

# ECONOMIC SURVEY OF SINGAPORE

Second Quarter 2020



August 2020

**Ministry of Trade and Industry**  
**Republic of Singapore**

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# CONTENTS

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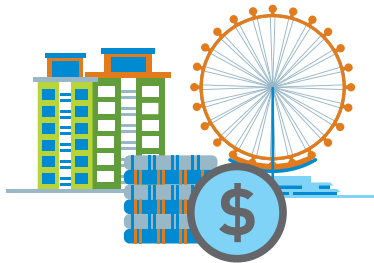
03

## MAIN INDICATORS OF THE SINGAPORE ECONOMY



06

## CHAPTER 1 The Singapore Economy



---

20

## CHAPTER 2 Sectoral Performance

---

### 30 BOX 2.1 Performance and Outlook of the Manufacturing Sector in 2020

---

38

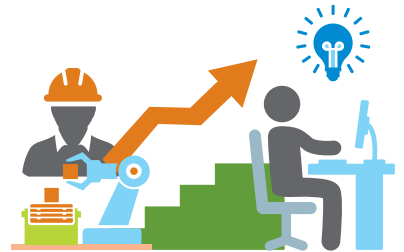
## CHAPTER 3 Economic Outlook



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42

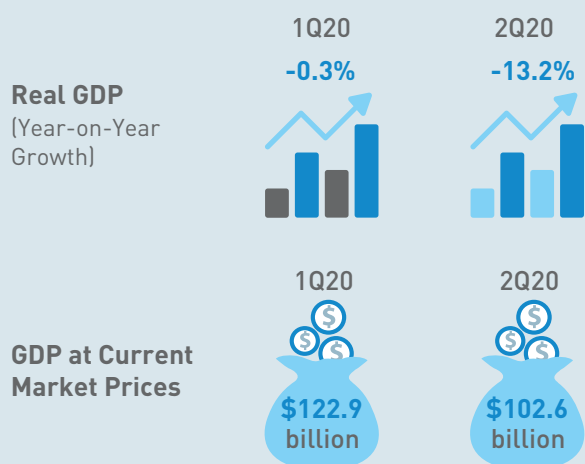
## FEATURE ARTICLE Impact of the Circuit Breaker and Budget Measures in Response to COVID-19



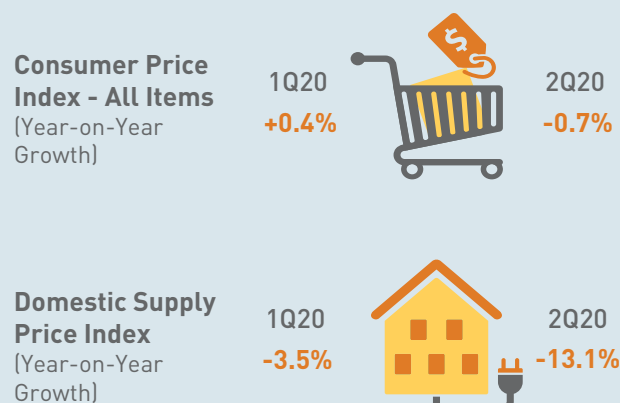


# MAIN INDICATORS OF THE SINGAPORE ECONOMY

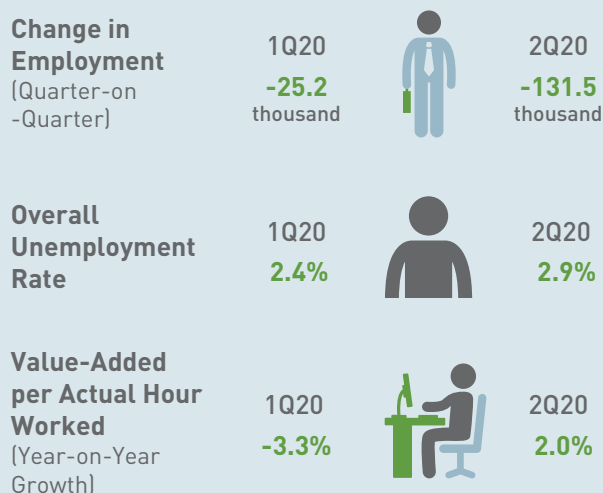
## OVERALL ECONOMY



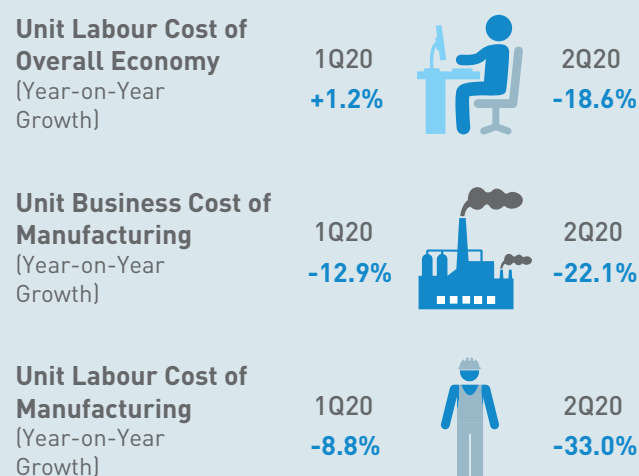
## PRICES



## LABOUR MARKET



## COSTS

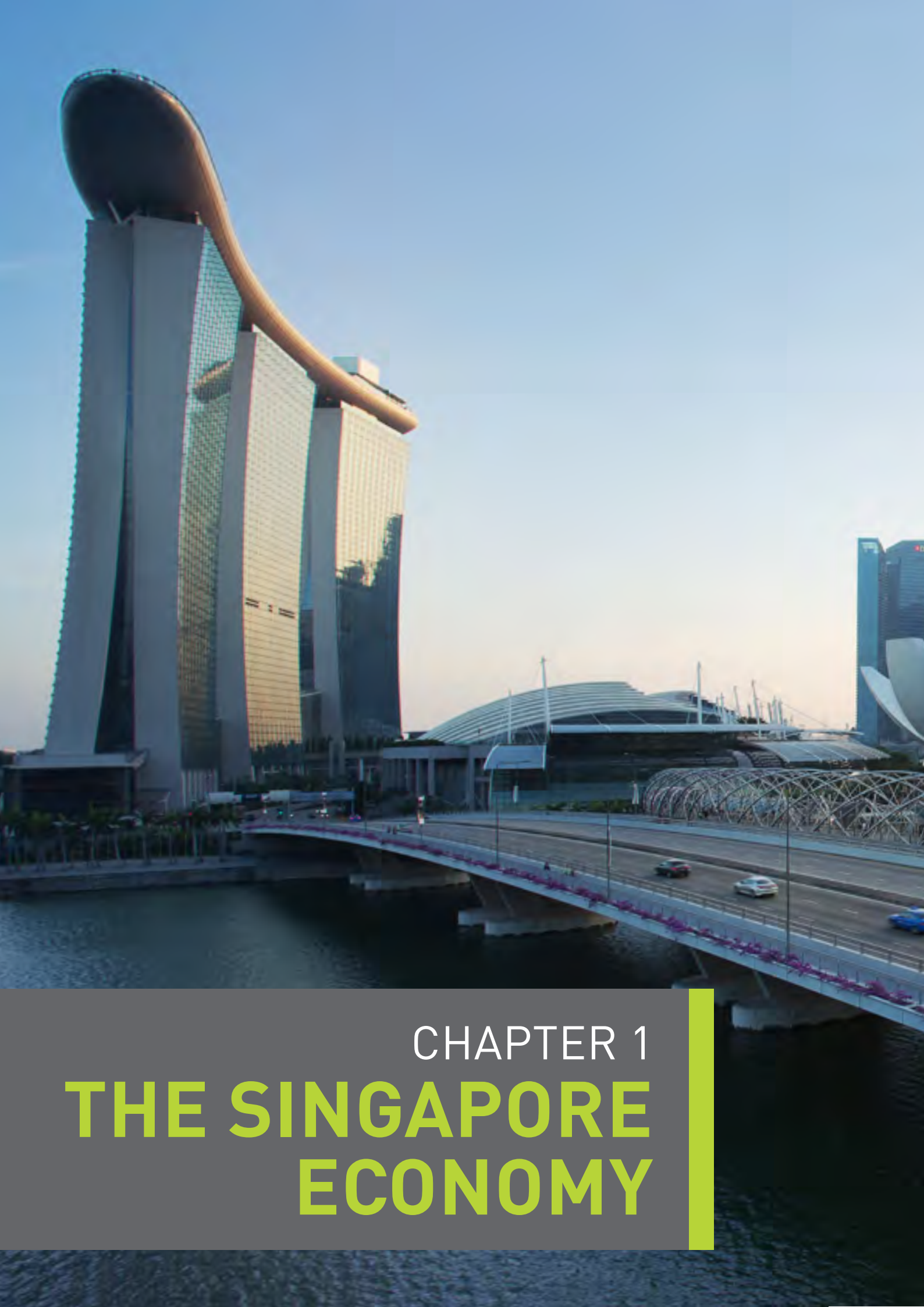


## MERCHANDISE TRADE



## SERVICES TRADE





# CHAPTER 1

# THE SINGAPORE ECONOMY





# CHAPTER 1

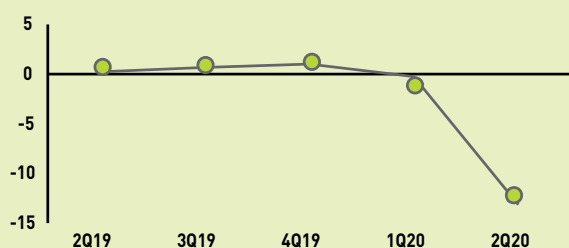
# THE SINGAPORE ECONOMY

## ECONOMIC PERFORMANCE

Real GDP declined by  
**13.2%** in 2Q20



Quarterly Growth (Year-on-Year)



### Main Drivers of Growth in 2Q20

Finance & Insurance



**0.5%-point**  
contribution

## LABOUR MARKET

Resident  
Unemployment Rate



**3.9%**  
in 2Q20

Employment  
(Q-O-Q Change)



**-131,500**  
employed

## PRODUCTIVITY



Value-Added per Actual Hour Worked  
increased by **2.0%** in 2Q20



## COSTS

Overall Unit Labour  
Cost decreased by  
**18.6%** in 2Q20



Within the  
manufacturing  
sector



-22.1%



Unit Business  
Cost

-33.0%



Unit Labour  
Cost

## PRICES

The Consumer Price  
Index (CPI) declined by  
**0.7%** in 2Q20



Categories with Price Decreases

-3.9%



Transport

-2.6%



Recreation & Culture

Quarterly Growth (Year-on-Year)

## INTERNATIONAL TRADE

Total Merchandise  
Exports declined by  
**13.8%** in 2Q20



6.5%



Non-Oil  
Domestic Exports

-6.8%



Re-exports

-67.7%



Oil  
Domestic Exports

Total Services  
Exports declined by  
**20.3%** in 2Q20



Services Export Decline was led by...

-8.3%-pt



Travel

-6.8%-pt



Transport  
Services

## OVERVIEW

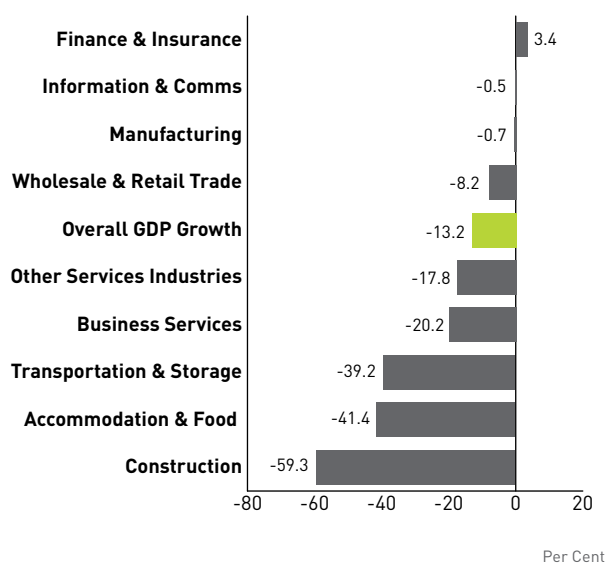
In the second quarter of 2020,

- The Singapore economy contracted by 13.2 per cent on a year-on-year basis. The decline in GDP during the quarter was broad-based, with all sectors except for the finance & insurance sector seeing a contraction.
- The seasonally-adjusted overall, resident and citizen unemployment rates rose in June 2020 as compared to March 2020. Retrenchments in the second quarter were double that in the preceding quarter, but remained significantly lower compared to the peak during the Global Financial Crisis (GFC).
- Total employment declined by 131,500 on a quarter-on-quarter basis, the sharpest quarterly contraction on record. Excluding foreign domestic workers (FDWs), total employment fell by 121,800.
- The Consumer Price Index-All Items (CPI-All Items) declined by 0.7 per cent on a year-on-year basis, reversing the 0.4 per cent increase in the previous quarter.

## OVERALL PERFORMANCE

The Singapore economy contracted by 13.2 per cent on a year-on-year basis in the second quarter of 2020, worsening from the 0.3 per cent contraction in the previous quarter (Exhibit 1.1). The fall in GDP was due to the Circuit Breaker (CB) measures implemented from 7 April to 1 June 2020 to slow the spread of COVID-19 in Singapore, as well as weak external demand amidst a global economic downturn caused by the COVID-19 pandemic.

