

BOX ARTICLE 1.1**EMPLOYMENT TRENDS DURING THE COVID-19 PANDEMIC****(I) Overview**

Since the 1990s, Singapore has experienced four major economic downturns – the Asian Financial Crisis in 1998, dot-com bust in 2001, Global Financial Crisis in 2009 and COVID-19 pandemic in 2020.¹ While each of these recessions had different origins and exhibited different characteristics² (see Toh & Lim, 2001; Lee, 2009; Soon & Tee, 2009; Saw et al., 2020; Rahmat et al., 2021), they all entailed employment losses alongside a contraction or sharp slowdown in real Gross Domestic Product (GDP).

This box article examines the employment trends in Singapore during the COVID-19 pandemic, including a comparison with the peak-to-trough employment declines seen in previous recessions; and also changes in its unemployment rate over the course of the pandemic compared to other advanced economies.

(II) Employment Trends Compared to Previous Recessions in Singapore***Employment losses during the COVID-19 pandemic outstripped the peak-to-trough employment declines seen in previous recessions***

In Singapore, the COVID-19 pandemic had its early beginnings in January 2020. On 30 January 2020, the World Health Organisation declared COVID-19 a Public Health Emergency of International Concern (PHEIC). In the same month, Singapore recorded its first COVID-19 case, and undertook swift measures to detect cases early as well as minimise the risk of imported cases and community spread. Between 7 April and 1 June 2020, Singapore implemented Circuit Breaker (CB) measures (including the closure of most physical workplaces, and restrictions on movements and the size of gatherings) to stem the rise in local COVID-19 transmissions and save lives. Externally, other economies were similarly grappling with the pandemic and had to impose lockdowns and mobility restrictions to curb the spread of the virus.

These resulted in significant demand and supply shocks to the Singapore economy. Correspondingly, the Singapore economy fell into recession in 2Q20 as GDP contracted on a quarter-on-quarter basis for two consecutive quarters (-0.6 per cent in 1Q20 and -13 per cent in 2Q20). The quarter-on-quarter contraction in GDP registered in 2Q20, largely due to the CB measures, was also the largest on record.

Historically, Singapore's labour market tends to lag changes in GDP by two to three quarters (Soon, 2010). However, given the large-scale disruptions to economic activity caused by the COVID-19 pandemic and ensuing CB measures in the first half of 2020, total employment in Singapore fell contemporaneously. Between 4Q19 and 2Q20, total employment saw a decline of 138,800.

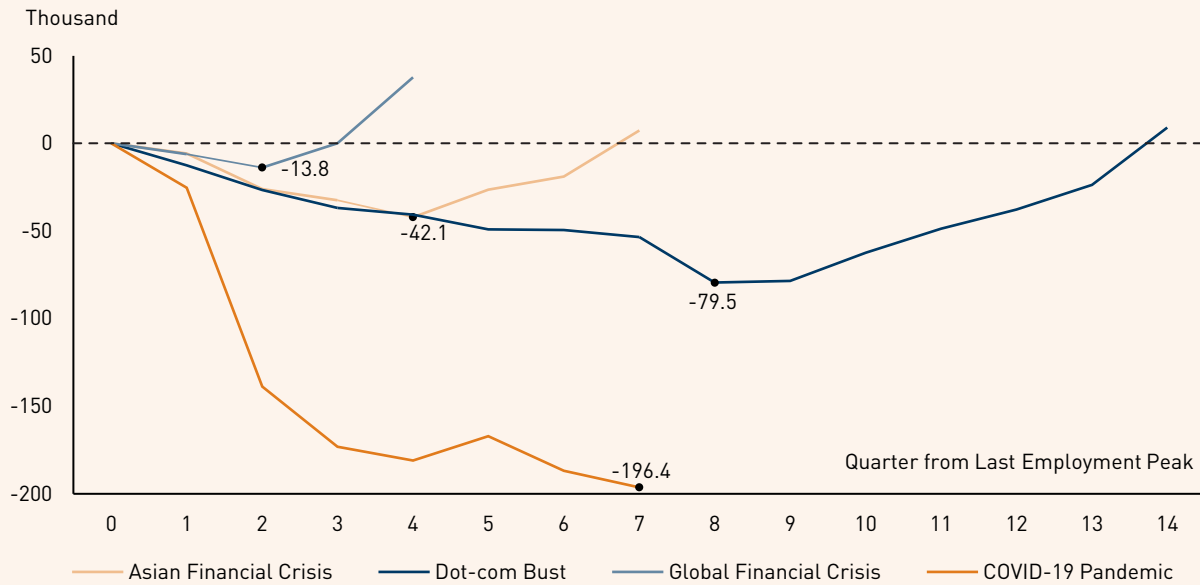
As the pandemic unfolded over the rest of 2020 and 2021, total employment in Singapore continued to fall. By 3Q21³, total employment had declined by 196,400 cumulatively, with 113,500 (or 58 per cent) of the contraction occurring in 2Q20 (i.e., CB period) alone. The magnitude of the decline was unprecedented, surpassing the peak-to-trough employment declines observed during the dot-com bust (-79,500), Asian Financial Crisis (-42,100) and Global Financial Crisis (-13,800) (Exhibit 1).

