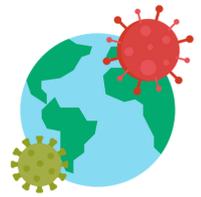# An Interim Assessment of the Impact of Key COVID-19 Budget Measures

20
21

EXECUTIVE SUMMARY

The COVID-19 pandemic led to one of the deepest downturns globally and in Singapore. The Singapore Government introduced five Budgets in 2020 to combat COVID-19, committing close to $100 billion, or 20% of GDP, in economic and social support as well as public health management measures. The measures have helped mitigate the impact of the pandemic and allowed a stable re-opening of the domestic economy.

The fiscal measures in response to the COVID-19 pandemic are estimated to have supported GDP growth by 5.5 percentage points in 2020, helping Singapore avert a deeper economic recession. Coupled with accommodative monetary policy which contributed another 1.1 percentage points, the Singapore economy is estimated to have contracted by 5.8% in 2020 instead of 12.4% or more in the absence of policy support. The fiscal measures were also estimated to have prevented the resident unemployment rate from rising by a further 1.7 percentage points in 2020. Total fiscal support, including the Jobs Support Scheme (JSS), is estimated to have helped save or create about 155,000 jobs on average over 2020–2021.

To mitigate the uneven impact of the recession, the Government has tilted support from COVID-19 measures towards more affected sectors, smaller firms, and especially lower-income households. In total, grants received by firms increased significantly in 2020 compared to 2019. Tier 1 firms, which are in the hardest-hit sectors, received more help on a per firm and per worker basis. A significant share of the support came from the JSS, which, based on early data, has worked as intended in helping affected firms retain workers.

In addition to retaining jobs and capabilities, the Government has promoted job creation and reallocated jobseekers into growth opportunities. As of December 2020, the SGUnited Jobs and Skills Package (SGUJS) has helped nearly 76,000 jobseekers and fresh graduates find placements. Under the Jobs Growth Incentive (JGI), 110,000 local jobseekers were collectively hired across 26,000 employers within two months from the implementation of the scheme.

Schemes that directly supported individuals and households exhibited progressivity across income and housing types. By focusing more support for the lower-income and those in smaller flat types, the schemes have helped to mitigate the impact of the COVID-19 pandemic on the lower-income groups. This was seen in the significant reduction in the Gini Coefficient in 2020 after including COVID-19 measures for individuals and households and other government taxes and transfers.

Early data on the COVID-19 Budget measures has been encouraging. The schemes appear to be reaching the intended target groups and achieving the objectives of preserving jobs and cushioning the shocks to businesses and households. However, the pandemic is not over, and much uncertainty remains. The vaccine approvals at the end of 2020 boosted confidence, but wide-scale implementation of vaccination programmes globally remains challenging. The path to recovery will therefore likely be more long-drawn than expected.

CONTENTS

INTRODUCTION

1.1   The COVID-19 pandemic was a great shock to the global economy. As a small, open economy, Singapore was not spared from its effects. The Government responded decisively, and continued to adapt its responses as the crisis evolved. This was done through a combination of public health measures, fiscal support for workers, businesses and households, accommodative monetary policy, and temporary measures to suspend performance of obligations affected by COVID-19. Five Budgets were delivered over a span of nine months to stabilise the COVID-19 situation within our borders and cushion the accompanying economic fallout.

1.2   This paper reports on the COVID-19 Budget measures and their effects on the economy thus far. It provides a preliminary analysis of the initial effects of the Government's measures to reduce business costs, save jobs, and support families. The full effects of many schemes are still working their way through the economy. A more complete analysis will require a sufficiently long period of observation and collation of more detailed and even micro data, before we can better discern the fuller effects on firms, workers and families.

1.3   The rest of the paper is organised as follows:

- Section 2: The Economy in 2020 describes the global and local macroeconomic situation in the pandemic year and recaps the key COVID-19 support measures rolled out over the five Budgets.

- Section 3: Macroeconomic Impact of COVID-19 Budget Measures presents the macroeconomic impact of the measures on the Singapore economy based on simulations using Monetary Authority of Singapore's Monetary Model of Singapore.

- Section 4: Support Schemes for Firms presents an analysis of schemes targeted at firms, in particular JSS and financing schemes.

- Section 5: Support Schemes for Workers and Graduates looks at schemes that provide jobs and skills opportunities to jobseekers and fresh graduates.

- Section 6: Support Schemes for Individuals and Households analyses schemes that provide broad-based assistance to all households, and additional relief for individuals with job or income loss, and self-employed persons with less means and family support.
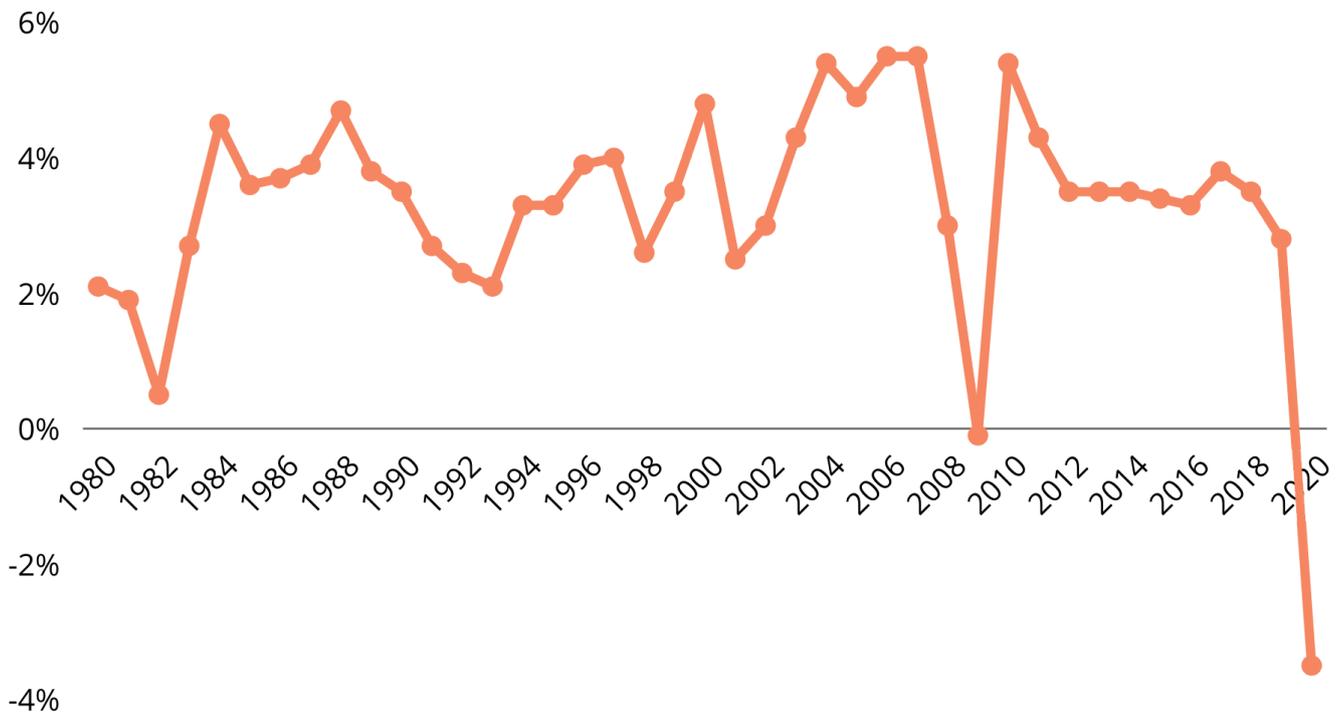
1.4   Section 7 presents our concluding observations.

THE ECONOMY IN 2020

Macroeconomic situation

2.1   To contain the virulent outbreak of COVID-19, in the first quarter of 2020, many governments imposed lockdowns and movement restrictions of varying degrees. These public health measures triggered a deep contraction in economic activity. Large swathes of services activity were shut down, global travel and trade stalled, and supply chains were disrupted. In its January 2021 World Economic Outlook, the International Monetary Fund (IMF) estimated that as a result of these measures, global real GDP fell by 3.5% in 2020, the largest contraction since the Second World War (see Chart 1).

Global Real Gross Domestic Product (GDP) Growth, 1980 to 2020

CHART 1

Source: IMF World Economic Outlook, January 2021

2.2   The economic impact was also uneven. Sectors such as aviation, tourism, food & beverage and retail were hardest hit. Lower-income groups were also disproportionately affected. Workers in high-touch industries, and jobs requiring face-to-face interaction soon faced redundancy as social distancing measures brought economic activities of these sectors to a halt. A study by the Brookings Institution found that such occupations were largely concentrated among the lower-wage deciles and women.[1] Youth unemployment, already high in some places, increased further as job opportunities dwindled.

[1] Avdiu, Besart, and Guarav Nayyar. 2020. "When face-to-face interactions become an occupational hazard: Jobs in the time of COVID-19." *Brookings Future Development* (blog), 30 March 2020.

2.3   Like many other cities, Singapore implemented increasingly stringent travel restrictions and domestic social distancing measures, including a four-week "Circuit Breaker" period in April 2020, which was extended by another four weeks. These measures were aimed at reducing the transmission of the virus and saving lives. They also inevitably contributed to the sharp slowdown in economic activity. In addition, with many of our major final demand markets being affected, the Singapore economy experienced its deepest recorded downturn in 2020. GDP fell by 5.8% for the whole of 2020 based on advance estimates (see Chart 2).

Singapore Real Gross Gross Domestic Product (GDP) Growth,1980 to 2020*

CHART 2

Source: Department of Statistics (DOS)

*2020 Real GDP Growth based on MTI's 4Q 2020 Advance Estimates released on 4 Jan 2021.

2.4   The Circuit Breaker occurred during the second quarter of 2020 (2Q20), which recorded a 13.2% decline from the previous quarter (i.e. quarter-on-quarter seasonally-adjusted, or "qoq sa"), the largest quarterly contraction on record. In the following quarter, as the domestic public health situation was gradually brought under control, and the economy began a phased exit from the Circuit Breaker measures in July. GDP growth in 3Q20 and 4Q20 rebounded by 9.5% and 2.1%[2] respectively (qoq sa).

2.5   However, renewed virus outbreaks in many countries, the re-imposition of lockdowns and movement restrictions, combined with varying levels of compliance with social distancing measures in different populations, have slowed the momentum of the global recovery and continued to generate economic uncertainty. The approvals of the first vaccines at the end of 2020 were widely met with optimism and relief. However, wide-scale implementation of vaccination programmes globally remains challenging, including in Singapore's key markets and trading partners, as well as domestically. This is further hindered by the spread of new strains of the virus in some countries. The path to recovery will therefore likely be more long-drawn than expected, and its course uncertain.
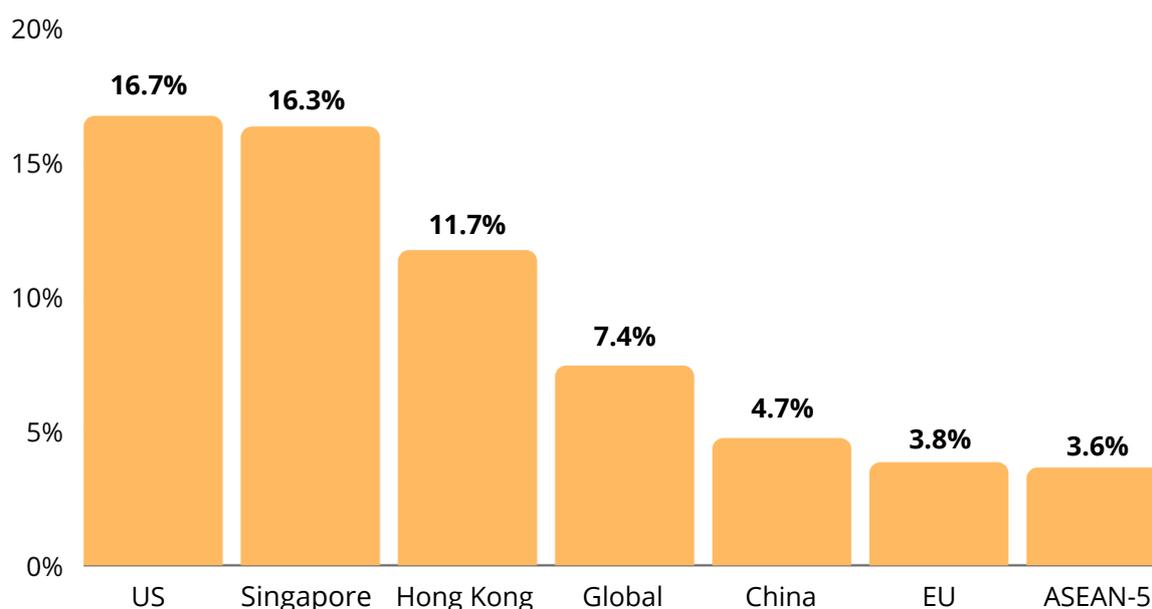
[2] Based on MTI's advance estimates as at 4 January 2021.