Exhibit 1.1: GDP and Sectoral Growth Rates in 2Q 2020



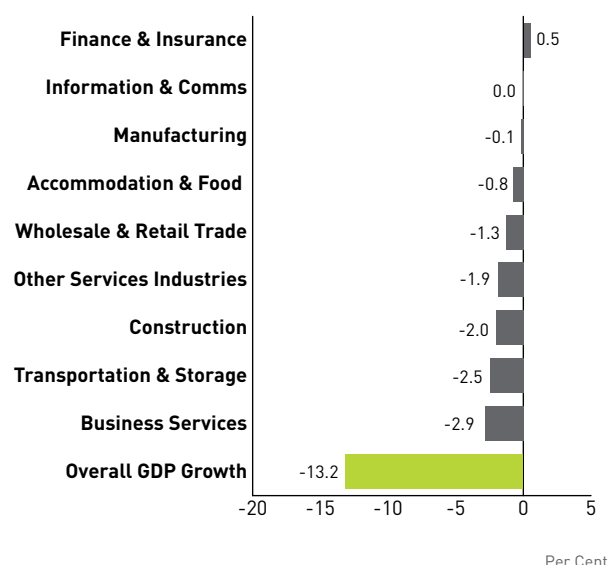
By sectors, the manufacturing sector contracted by 0.7 per cent year-on-year in the second quarter, a pullback from the 7.9 per cent growth in the previous quarter. Manufacturing output was weighed down by output declines in the transport engineering, general manufacturing and chemicals clusters. By contrast, output in the biomedical manufacturing, electronics and precision engineering clusters expanded.

The services producing industries shrank by 13 per cent year-on-year in the second quarter, a steeper drop than the 2.3 per cent decline recorded in the previous quarter. All services sectors contracted, except for the finance & insurance sector, which grew by 3.4 per cent year-on-year. Among the services sectors that contracted, the accommodation & food services (-41 per cent) and transportation & storage (-39 per cent) sectors recorded the largest contractions.

The construction sector contracted sharply by 59 per cent year-on-year in the second quarter, far worse than the 1.2 per cent contraction in the previous quarter. Construction output during the quarter was weighed down by declines in both private and public sector construction output as almost all construction activities came to a halt during the CB period.

The top three contributors to the GDP decline in the second quarter were the business services, transportation & storage and construction sectors (Exhibit 1.2).

Exhibit 1.2: Percentage-Point Contribution to Growth in Real GDP in 2Q 2020 (By Industry)



## SOURCES OF GROWTH

Total demand shrank by 16 per cent on a year-on-year basis in the second quarter of 2020, a sharp turnaround from the 0.5 per cent increase in the previous quarter (Exhibit 1.3). Total demand was weighed down by declines in both external and domestic demand amidst the COVID-19 pandemic.

External demand fell sharply by 14 per cent year-on-year in the second quarter, reversing the 0.4 per cent growth in the previous quarter, as many major economies saw severe economic disruptions during the quarter as a result of the lockdowns and movement restrictions imposed to curb the spread of COVID-19.

Meanwhile, domestic demand plunged by 21 per cent year-on-year in the second quarter, a reversal from the 0.8 per cent expansion in the previous quarter, as private consumption expenditure and gross fixed capital formation (GFCF) saw steep declines.

Exhibit 1.3: Changes in Total Demand\*

	2019			2020	
	II	III	IV	I	II
<b>Total Demand</b>	-1.3	-2.1	1.1	0.5	<b>-16.0</b>
<b>External Demand</b>	-2.2	-3.4	1.6	0.4	<b>-14.0</b>
<b>Total Domestic Demand</b>	1.0	1.1	-0.2	0.8	<b>-20.9</b>
<b>Consumption Expenditure</b>	2.7	3.5	3.0	0.2	<b>-18.2</b>
Public	0.7	2.6	4.3	8.0	<b>22.1</b>
Private	3.2	3.8	2.6	-2.4	<b>-28.2</b>
<b>Gross Fixed Capital Formation</b>	-0.7	2.5	-1.7	3.9	<b>-27.2</b>
<b>Changes in Inventories</b>	-0.3	-1.4	-1.1	-0.4	<b>-0.1</b>

\* For inventories, this refers to the contribution to GDP growth.

Within domestic demand, GFCF fell by 27 per cent year-on-year, a stark contrast to the 3.9 per cent expansion in the previous quarter. Overall GFCF was weighed down by a 26 per cent year-on-year decline in private sector GFCF, largely due to lower investment spending in construction & works and transport equipment. At the same time, public sector GFCF shrank by 35 per cent year-on-year because of reduced investment spending in construction & works.

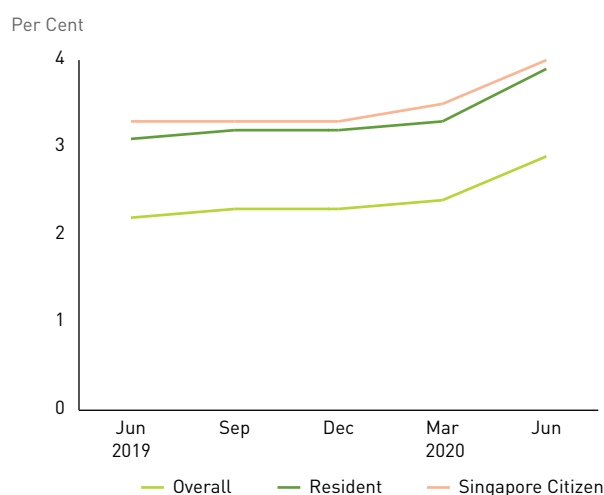
Meanwhile, consumption expenditure fell by 18 per cent year-on-year, a reversal from the 0.2 per cent growth in the preceding quarter. Private consumption expenditure shrank by 28 per cent in the second quarter on account of the COVID-19 outbreak, as well as the CB and other safe distancing measures that were imposed to contain the outbreak. This decline outweighed the 22 per cent increase in public consumption expenditure over the same period.

## LABOUR MARKET<sup>1</sup>

### Unemployment and Retrenchment

The COVID-19 outbreak had a more significant impact on the labour market in the second quarter of 2020. Compared to March 2020, the seasonally-adjusted unemployment rates rose in June 2020 at the overall level (from 2.4 per cent to 2.9 per cent), as well as for residents (from 3.3 per cent to 3.9 per cent) and citizens (from 3.5 per cent to 4.0 per cent) (Exhibit 1.4). However, these remained lower than the highs observed during SARS<sup>2</sup> and the GFC<sup>3</sup>.

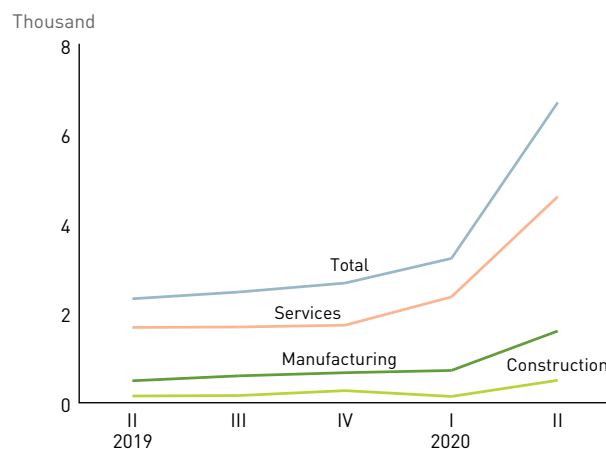
Exhibit 1.4: Unemployment Rate (Seasonally-Adjusted)



In June 2020, an estimated 90,500 residents, including 79,600 Singapore citizens, were unemployed. These were higher than the number of unemployed residents (76,200) and citizens (66,900) in March 2020.<sup>4</sup>

Total retrenchments doubled to 6,700 in the second quarter, from the 3,220 recorded in the preceding quarter (Exhibit 1.5). However, the number of retrenchments remained significantly below the peak recorded during the GFC (12,760 in the first quarter of 2009). Over the quarter, retrenchments increased in the services (from 2,360 to 4,600), manufacturing (from 720 to 1,600) and construction (from 140 to 500) sectors.

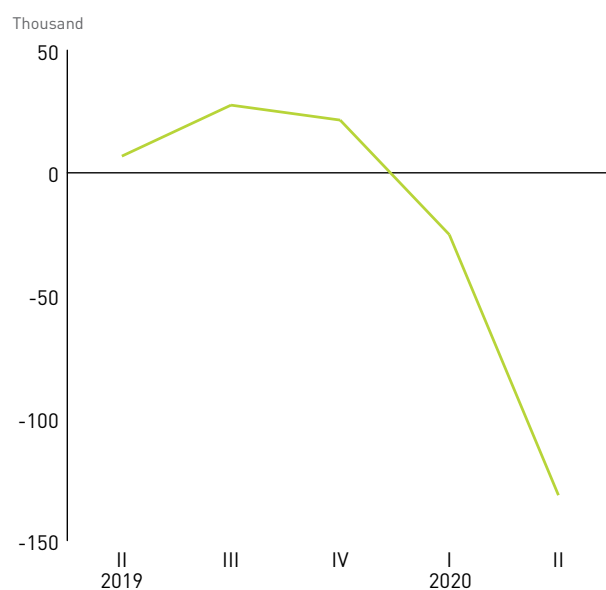
Exhibit 1.5: Retrenchments



### Employment<sup>5</sup>

Total employment fell by 131,500 on a quarter-on-quarter basis in the second quarter (Exhibit 1.6), the sharpest quarterly contraction on record. Excluding FDWs, employment declined by 121,800.

Exhibit 1.6: Change in Total Employment, Quarter-on-Quarter



Employment declines were observed across all broad sectors in the second quarter. In the overall services sector, employment fell by 107,200 (-97,500 excluding FDWs), led by contractions in the other services (-32,700) and accommodation & food services (-30,800) sectors (Exhibit 1.7). Meanwhile, employment in the construction (-14,300) and manufacturing (-9,600) sectors declined for the second consecutive quarter.

<sup>1</sup> Retrenchment figures pertain to private sector establishments with at least 25 employees and the public sector.

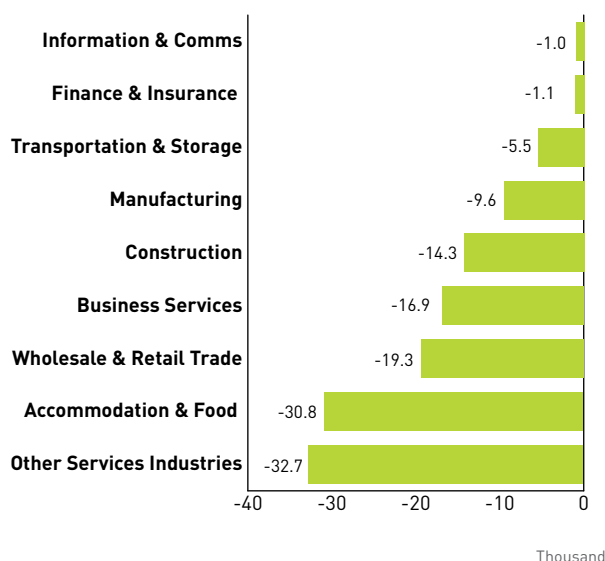
<sup>2</sup> In September 2003, the overall, resident and citizen unemployment rates were 4.8 per cent, 6.2 per cent and 6.4 per cent respectively.

<sup>3</sup> In September 2009, the overall, resident and citizen unemployment rates were 3.3 per cent, 4.9 per cent and 4.9 per cent respectively.

<sup>4</sup> Based on seasonally-adjusted data on the number of unemployed persons.

<sup>5</sup> Based on preliminary estimates.

Exhibit 1.7: Changes in Employment by Industry in 2Q 2020



## Hiring Expectations

According to EDB's latest Business Expectations Survey for the Manufacturing Sector, hiring expectations in the sector remained subdued, with a net weighted balance of 7 per cent of manufacturers expecting to reduce hiring in the third quarter of 2020 as compared to the second quarter. Firms in the aerospace segment of the transport engineering cluster were the most pessimistic, with a net weighted balance of 36 per cent of firms expecting lower levels of hiring in the third quarter. By contrast, firms in the pharmaceuticals segment of the biomedical manufacturing cluster were the most optimistic, with a net weighted balance of 12 per cent of firms expecting to increase hiring in the third quarter.

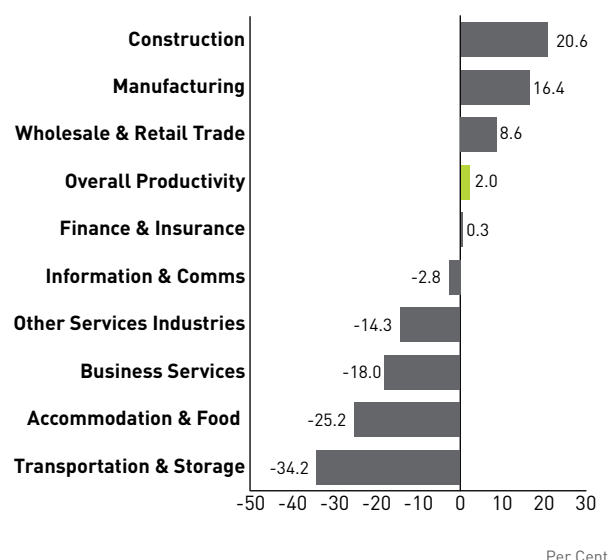
Hiring expectations for services firms were also weak. According to DOS' latest Business Expectations Survey for the Services Sector, a net weighted balance of 21 per cent of services firms expected to reduce hiring in the third quarter of 2020 as compared to the second quarter. In particular, firms in the accommodation and business services (excluding real estate) sectors had the weakest hiring sentiments, with a net weighted balance of 49 per cent and 37 per cent of firms expecting to hire fewer workers in the third quarter respectively.

## COMPETITIVENESS

### Productivity

Overall labour productivity, as measured by real value-added per actual hour worked, rose by 2.0 per cent year-on-year in the second quarter of 2020, reversing the 3.3 per cent decline recorded in the previous quarter (Exhibit 1.8). The increase came despite the sharp drop in GDP because of a large decline in total actual hours worked (-15 per cent year-on-year) in the second quarter, which was in turn due to a fall in both average actual hours worked per worker and average employment.<sup>6</sup> The fall in average actual hours worked per worker could be attributed partly to the CB measures, which entailed the closure of most physical workplaces for the most part of the quarter.

Exhibit 1.8: Changes in Value-Added per Actual Hour Worked for the Overall Economy and Sectors in 2Q 2020



Among the sectors, the construction (21 per cent), manufacturing (16 per cent), wholesale & retail trade (8.6 per cent) and finance & insurance (0.3 per cent) sectors posted productivity growth in the second quarter. All other sectors saw productivity declines, with the transportation & storage (-34 per cent), accommodation & food services (-25 per cent) and business services (-18 per cent) sectors experiencing the largest declines.