1 During these downturns, real Gross Domestic Product (GDP) fell or moderated significantly – i.e., Asian Financial Crisis (-2.2 per cent in 1998), dot-com bust (-1.1 per cent in 2001), Global Financial Crisis (0.1 per cent in 2009) and COVID-19 pandemic (-5.4 per cent in 2020).

2 Due to differences in the demand- and supply-side channels of transmissions, each recession affected the various sectors of the Singapore economy differently. For instance, in 2001 (i.e., dot-com bust), the fall in real GDP (-1.1 per cent) was primarily driven by a contraction in the manufacturing sector (-12 per cent), even as the services producing industries expanded (3.5 per cent). By contrast, in 2020 (i.e., COVID-19 pandemic), Singapore's economy shrank by 5.4 per cent on the back of a contraction in the services producing industries (-6.9 per cent), while the manufacturing sector grew strongly (7.3 per cent).

3 Employment data for 3Q21 is based on advance estimates.

Exhibit 1: Cumulative Employment Change During Recessions in Singapore



Sources: MTI staff estimates; Administrative Records and Labour Force Survey, Manpower Research & Statistics Department, MOM

Notes: Data are primarily from administrative records, with the self-employed component estimated from MOM's Labour Force Survey. Quarter 0 represents the last peak in employment for each recessionary episode. Black dots represent the quarter with the lowest employment level (i.e., trough) during the recession. The employment peak to trough for the Asian Financial Crisis, dot-com bust and Global Financial Crisis occurred from 1Q98 to 1Q99, 2Q01 to 2Q03, and 4Q08 to 2Q09, respectively. The impact of the severe acute respiratory syndrome (SARS) outbreak in 2Q03 was captured in the analysis for the dot-com bust. For the COVID-19 pandemic, quarters 0 to 7 refer to the period from 4Q19 to 3Q21.

