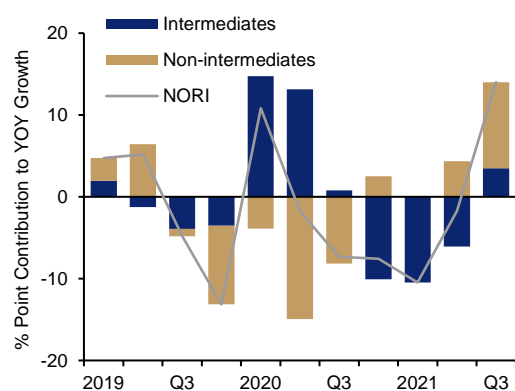
Source: ESG

## Singapore's production is relatively upstream in nature and sources of imports of intermediate goods are well-diversified

The relatively resilient performance of Singapore's trade suggests that it has not been materially affected by the disruptions in global and regional supply chains during the pandemic. On the whole, domestic manufacturers have not been significantly affected by supply constraints thus far, although some firms have experienced intermittent delays in the shipments of raw material supplies and higher freight costs due to port congestions and a global shortage of vessels. Non-oil retained imports (NORI) fell by 1.5% in 2020 and 0.1% y-o-y in the first three quarters of 2021 (Chart 2.22). NORI of intermediate goods posted robust growth in H1 2020 at the height of the pandemic, while NORI of non-intermediate goods, i.e., consumption and capital goods for final demand, have picked up in recent quarters (Chart 2.22). The manufacturing PMI supplier's delivery time index for manufacturers in Singapore has been relatively stable, in contrast to the delays recorded in other Asian economies (Chart 2.23).

**Chart 2.22** NORI of intermediate goods expanded strongly in H1 2020 and the recent quarter

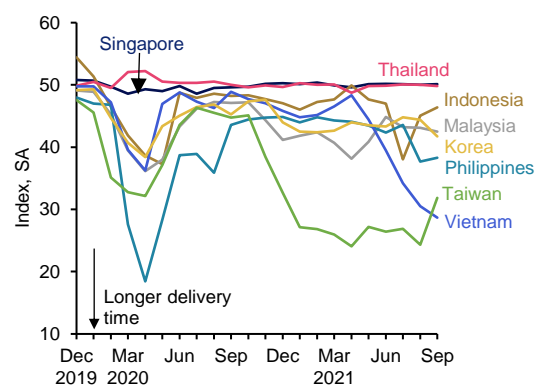
NORI of intermediate &amp; non-intermediate goods



Source: ESG

**Chart 2.23** Singapore's supplier delivery time has been relatively stable

Manufacturing PMI supplier's delivery time index



Source: SIPMM and Haver Analytics

Note: Index >50 denotes a decrease in delivery time, while index <50 denotes an increase in delivery time

There are two plausible reasons why Singapore has been less affected by global supply chain disruptions. On the production side, Singapore's manufacturing sector is more concentrated in "upstream" activities; for example, intermediate products accounted for about 80% of electronics exports. Production bottlenecks, which tend to culminate in the latter stages of the supply chain, are therefore less likely to occur. In addition, Singapore's sources of imports of intermediate goods are quite well-diversified, as shown by the Herfindahl-Hirschman (HH) index measuring the geographic concentration of sourcing (**Table 2.2**). This suggests that a broader range of intermediate suppliers can be drawn upon in the event of a disruption. Although the HH score for intermediate electronics imports—which include semiconductors—shows a moderate degree of geographic concentration, those products account for a negligible share of Singapore's total retained imports of intermediate goods. The ongoing shortage of semiconductors should not significantly affect domestic manufacturing activity, as Singapore does not produce cars or other end-consumer electronics products that rely heavily on chips. On the consumption side, the HH index of geographic concentration risk for consumption goods imports also falls within the well-diversified range.

**Table 2.2** Singapore's imports of intermediate and consumption goods are well-diversified

Herfindahl-Hirschman index of geographic concentration risk for Singapore's imports, 2020

| Industry        | Capital Goods | Intermediate Goods | Consumption Goods |
|-----------------|---------------|--------------------|-------------------|
| All Goods       | 1,884         | 917                | 887               |
| Electronics     | 3,311         | 2,176              | 2,630             |
| Pharmaceuticals | -             | 1,892              | 785               |

Source: UN Comtrade and EPG, MAS estimates

Note: The HH Index is a commonly accepted measure of market concentration. In the table, it is computed by squaring the market share of each market that Singapore imports from and summing the resulting numbers. A HH index of less than 1,500 is generally considered geographically well-diversified, a value of 1,500 to 2,500 is moderately diversified, and an index of 2,500 or greater is deemed highly concentrated.

In sum, Singapore's goods trade has held up better than services trade during the COVID-19 pandemic. Strong global demand for electronics has benefitted Singapore's production and re-export activities. At the same time, the flow of essential goods and supplies for consumption and production appears to have been largely unimpaired, as Singapore benefits from diversification of supply, while strengthening trade networks and tapping opportunities in new markets.