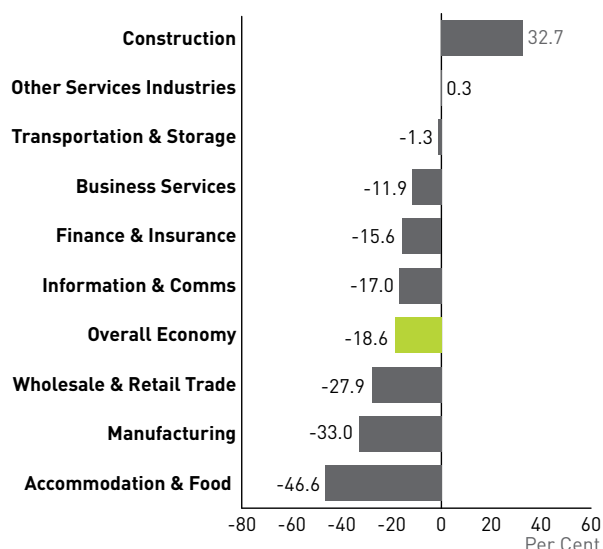
<sup>6</sup> Overall labour productivity, as measured by real value-added per worker, fell by 12 per cent in the second quarter as compared to the 1.6 per cent decline in the preceding quarter. The difference in growth trends between real value-added per actual hour worked and real value-added per worker in the second quarter was due to the sharp fall in the number of actual hours worked per worker.

In the second quarter, the productivity of outward-oriented sectors as a whole grew by 2.8 per cent year-on-year, reversing the 0.5 per cent decline in the previous quarter.<sup>7</sup> By contrast, the productivity of domestically-oriented sectors fell by 9.9 per cent, extending the 7.8 per cent decline in the first quarter.

## Unit Labour Cost and Unit Business Cost

Overall unit labour cost (ULC) for the economy fell by 19 per cent on a year-on-year basis in the second quarter, reversing the 1.2 per cent increase in the preceding quarter (Exhibit 1.9). The decline in the overall ULC was due to a fall in total labour cost per worker, which more than offset the drop in labour productivity as measured by real value-added per worker.

Exhibit 1.9: Changes in Unit Labour Cost in 2Q 2020



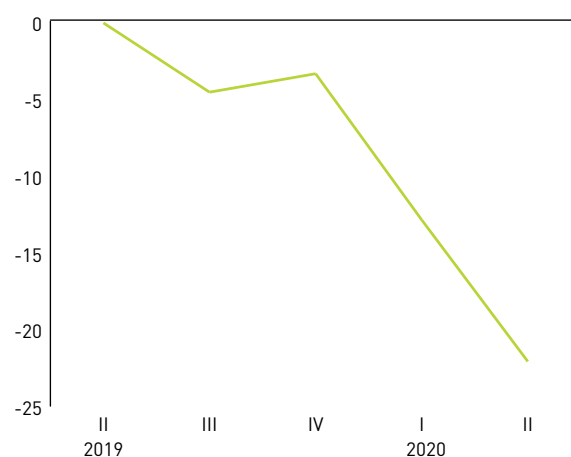
By sectors, the ULC for the manufacturing sector declined by 33 per cent year-on-year, extending the fall of 8.8 per cent in the preceding quarter. The decline occurred on the back of slight productivity gains alongside a fall in total labour cost per worker in the sector.

Similarly, the ULC for services producing industries fell by 15 per cent, reversing the 4.1 per cent increase in the preceding quarter. Most services sectors saw a decline in their ULCs, with the exception of the other services industries. The ULC of the other services industries rose slightly by 0.3 per cent, as the fall in labour productivity exceeded the decline in total labour cost per worker in the sector.

By contrast, the ULC for the construction sector increased by 33 per cent in the second quarter, significantly faster than the 3.1 per cent increase in the previous quarter, as labour productivity fell by more than total labour cost per worker in the sector.

Unit business cost (UBC) for the manufacturing sector fell by 22 per cent year-on-year in the second quarter, extending the 13 per cent decline in the previous quarter (Exhibit 1.10). This came on the back of declines in the manufacturing ULC (-33 per cent), unit services cost (-18 per cent) and unit non-labour production taxes (-7.0 per cent).

Exhibit 1.10: Changes in the Manufacturing Unit Business Cost



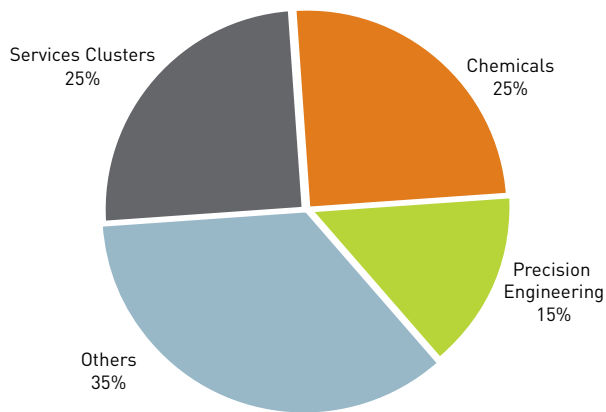
## Investment Commitments

Investment commitments garnered by the Economic Development Board (EDB) in terms of Fixed Asset Investments (FAI) and Total Business Expenditure (TBE) amounted to \$1.9 billion and \$1.7 billion respectively in the second quarter of 2020 (Exhibit 1.11 and Exhibit 1.12).

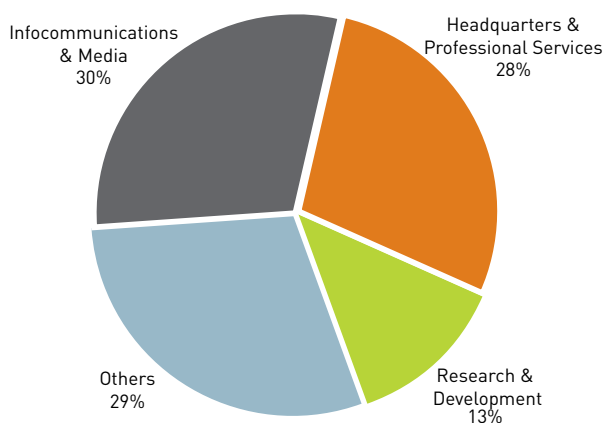
In terms of FAI, the largest contribution was from the manufacturing sector, which attracted \$1.4 billion worth of commitments. Within the manufacturing sector, the chemicals cluster garnered the largest amount of commitments, at \$473 million. Among the services clusters, the engineering & environmental services cluster contributed the most to total FAI commitments, at \$160 million. This was followed by the research & development cluster, which contributed \$140 million. Investors from the United States were the largest contributors to total FAI, with \$729 million (38 per cent) in commitments, followed by investors from Europe and Japan, with \$482 million (25 per cent) and \$398 million (21 per cent) respectively.

<sup>7</sup> Outward-oriented sectors refer to manufacturing, wholesale trade, transportation & storage, accommodation, information & communications, finance & insurance and professional services. Domestically-oriented sectors refer to construction, retail trade, food & beverage services, other business services and other services industries.



*Exhibit 1.11: Fixed Asset Investments by Industry Cluster in 2Q 2020*

For TBE, the services clusters attracted the highest amount of commitments, at \$1.5 billion. This was driven by the infocommunications & media cluster, which secured \$522 million in TBE commitments, followed by the headquarters & professional services cluster, with \$490 million. Among the manufacturing clusters, the transport engineering cluster pulled in the largest amount of TBE commitments, at \$86 million. Investors from the Others region were the largest source of TBE commitments, at \$602 million (35 per cent). They were followed by investors from Europe and the United States, with commitments of \$373 million (21 per cent) and \$355 million (20 per cent) respectively.

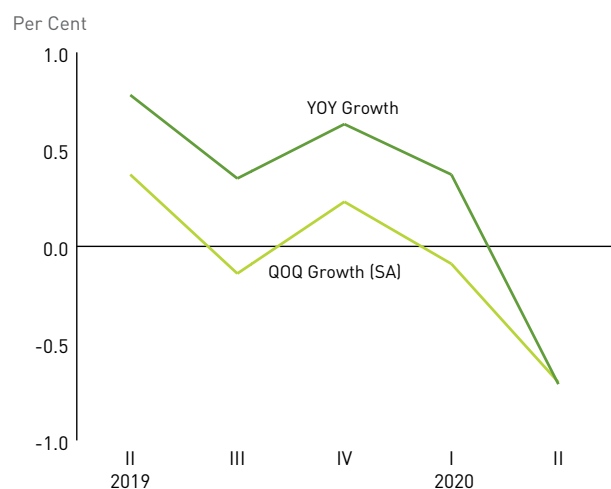
*Exhibit 1.12: Total Business Expenditure by Industry Cluster in 2Q 2020*

When these projects are fully implemented, they are expected to generate \$16 billion of value-added and create more than 4,400 jobs in the coming years.

## PRICES

### Consumer Price Index

The Consumer Price Index-All Items (CPI-All Items) fell by 0.7 per cent a year-on-year basis in the second quarter of 2020, a reversal from the 0.4 per cent increase in the preceding quarter (Exhibit 1.13). On a quarter-on-quarter seasonally-adjusted basis, CPI-All Items dipped by 0.7 per cent in the second quarter, steeper than the 0.1 per cent decline in the first quarter.

*Exhibit 1.13: Changes in CPI*

Price declines in the following CPI categories contributed negatively to CPI-All Items inflation on a year-on-year basis in the second quarter. Transport costs fell by 3.9 per cent on the back of lower car and petrol prices, as well as Electronic Road Pricing (ERP) charges (Exhibit 1.14). Recreation & culture costs dropped by 2.6 per cent because of lower holiday travel costs. Healthcare costs declined by 1.8 per cent as a fall in the costs of outpatient services and medical products more than offset a rise in hospital service fees. Clothing & footwear costs fell by 3.6 per cent due to cheaper ready-made garments. Prices of miscellaneous goods & services declined by 1.4 per cent as a result of cheaper personal effects items and infant care services. Education costs dipped by 0.6 per cent, as childcare centre and kindergarten fees fell on the back of an enhancement in preschool subsidies from January 2020. Communications costs edged down by 0.3 per cent on account of a fall in the prices of telecommunication equipment. Prices of household durables & services declined by 0.2 per cent owing to cheaper household durables.

Exhibit 1.14: Percentage Changes in CPI over Corresponding Quarter of Previous Year

Per Cent

	2019			2020	
	II	III	IV	I	II
<b>All items</b>	0.8	0.4	0.6	0.4	<b>-0.7</b>
<b>Food</b>	1.5	1.4	1.6	1.6	<b>2.2</b>
<b>Clothing &amp; Footwear</b>	-0.8	-2.5	-1.6	-3.1	<b>-3.6</b>
<b>Housing &amp; Utilities</b>	-0.8	-1.3	-1.3	-0.2	<b>0.1</b>
<b>Household Durables &amp; Services</b>	1.3	0.6	0.4	0.4	<b>-0.2</b>
<b>Health Care</b>	1.3	1.1	0.2	-1.5	<b>-1.8</b>
<b>Transport</b>	1.4	0.8	2.3	2.0	<b>-3.9</b>
<b>Communication</b>	-1.1	-1.4	0.3	0.5	<b>-0.3</b>
<b>Recreation &amp; Culture</b>	1.8	0.6	0.5	-1.0	<b>-2.6</b>
<b>Education</b>	2.5	2.2	2.1	-0.6	<b>-0.6</b>
<b>Miscellaneous Goods &amp; Services</b>	0.2	0.2	0.3	-0.1	<b>-1.4</b>

By contrast, price increases in the following CPI categories contributed positively to CPI-All Items inflation in the second quarter. Food prices rose by 2.2 per cent due to an increase in the prices of food servicing services like hawker food and restaurant meals, as well as non-cooked food items such as meat and vegetables. Housing & utilities costs inched up by 0.1 per cent as higher accommodation costs outweighed a drop in electricity prices and gas tariffs.

## INTERNATIONAL TRADE

### Merchandise Trade

Singapore's total merchandise trade declined by 15 per cent year-on-year in the second quarter of 2020, after posting a slight increase of 0.5 per cent in the preceding quarter (Exhibit 1.15). The fall in total merchandise trade was due to declines in both oil and non-oil trade. Oil trade contracted by 62 per cent in nominal terms amidst lower oil prices compared to a year ago, while non-oil trade decreased by 3.3 per cent.

Exhibit 1.15: Growth Rates of Total Merchandise Trade, Merchandise Exports and Merchandise Imports (In Nominal Terms)

Per Cent

	2019				2020	
	II	III	IV	Ann	I	II
<b>Merchandise Trade</b>	-2.2	-6.7	-5.3	-3.2	0.5	<b>-15.2</b>
<b>Merchandise Exports</b>	-4.6	-7.3	-4.3	-4.2	-1.4	<b>-13.8</b>
Domestic Exports	-10.6	-13.1	-11.5	-10.5	-6.4	<b>-21.1</b>
Oil	-2.9	-19.7	-21.5	-12.9	-28.9	<b>-67.7</b>
Non-Oil	-14.7	-9.6	-5.7	-9.2	5.4	<b>6.5</b>
Re-Exports	2.0	-1.7	2.8	2.3	3.2	<b>-6.8</b>
<b>Merchandise Imports</b>	0.5	-5.9	-6.3	-2.1	2.6	<b>-16.6</b>
Oil	-9.6	-18.2	-20.4	-13.5	-6.2	<b>-57.5</b>
Non-Oil	3.7	-2.3	-1.9	1.5	5.1	<b>-5.2</b>

Total merchandise exports declined by 14 per cent in the second quarter, weakening from the 1.4 per cent contraction in the preceding quarter. Both domestic exports (-21 per cent) and re-exports (-6.8 per cent) contracted.

Domestic exports fell on account of a decline in oil domestic exports, which outweighed an increase in non-oil domestic exports (NODX). In particular, oil domestic exports contracted by 68 per cent, partly reflecting lower oil prices compared to a year ago. In volume terms, oil domestic exports decreased by 36 per cent.