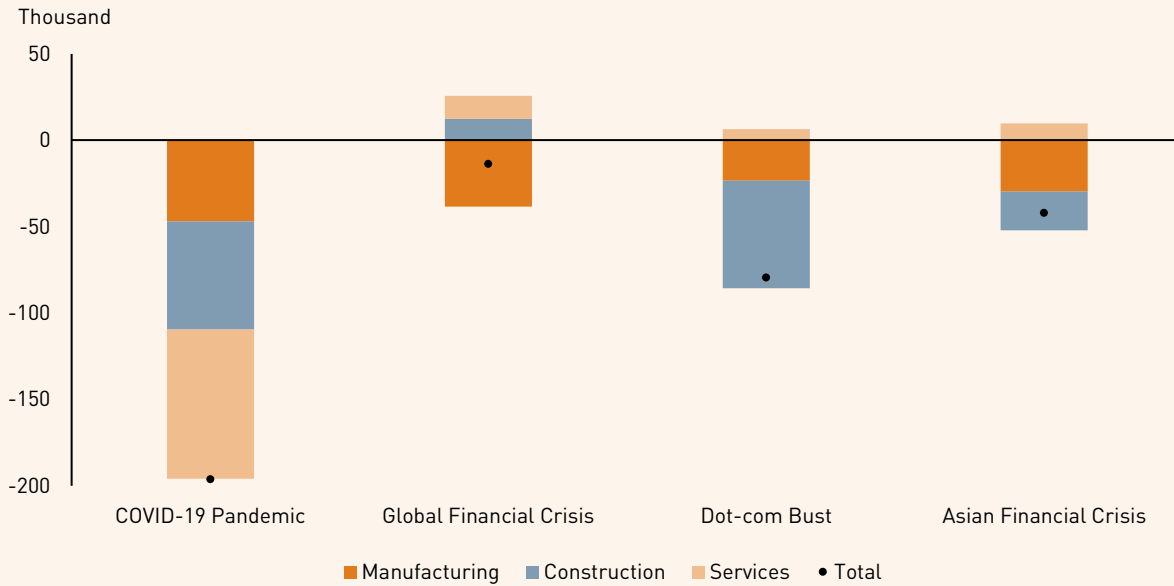
Employment losses during the COVID-19 pandemic were more broad-based across sectors compared to previous recessions

Unlike previous downturns, the COVID-19 pandemic simultaneously affected the Singapore economy through five transmission channels, especially in the earlier stages of the pandemic (see Rahmat et al., 2021). First, the plunge in international visitor arrivals and air travel due to global travel restrictions severely affected tourism- and aviation-related sectors such as accommodation and air transport. Second, domestic safe management measures and a fall in domestic consumption negatively affected consumer-facing sectors such as retail trade and food & beverage services. Third, weak external demand and supply chain disruptions dampened the performance of outward-oriented sectors such as wholesale trade and water transport for the most part of 2020. Fourth, negative spillovers from the slowdown in domestic economic activity led to lower demand in sectors such as real estate in 2020 and early 2021. Fifth, manpower disruptions resulting from outbreaks in migrant worker dormitories followed by border restrictions, as well as the requirement to implement safe management measures in workplaces, weighed on sectors with a high dependence on migrant workers, including the construction and marine sectors.

Arising from these transmission channels that affected many sectors of the economy, job losses during the COVID-19 pandemic were more broad-based compared to previous recessions. Between 4Q19 and 3Q21, employment fell the most in the services sector (-86,400), followed by the construction (-62,600) and manufacturing (-47,000) sectors (Exhibit 2). This was in contrast to previous experiences during the Global Financial Crisis, dot-com bust and Asian Financial Crisis, where services employment growth remained positive despite overall peak-to-trough employment losses.⁴

⁴ Over the employment peak-to-trough period during the dot-com bust, Asian Financial Crisis and Global Financial Crisis, services employment rose by 6,400, 9,700 and 13,300, respectively.