Recap of COVID-19 Budget measures

2.6   The Government introduced five Budgets in 2020 to combat COVID-19, committing close to $100 billion, or 20% of GDP, in economic and social support and public health management measures. This is a sizeable response (see Chart 3). However, the comparison in Chart 3 is only indicative and the appropriate qualifications should be kept in mind. First, it is important to note that the severity of the COVID-19 impact varied considerably across economies and jurisdictions. Different institutional systems and fiscal headroom also meant that economies differed in their mix of policy measures (e.g. direct transfers versus loan programmes). Second, the actual realised impact of support measures may also differ from intended plans depending on implementation and other factors. Additional support packages in some economies, such as those in the United States, are still going through legislative bodies.

Fiscal Measures in Response to the COVID-19 Pandemic (excl. liquidity support)

CHART 3

Source: IMF Fiscal Monitor, January 2021

Note: ASEAN-5 aggregate comprises Indonesia, Malaysia, Thailand, the Philippines and Vietnam, and is weighted by countries' shares in Singapore's non-oil domestic exports. Figures are on CY basis except for Hong Kong and Singapore. The fiscal responses exclude liquidity support such as loans & guarantees.

2.7   COVID-19 demanded a **coordinated response across the public health, economic and social domains**, and the Government responded with a strategy to protect lives, protect livelihoods and provide social support. As the pandemic developed, the **focus of the Budgets also evolved in response to changing needs**. The mix of measures was continually fine-tuned to help Singapore adapt to the rapidly changing situation. Chart 4 is a stylised representation of this.

Budget Responses to the COVID-19 Timeline

CHART 4

WHO declares COVID-19 a pandemic

Containing spread in Singapore

Phased reopening

Adapting to new normal

Circuit Breaker

18 Feb 2020
Unity Budget

26 Mar 2020
Resilience Budget

6 Apr 2020
Solidarity Budget

26 May 2020
Fortitude Budget

17 Aug & 5 Oct 2020
Ministerial Statements

Protect jobs, prevent economic scarring	**Adapt to new normal, reallocate to growth sectors**
Reduce business cost Jobs Support Scheme, rental waivers	**Targeted support for severely affected sectors** Tiered Jobs Support Scheme support, sector-specific support
Ensure supply of credit and liquidity Financing schemes, defer tax payments	**Create jobs, reallocate to growth sectors** SGUnited Jobs & Skills, Jobs Growth Incentive
Support our people and workers Solidarity Payment, Self-Employed Person Income Relief Scheme, COVID-19 Support Grant	**Help firms/workers adapt and transform** SME, Hawkers, Seniors GoDigital

Source: Ministry of Finance (MOF)

2.8   To **protect lives**, the Government committed $13.8 billion to public health measures.

- Test-trace-isolate: The Government expanded contact tracing, COVID-19 testing and quarantine capacity. By end-2020, it had built up the capacity to carry out over 50,000 COVID-19 tests per day. This enabled Singapore to quickly identify and isolate any cluster, thereby breaking infection chains and flattening the epidemic curve.

- Medical capacity and health supplies: The Government stood up additional healthcare capacity, e.g. Intensive Care Unit beds and community care facilities, to manage potential spikes in caseloads. The Government also moved to secure health supplies, such as personal protection equipment and medication shown to be effective against COVID-19 (e.g. Remdesivir), to ensure that frontline workers are protected and well-equipped to support patient recovery.

- COVID-19 vaccines: The Government signed advance purchase agreements with COVID-19 vaccine manufacturers to secure early access to safe and effective vaccines. The goal was to enable Singapore to achieve herd immunity through widespread immunisation, protect Singaporeans against future waves of infections and to enable a confident reopening of the economy. Singapore was the first Asian country to receive and roll out the Pfizer-BioNTech vaccine.

2.9   To **protect livelihoods**, the Government devoted $73.5 billion of support for workers and businesses.

- Preserve jobs and key corporate capabilities: Initial measures aimed to provide broad-based emergency relief for workers and businesses, in order to preserve jobs despite slower economic activity. At the height of the crisis, the Government subsidised up to 75% of wages for all resident workers through JSS, to which the Government devoted $26.9 billion. In addition, the Government rolled out financing schemes such as the Temporary Bridging Loan Programme to help firms maintain access to credit, and various tax and rental relief measures to help businesses defray operational costs. Additional support was also provided for the sectors most adversely affected by the crisis, such as the aviation and tourism sectors. This included the SingapoRediscovers vouchers to catalyse domestic tourism in a safe manner.

- These measures were pivotal in preserving and creating good jobs as Singapore braved through COVID-19. They also enable businesses to retain business know-how, connections and networks, allowing businesses to quickly bounce back as the economy recovers.

- Facilitate resource reallocation and business transformation: In the later Budgets, measures such as SGUJS incentivised growing firms to increase hiring, helping individuals get into jobs in demand. It also provided traineeships to ensure the fresh graduates from the Institute of Technical Education, Polytechnics, Arts Institutions and Universities had meaningful roles to build their skills even if full-time jobs were not immediately available. To prepare businesses and workers for a post-COVID-19 world, the Government supported transformation and technology adoption amid disruption arising from the pandemic by getting businesses and individuals on board the digitisation journey.

2.10   To provide social support, the government committed $10.0 billion in direct cash transfers and social assistance schemes which gave immediate relief to households and segments of the population which required more help.

- Broad-based social support: At the height of the crisis, the Government quickly provided financial relief for families via broad-based schemes such as the Care and Support Package (CSP), Solidarity Payment and Solidarity Utilities Credit. To ensure timely disbursement to support Singaporeans through the crisis, these were disbursed automatically to eligible individuals and households without the need for application.

- Mitigate distributional impacts: COVID-19 has disproportionately affected the lower-income and vulnerable segments of the population. In response, the Government sought to mitigate the distributional impact of COVID-19 by providing more support to families with fewer resources and individuals who had experienced a loss of income or job. For example, the Temporary Relief Fund (TRF) and COVID-19 Support Grant (CSG) were introduced to provide additional support to those who had experienced income or job loss. In addition, the Government introduced the Self-Employed Person Income Relief Scheme (SIRS) to help self-employed persons (SEPs) with less means tide over economic uncertainty. To date, the TRF, CSG and SIRS have helped more than half a million individuals.

MACROECONOMIC IMPACT OF COVID-19 BUDGET MEASURES

3.1   The Monetary Authority of Singapore (MAS) undertook an analysis of the macroeconomic impact of the key fiscal measures announced in FY2020 using the Monetary Model of Singapore (MMS). The MMS is MAS' flagship economy-wide model that is routinely used to generate economic forecasts, conduct scenario analysis and perform policy simulations (further details on the application of MMS are in the Appendix). The total size of the fiscal packages simulated amounted to $75.2 billion (16% of GDP), compared to the government's total announced spending of $97.2 billion. The simulations excluded financial support measures, such as the Temporary Bridging Loan and Enterprise Financing Scheme (budgeted at $22 billion).
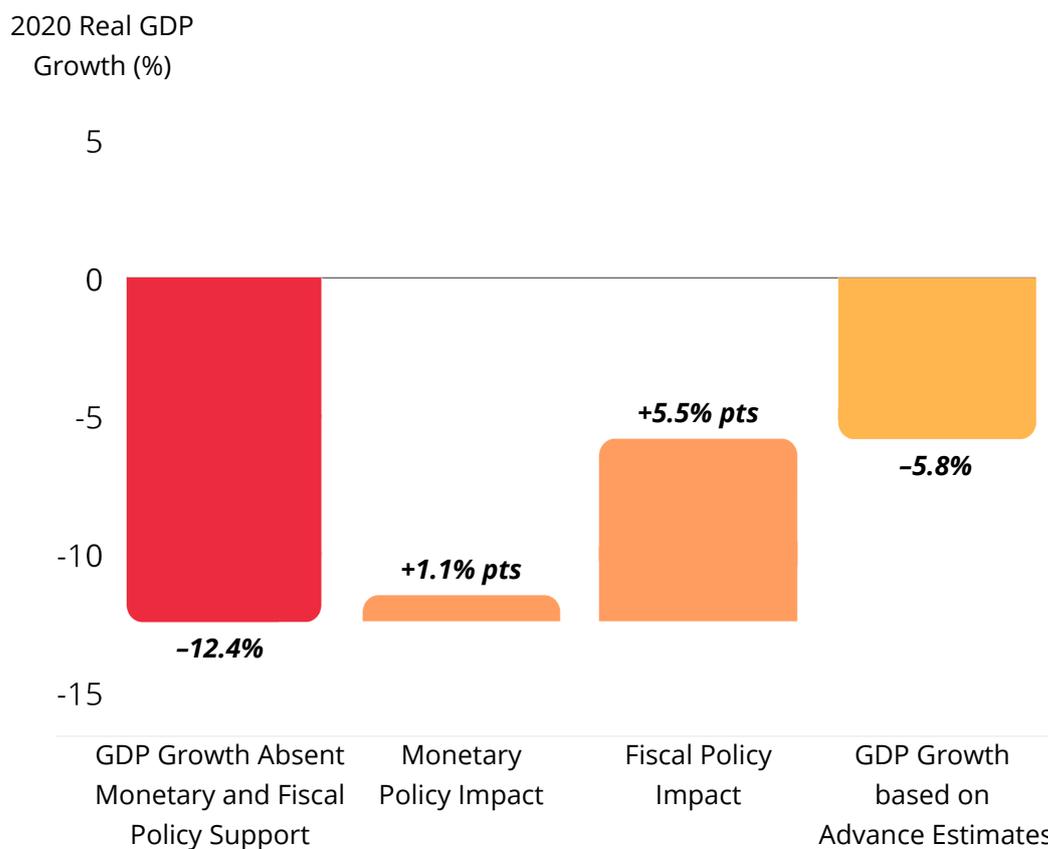
3.2   Compared with support provided in the Global Financial Crisis or 2001 IT slowdown, the composition of the fiscal packages in FY2020 was skewed more towards cost-saving measures for businesses, rather than public consumption and investment. This policy mix recognised that public investment (e.g. in infrastructure) and government purchases of goods and services were likely to be less effective as the circumstances of the pandemic effectively constrained the level of activity that could be safely sustained. The Circuit Breaker and safe distancing measures limited the population's opportunities to increase consumption, despite the transfers provided by the government. Accordingly, the measures were more heavily weighted towards capabilities preservation (e.g. JSS, subsidised business financing schemes), which in turn saved jobs and livelihoods. This will allow individuals and businesses to capture growth opportunities when demand returns.

3.3   **The combined Budgets helped Singapore to avert a deeper economic recession in 2020.** Based on the Ministry of Trade and Industry's (MTI) advance estimates released on 4 January 2021, 2020 GDP growth is expected to come in at −5.8%. MAS modelling finds that the **fiscal measures undertaken in response to the COVID-19 shock supported GDP growth by 5.5 percentage points, i.e. the 2020 growth rate was 5.5 percentage points higher than it would have been absent the fiscal support** (see Chart 5). The accommodative monetary policy stance of the MAS contributed a further 1.1 percentage points. By implication, the COVID-19 shock could have caused an even deeper recession in the Singapore economy in the absence of support from fiscal and monetary policy, with GDP contracting by at least 12.4%.