Meanwhile, NODX increased by 6.5 per cent in the second quarter, extending the 5.4 per cent growth in the previous quarter. The rise in NODX was supported by increases in both non-electronics and electronics domestic exports.

Total merchandise imports declined by 17 per cent in the second quarter, reversing the 2.6 per cent increase in the previous quarter, as both oil and non-oil imports fell. Specifically, oil imports contracted by 57 per cent amidst lower oil prices compared to levels a year ago. Meanwhile, non-oil imports declined by 5.2 per cent, as a fall in non-electronics imports outweighed an increase in electronics imports.

## Services Trade

Total services trade contracted by 22 per cent on a year-on-year basis in the second quarter of 2020, sharper than the 3.2 per cent decline in the previous quarter (Exhibit 1.16). Both exports and imports of services recorded negative growth during the quarter.

Services exports fell by 20 per cent, following the 3.0 per cent decline in the preceding quarter. The fall in services exports was largely attributable to declines in the exports of travel, transport and maintenance & repair services. Meanwhile, services imports contracted by 24 per cent, larger than the 3.3 per cent fall in the previous quarter. The decline in services imports was mainly due to a drop in the imports of travel, transport and other business services.

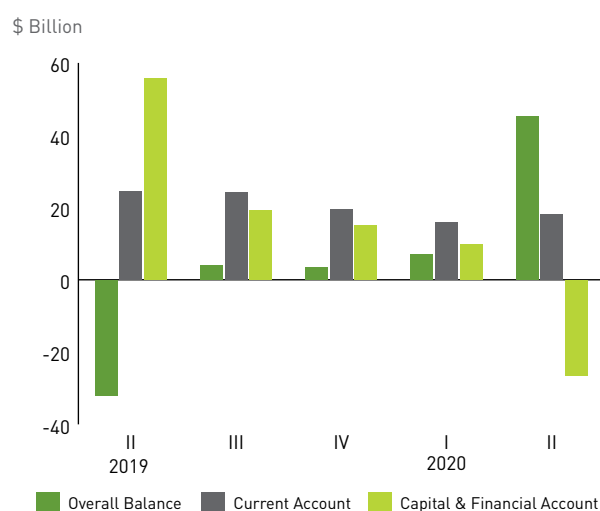
Exhibit 1.16: Growth Rates of Total Services Trade, Services Exports and Services Imports (In Nominal Terms)

	2019				2020	
	II	III	IV	Ann	I	II
<b>Total Services Trade</b>	1.9	0.6	2.5	1.3	-3.2	<b>-22.2</b>
Services Exports	1.9	1.9	4.5	2.2	-3.0	<b>-20.3</b>
Services Imports	1.9	-0.8	0.6	0.4	-3.3	<b>-24.1</b>

## BALANCE OF PAYMENTS

The overall balance of payments recorded a surplus of \$45 billion in the second quarter of 2020, up from \$7.0 billion in the first quarter (Exhibit 1.17).

Exhibit 1.17: Balance of Payments



## Current Account

The current account surplus rose to \$18 billion in the second quarter, from \$16 billion in the preceding quarter. This was due to increases in both the goods and services surpluses, which more than offset the larger deficits in the primary and secondary income balances.

The surplus in the goods balance was \$30 billion in the second quarter, up from \$27 billion in the previous quarter, as goods imports fell more than goods exports.

At the same time, the surplus in the services balance rose to \$3.8 billion in the second quarter, from \$1.9 billion in the preceding quarter. This was mainly driven by a shift in travel services from net payments to net receipts, as well as smaller net payments for transport and other business services. These changes more than offset a decline in the net receipts for maintenance & repair services.

Meanwhile, the deficits in the primary and secondary income balances increased by \$2.7 billion and \$0.5 billion respectively, as both primary and secondary income receipts from abroad fell by a larger magnitude than their corresponding payments during the quarter.

## Capital and Financial Account<sup>8</sup>

The capital and financial account registered a net inflow of \$26 billion in the second quarter, in contrast to the \$9.7 billion net outflow seen in the preceding quarter. This primarily reflected a shift in “other investment” from a net outflow to a net inflow position, as well as higher net inflows of direct investment.

“Other investment” saw a net inflow of \$20 billion in the second quarter, a turnaround from the \$17 billion net outflow in the quarter before. This was partly attributable to a sharp decline in net outflows from resident deposit-taking corporations.

At the same time, net inflows of direct investment rose to \$20 billion in the second quarter, from \$13 billion in the first quarter, as foreign direct investments into Singapore increased while residents’ direct investment abroad fell.

By contrast, net outflows of portfolio investment increased to \$7.2 billion in the second quarter, from \$1.6 billion the previous quarter. This was mainly due to a decline in the net sales of overseas securities by resident deposit-taking corporations.

Similarly, net outflows of financial derivatives stepped up to \$7.1 billion in the second quarter, from \$4.4 billion in the preceding quarter.

<sup>8</sup> Net inflows in net balances are indicated by a minus (-) sign. For more details regarding the change in sign convention to the financial account, please refer to DOS’s information paper on “Singapore’s International Accounts: Methodological Updates and Recent Developments”.





## CHAPTER 2

# SECTORAL PERFORMANCE





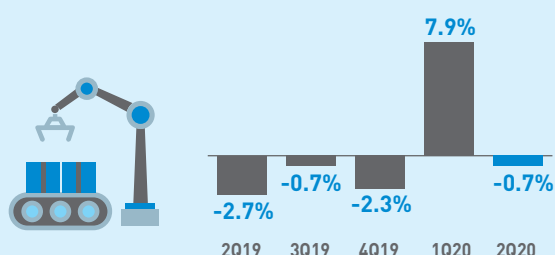
RoBi 2

## CHAPTER 2

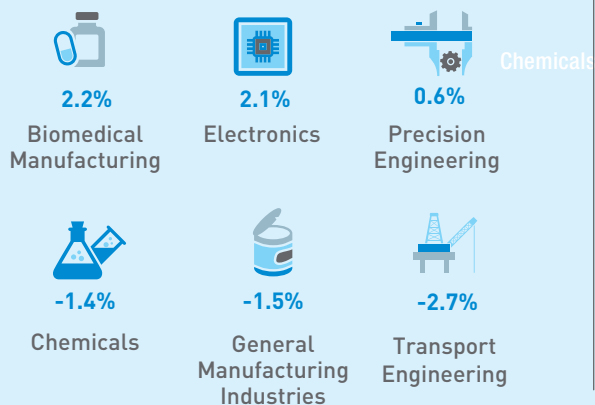
# SECTORAL PERFORMANCE

### MANUFACTURING

#### REAL GROWTH

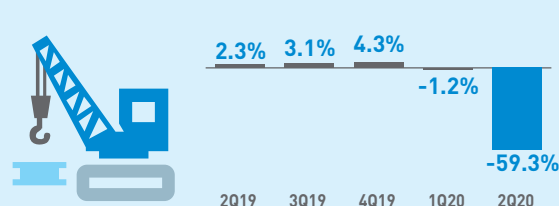


#### CLUSTERS IN MANUFACTURING SECTOR %-POINT CONTRIBUTION IN 2Q20

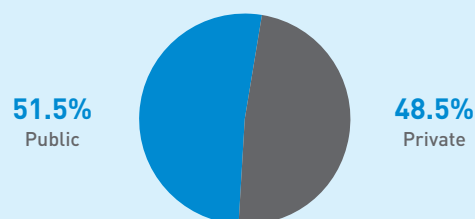


### CONSTRUCTION

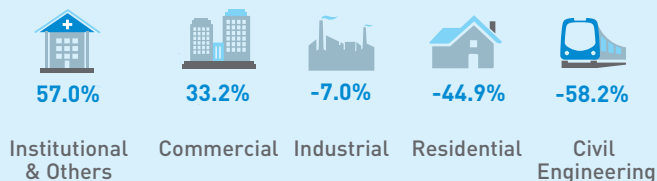
#### REAL GROWTH



#### CERTIFIED PAYMENTS IN 2Q20

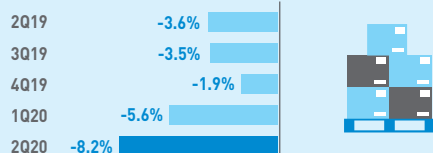


#### CONTRACTS AWARDED IN 2Q20

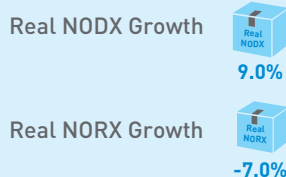


### WHOLESALE & RETAIL TRADE

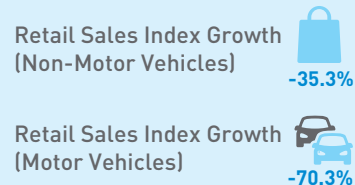
#### REAL GROWTH



#### WHOLESALE TRADE

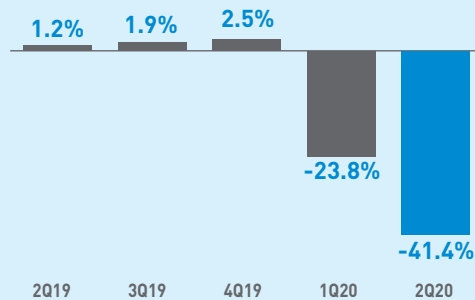


#### RETAIL TRADE



## ACCOMMODATION & FOOD SERVICES

### REAL GROWTH



## ACCOMMODATION

### Occupancy Rates of Hotels (Y-O-Y Change)



Luxury  
-62.6%-pt



Upscale  
-32.6%-pt



Mid-Tier  
-31.1%-pt



Economy  
-28.9%-pt

## FOOD SERVICES

### F&B Sales Index Growth (Y-O-Y Change)



Fast Food  
-23.3%



Others  
-39.7%



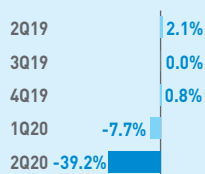
Food Caterers  
-51.8%



Restaurants  
-66.3%

## TRANSPORTATION & STORAGE

### REAL GROWTH



Total Sea  
Cargo Handled  
Growth



-14.2%

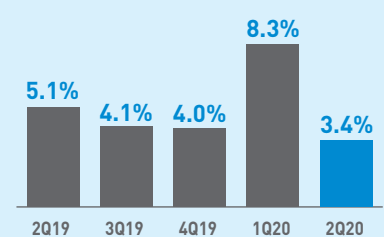
Air  
Passengers  
Handled  
Growth



-99.4%

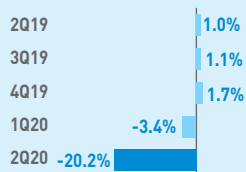
## FINANCE & INSURANCE

### REAL GROWTH



## BUSINESS SERVICES

### REAL GROWTH



### PRIVATE RESIDENTIAL REAL ESTATE



-44.1%



0.3%

Units Transacted  
(Y-O-Y Change)

Price Index  
(Q-O-Q Change)

### GROWTH OF BANK LOANS & ADVANCES TO NON-BANK CUSTOMERS IN 2Q20

Loans to  
Businesses



0.6%

Consumer  
Loans



-3.4%

## OVERVIEW

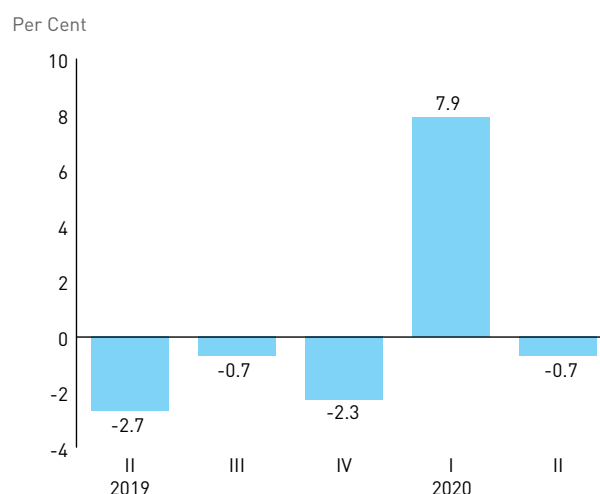
In the second quarter of 2020,

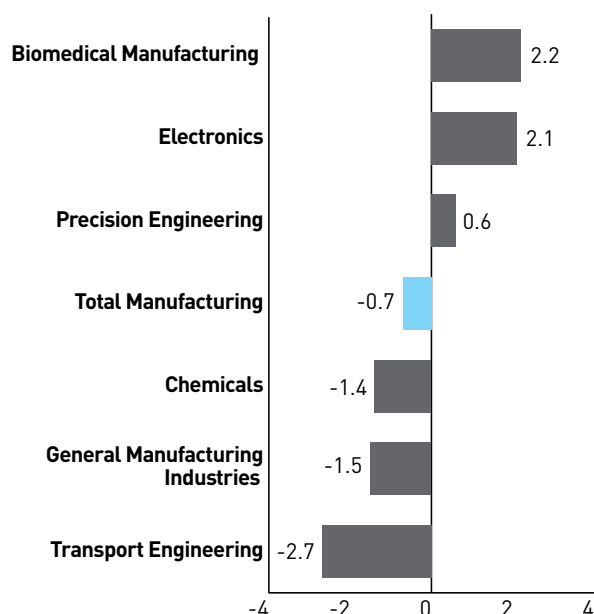
- The manufacturing sector contracted by 0.7 per cent, reversing the 7.9 per cent expansion in the previous quarter. Within the sector, the output of the transport engineering, general manufacturing and chemicals clusters declined, whereas that of the biomedical manufacturing, electronics and precision engineering clusters expanded.
- The construction sector shrank by 59 per cent, a sharp deterioration from the 1.2 per cent contraction in the preceding quarter. Both private sector and public sector construction output fell during the quarter.
- The wholesale & retail trade sector shrank by 8.2 per cent, larger than the 5.6 per cent contraction recorded in the previous quarter. Within the sector, both the wholesale trade and retail trade segments contracted.
- The transportation & storage sector contracted by 39 per cent, worsening from the 7.7 per cent decline in the previous quarter, driven primarily by the weak performance of the air transport, water transport and land transport segments.
- The accommodation & food services sector shrank by 41 per cent, weakening from the 24 per cent contraction in the preceding quarter. Both the accommodation and food services segments contracted during the quarter.
- The finance & insurance sector grew by 3.4 per cent, moderating from the 8.3 per cent growth in the previous quarter. Growth was underpinned by steady expansions in insurance and other auxiliary activities.
- The business services sector shrank by 20 per cent, steeper than the 3.4 per cent decline in the previous quarter, on account of contractions in the real estate, professional services and “others” segments.