Exhibit 2: Cumulative Employment Change by Broad Sector and Recessionary Episode

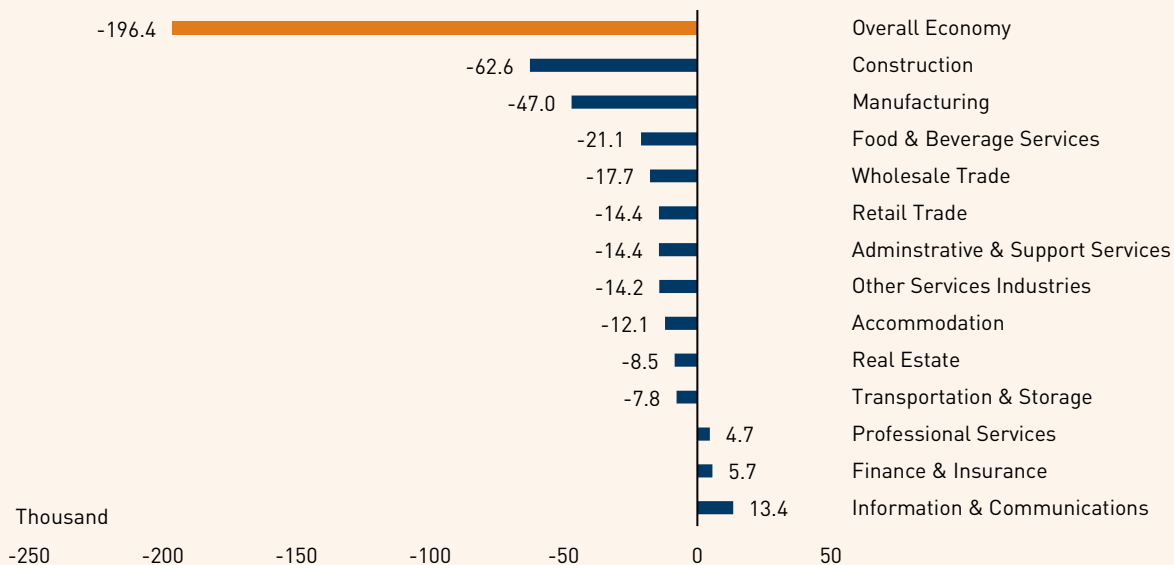


Sources: MTI staff estimates; Administrative Records and Labour Force Survey, Manpower Research & Statistics Department, MOM

Notes: Data are primarily from administrative records, with the self-employed component estimated from MOM’s Labour Force Survey. Total employment change includes employment changes in the broad sectors (i.e., manufacturing, construction and services) and other industries (e.g., agriculture, fishing, quarrying, utilities). Employment losses for the COVID-19 pandemic are for the period of 4Q19 to 3Q21. Peak-to-trough employment losses are reported for the other recessions – i.e., Global Financial Crisis (4Q08–2Q09), dot-com bust (2Q01–2Q03) and Asian Financial Crisis (1Q98–1Q99).

Notwithstanding the overall fall in services employment during the COVID-19 pandemic, employment outcomes were uneven across the various services sectors (Exhibit 3). On the one hand, employment contracted the most in the food & beverage services (-21,100) and wholesale trade (-17,700) sectors between 4Q19 and 3Q21. On the other hand, employment rose in the information & communications (+13,400), finance & insurance (+5,700) and professional services (+4,700) sectors over the same period, partly reflecting the recovery in external demand towards the later part of 2020 and in 2021. These sectors were also likely to have been less affected by workplace closures during the CB period and maximum work-from-home requirements during periods of tightening because of their suitability for remote work.⁵

Exhibit 3: Change in Total Employment by Sectors, 4Q19–3Q21



Sources: MTI staff estimates; Administrative Records and Labour Force Survey, Manpower Research & Statistics Department, MOM

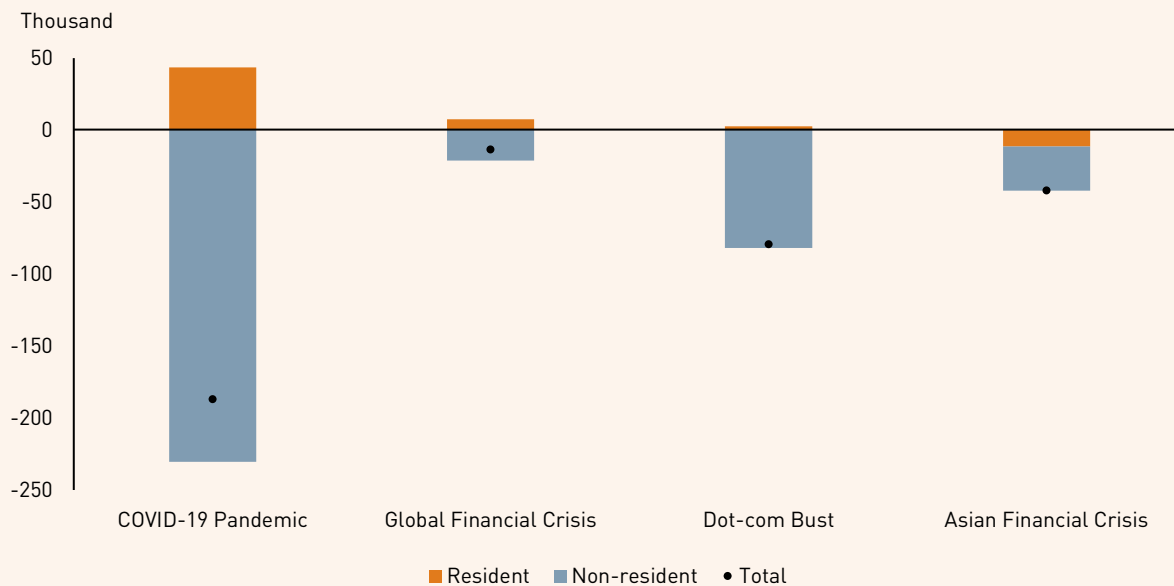
Note: Data are primarily from administrative records, with the self-employed component estimated from MOM’s Labour Force Survey.