3.4   **The full impact of the overall policy mix on the economy is likely to be larger than that quantified above.** As mentioned, the estimated contribution from fiscal and monetary policy support in paragraph 3.3 does not include measures such as liquidity and credit relief support to firms, nor measures which provided businesses and individuals relief from rentals and various other contractual obligations (under the COVID-19 (Temporary Measures) Act). These almost certainly had a positive (although difficult-to-quantify) impact on economic activity and shoring up confidence. Financing schemes were critical in easing the cash flow of businesses and households in a timely manner and are accounted for separately below (paragraphs 4.6 to 4.9) in terms of actual loans disbursed.

Macroeconomic Policy Impact on Singapore's Real GDP Growth in 2020

CHART 5

2020 Real GDP Growth (%)

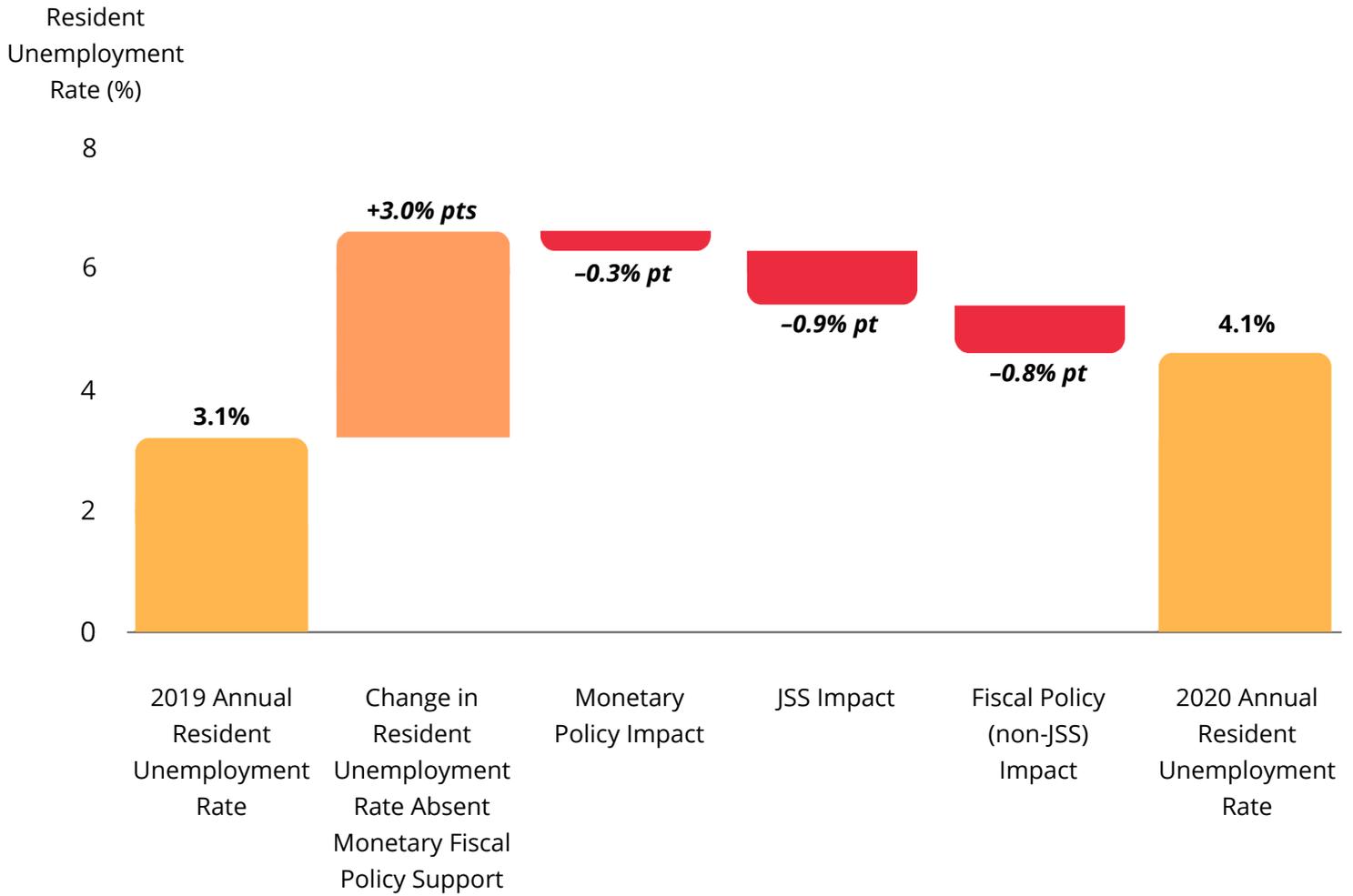|	
GDP Growth Absent Monetary and Fiscal Policy Support	−12.4%
Monetary Policy Impact	+1.1% pts
Fiscal Policy Impact	+5.5% pts
GDP Growth based on Advance Estimates	−5.8%

Sources: MAS estimates, MTI

3.5 **Fiscal policy support measures were estimated to have prevented the resident unemployment rate from rising by a further 1.7 percentage points in 2020** (see Chart 6). A large part of this impact is attributable directly to jobs-related measures, with the JSS alone estimated to contribute 0.9 of a percentage point. Other fiscal measures contributed a further 0.8 of a percentage point. Other fiscal measures contributed a further 0.8 of a percentage point. **Total fiscal support, including the JSS, is estimated to have helped save or create about 155,000 jobs on average over 2020–2021.** Monetary policy easing by MAS is estimated to have prevented a further 0.3 percentage-point rise in the unemployment rate. Ministry of Manpower's (MOM) preliminary estimates in the Labour Market Advance Release 2020 (released on 28 January 2021) showed that the resident unemployment rate had risen to 4.1% in 2020, from 3.1% in 2019. The model estimates imply that the resident unemployment rate could have exceeded 6% in the absence of fiscal and monetary policy support. For comparison, the resident unemployment rate was 6.2% in the third quarter of 2003, in the midst of SARS.

Macroeconomic Policy Impact on Singapore's Resident Unemployment Rate in 2020

CHART 6

Resident
Unemployment
Rate (%)

+3.0% pts	
	−0.3% pt
	−0.9% pt
	−0.8% pt
3.1%	**4.1%**

- 2019 Annual Resident Unemployment Rate
- Change in Resident Unemployment Rate Absent Monetary Fiscal Policy Support
- Monetary Policy Impact
- JSS Impact
- Fiscal Policy (non-JSS) Impact
- 2020 Annual Resident Unemployment Rate

Sources: MAS estimates, MOM

SUPPORT SCHEMES FOR FIRMS
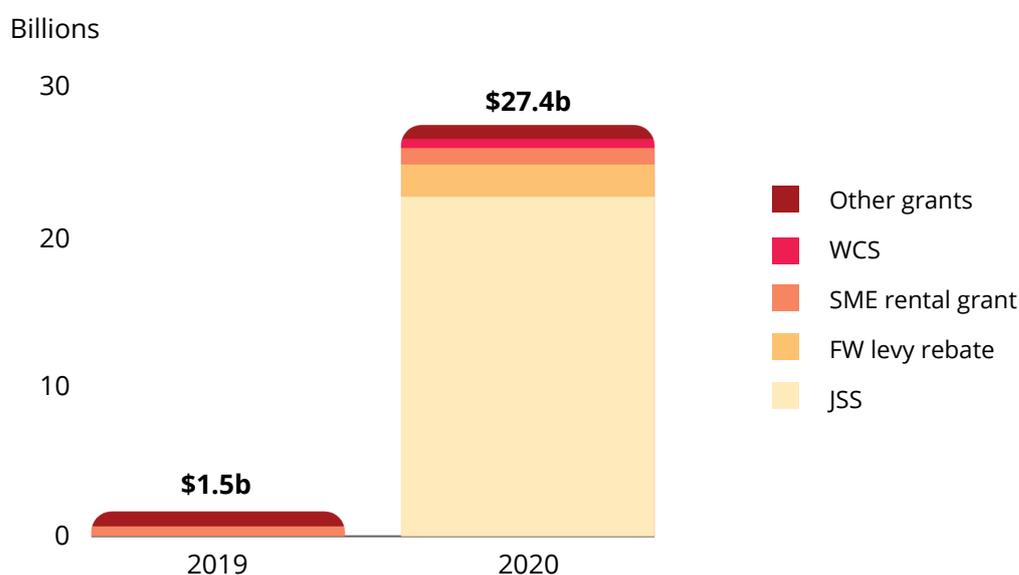
04

Grants disbursed

4.1 In total, **grants received by firms increased significantly in 2020 compared to 2019**, as support measures were rolled out to cushion the impact of COVID-19 (see Chart 7). Among the schemes, the largest spending recorded was for the JSS, followed by the Foreign Worker Levy (FWL) rebate, Wage Credit Scheme (WCS) and the Small and Medium Enterprise (SME) rental grant.

Grants disbursed in 2019 and 2020 [3]