## MANUFACTURING

Manufacturing output fell by 0.7 per cent year-on-year in the second quarter, reversing the 7.9 per cent expansion in the first quarter. The sector was weighed down by output declines in the transport engineering, general manufacturing and chemicals clusters during the quarter. On the other hand, the biomedical manufacturing, electronics and precision engineering clusters recorded output expansions.

Exhibit 2.1: Manufacturing Sector's Growth Rate



*Exhibit 2.2: Percentage-Point Contribution to Manufacturing Sector's Growth in 2Q 2020*

The biomedical manufacturing cluster expanded by 11 per cent in the second quarter. The expansion was driven by the pharmaceuticals segment, which saw its output increase by 15 per cent on the back of a higher level of production of active pharmaceutical ingredients. On the other hand, the medical technology segment contracted by 6.0 per cent, due in part to workplace disruptions arising from the Circuit Breaker (CB) measures and also weak export demand for non-COVID-19 related medical devices.

Output in the electronics cluster rose by 5.6 per cent in the second quarter, largely supported by the semiconductors segment, which grew by 9.6 per cent. In turn, the latter was driven by strong demand for semiconductors from the 5G market, cloud services and data centres. By contrast, the computers & data storage and other electronic modules & components segments contracted by 29 per cent and 11 per cent respectively.

The precision engineering cluster expanded by 4.5 per cent in the second quarter. Growth in the cluster was bolstered by the machinery & systems segment, which grew by 9.8 per cent on the back of robust demand for semiconductor equipment by major semiconductor manufacturers. On the other hand, the output of the precision modules & components segment declined by 9.3 per cent, as the COVID-19 pandemic dampened demand and disrupted operations locally and in key export markets.

Output of the chemicals cluster fell by 11 per cent in the second quarter, with all segments recording output declines due to plant maintenance shutdowns and lower export orders amidst the COVID-19 outbreak. Specifically, the petrochemicals, specialty chemicals, other chemicals and petroleum segments contracted by 7.1 per cent, 13 per cent, 14 per cent and 20 per cent respectively.

The general manufacturing cluster contracted by 20 per cent in the second quarter, weighed down by output declines in all segments. In particular, the output of the miscellaneous industries segment declined by 32 per cent due to a drop in the production of construction-related products. Similarly, the output of the food, beverage & tobacco segment fell by 10 per cent, with a lower level of production of beverage concentrates and confectionery. Meanwhile, the printing segment contracted by 29 per cent.

Output of the transport engineering cluster declined by 34 per cent in the second quarter, with all segments recording declines. In particular, the output of the marine & offshore engineering segment plunged by 43 per cent as movement restrictions on foreign workers living in dormitories disrupted work at the shipyards. At the same time, the aerospace and land transport segments contracted by 29 per cent and 27 per cent respectively. In turn, the fall in output in the aerospace segment was due to lower levels of repair and maintenance work from commercial airlines, as aircraft remained grounded amidst weak air travel demand arising from the COVID-19 pandemic and global travel restrictions.



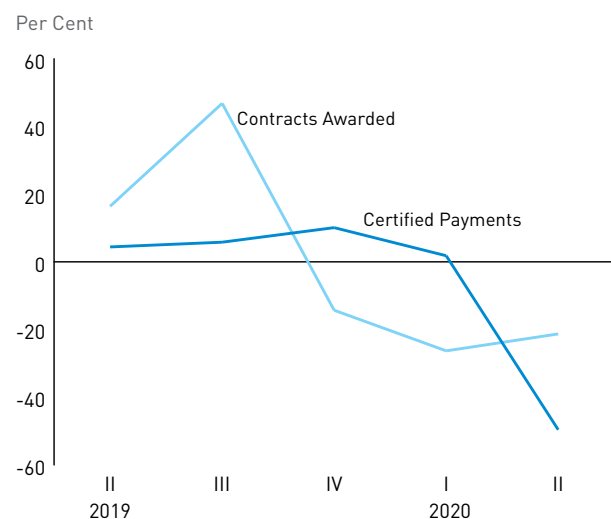
## CONSTRUCTION

The construction sector contracted by 59 per cent year-on-year in the second quarter, a sharp deterioration from the 1.2 per cent contraction recorded in the previous quarter. This came about as both private sector and public sector construction output declined.

During the quarter, nominal certified progress payments (a proxy for construction output) fell by 50 per cent, reversing the 1.8 per cent increase in the previous quarter (Exhibit 2.3). This was due to the stoppage of most construction activities during the CB period from 7 April to 1 June, as well as continued restrictions on the movement of foreign workers living in dormitories thereafter because of the COVID-19 outbreak in the dormitories. Reflecting this broad-based weakness, both private (-51 per cent) and public (-48 per cent) certified progress payments fell. The decline in private certified progress payments was mainly driven by private residential building works (-55 per cent) and private industrial building works (-48 per cent). On the other hand, the contraction in public certified progress payments was led by public residential building works (-75 per cent) and public civil engineering works (-40 per cent).

Meanwhile, construction demand in terms of contracts awarded fell by 21 per cent in the second quarter, extending the 26 per cent decline in the previous quarter (Exhibit 2.3). The contraction was due to weaker demand for private sector construction works (-54 per cent), driven by a fall in contracts awarded for private sector residential building works (-76 per cent). By contrast, public sector construction demand expanded by 12 per cent, bolstered by a rise in demand for public sector commercial building works (802 per cent) and public sector industrial building works (108 per cent).

*Exhibit 2.3: Changes in Contracts Awarded and Certified Payments*

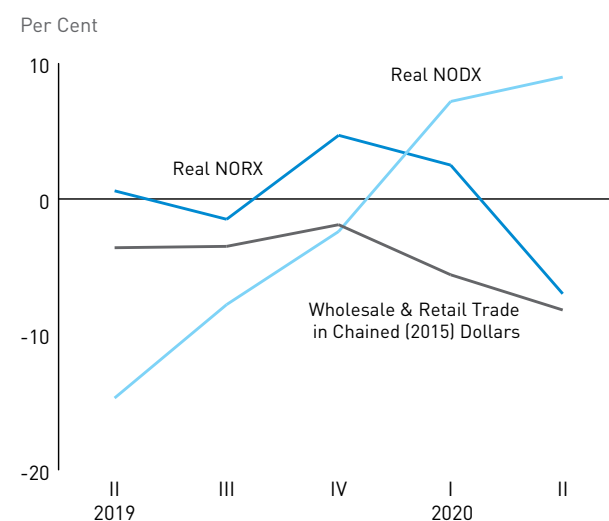


## WHOLESALE & RETAIL TRADE

The wholesale & retail trade sector shrank by 8.2 per cent year-on-year in the second quarter, worsening from the 5.6 per cent decline in the previous quarter. Within the sector, both the wholesale trade and retail trade segments contracted.

The contraction of the wholesale trade segment came on the back of weaker non-oil re-export (NORX) volumes in Singapore. Specifically, NORX volumes fell by 7.0 per cent in the second quarter, reversing the 2.5 per cent growth in the preceding quarter (Exhibit 2.4), with the contraction primarily driven by the weaker re-exports of machinery & equipment and miscellaneous manufactured goods. The fall in NORX volumes more than offset the 9.0 per cent increase in non-oil domestic export (NODX) volumes over the same period, which was in turn an improvement from the 7.2 per cent expansion recorded in the first quarter. The strong NODX performance in the second quarter was mainly driven by growth in the domestic exports of chemicals & chemical products and miscellaneous products.

*Exhibit 2.4: Changes in Wholesale & Retail Trade, Real NODX and Real NORX*

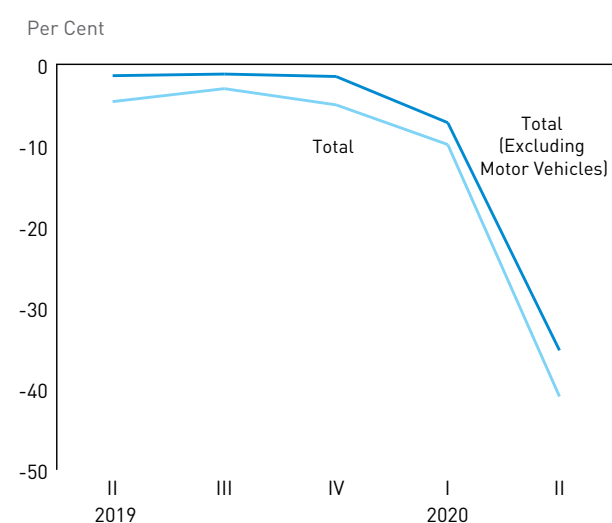


For the retail trade segment, overall retail sales volume declined by 41 per cent in the second quarter, significantly worse than the 9.9 per cent drop in the previous quarter. The weaker performance of retail trade occurred as most retailers were prohibited from operating at their physical outlets between 7 April and 18 June, due to workplace closures during the CB period and the phased reopening of the economy thereafter. Retail sales volume was weighed down by both motor vehicular sales (-70 per cent) and non-motor vehicular sales (-35 per cent). The latter was in turn driven by a fall in the sales volume of most goods, such



as watches & jewellery (-83 per cent), wearing apparel & footwear (-78 per cent) and goods sold at department stores (-81 per cent). Nevertheless, supermarkets & hypermarkets and minimarts & convenience stores, which were allowed to open their physical outlets between 7 April and 18 June, registered an increase in sales volume of 56 per cent and 8.0 per cent respectively over the same period.

*Exhibit 2.5: Changes in Retail Sales Index in Chained Volume Terms*

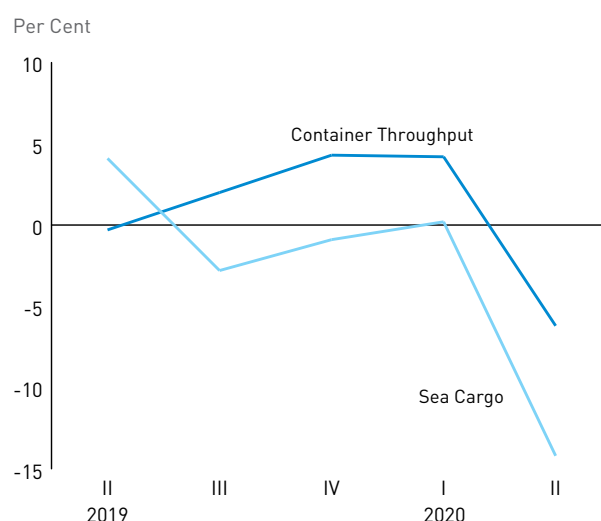


## TRANSPORTATION & STORAGE

The transportation & storage sector contracted by 39 per cent year-on-year in the second quarter, significantly worse than the 7.7 per cent contraction in the previous quarter. The poor performance of the sector was driven mainly by the air transport, water transport and land transport segments.

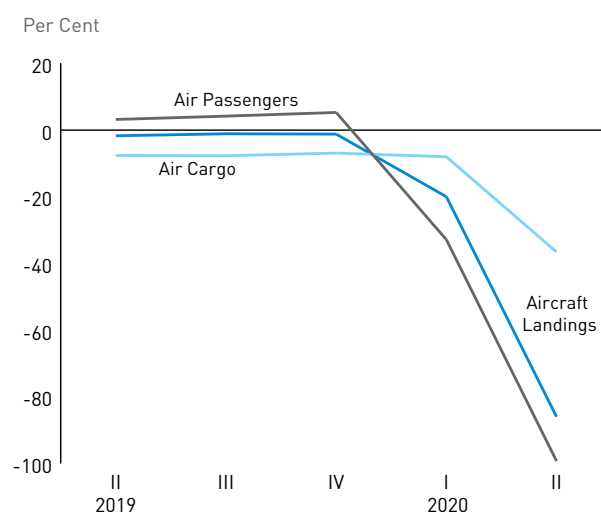
Within the water transport segment, the volume of sea cargo handled in the second quarter fell by 14 per cent year-on-year, a reversal from the 0.2 per cent growth recorded in the previous quarter (Exhibit 2.6). The large drop in sea cargo volume handled came as container throughput and oil-in-bulk cargo volume declined by 6.2 per cent and 23 per cent respectively.

*Exhibit 2.6: Changes in Container Throughput and Sea Cargo Handled*



The air transport segment was badly affected by global travel restrictions imposed to limit the spread of COVID-19 across borders, which resulted in a 99 per cent year-on-year plunge in the volume of air passenger traffic handled at Changi Airport in the second quarter, far worse than the 33 per cent decline in the previous quarter (Exhibit 2.7). There were broad-based declines in air passenger traffic volumes across Singapore's routes with all major regions around the world. Meanwhile, total air cargo shipments handled at Changi Airport fell by 37 per cent in the second quarter, deteriorating from the 8.0 per cent contraction in the preceding quarter. At the same time, the number of aircraft landings plummeted by 86 per cent to reach 6,547 in the second quarter, following the 20 per cent decline in the previous quarter.

*Exhibit 2.7: Changes in Air Transport*

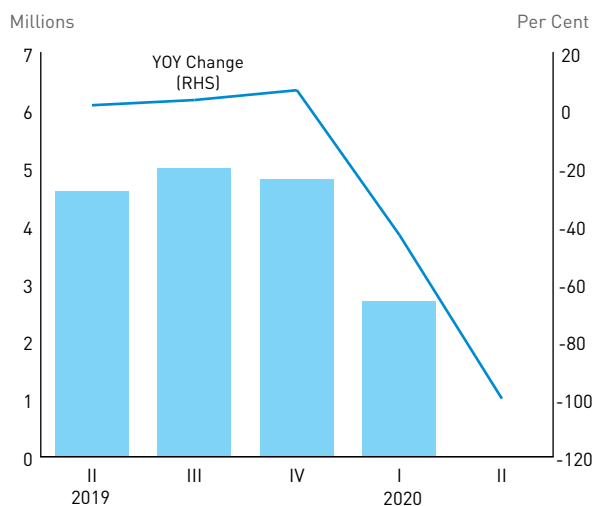


## ACCOMMODATION & FOOD SERVICES

The accommodation & food services sector shrank by 41 per cent year-on-year in the second quarter, worsening from the 24 per cent contraction in the preceding quarter. Within the sector, both the accommodation and food services segments contracted.