⁵ In 2020, the incidence of residents who worked from home in Singapore was the highest in the information & communications (78 per cent), finance & insurance (76 per cent) and professional services (75 per cent) sectors (MOM, 2021a). As a comparison, 49 per cent of all employed residents worked from home because of the COVID-19 pandemic in 2020.

Like past recessions, non-resident workers buffered resident workers from employment losses during the COVID-19 pandemic

Similar to previous downturns⁶, the non-resident workforce buffered resident workers from employment losses during the pandemic (Exhibit 4). Between 4Q19 and 2Q21⁷, the overall decline in employment (-187,000) was driven by non-resident employment losses (-230,400), which had exceeded resident employment gains (+43,400). Although resident employment fell in the first half of 2020 (-62,700), it trended upwards subsequently and had surpassed pre-COVID levels by 4Q20 (Exhibit 5). On the other hand, non-resident employment continued to contract between 2Q20 and 2Q21, primarily due to ongoing border restrictions. Apart from being buffered by the non-resident workforce, targeted support measures for residents (e.g., Jobs Support Scheme and Jobs Growth Incentive) may have also supported resident employment outcomes during the COVID-19 pandemic (see MAS, 2021).

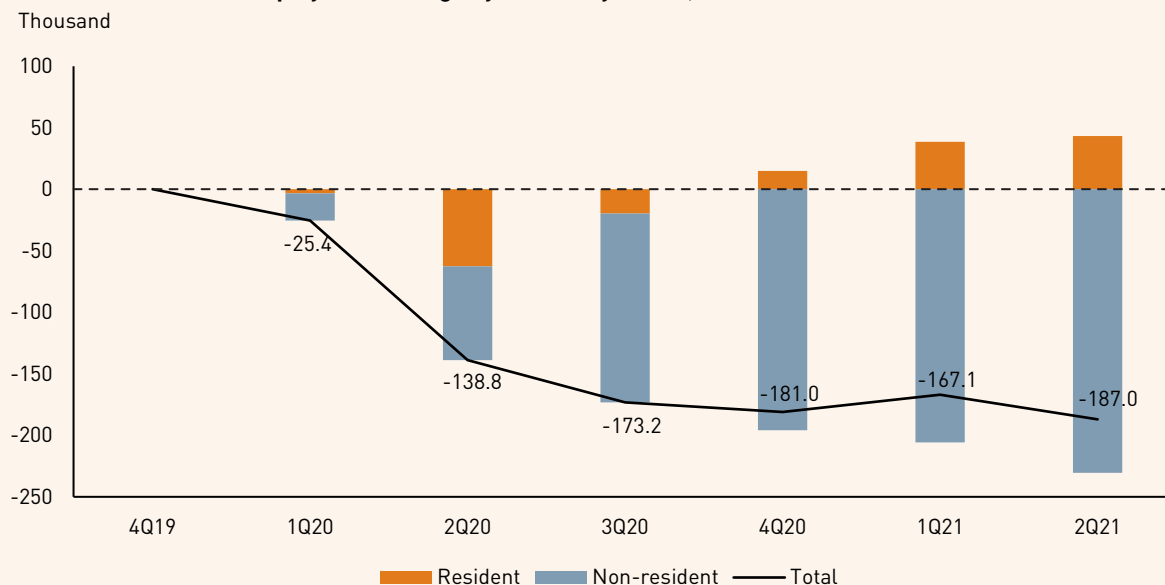
Exhibit 4: Cumulative Employment Change by Residency Status and Recessionary Episode