CHART 7

Billions

Legend:
- Other grants
- WCS
- SME rental grant
- FW levy rebate
- JSS

2019: $1.5b
2020: $27.4b

Sources: MOF and DOS

4.2 Focusing on COVID-19-related grants (i.e. JSS, FWL rebate, WCS and SME rental grant), Wholesale Trade and Construction received the highest disbursement in total (see Chart 8).[4] In the Wholesale Trade, Professional Services and Financial Services sectors, about 90% of grants came from the JSS. By contrast, in Construction, about 40% of grants received came from the FWL rebate. The Food Services industry received the most per dollar of value-added (VA), mainly stemming from the JSS (see Chart 9). Sectors such as Marine & Offshore and Construction, which have a high FW share, received higher amounts per dollar of VA from the FWL rebate.
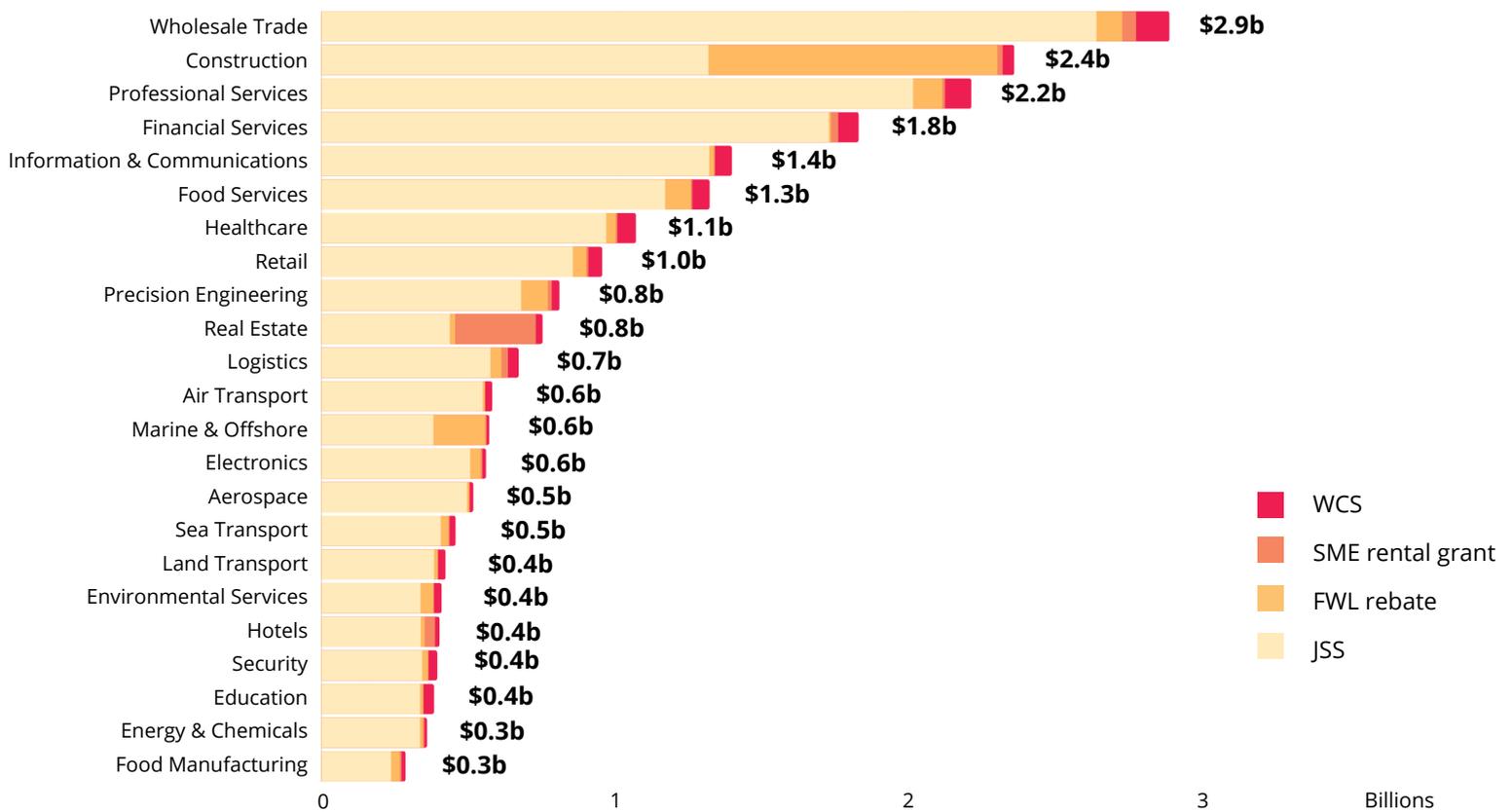
[3] Examples of other grants include: Special Employment Credit, Enterprise Development Grant, Productivity Solutions Grant and the Market Readiness Assistance Grant.
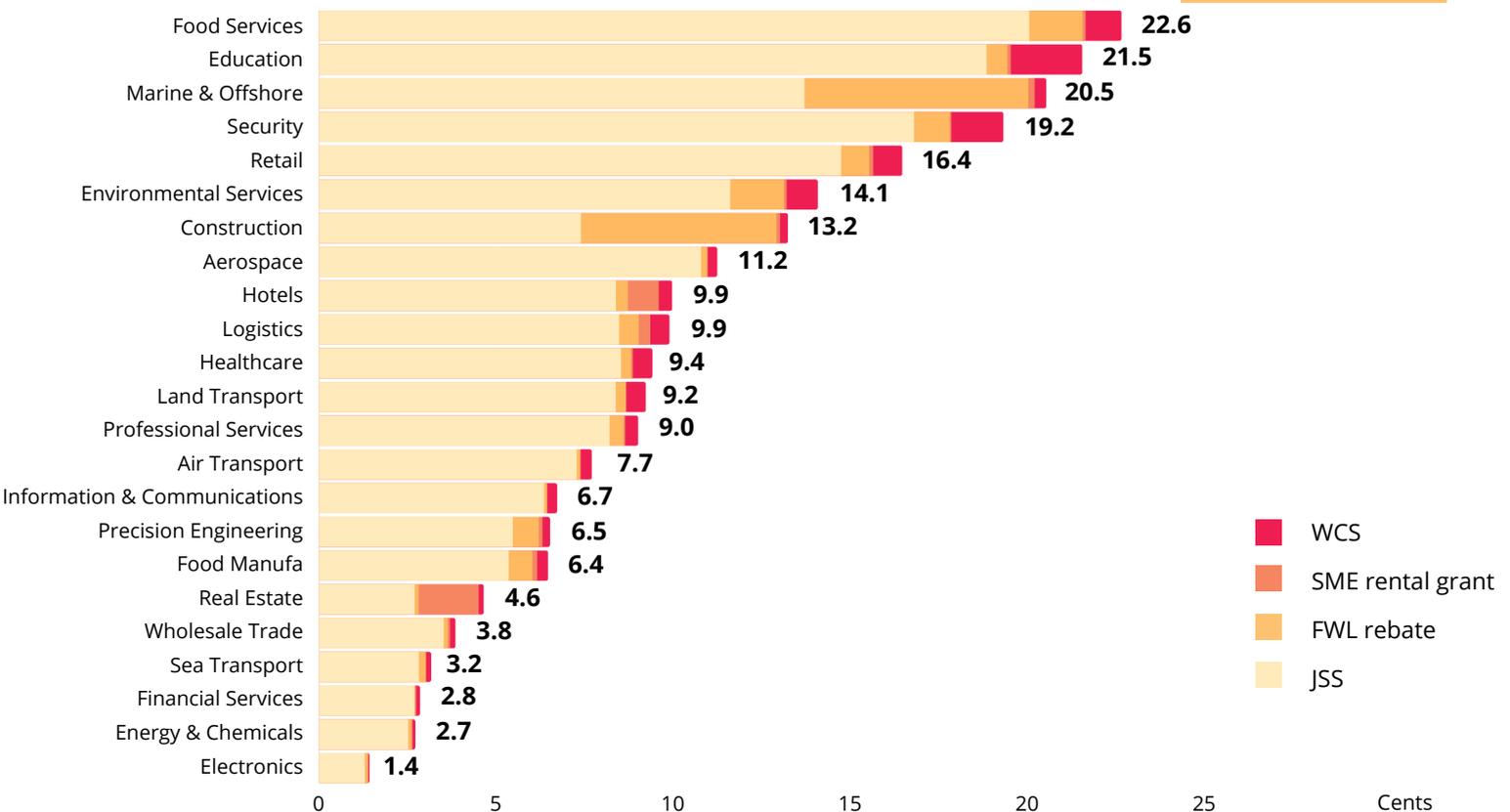[4] This is partly due to the large number of firms in these industries.

Grants disbursed by Industry [5] in 2020

CHART 8

Industry	Amount
Wholesale Trade	$2.9b
Construction	$2.4b
Professional Services	$2.2b
Financial Services	$1.8b
Information & Communications	$1.4b
Food Services	$1.3b
Healthcare	$1.1b
Retail	$1.0b
Precision Engineering	$0.8b
Real Estate	$0.8b
Logistics	$0.7b
Air Transport	$0.6b
Marine & Offshore	$0.6b
Electronics	$0.6b
Aerospace	$0.5b
Sea Transport	$0.5b
Land Transport	$0.4b
Environmental Services	$0.4b
Hotels	$0.4b
Security	$0.4b
Education	$0.4b
Energy & Chemicals	$0.3b
Food Manufacturing	$0.3b

Legend: WCS, SME rental grant, FWL rebate, JSS

X-axis: 0, 1, 2, 3, Billions

Sources: MOF and DOS

Grants disbursed Per Dollar of VA [6] by Industry in 2020

CHART 9

Industry	Value (Cents)
Food Services	22.6
Education	21.5
Marine & Offshore	20.5
Security	19.2
Retail	16.4
Environmental Services	14.1
Construction	13.2
Aerospace	11.2
Hotels	9.9
Logistics	9.9
Healthcare	9.4
Land Transport	9.2
Professional Services	9.0
Air Transport	7.7
Information & Communications	6.7
Precision Engineering	6.5
Food Manufa	6.4
Real Estate	4.6
Wholesale Trade	3.8
Sea Transport	3.2
Financial Services	2.8
Energy & Chemicals	2.7
Electronics	1.4

Legend: WCS, SME rental grant, FWL rebate, JSS

X-axis: 0, 5, 10, 15, 20, 25, Cents

Sources: MOF and DOS

[5] Industry mapping based on the Industry Transformation Maps classification.
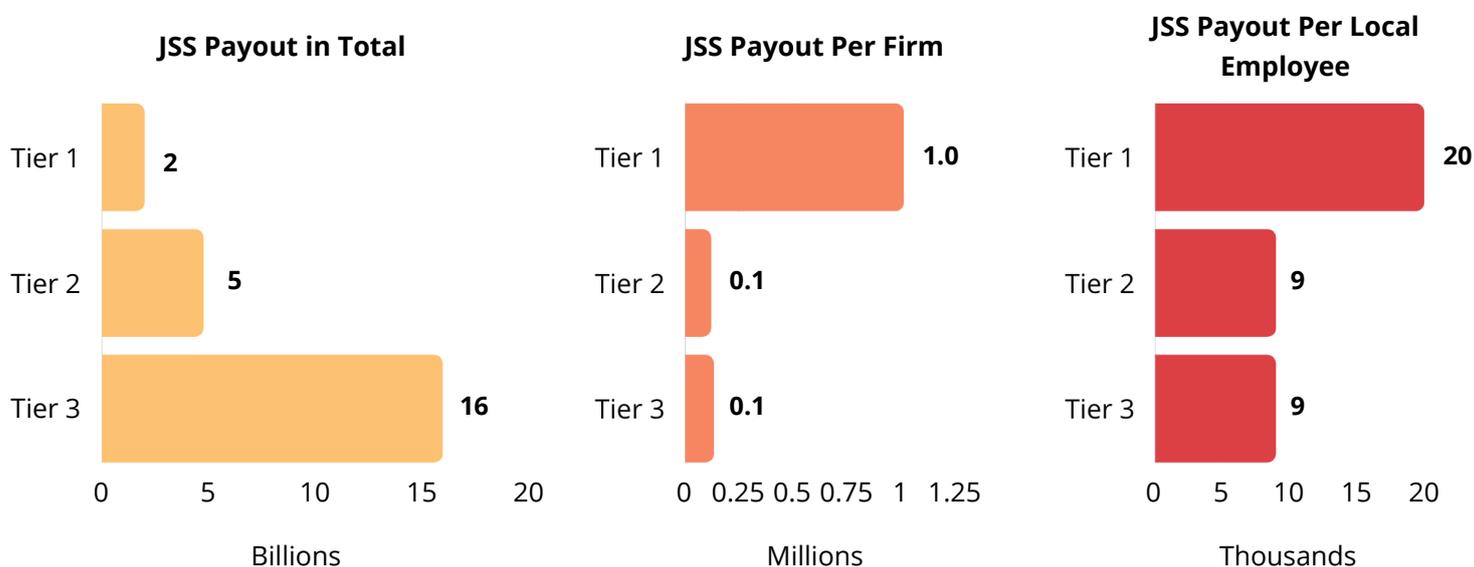[6] 2019 VA data was used for the normalisation.

Jobs Support Scheme[7]

4.3   The objective of JSS was to provide wage support to employers to help them retain employees during this period of economic uncertainty. JSS support was tiered based on the impact of COVID-19 on the various sectors[8], with the Government co-funding 25% to 75% of wages per local employee.

4.4   **From April to December 2020, a total of $22.6 billion of JSS was disbursed.** In total, tier 3 firms formed the largest share of the economy and received the largest share of JSS (see Chart 10). On a per firm basis, Tier 1 firms received more, as they were allocated a higher JSS support level. This is as intended, since the JSS was designed to flow more to these more affected firms.

JSS Payout (a) In Total, (b) Per Firm and (c) Per Local Employee, by Tiers

CHART 10

Sources: MOF and DOS

4.5   MAS has estimated that total fiscal support helped to save or create about 155,000 jobs on average over 2020-2021, with the JSS contributing to half of the impact. Given the uneven impact of COVID-19 on the economy, the Government has targeted JSS support towards sectors that are worst-hit (i.e. Tier 1 and 2 sectors). Tier 1 and 2 firms made up 42% of job losses from January to March 2020 (i.e. the period before JSS disbursement began), significantly higher than its pre-crisis share of employment. However, after the JSS disbursement began (i.e. from March to July 2020), Tier 1 and 2 firms made up 22% of job losses, bringing it closer to its employment share. **This suggests that the higher level of support to the most adversely affected firms could have helped them retain their workers (see Chart 11).**
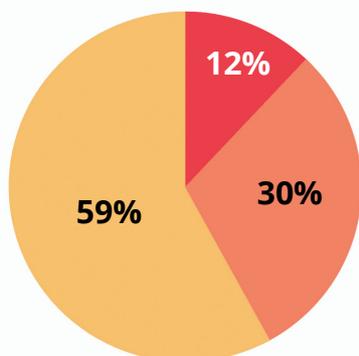
---

[7] More information on the JSS can be found at: https://www.iras.gov.sg/irashome/schemes/businesses/jobs-support-scheme--JSS-/.
[8] Employers in the aviation, aerospace and tourism sectors ("Tier 1 sectors") are most badly affected by COVID-19 due to global travel restrictions, and hence receive the highest JSS support levels. Tier 2 sectors, comprising food services, retail, arts and entertainment, land transport, marine and offshore, and built environment sectors have been impacted by safe management measures and weakened consumer sentiments; while all other sectors, such as manufacturing and wholesale trade, are in Tier 3.