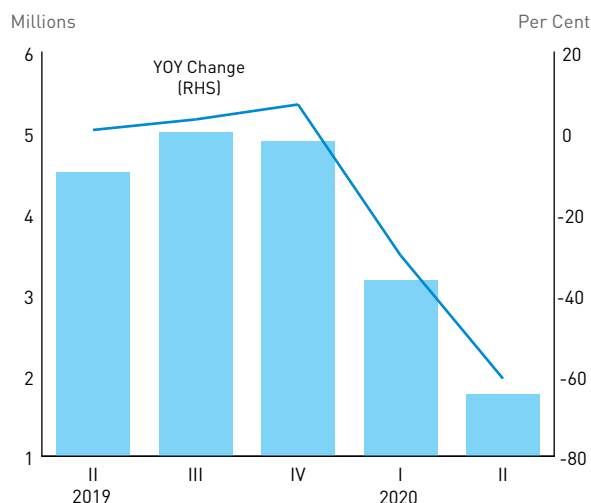
Total visitor arrivals slumped by almost 100 per cent in the second quarter, accelerating from the 43 per cent decline in the previous quarter (Exhibit 2.8). This was the result of Singapore's border controls to limit the importation of COVID-19 cases, as well as weak travel demand amidst the COVID-19 pandemic.<sup>1</sup>

Exhibit 2.8: Visitor Arrivals



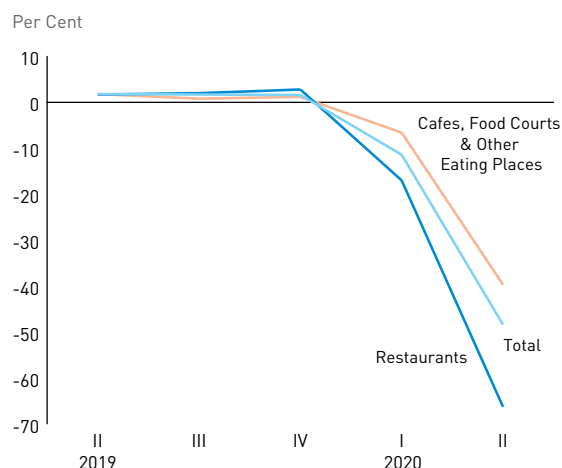
In tandem with the plunge in visitor arrivals, gross lettings at gazetted hotels plummeted by 61 per cent in the second quarter, worse than the 30 per cent drop in the preceding quarter (Exhibit 2.9). As gross lettings fell by more than the decline in available room-nights (-32 per cent) in the second quarter, the average occupancy rate of gazetted hotels slipped by 36 percentage-points on a year-on-year basis to reach 48.7 per cent in the second quarter.

Exhibit 2.9: Gross Lettings at Gazetted Hotels



The food services segment contracted in the second quarter, mainly because dining-in services were not allowed between 7 April and 18 June. Specifically, food & beverage sales volume fell by 48 per cent in the second quarter, significantly worse than the 11 per cent contraction in the previous quarter (Exhibit 2.10). Lower sales volume was seen across-the-board for restaurants (-66 per cent), food caterers (-52 per cent), cafes, food courts & other eating places (-40 per cent), and fast food outlets (-23 per cent) during the quarter.

Exhibit 2.10: Changes in Food & Beverage Services Index in Chained Volume Terms



<sup>1</sup> On 24 March 2020, Singapore prohibited all short-term visitors from entering or transiting through Singapore.

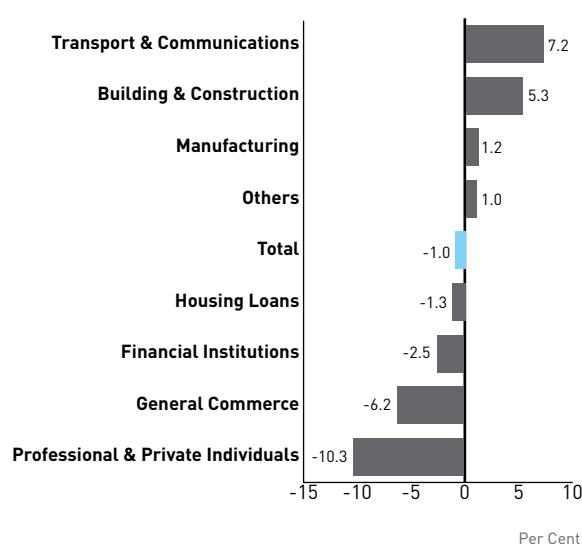
## FINANCE & INSURANCE

The finance & insurance sector grew by 3.4 per cent year-on-year in the second quarter, moderating from the 8.3 per cent growth in the preceding quarter. Growth was underpinned by steady expansions in insurance and other auxiliary activities.

The insurance segment continued to be supported by sustained demand for life insurance and reinsurance products in the second quarter, albeit at an attenuated rate compared to the previous quarter. Meanwhile, other auxiliary activities — comprising mainly credit card network players — expanded steadily in the second quarter, as digital adoption in the region continued apace throughout the lockdown period.

Growth in the banking segment moderated in the second quarter. Asian Currency Unit (ACU) non-bank lending rose at a slower pace of 2.2 per cent year-on-year in the second quarter, compared to the 8.2 per cent growth in the previous quarter. In particular, loan growth to East Asia dipped into negative territory, even as credit demand from Europe remained strong. In addition, Domestic Banking Unit (DBU) non-bank lending contracted by 1.0 per cent in the second quarter, reversing the 2.4 per cent growth in the preceding quarter. The contraction in loans to professional & private individuals and general commerce were the most pronounced in the second quarter (Exhibit 2.11).

Exhibit 2.11: Growth of DBU Loans & Advances to Non-Bank Customers by Industry in 2Q 2020



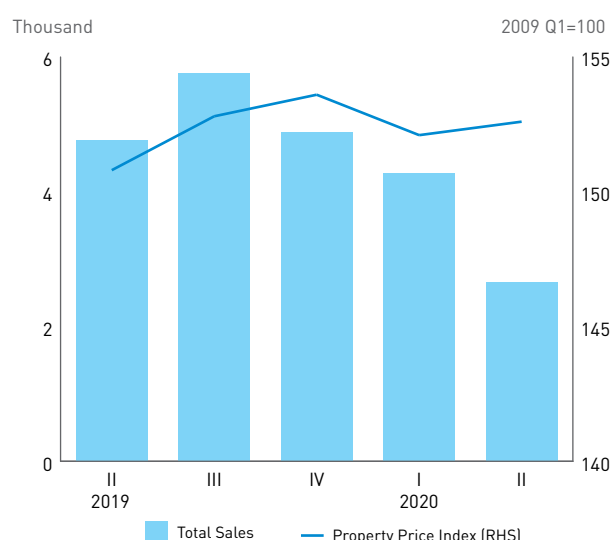
By contrast, forex posted a contraction in the second quarter as trading volumes declined to more normal levels from the surge in March. The performance of the fund management segment was also weak, as investment returns stayed suppressed with market participants remaining risk averse.

## BUSINESS SERVICES

The business services sector shrank by 20 per cent year-on-year in the second quarter, larger than the 3.4 per cent decline in the preceding quarter. This came on the back of contractions in the real estate, professional services and “others”<sup>2</sup> segments.

The real estate segment contracted in the second quarter, in tandem with a fall in the number of private residential sales transactions (-44 per cent) during the quarter. However, private residential property prices rose marginally by 0.3 per cent on a quarter-on-quarter basis in the second quarter, reversing the 1.0 per cent decline in the previous quarter (Exhibit 2.12).

Exhibit 2.12: Total Sales Transactions for Private Residential Units and Private Residential Property Price Index

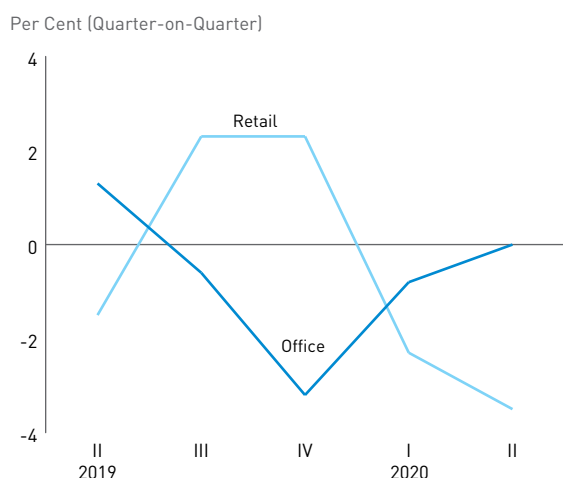


For the private retail space market, rentals declined by 3.5 per cent on a quarter-on-quarter basis in the second quarter, extending the 2.3 per cent drop in the previous quarter (Exhibit 2.13). Meanwhile, the average occupancy rate of private retail space was 89 per cent in the second quarter, easing from the 91 per cent registered in the preceding quarter.

Meanwhile, rentals for private office space remained unchanged on a quarter-on-quarter basis in the second quarter, an improvement from the 0.8 per cent decline in the previous quarter. The average occupancy rate of private office space came in at 87 per cent in the second quarter, inching down from the 88 per cent achieved in the preceding quarter.

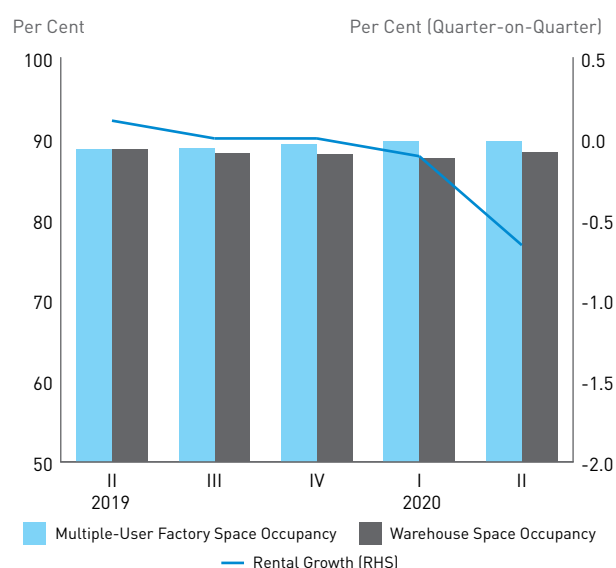
<sup>2</sup> The “others” segment of the business services sector consists of (i) rental & leasing, (ii) other professional, scientific & technical services, and (iii) other administrative & support services.

**Exhibit 2.13: Changes in Rentals of Private Sector Office and Retail Spaces**



For the private industrial space market, rentals fell by 0.7 per cent on a quarter-on-quarter basis in the second quarter, extending the 0.1 per cent contraction in the previous quarter. The occupancy rates for private sector multiple-user factory space and private sector warehouse space stood at 90 per cent and 88 per cent respectively in the second quarter, comparable to the previous quarter's rates of 90 per cent and 87 per cent respectively (Exhibit 2.14).

**Exhibit 2.14: Occupancy Rate and Rental Growth of Private Sector Industrial Space**





## BOX ARTICLE 2.1

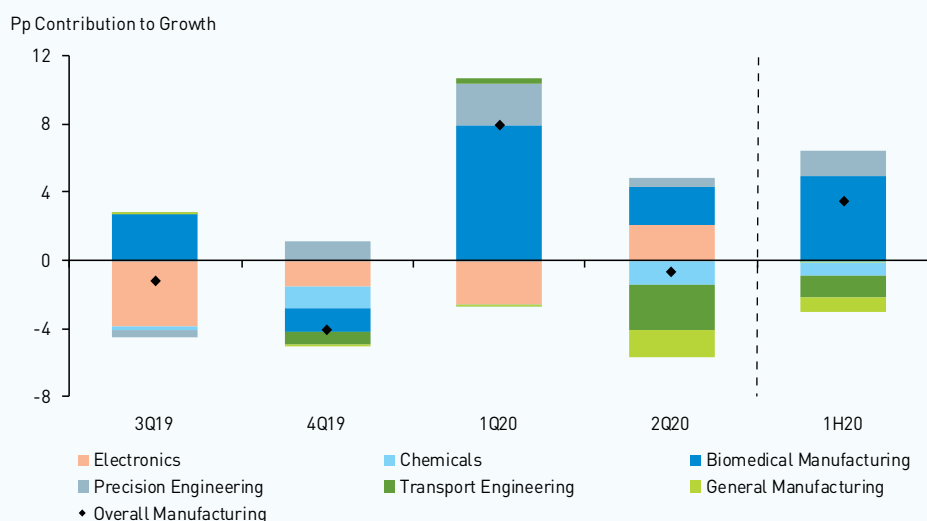
# Performance and Outlook of the Manufacturing Sector in 2020

### Growth of the manufacturing sector in 1H20 was supported by the biomedical manufacturing and precision engineering clusters

Since the COVID-19 outbreak began earlier in the year, the attendant public health measures, such as lockdowns and border closures, to contain the outbreak have led to significant disruptions in economic activity around the world.

Despite these economic disruptions, Singapore's manufacturing sector grew by 3.5 per cent year-on-year (yoy) in 1H20, supported by output expansions in the biomedical manufacturing and precision engineering clusters [Exhibit 1]. Specifically, these two clusters contributed 5.0 percentage-points (pp) and 1.5pp respectively to the overall growth of the manufacturing sector in 1H20. On the other hand, the transport engineering (-1.2pp), general manufacturing (-0.8pp), chemicals (-0.8pp) and electronics (-0.2pp) clusters contributed negatively to the sector's growth. This article explores the factors underlying the varying performance of the different clusters within the manufacturing sector in 1H20, as well as the outlook for the sector for the rest of 2020.