Sources: MTI staff estimates; Administrative Records and Labour Force Survey, Manpower Research & Statistics Department, MOM

Notes: Data are primarily from administrative records, with the self-employed component estimated from MOM's Labour Force Survey. Employment losses for the COVID-19 pandemic are for the period of 4Q19 to 2Q21 because employment data by residency status for 3Q21 are not available in MOM's advance estimates. Peak-to-trough employment losses are reported for the other recessions – i.e., Global Financial Crisis (4Q08–2Q09), dot-com bust (2Q01–2Q03) and Asian Financial Crisis (1Q98–1Q99).

Exhibit 5: Cumulative Employment Change by Residency Status, 4Q19–2Q21



Sources: MTI staff estimates; Administrative Records and Labour Force Survey, Manpower Research & Statistics Department, MOM

Notes: Data are primarily from administrative records, with the self-employed component estimated from MOM's Labour Force Survey. The above exhibit shows the cumulative employment change from the pre-COVID reference quarter of 4Q19. For example, the employment change in 2Q21 (i.e., -187,000) reflects the cumulative employment change between 4Q19 and 2Q21.

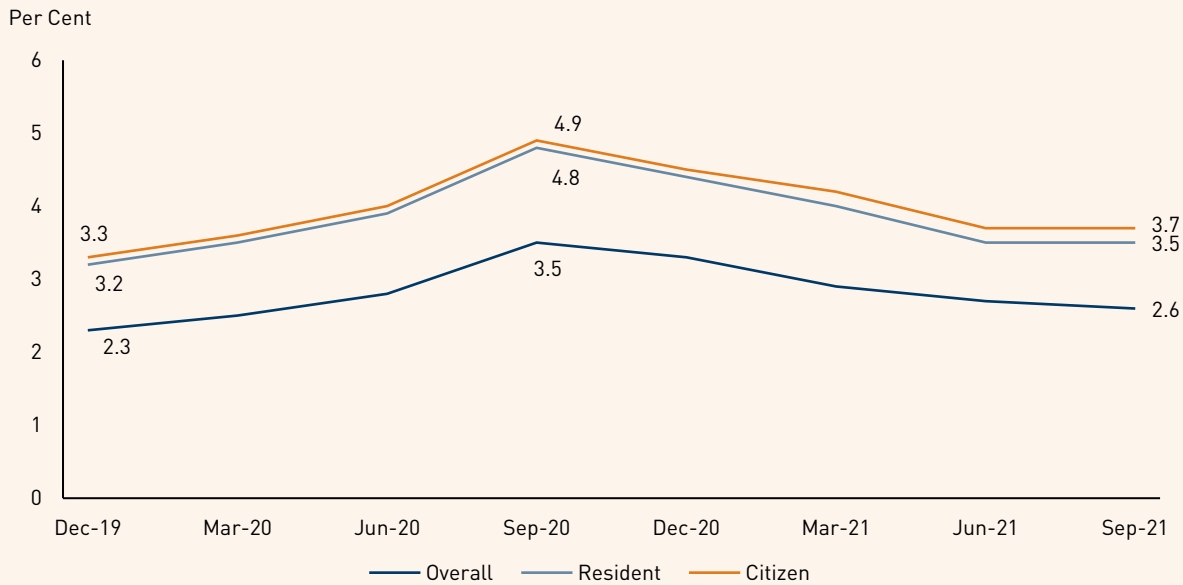
⁶ During the Global Financial Crisis and dot-com bust, peak-to-trough employment losses [-13,800 and -79,500, respectively] were due to declines in non-resident employment [-21,200 and -82,000, respectively] that offset gains in resident employment [+7,400 and +2,500, respectively]. For the Asian Financial Crisis, the peak-to-trough employment loss of 42,100 was primarily driven by a fall in non-resident employment [-30,600].