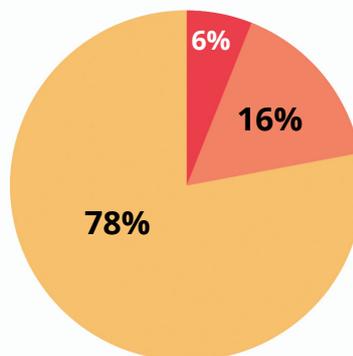**Share of Total Job Losses (a) Before JSS and (b) After JSS, by Tiers**

CHART 11

Share of Total Job Losses Before JSS

Share of Total Job Losses After JSS

Tier 1
Tier 2
Tier 3

Net job loss: -28k

Net job loss: -101k

Source: MOF estimates using data from Manpower Research & Statistics Department, MOM

Note: Numbers may not sum up to 100% due to rounding.

Financing schemes [9]

4.6   In a crisis, credit conditions can tighten significantly and suddenly. It is hence important to ensure viable firms retain access to credit. Besides direct monetary disbursements, the Government also supported enterprises' financing needs through the risk-sharing of loans with Participating Financial Institutions through the following schemes:

- Temporary Bridging Loan (TBL) Programme
- Enhanced Working Capital Loan (EWCL)
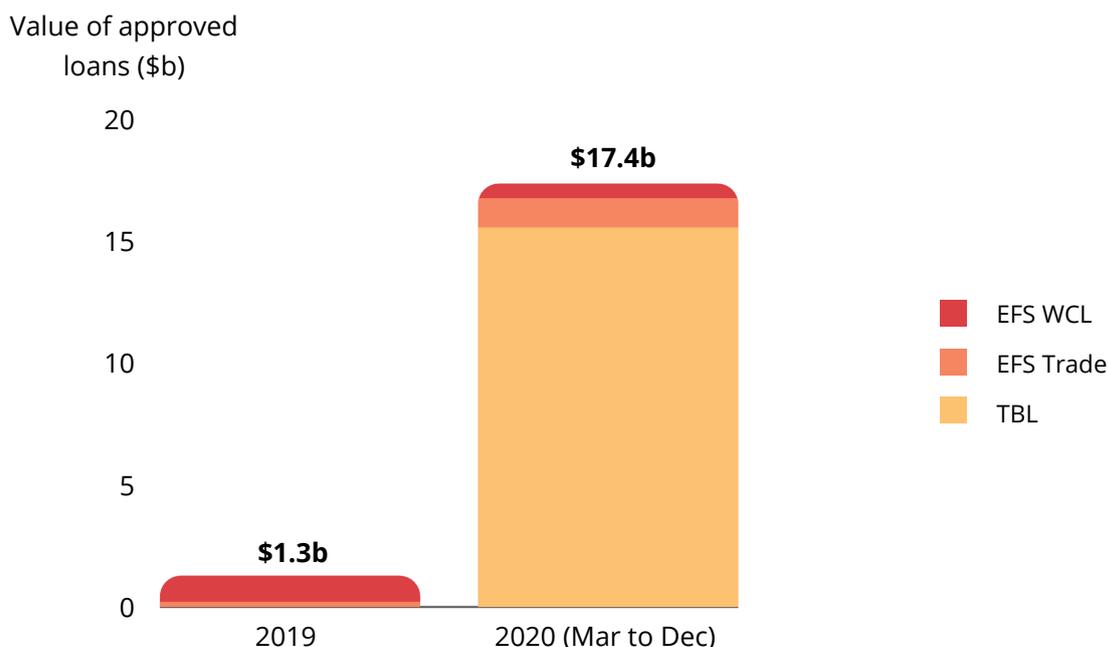- Enhanced Trade Loan (ETL)

4.7   The above three financing schemes have supported over 20,000 firms in accessing loans worth $17.4 billion from March to December 2020. The total value of approved loans under the three financing schemes was more than 13 times that supported through comparable Enterprise Singapore (ESG) schemes for the whole of 2019 (see Chart 12).

---

[9] More information on the financing schemes can be found at: www.enterprise.gov.sg/efs and www.enterprise.gov.sg/tblp.

Value of Approved Loans, 2019 and 2020

CHART 12

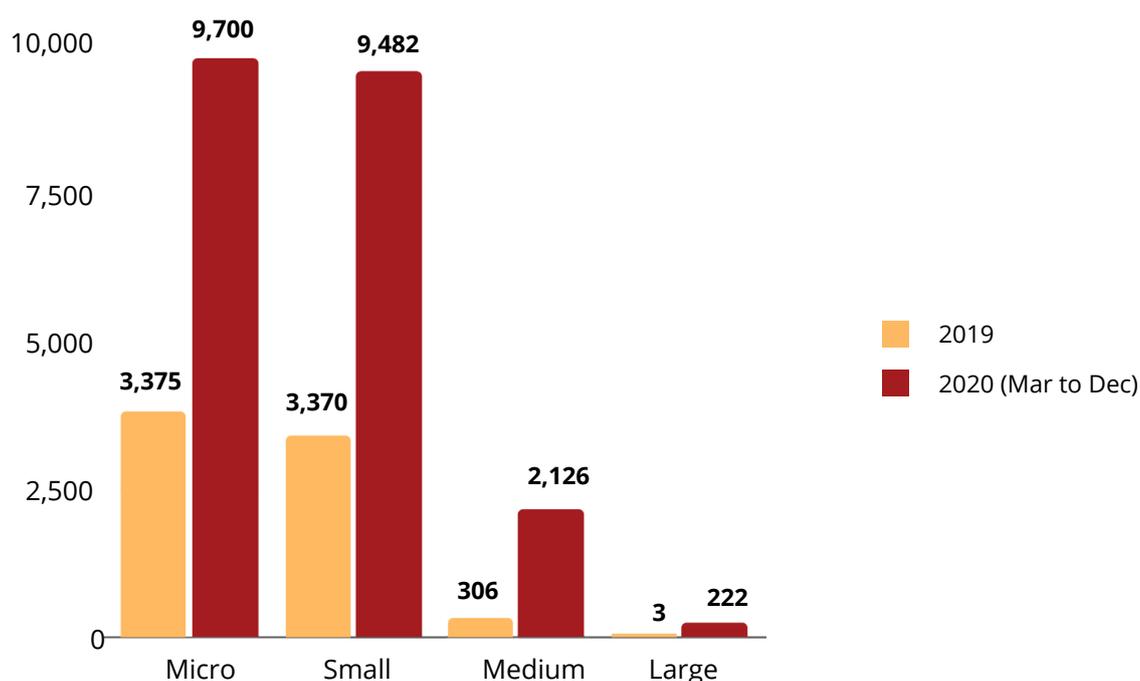Value of approved loans ($b)

Source: ESG

4.8   The above three financing schemes helped SMEs across a wide range of sectors access financing to manage their cashflow needs, with around 90% of supported enterprises being micro and small SMEs (see Chart 13). The success rate of applications was high, with over 90% of applications approved by the Participating Financial Institutions. By industry, the Wholesale Trade, Construction and Manufacturing sectors received the largest amount of approved loans (see Chart 14).

No. of Enterprises Supported under TBL, EWCL, ETL and Comparable Schemes by Revenue Band, 2019 and 2020
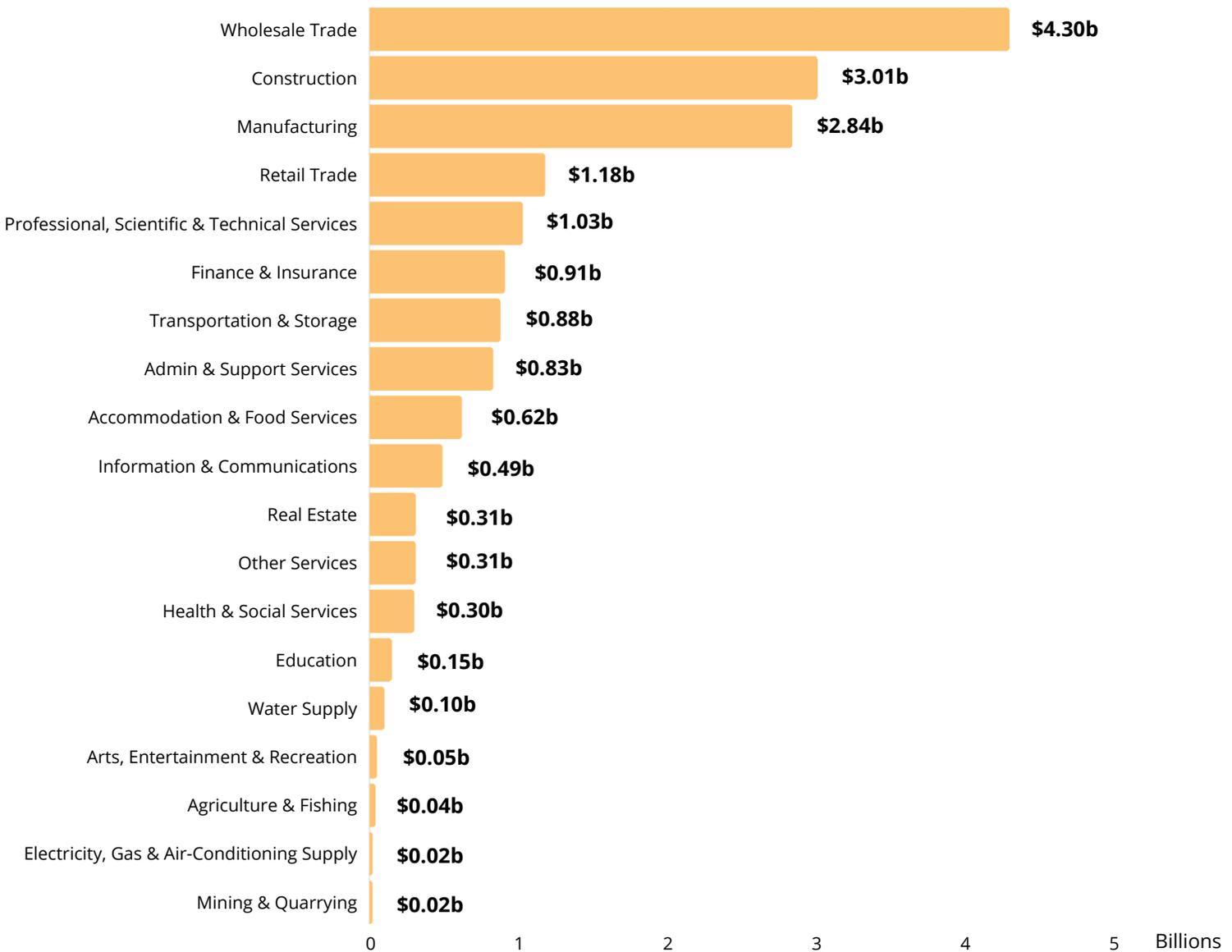
CHART 13

Source: ESG

Note: Enterprises are categorised based on the following revenue bands: Micro – revenue <=$1 million; Small – $1 million<revenue<=$10 million; Medium – $10million<revenue<=$100million; Large – revenue>$100 million.