*Exhibit 1: Overall manufacturing growth in 1H20 was driven by the biomedical manufacturing and precision engineering clusters*



Source: MTI-ECD staff's estimates, Economic Development Board



### The largest contributor to the growth of the manufacturing sector in 1H20 was the biomedical manufacturing cluster, which was in turn driven by a surge in the production of pharmaceutical and biological products

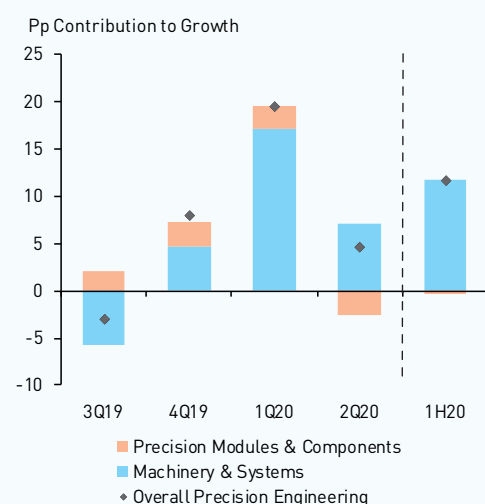
The biomedical manufacturing cluster expanded by 27 per cent yoy in 1H20, extending the 4.1 per cent growth in 2H19. The strong performance of the cluster was due to robust output expansion in the pharmaceuticals segment (36 per cent), as the production of both active pharmaceutical ingredients (APIs) and biological products increased over the period. On the other hand, the performance of the medical technology segment was lacklustre, posting an output decline of 1.4 per cent in 1H20. This was on account of workplace disruptions arising from the Circuit Breaker (CB) measures that were in place for the most part of 2Q20, as well as weak demand for non-COVID-19 related medical devices (e.g., medical implants) as major export markets were mired in their own lockdowns. Nonetheless, an increase in export demand for COVID-19 related medical devices (e.g., respiratory devices) helped to provide some support to the segment during 2Q20.

### Similarly, the precision engineering cluster recorded healthy growth in 1H20, bolstered by external demand for semiconductor manufacturing equipment

The precision engineering cluster grew by 12 per cent yoy in 1H20, accelerating from the 2.4 per cent expansion in 2H19. The machinery & systems segment was the main engine of growth within the cluster [Exhibit 2], expanding by 17 per cent in 1H20 on the back of strong global demand for semiconductor manufacturing equipment. According to Semiconductor Equipment and Materials International (SEMI), the billings of North America-based semiconductor equipment manufacturers – an indicator commonly used to track global demand for semiconductor manufacturing equipment – surged by 18 per cent in 1H20 [Exhibit 3]. The strong global demand for semiconductor equipment was largely due to continued investments by leading foundries in advanced manufacturing technologies in anticipation of 5G demand. This has, in turn, benefitted Singapore-based semiconductor equipment manufacturers in the machinery & systems segment.

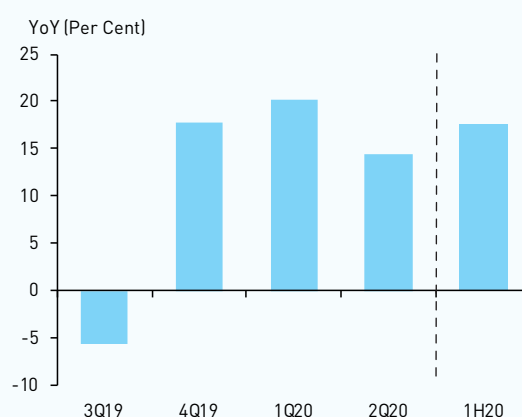
By contrast, the performance of the precision modules & components segment was lacklustre, with output contracting by 0.9 per cent in 1H20. The decline was on account of the CB measures which disrupted the operations of firms locally, as well as the containment measures overseas that led to lower export demand. Furthermore, firms supporting the aerospace and marine & offshore engineering (M&OE) industries were weighed down by weak demand from these industries.

*Exhibit 2: Growth in the precision engineering cluster in 1H20 was supported by the machinery & systems segment*



Source: MTI-ECD staff's estimates, Economic Development Board

*Exhibit 3: Billings of North America-based semiconductor equipment manufacturers rose at a healthy pace in 1H20*



Source: Semiconductor Equipment and Materials International

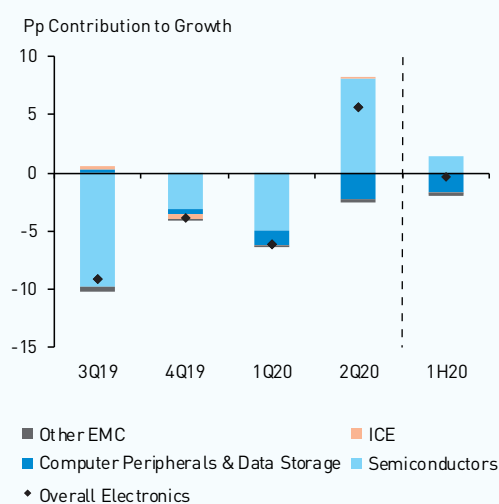
1 For instance, based on its quarterly financial statements, Taiwan Semiconductor Manufacturing Company (TSMC), one of the largest contract chip manufacturers in the world, increased its capital expenditure by 66 per cent yoy in 1H20.

## Meanwhile, output in the electronics cluster was supported by the strong demand for semiconductors in 2Q20

The electronics cluster contracted marginally by 0.4 per cent yoy in 1H20, an improvement from the 6.6 per cent contraction recorded in 2H19. The performance of the cluster was mainly weighed down by the computer peripherals & data storage segment, which shrank by 24 per cent in 1H20 [Exhibit 4]. On the other hand, the semiconductors segment grew by 1.7 per cent in 1H20 on the back of a robust expansion in output in 2Q20 (9.6 per cent).

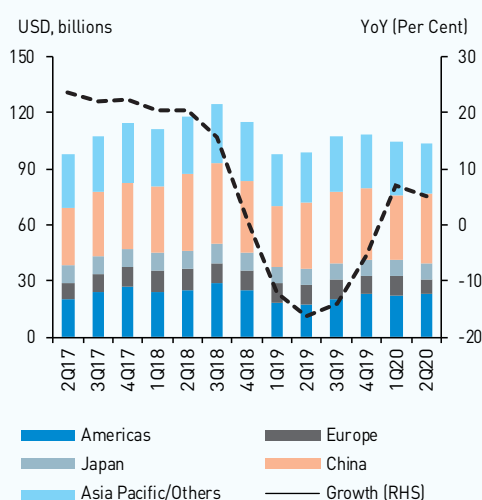
The improved performance of the semiconductors segment in 2Q20 was primarily because of strong demand for semiconductors from the 5G market, data centres and cloud services, driven in turn by the increased adoption of telecommuting and remote learning arrangements, as well as the accelerated digitalisation of businesses globally amidst the pandemic. These factors more than offset the fall in demand for semiconductors for end-applications such as automotive and smartphones. Reflecting the net effect of these demand drivers, global semiconductor sales rose by 5.1 per cent in 2Q20, extending the 6.9 per cent growth in the preceding quarter [Exhibit 5].

*Exhibit 4: Growth in the electronics cluster in 1H20 was largely weighed down by a fall in output in the computer peripherals & data storage segment*



Source: MTI-ECD staff's estimates, Economic Development Board

*Exhibit 5: Global semiconductor sales rebounded in 1H20*



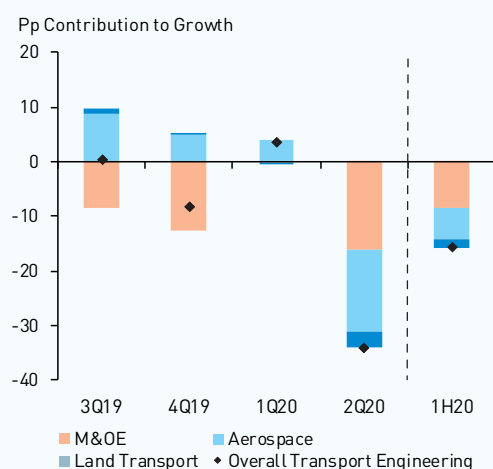
Source: World Semiconductor Trade Statistics

## On the other hand, the transport engineering cluster was negatively affected by manpower disruptions and weak demand

The transport engineering cluster shrank by 16 per cent yoy in 1H20, extending the 4.1 per cent contraction in 2H19. The poor performance of the cluster was primarily due to the marine & offshore engineering (M&OE) and aerospace segments [Exhibit 6].

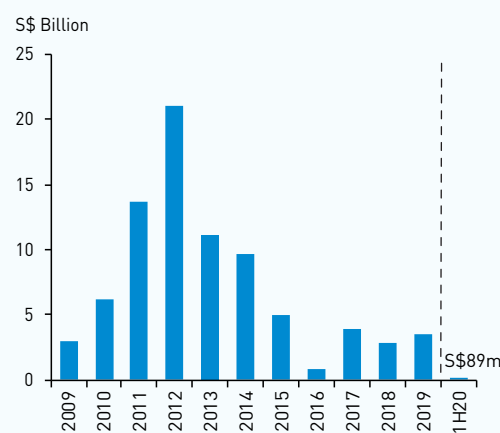
The M&OE segment contracted by 23 per cent in 1H20, the same pace of decline as that seen in 2H19. In particular, output in the segment plunged in 2Q20 (-43 per cent) as movement restrictions on foreign workers living in dormitories curtailed work at the shipyards. In addition, external demand for offshore rigs and oilfield & gasfield equipment weakened as oil prices plunged amidst the COVID-19 pandemic. For instance, new orders secured by the two major local yards in 1H20 amounted to just S\$89 million, 95 per cent lower than the amount of new orders secured over the same period in 2019, and also lower than the S\$1.5 billion secured in 1H09 during the Global Financial Crisis [Exhibit 7].

*Exhibit 6: Growth in the transport engineering cluster in 1H20 was mainly weighed down by output declines in the M&OE and aerospace segments*



Source: MTI-ECD staff's estimates, Economic Development Board

*Exhibit 7: New orders secured by two major local yards plunged in 1H20*



Source: Keppel Offshore & Marine and Sembcorp Marine

At the same time, output in the aerospace segment fell by 11 per cent in 1H20, a sharp reversal from the 16 per cent expansion in 2H19. The decline in output was on account of weak demand for aircraft repair and maintenance work as commercial airlines grounded their aircraft amidst widespread travel restrictions.

### **Similarly, the general manufacturing and chemicals clusters contracted in 1H20, thus weighing on overall manufacturing growth**

The general manufacturing cluster contracted by 11 per cent yoy in 1H20, reversing the 0.4 per cent expansion in 2H19. Notably, firms in the miscellaneous industries segment supplying construction-related materials were adversely affected by work stoppages in the construction sector arising from the COVID-19 outbreak in foreign worker dormitories. At the same time, the food, beverages & tobacco (FBT) segment experienced weak export demand for beverage products.

Likewise, output in the chemicals cluster shrank by 5.5 per cent yoy in 1H20, extending the 5.7 per cent decline in 2H19. In particular, the petrochemicals segment contracted by 6.2 per cent in 1H20, as a result of plant maintenance shutdowns and also a slowdown in regional demand as lockdowns to curb the spread of COVID-19 were imposed in several countries in the region.

### **In the near term, growth is expected to remain uneven across the manufacturing clusters and segments**

For the rest of the year, overall output in the manufacturing sector is expected to remain relatively resilient, although the growth outlook for the different clusters in the sector varies. In particular, the biomedical manufacturing cluster is expected to continue to see positive output growth in 2H20, albeit at a slower pace as compared to 1H20. Similarly, output in the electronics and precision engineering clusters is projected to increase moderately in 2H20, supported by healthy global demand for semiconductors and semiconductor equipment respectively as the demand drivers seen in 2Q20 are expected to be sustained into 2H20.

On the other hand, the outlook for the transport engineering cluster remains bleak. In particular, the M&OE segment is projected to see a slow recovery as the resumption of work at shipyards is likely to be gradual given the safe management measures that need to be put in place for a safe restart, even as the foreign workers living in dormitories are cleared to return to work. For the aerospace segment, a more gradual-than-expected easing of border restrictions and sluggish demand for global air travel are expected to lead to continued soft demand for aircraft maintenance and repair work. Likewise, the chemicals cluster is likely to be adversely affected by subdued global demand for chemical products used in passenger transportation. Meanwhile, output in the general manufacturing cluster is also projected to remain weak, as export demand faced by the FBT segment is likely to stay sluggish due to the gradual pace of recovery in regional economies, and output in the miscellaneous industries segment is expected to continue to be weighed down by the slow resumption of construction activity domestically.

More broadly, the economic fallout from the COVID-19 pandemic has highlighted the importance of diversifying our economic structure. In the case of the manufacturing sector, even though the pandemic has affected the M&OE and aerospace segments disproportionately, segments such as pharmaceuticals, semiconductors and machinery & systems have helped to provide some support to the sector and by extension, the Singapore economy. Nonetheless, downside risks to the growth of the manufacturing sector remain, including the risk of a major resurgence in COVID-19 infections globally which could weaken external demand significantly, and heightened geopolitical tensions. MTI and the relevant economic agencies will continue to monitor the global situation and developments closely, and provide timely support to our companies if necessary.

#### *Contributed by:*

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#### *With input from:*

*Economic Development Board*







## CHAPTER 3

# ECONOMIC OUTLOOK





## CHAPTER 3

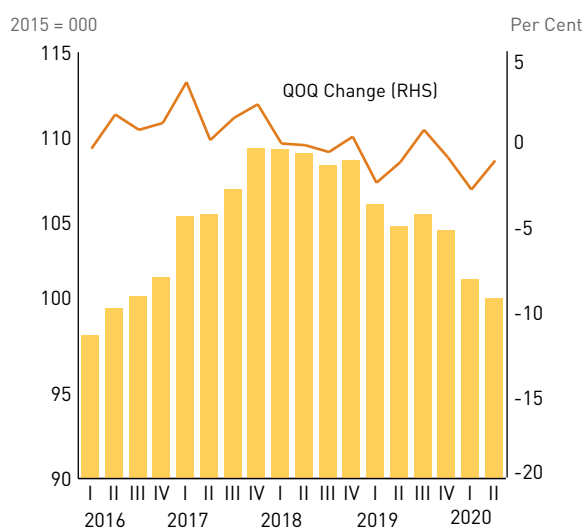
# ECONOMIC OUTLOOK

### LEADING INDICATORS

On a quarter-on-quarter basis, the composite leading index (CLI) fell by 1.1 per cent in the second quarter, extending the 2.8 per cent decline in the previous quarter (Exhibit 3.1).