⁷ Employment data by residency status for 3Q21 are not available in MOM's advance estimates. Nonetheless, the employment trends seen between 4Q19 and 2Q21 are likely to have continued in 3Q21, with MOM (2021b) noting that resident employment expanded substantially while non-resident employment contracted in 3Q21.

(III) Singapore's Unemployment Rate Compared with Other Advanced Economies

Singapore's unemployment rate remained lower than that in other advanced economies

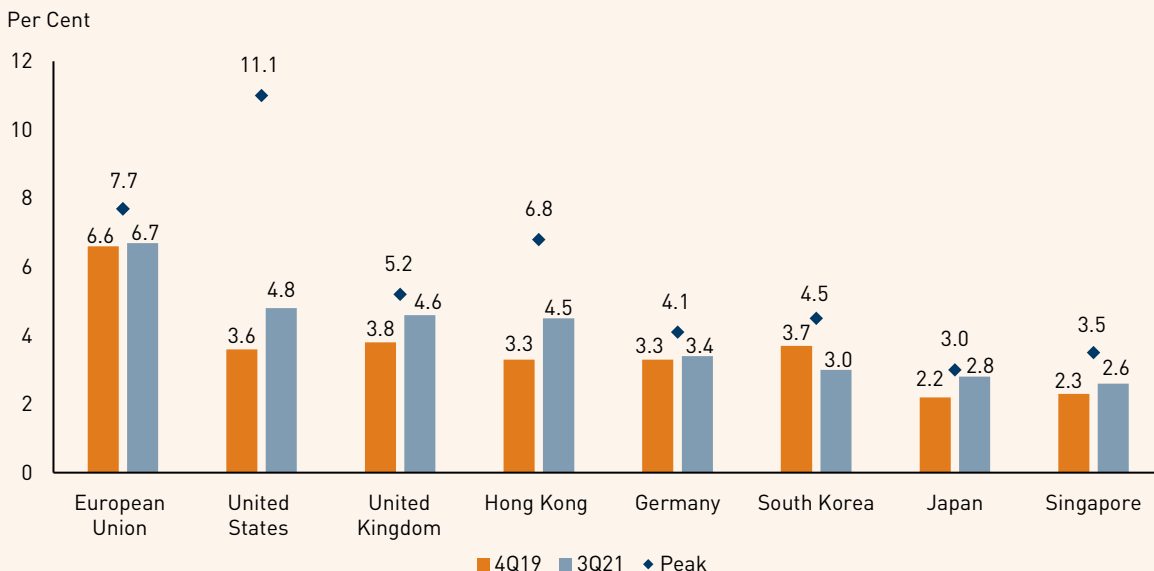
Reflecting the early impact of the COVID-19 pandemic on the labour market, Singapore's seasonally-adjusted unemployment rates rose at the overall level (from 2.3 per cent to 3.5 per cent) and for residents (3.2 per cent to 4.8 per cent) and citizens (3.3 per cent to 4.9 per cent) between December 2019 and September 2020 (Exhibit 6). However, unemployment rates subsequently eased in tandem with the gradual recovery of economic activity. By September 2021, the overall, resident and citizen unemployment rates had moderated to 2.6 per cent, 3.5 per cent and 3.7 per cent, respectively, although these remained above December 2019 levels.

Exhibit 6: Unemployment Rates in Singapore, December 2019–September 2021

Sources: Labour Force Survey, Manpower Research & Statistics Department, MOM

Note: Unemployment rates are seasonally adjusted and reported on an end-of-quarter basis.

Singapore's experience over the course of the pandemic was not unique. Across many advanced economies, unemployment rates similarly rose due to the impact of the pandemic. For instance, the unemployment rate in the United States increased from 3.6 per cent to 11 per cent between December 2019 and June 2020. As the various economies began to recover, their unemployment rates likewise started to moderate. As at 3Q21, however, the unemployment rates in most of the advanced economies remained higher than their pre-pandemic levels (i.e., unemployment rates in 4Q19) (Exhibit 7).⁸

Exhibit 7: Unemployment Rates, 4Q19–3Q21

Sources: MTI staff estimates, MOM and CEIC

Notes: Unemployment rates are seasonally adjusted and reported on an end-of-quarter basis (i.e., March, June, September and December of the respective years), apart from that of Hong Kong, which is reported on a quarterly average basis. The diamonds refer to the highest unemployment rate reached between 4Q19 and 3Q21 in the various economies.