Value of Approved Loans under TBL, EWCL, ETL and Comparable Schemes by Industry, 2020

CHART 14

Industry	Value
Wholesale Trade	$4.30b
Construction	$3.01b
Manufacturing	$2.84b
Retail Trade	$1.18b
Professional, Scientific & Technical Services	$1.03b
Finance & Insurance	$0.91b
Transportation & Storage	$0.88b
Admin & Support Services	$0.83b
Accommodation & Food Services	$0.62b
Information & Communications	$0.49b
Real Estate	$0.31b
Other Services	$0.31b
Health & Social Services	$0.30b
Education	$0.15b
Water Supply	$0.10b
Arts, Entertainment & Recreation	$0.05b
Agriculture & Fishing	$0.04b
Electricity, Gas & Air-Conditioning Supply	$0.02b
Mining & Quarrying	$0.02b

Billions

Source: ESG

4.9   MTI's preliminary analysis on the impact of the financing schemes show that the schemes led to improvements in firm-level outcomes. The TBL was found to have supported employment and average local wages, as well as mitigated retrenchments and financial distress. These positive effects were generally seen across firms of different sizes. Similarly, the EWCL was found to have a positive impact on firms' employment and average local wages, with the employment impact being stronger for smaller firms. These are ongoing studies, but these findings provide an early indication that the financing schemes have been effective in supporting firms and their workers during the pandemic.[10]

---

[10] These are econometric studies which use methodologies such as Fixed Effects regression to mitigate differences in firms' characteristics, and ensure that the characteristics of firms that received loans, and those that did not, are comparable.

SUPPORT SCHEMES FOR WORKERS AND GRADUATES

5.1   With the high level of global uncertainty and weak external conditions, it was important to provide incentives to generate job demand, especially for fresh graduates, in both the private and public sectors. The SGUJS was introduced in May 2020 to curate close to 100,000 opportunities, of which more than 40,000 were to be jobs, and the remaining company-hosted traineeships and attachments as well as training opportunities. Schemes under the SGUJS provided support for locals to enter new jobs or take up meaningful skills opportunities that will boost their employability and be better positioned for the economic recovery.

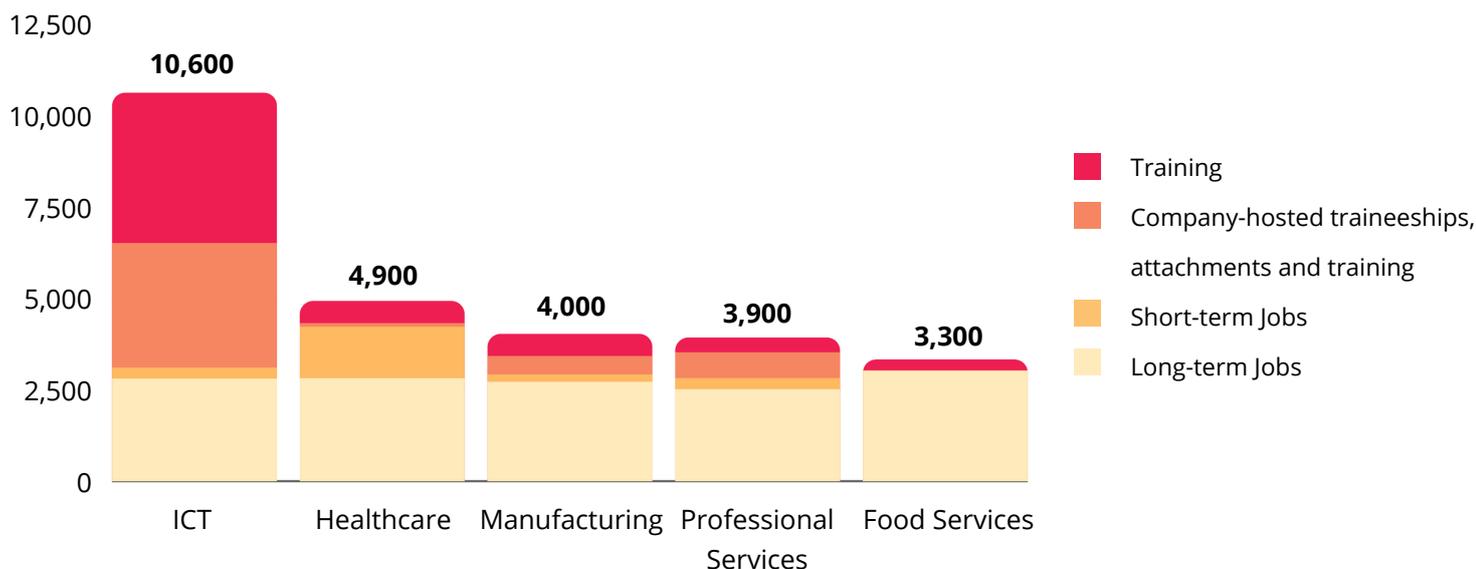## SGUnited Jobs and Skills Package

5.2   **Nearly 76,000 jobseekers have been placed into jobs and skills opportunities under the SGUJS as of December, due to the strong collaborative efforts among tripartite partners.** Close to 80% (59,400) were placed into jobs, exceeding the original target of 40,000 jobs. Of these job placements, there was a good mix of PMET and non-PMET roles, with 6 in 10 being placed into long-term jobs.

5.3   The top five sectors into which most jobseekers and workers were placed as of December 2020 were: Information and Communications (ICT), Healthcare, Manufacturing, Professional Services and Food Services (see Chart 15). **Long-term jobs also accounted for the largest share of placements in most sectors**. For the Information and Communications sector, there were significantly more traineeships, attachments and training opportunities, of which a sizeable proportion were provided by companies.

Sectors with Highest Cumulative Number of Placements, December 2020
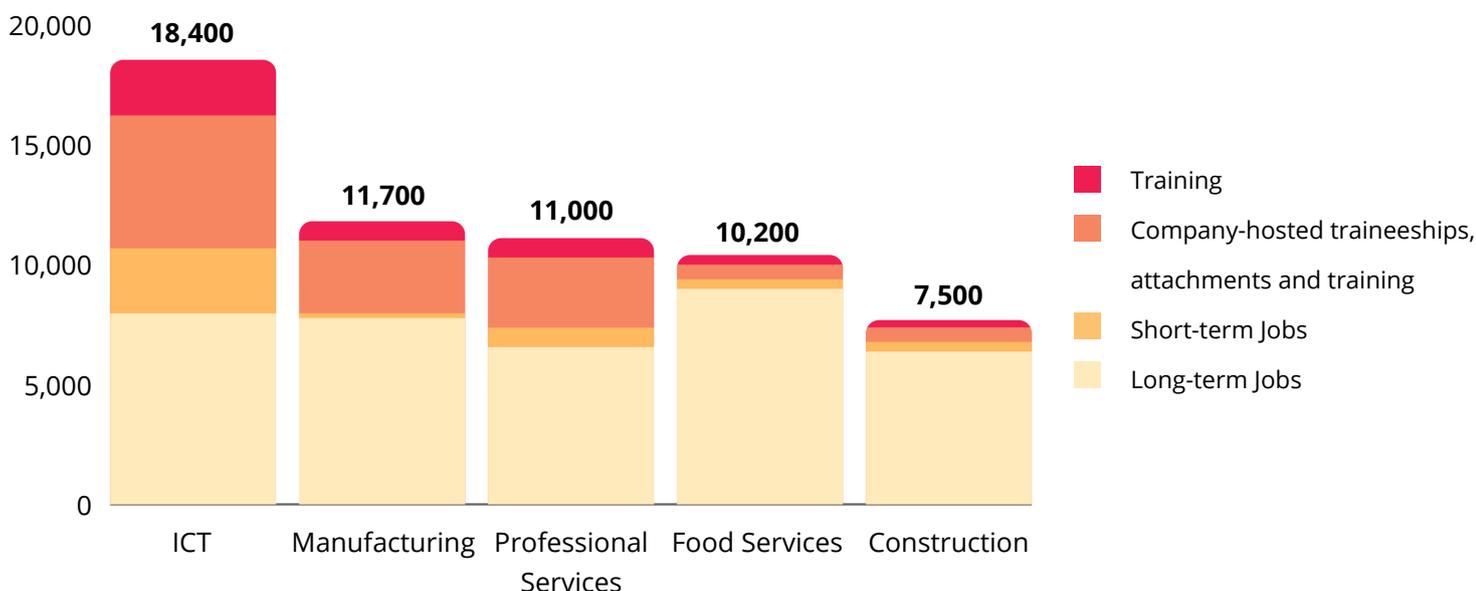
CHART 15

Source: MOM estimates (December 2020)

Note: Data is rounded to the nearest hundreds.

5.4   Opportunities remained available for locals prepared to consider a wider range of options. **There were close to 130,000 available jobs and skills opportunities for jobseekers as at end December 2020**. 3 in 4 (97,800) of the available opportunities were jobs, and mostly of a long-term nature. The top five sectors with the highest number of opportunities still available were Information and Communications, Manufacturing, Professional Services, Food Services and Construction (see Chart 16).

Sectors with highest number of openings still available, December 2020

CHART 16

Source: MOM estimates

Note: Data is rounded to the nearest hundreds.

SGUnited Traineeship, SGUnited Mid-Career Pathways Programme and SGUnited Skills

5.5   As at end December 2020, **more than 25,400 opportunities were available under the SGUnited Traineeships (SGUT) and the SGUnited Mid-Career Pathways Programme (SGUP)** to help jobseekers who were unable to find permanent jobs in the current job market to boost their employability.

5.6   **Close to 5,400 fresh graduates have also been emplaced on SGUT by the end of last year,** enabling them to acquire meaningful skills and industry relevant experience. Meanwhile, **more than 3,600 mid-career individuals have been placed in company-hosted training and attachments under the SGUP.** The SGUP has helped these mid-career individuals gain industry-relevant experience while preparing for more permanent jobs in the future. Together, SGUT and SGUP have helped job seekers build up their skill sets and professional networks.

5.7   There had also been strong interest in SGUnited Skills (SGUS), especially in sectors like Information and Communications and Healthcare Services. **More than 7,200 mid-career jobseekers have been enrolled in SGUS courses, and over 6,700 training opportunities remained available as at end December 2020**. These courses supported jobseekers in reskilling and upskilling so that they can access employment opportunities, especially in growth sectors.
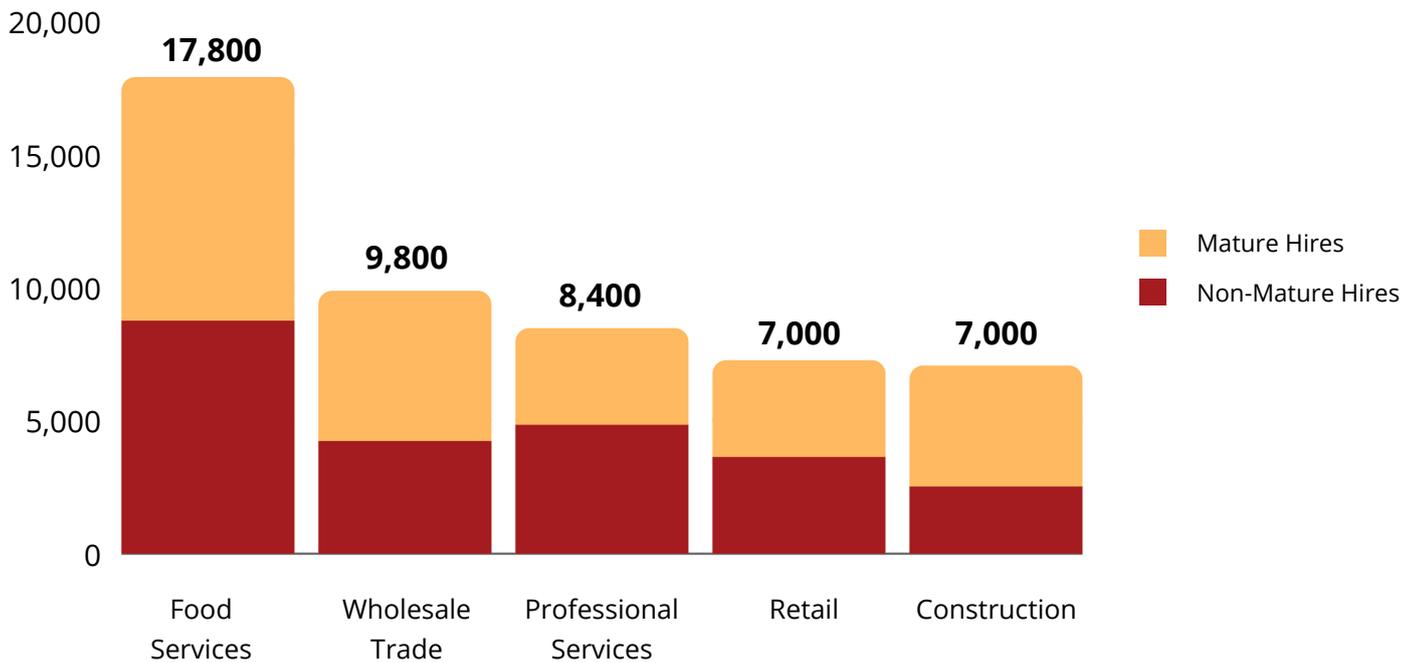
Jobs Growth Incentive

5.8   JGI provides substantial salary support to encourage employers to bring forward their hiring plans and accelerate their hiring of locals, in spite of economic uncertainty or delayed recovery in demand.

5.9   **Early estimates of the JGI take-up as at October 2020 indicated that the scheme had supported over 110,000 new local hires who were collectively employed by around 26,000 employers**, within two months into the implementation. About half of all the new hires were aged 40 and above. The top five hiring sectors were Food Services, Wholesale Trade, Professional Services, Retail, and Construction (see Chart 17).[11]

Sectors with Highest Cumulative Number of JGI-supported New Hires, as at October 2020

CHART 17

17,800
9,800
8,400
7,000
7,000

■	Mature Hires
■	Non-Mature Hires

Food Services · Wholesale Trade · Professional Services · Retail · Construction

Source: MOM estimates

Note: Data is rounded to the nearest hundreds.

5.10   Of the 14,000 or so employers who qualified for JGI payouts in the first month of September 2020, about 80% maintained or expanded their local hiring in the following month. In October 2020, over 11,000 new employers became eligible for JGI. The majority of all eligible employers hired one to two local workers. About 20% of the eligible employers hired five local workers or more.

5.11   These schemes under the SGUJS are expected to ameliorate the weak labour market situation. Although the annual average resident unemployment rate rose by 1 percentage point from 3.1% in 2019 to 4.1% in 2020, it remained below previous recessionary peaks of 5.2% recorded in 2003 due to SARS, and 4.3% in 2009 due to the Global Financial Crisis.

[11] As the SGUJS and JGI are adjacent schemes that cater to jobseekers and employers respectively, there are possible overlaps between the schemes, in particular between the number of placements under SGUJS and the number of local hires supported under JGI.
For example, a jobseeker could also have taken up a short-term opportunity under SGUJS, and subsequently placed in a JGI-eligible long term job.
[12] Based on MOM's preliminary estimates in the Labour Market Advance Release 2020.

SUPPORT SCHEMES FOR INDIVIDUALS AND HOUSEHOLDS

6.1   Across the five Budgets in 2020, the **government committed $10.0 billion[13] towards cash transfers and social assistance schemes to provide immediate relief for individuals and households**.

- Broad-based support was provided automatically to all Singaporean households to help defray household expenditures. The support was also **tilted towards lower income households**, providing a safety net for the most vulnerable. These refer to CSP and the Solidarity Payment and Solidarity Utilities Credit.

- Schemes that mitigate the distributional impact of COVID-19 provided more support to individuals who had experienced a loss of income or job, or were SEPs with less means and family support. These refer to TRF, CSG and SIRS.

6.2   On a per household basis, Singaporean households received about $4,000 on average from broad based schemes, of which 87% ($3,500) were in cash transfers. In addition, households with less means whose members experienced job or income loss, or were self-employed persons, received an additional $5,100 in relief on average.

---

[13] This includes other social support schemes (e.g. top-up to TB Enhanced Fund-Raising Programme), which are not included in the analysis.

Summary of COVID-19 Budget measures for individuals and households

| **Broad-based schemes** | **Schemes that mitigate distributional impact** |

Care and Support Package

Provided assurance and support to Singaporean households by helping to defray part of their expenses:

Cash components

- Broad-based Cash Payouts (including Solidarity payment), Additional Cash Payout for parents of young children, Workfare Special Payment and PAssion Card Top-Up (in cash).

Non-cash components

- Additional GST Voucher U-Save rebates (including additional rebates for larger households), Solidarity Utilities Credit, Service and Conservancy Charges (S&CC) rebates and Grocery Vouchers.

Temporary Relief Fund

- Provided immediate, one-off financial assistance of $500 to individuals who required urgent help, before other support measures were in place.

COVID-19 Support Grant

Provided lower- and middle-income resident employees affected by COVID-19 with interim cash assistance of:

- Up to $800/month for 3 months for those who lost their jobs or were placed on involuntary No-Pay Leave (NPL) for at least 3 consecutive months.
- Up to $500/month for 3 months for those with income loss of at least 30% for at least 3 consecutive months.

Self-Employed Person Income Relief Scheme

- Helped self-employed Singaporeans with less means and family support to tide over this period of economic uncertainty via 3 quarterly cash payouts of $3,000 each from April to December 2020.

Note: Solidarity Payment and Solidarity Utilities Credit are grouped together with CSP for ease of analysis.

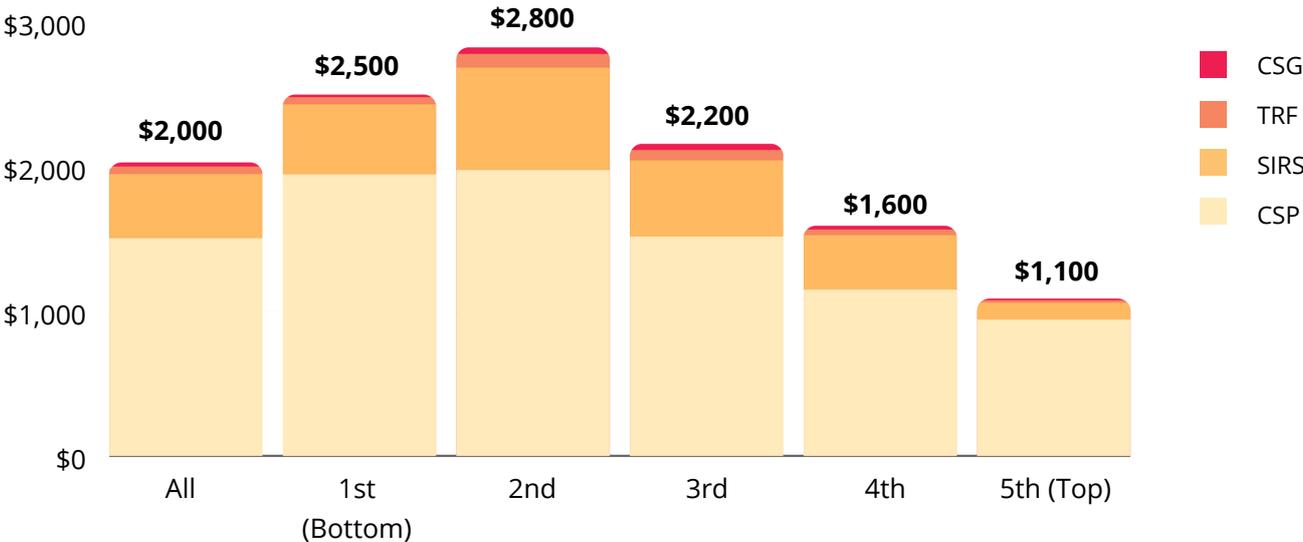# Support levels of COVID-19 Budget measures among citizen households

6.3   This section **analyses the impact of COVID-19 measures (i.e. CSP, TRF, CSG and SIRS) across income quintiles and dwelling types,** looking at benefits received from COVID-19 measures on a <u>per household member basis</u>.

6.4   **Singaporean households received approximately $2,000 per member on average from COVID-19 household and individual measures combined** (see <u>Chart 18</u>). The broad-based CSP accounted for 70% of the benefits received. Lower income households received higher levels of support from selected components of the CSP, especially through the Workfare Special Payment (WSP) and Grocery Vouchers (GV) which further offset their daily expenses. In comparison, schemes that mitigated the distributional impact of COVID-19 (i.e. TRF, CSG and SIRS) accounted for a smaller share of the benefits received on average (30%). This was because the relief from these schemes were only provided to households with self-employed persons or employees who experienced income or job loss.

6.5   **The COVID-19 measures were distributed in a progressive manner.** Households in the lower quintiles received more benefits compared to those in the upper quintiles. Households in the bottom quintile received slightly less than households in the 2nd quintile because a significant proportion of them were retiree households who might not qualify for the relief contingent on prior work (TRF, CSG and SIRS). Nonetheless, these households received other forms of structural support, such as Silver Support, which were not included in the analysis.

Average support per member from COVID-19 Budget measures among <u>all citizen households</u> by Income Quintiles
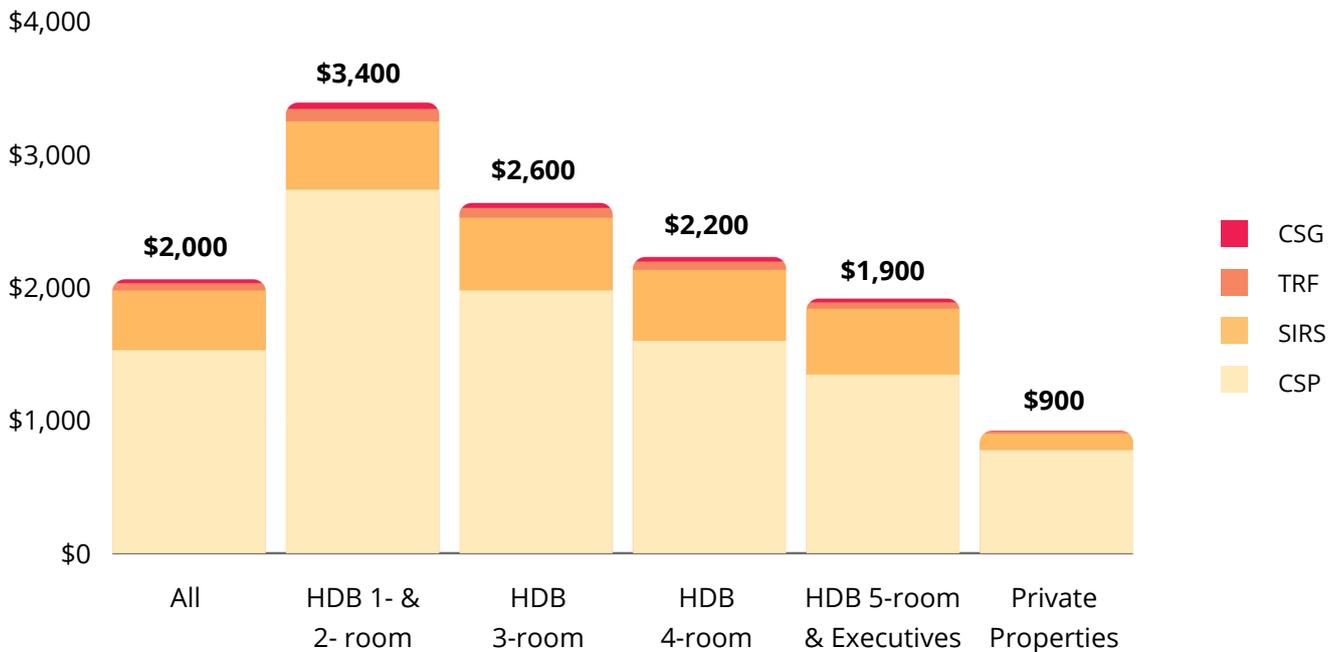
CHART 18

Source: MOF estimates

Note: Figures are rounded to nearest hundreds. Citizen households refer to households headed by Singapore Citizens. Income quintiles are based on ranking of citizen households by monthly household income from work per household member (including employer CPF contribution) in 2019 (i.e. pre-COVID-19). CSP is estimated based on the characteristics of households in 2019. CSG and SIRS data is up to July 2020.