⁸ Among the basket of advanced economies, South Korea stands out as an exception. In September 2021, South Korea's unemployment rate was 3.0 per cent, lower than its pre-COVID level of 3.7 per cent in December 2019.

Compared to the other economies, Singapore's overall unemployment rate has remained relatively low notwithstanding the large employment losses suffered during the pandemic. As at September 2021, Singapore's overall unemployment rate (2.6 per cent) was lower than that of the United States (4.8 per cent), United Kingdom (4.6 per cent), Hong Kong (4.5 per cent), Germany (3.4 per cent), South Korea (3.0 per cent) and Japan (2.8 per cent) (Exhibit 7). Singapore's low overall unemployment rate partly reflected the availability of employment opportunities⁹, as well as the loss of non-resident workers who exited Singapore's labour force amidst the downturn.

(IV) Conclusion

COVID-19 and the public health responses to it have resulted in an unprecedented level of employment losses in Singapore. An examination of the employment trends highlights that these losses have been more broad-based across sectors compared to previous recessions, with employment falling the most in the services (e.g., food & beverage services, wholesale trade) and construction sectors. Similar to past recessions, non-resident workers have buffered resident workers from employment losses during the downturn, with non-resident employment declining even as resident employment rose.

Despite the employment losses, unemployment rates in Singapore have remained relatively low, in part reflecting the increasing availability of employment opportunities as the economy recovers. To further strengthen the recovery of the labour market, the Government will continue to (i) help bring together jobs and skills opportunities under the SGUnited Jobs and Skills Package to support local jobseekers, (ii) help companies to expand local hiring through the Jobs Growth Incentive, and (iii) support companies (particularly those in the construction, marine and process sectors) in retaining their existing migrant workers and facilitating the safe inflow of new migrant workers.

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⁹ In 2Q21, the ratio of job vacancies to unemployed persons was 1.63, indicating that there were more job vacancies than unemployed persons in the Singapore economy. The ratio was the highest level recorded over the past decade.

References

- Lee, T. (2009). Singapore's Trade and Investment Trends: A Comparison with Past Downturns. In *Economic Survey of Singapore 2008* (pp. 72-78). Singapore: Ministry of Trade and Industry.
- Ministry of Manpower (MOM). (2021a). *Labour Force in Singapore 2020*. Singapore: MOM.
- Ministry of Manpower (MOM). (2021b). *Labour Market Advance Release Third Quarter 2021*. Singapore: MOM.
- Monetary Authority of Singapore (MAS). (2021). Labour Market Policy Responses to COVID-19. In *Macroeconomic Review April 2021* (pp. 70-74). Singapore: Monetary Authority of Singapore.
- Rahmat, M., Ong, C. A., & Thong, W. E. (2021). Performance of the Singapore Economy in 2020. In *Economic Survey of Singapore 2020* (pp. 84-95). Singapore: Ministry of Trade and Industry.
- Saw, C., Lin, J., & Wong, Y. J. (2020). Impact of the COVID-19 Pandemic on the Singapore Economy. In *Economic Survey of Singapore First Quarter 2020* (pp. 36-44). Singapore: Ministry of Trade and Industry.
- Soon, D. (2010). Employment Trends During Recession: A Comparison from Peak to Trough. In *Economic Survey of Singapore 2009* (pp. 9-11). Singapore: Ministry of Trade and Industry.
- Soon, D., & Tee, K. H. (2009). Explaining the Greater Impact of Trade on GDP: Comparing with the 2001 Recession. In *Economic Survey of Singapore First Quarter 2009* (pp. 7-10). Singapore: Ministry of Trade and Industry.
- Toh, M. H., & Lim, T. K. (2001). Impact of Falling Visitor Arrivals on Singapore's Commerce Sector. In *Economic Survey of Singapore Third Quarter 2001* (pp. 48-58). Singapore: Ministry of Trade and Industry.