6.6   **Singaporean households in smaller HDB flat types received higher levels of support** (see Chart 19). In particular, households in HDB 1- & 2-room flats received almost four times as much in benefits as those in private properties.

Average support per member from COVID-19 Budget measures among all citizen households by Dwelling type

CHART 19

Note: Figures are rounded to nearest hundreds. Citizen households refer to households headed by Singapore Citizens. HDB 1- & 2- room includes HDB studio apartments. CSP is estimated based on the characteristics of households in 2019. CSG and SIRS data is up to July 2020.
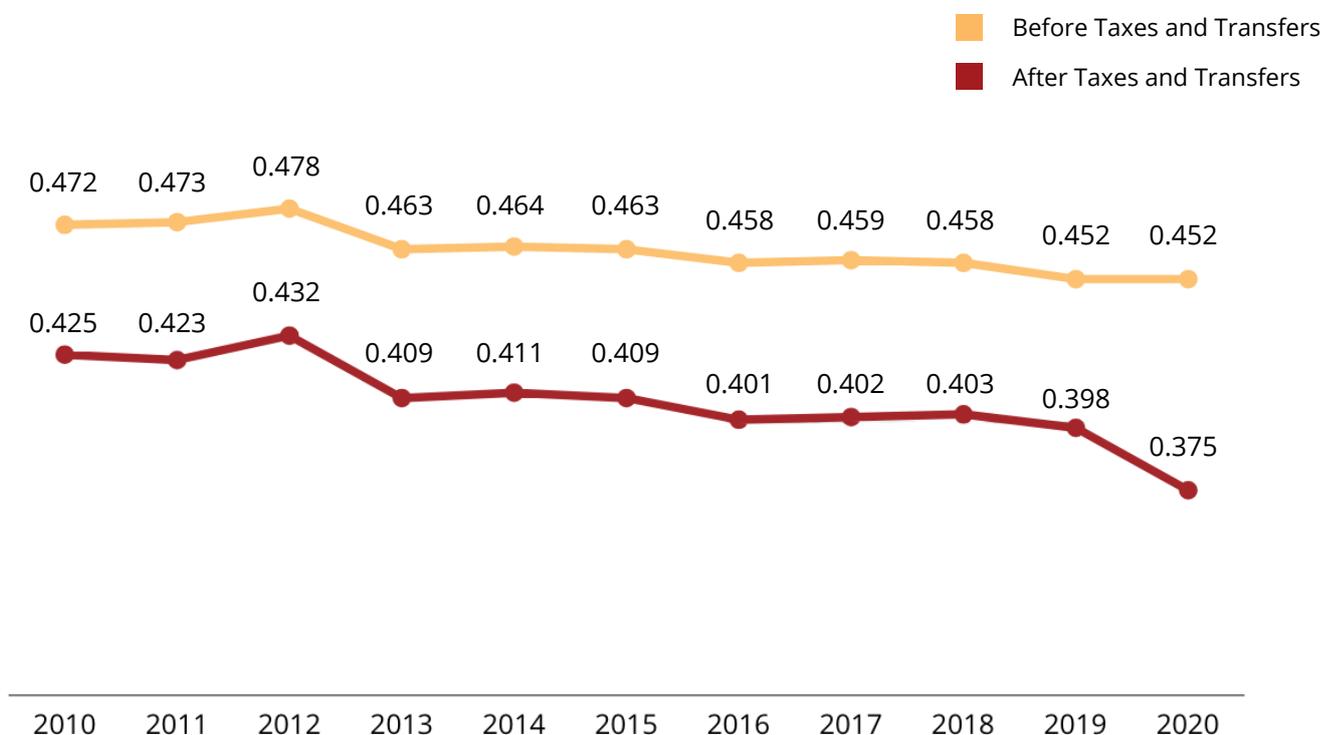
Source: MOF estimates

Impact of COVID-19 Budget measures on inequality

6.7　**The significant amount of support provided by COVID-19 measures helped to mitigate inequality.** Based on the DOS' Key Household Income Trends Report for 2020, the Gini Coefficient [14] before taxes and transfers was 0.452 in 2020, unchanged from 2019 (see Chart 20). After accounting for government transfers and taxes, the Gini coefficient in 2020 fell to 0.375, or a reduction of 0.077. The significant reduction in 2020 can be attributed to the COVID-19 measures which were tilted to provide more help to those with lower incomes and who may lack other forms of support.

Gini Coefficient among Resident Employed Households

CHART 20

🟧 Before Taxes and Transfers
🟥 After Taxes and Transfers

Year	Before Taxes and Transfers	After Taxes and Transfers
2010	0.472	0.425
2011	0.473	0.423
2012	0.478	0.432
2013	0.463	0.409
2014	0.464	0.411
2015	0.463	0.409
2016	0.458	0.401
2017	0.459	0.402
2018	0.458	0.403
2019	0.452	0.398
2020	0.452	0.375

Source: DOS, Key Household Income Trends 2020

[14] The Gini Coefficient is a summary measure of income inequality. It is equal to zero in the case of total income equality and to one in the case of total inequality. The Gini Coefficient is computed based on household income from work (includes employer CPF contributions) per household member among resident employed households.

CONCLUDING REMARKS

7.1   This report takes stock of the current situation and various COVID-19 schemes based on currently available data. In summary:

- Macroeconomic simulations suggest that the measures averted a sharper drop in GDP and a larger rise in unemployment. Specifically, the fiscal measures helped to cushion the negative shock of COVID-19, averting a further drop in GDP growth of 5.5 percentage points. The fiscal measures were also estimated to have offset the rise in the resident unemployment rate by about 1.7 percentage points in 2020.

- Preliminary data suggests that JSS may have reduced job losses in vulnerable firms, thereby helping to preserve corporate capabilities and ensure livelihoods. The loan schemes have also provided relief to firms that needed it, supporting over 20,000 firms in accessing loans worth $17.4 billion from March to December 2020. Based on MTI's initial analysis on short-term effects, the loan schemes had a positive impact on firm-level outcomes such as employment and average local wages.

- Expansion of job and skills opportunities through SGUJS has enabled workers and fresh graduates to acquire meaningful skills and industry relevant experience in a soft labour market. As of December 2020, SGUJS helped nearly 76,000 jobseekers and fresh graduates find new jobs and opportunities. Under the JGI, 110,000 local jobseekers were collectively hired across 26,000 employers two months after the implementation of the scheme.

- Broad-based social support in the form of direct cash and non-cash assistance under the CSP was provided to households to help defray expenses, with additional assistance for the most vulnerable. Individuals who lost their jobs or income, or were self-employed persons with less means and family support benefited from relief from TRF, CSG or SIRS. The benefits from these schemes were progressively distributed, and led to a significant reduction in the Gini coefficient in 2020 after accounting for government taxes and transfers.

7.2   The measures in the five Budgets appear to be reaching the intended target groups and achieving the objectives of preserving jobs and cushioning shocks to businesses and households, and mitigated inequality. These are encouraging results.

7.3   Many of the schemes are ongoing and their effects are still working through the economy. At a later stage, when more data becomes available, there is scope for further detailed analysis.

APPENDIX

A brief overview of the Simulation Approach in MAS' Monetary Model of Singapore

Key features of the model

A.1   As a computable general equilibrium (CGE) model, the MMS is a detailed representation of the Singapore economy that simultaneously solves for the inter-temporal decisions of households, firms and the government based on established economic theory and relationships. The model also captures spillovers and feedback loops among the sectors of the economy in a dynamic and internally-consistent way. Key model parameters are regularly estimated and calibrated using up-to-date data on the Singapore and international economies to ensure that the model remains well-specified and relevant. These features enable the model rigorously to estimate the effects of macroeconomic policy changes across the economy and over time.[15]

A.2   This Appendix illustrates how the macroeconomic impact of Budget FY2020 was estimated using the MMS by showcasing two illustrative policy simulations.[16] The first section discusses policy simulations involving production subsidies, given the predominant focus of the Budget in providing cost relief to firms, including through subsidising wages under the JSS. The second section focuses on the approach to simulating the effects of cash transfers to households.

Production subsidies for businesses

A.3   In general, production subsidies (or essentially negative production taxes) are given to firms to offset the costs of labour, machinery, buildings or other assets that are used in production. This definition informs the structure of the MMS, which contains three main production tax levers: foreign worker levies, property taxes, and a third general production tax that can be negative (i.e. a subsidy). Production subsidies can be targeted at different sectors[17] in the MMS, enabling the model to capture the impact of fiscal measures on specific segments of the economy in a more targeted fashion.

---

[15] For a detailed technical description of the MMS, please refer to: https://www.mas.gov.sg/-/media/MAS/Monetary-Policy-and-Economics/Education-and-Research/Education/Macroeconometric-Models/The-Monetary-Model-of-Singapore-MMS-A-Technical-Overview.pdf.

[16] A closer look at the fiscal levers in MMS can be found in Box C of the April 19 issue of the Macroeconomic Review: https://www.mas.gov.sg/-/media/MAS/resource/publications/macro_review/2019/MR_April19.pdf.

[17] The MMS comprises five main sectors: manufacturing, construction, finance & business services, other services and ownership of dwellings.

A.4   Production subsidies create a wedge between the cost of, and the returns to, the primary factors of production. This arises from the reduction in the post-tax marginal cost of primary factor inputs used by the targeted sector, which in turn reduces the cost of domestically-produced intermediate goods. Positive spillovers are then generated for the other sectors in the economy that use these cheaper intermediate goods in their production. Additionally, intermediate goods become cheaper relative to imports, which are also used to produce final goods and services. Accordingly, firms substitute domestically-produced intermediate goods for imports, which further stimulates production. In turn, the lower production costs in the other sectors generate some spillback effects on the subsidised sector, amplifying the overall positive impact on GDP and the utilisation of domestic factor inputs such as labour. Notably, the size and profile of the macroeconomic impact will depend on the sector the production subsidy is targeted at.

A.5   To arrive at the estimated impact of Budget FY2020, most of the cost relief measures were implemented in the MMS as production subsidies that result in cost savings to firms. Specifically, the JSS was simulated as a temporary reduction in the wage bill, lowering the cost of labour as a factor input, for a given level of output. [18] Thereafter, the effects flow to the rest of the economy via the transmission channels already described. Likewise, property tax rebates were taken into the MMS via the dedicated property tax lever.

Transfers to households and self-employed persons

A.6   Measures supporting households, such as the CSP, CSG and SIRS, were simulated as direct cash transfers to households, which augmented their disposable incomes. The impact of this additional disposable income on consumption depends on households' underlying marginal propensities to consume (MPC). [19] The distribution of the payouts has been skewed towards lower and middle-income households, who have higher MPCs. Accordingly, the impact of the measures on consumption is expected to be larger than if the payouts had been allocated more uniformly across the population.

A.7   In addition, the simulations take into account that the Circuit Breaker measures are likely to have increased the gap in MPCs between lower and higher income groups. This arises because discretionary goods and services comprise a higher weight in the consumption basket of higher income groups. The suspension in the supply of many non-essential goods and services during the Circuit Breaker period means that the consumption of these higher-income groups was necessarily more constrained.

---

[18] The JSS payouts lower the wage paid by firms. The difference between that and the wage received by workers is assumed to be borne by the government.

[19] The measure-specific MPCs are computed as a weighted average of the MPCs for each income quintile. MPC is the share of incremental income that is spent, which can be hard to estimate with observed data. Another similar metric, the average propensity to consume (APC), is measured as the ratio of the average household expenditure to the average household income, and can be computed using data from the Household Expenditure Survey published by the Singapore Department of Statistics. MPC can be assumed to equal APC if a linear consumption-income curve intercepts at the origin (i.e. autonomous consumption is assumed to be zero). For our analysis, we adopt this simplifying assumption and used APC as a proxy for MPC.