Of the nine components in the CLI, six components declined on a quarter-on-quarter basis, namely non-oil retained imports, domestic liquidity, US Purchasing Managers' Index, stock price, new companies formed and non-oil sea cargo handled. By contrast, three components rose compared to a quarter ago, namely money supply, wholesale trade and stock of finished goods.

Exhibit 3.1: Composite Leading Index Levels and Growth Rate



### OUTLOOK FOR 2020

In May, MTI downgraded Singapore's GDP growth forecast for 2020 to "-7.0 to -4.0 per cent" due to the expected economic impact of the Circuit Breaker (CB) measures, and the sharp deterioration in the growth outlook of major economies that were grappling with the COVID-19 pandemic. Since then, Singapore's external demand outlook has weakened slightly. Many of Singapore's key final demand markets saw worse-than-projected economic disruptions in the second quarter, and are also expected to experience a more gradual pace of recovery in the second half of 2020 due to the threat of localised outbreaks and the continued need for restriction measures to contain such outbreaks as they occur.

In the US, GDP contracted sharply in the second quarter and the pace of recovery in the second half of 2020 is expected to be slower than previously forecast due to a resurgence of infections across the Southern and Western states, which has prompted a pause in, or rollback of, the reopening plans in some of these states. The rise in infections, and the step-up in public health measures in response, are expected to dampen consumer sentiments and weaken labour market conditions, which will in turn weigh on personal consumption expenditures. Similarly, the Eurozone economy saw a steep contraction in the second quarter, and economic recovery in the second half of 2020 is expected to be slower than previously projected. Domestic demand will likely remain subdued as elevated uncertainty surrounding the COVID-19 situation and the continued need for safe distancing measures are expected to pose a drag on consumer and business sentiments, and also weigh on the labour market.

In Asia, China's economy rebounded in the second quarter, following a decline in the first quarter, primarily supported by fixed asset investments. Investment growth is expected to continue to drive China's economic recovery in the second half of 2020, even though private consumption growth is likely to stay subdued because of continued safe distancing measures amidst fears of renewed COVID-19 outbreaks. Meanwhile, China's exports growth is expected to remain sluggish for the rest of the year due to weak global demand. Growth in the key ASEAN economies of Malaysia, Thailand and Indonesia in the second half of 2020 is likely to be slower than earlier anticipated, mainly due to the weaker-than-expected recovery of external demand.

Furthermore, there remain significant uncertainties in the global economy. First, a major resurgence of COVID-19 infections could lead to a significant tightening of public health measures or a re-imposition of nationwide lockdowns across the major advanced and emerging economies. This could result in an even sharper and more protracted period of economic slowdown in these economies. Second, the global economic downturn could increase financial system stresses, including a rise in corporate indebtedness, financial market dislocations and capital outflows from emerging market economies. These could in turn trigger negative feedback loops and potentially intensify the global recession. Third, there are risks arising from geopolitical tensions and anti-globalisation sentiments, such as increased protectionism, which could result in further disruptions to global supply chains. The latter could in turn weigh on global trade and the global economic recovery.

Against this backdrop, the outlook for the Singapore economy has weakened slightly since May. First, the subdued external economic environment will continue to pose a drag on several of Singapore's outward-oriented sectors such as transportation & storage and wholesale trade. Second, due to the protracted COVID-19 situation worldwide, the reopening of international borders is expected to take place more gradually than earlier anticipated. This is likely to weigh on the outlook of sectors that are reliant on tourism (e.g., accommodation, tour operators and MICE organisers) and air travel (e.g., air transport and aerospace). Third, the resumption of activity for sectors that are reliant on foreign workers who reside in dormitories has been slower than expected due to the longer time taken to clear these workers

for work, as well as the challenges faced by firms in meeting the safe management measures required at workplaces for a safe restart. In particular, the downturn in the construction and marine & offshore engineering sectors is projected to be deeper and more protracted than previously anticipated. A sharper slowdown in these sectors is also expected to have negative spillover effects on firms in supporting industries, such as professional services firms providing architectural & engineering services for construction projects.

Nonetheless, there are several areas of strength in the Singapore economy. In particular, the outlook for the electronics and precision engineering clusters has improved, as the stronger-than-expected demand for semiconductors and semiconductor equipment seen in the second quarter is expected to be sustained in the second half of 2020. The biomedical manufacturing cluster is also expected to continue to grow, supported by the production of pharmaceutical and biological products. Likewise, the finance & insurance and information & communications sectors are projected to expand this year. The former will be supported in part by the strong demand for digital payment processing services, while the latter will benefit from firms' continued demand for IT and digital solutions.

Taking into account the global and domestic economic environment, as well as the performance of the Singapore economy in the first half of the year, the GDP growth forecast for Singapore for 2020 is narrowed to **"-7.0 to -5.0 per cent"**, from **"-7.0 to -4.0 per cent"**. Notwithstanding the narrowing of the forecast range, there continues to be significant uncertainty over how the COVID-19 situation will evolve in the coming quarters, and correspondingly, the trajectory of the economic recovery in both the global and domestic economies.





# FEATURE ARTICLE







## FEATURE ARTICLE

# IMPACT OF THE CIRCUIT BREAKER AND BUDGET MEASURES IN RESPONSE TO COVID-19

## INTRODUCTION

In April, the Multi-Ministry Taskforce announced that Circuit Breaker (CB) measures would be implemented to pre-empt the trend of increasing local transmissions of COVID-19. The measures included full home-based learning for schools and the closure of most physical workplace premises. Exceptions were provided for businesses providing essential services and in selected economic sectors which are critical for local and global supply chains. The CB measures from 7 April to 1 June is estimated to have reduced 2020 GDP by 2.2%.



The Circuit Breaker measures from 7 April to 1 June is estimated to have reduced 2020 GDP by 2.2%

## BUDGET MEASURES IN RESPONSE TO COVID-19

The Government has introduced four Budgets this year to fight COVID-19, with a total commitment of \$93 billion in economic and social support and public health management measures. The Budget measures are expected to cushion the fall in employment and economic output arising from COVID-19. Specifically, the four Budgets are estimated to avert a loss in real GDP of about 5.5 per cent in 2020.

## CONCLUSION

The Unity, Solidary, Resilience and Fortitude Budgets will provide significant support to help firms and workers emerge stronger from the crisis. The four Budgets have supported economic livelihoods and prevented an even more significant disruption to income and cash flows. They also contribute to the longer-term objective of helping viable firms stay afloat and facilitating a quicker recovery. Apart from these economic benefits, there will also be positive externalities from the public health management measures that have been put in place to safeguard Singapore from COVID-19.





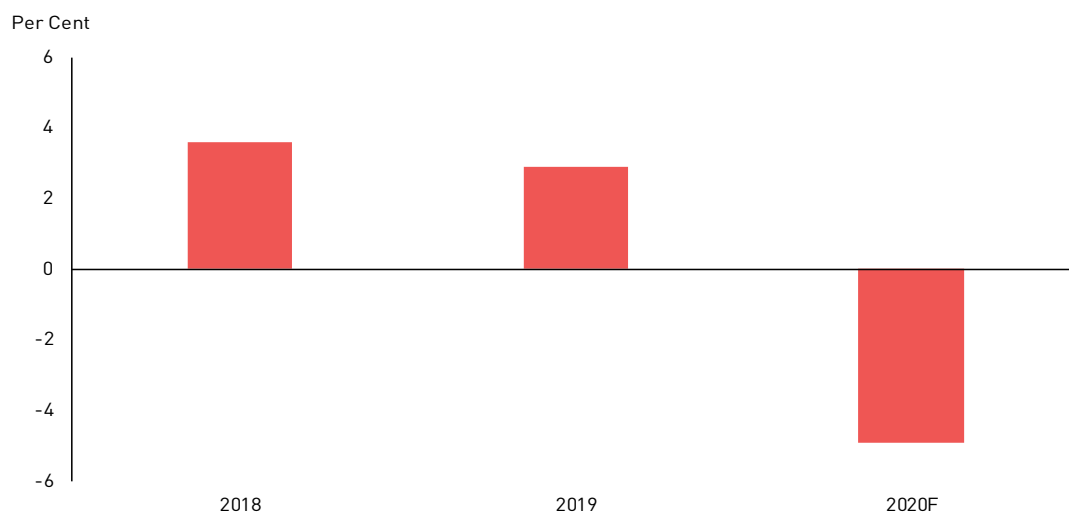
## EXECUTIVE SUMMARY

- ▶ The COVID-19 pandemic and consequential measures taken to contain the pandemic, including lockdowns and travel restrictions, have adversely affected economic activity globally.
- ▶ In Singapore, the Circuit Breaker measures, which were necessary to stem the community spread of COVID-19 and save lives, had a negative impact on the economy. In particular, the closure of most physical workplace premises from 7 April to 1 June, which had affected businesses that could not operate remotely from home, is estimated to have reduced Singapore's annual real GDP by 2.2 per cent.
- ▶ The Government has introduced four Budgets this year to fight COVID-19, with a total commitment of \$93 billion in economic and social support and public health management measures. The Budget measures are expected to cushion the fall in employment and economic output arising from COVID-19. Specifically, the four Budgets are estimated to avert a loss in real GDP of about 5.5 per cent in 2020, and reduce the rise in resident unemployment rate by 1.7 percentage-points.
- ▶ Overall, the four Budgets have supported economic livelihoods and prevented an even more significant disruption to income and cash flows. They also contribute to the longer-term objective of helping viable firms stay afloat and facilitating a quicker recovery. In addition to the economic benefits, there will also be positive externalities from the public health management measures that have been put in place to safeguard Singapore from COVID-19.

## 1. INTRODUCTION<sup>1</sup>

The International Monetary Fund (IMF) has called the COVID-19-induced economic crisis “an economic crisis like no other”, with the pandemic expected to exact a heavy toll on the global economy. In order to control the transmission of COVID-19, many countries have introduced strict lockdowns and restrictions to limit the movement of people, and this has led to significant disruptions in global economic activity. In its June review, the IMF projected that the global economy would contract by 4.9 per cent in 2020<sup>2</sup>, a further downgrade from its earlier forecast of a 3.0 per cent contraction [Exhibit 1]. This would represent the worst global economic recession since the Great Depression.

Exhibit 1: Global GDP Growth



Source: International Monetary Fund

<sup>1</sup> We would like to thank Yong Yik Wei, Yip Chun Seng, Peter Lim, Andy Feng, Jamie Poh and Wang Shida for their useful suggestions and comments. We would also like to thank the Monetary Authority of Singapore for providing their invaluable input to this article.

<sup>2</sup> This is the forecast announced in the IMF's June World Economic Outlook (WEO).

Given the global economic fallout and also domestic efforts to control the outbreak, the Singapore economy has been buffeted by both demand- and supply-side shocks. In an article in the first quarter Economic Survey of Singapore published in May 2020, MTI explained how the COVID-19 pandemic could be expected to affect the different sectors of the Singapore economy. To recapitulate, there are broadly five categories of sectors that could see varying impact as a result of the outbreak. First, sectors that rely on international travel, including the air transport, accommodation and other tourism-related sectors, have been severely affected by global travel restrictions and border controls put in place to contain the cross-border spread of the virus. Second, consumer-facing sectors such as retail and food services have been badly affected by the cutback in domestic consumption due to the outbreak and safe distancing measures. Third, outward-oriented sectors like manufacturing and wholesale trade have been affected by the fall in external demand and supply chain disruptions. Fourth, domestically-oriented sectors such as real estate have been affected by negative spillovers arising from the downturn in the domestic economy. Fifth, the construction sector and the marine & offshore engineering segment of the manufacturing sector have experienced severe manpower disruptions due to the COVID-19 outbreak in the foreign worker dormitories, and subsequent isolation and testing of affected foreign workers. Physical workplace closures arising from the Circuit Breaker (CB) measures were also expected to have an impact on most sectors of the economy.

In this article, we specifically examine the economic impact of the CB measures, which entailed the closure of most physical workplace premises (thereby affecting businesses which could not operate remotely from home) in order to control the local transmission of COVID-19. While the CB measures were necessary to protect and save lives, they further dampened domestic economic activity and led to a steeper decline in domestic consumption. To mitigate the economic impact of the CB measures, the Government announced the Solidarity and Fortitude Budgets in April and May respectively, to provide direct assistance to affected business and workers. These were in addition to the measures already announced in the Unity and Resilience Budgets in February and March to cushion the economic impact of the pandemic.

The next section describes the impact of the CB measures on the Singapore economy, while sections 3 and 4 describe the mitigating effects of the Budget measures.

## 2. IMPACT OF THE CIRCUIT BREAKER MEASURES

On 3 April, the Multi-Ministry Taskforce announced that CB measures would be implemented to pre-empt the trend of increasing local transmissions of COVID-19. The objective of the measures was to significantly reduce movements and interactions in public and private places. The CB measures included full home-based learning for schools and the closure of most physical workplace premises. Exceptions were provided for businesses providing essential services and in selected economic sectors which are critical for local and global supply chains. Work and business activities that could be carried out remotely from home were allowed to continue. The CB measures took effect on 7 April, and were subsequently tightened on 21 April with the closure of more physical workplaces to further reduce the share of workers who had to commute daily to work, from around 20 per cent to around 15 per cent. In view of the serious public health situation, the Multi-Ministry Taskforce also announced on 21 April that the Government would extend the period of CB measures until 1 June. The tightened CB measures were progressively eased from 5 May onwards, to prepare for the safe and gradual resumption of economic and community activities after the end of the CB measures on 1 June.

Using data gathered from MTI's GoBusiness portal and administrative data on businesses, we obtain an estimate of the annual value-added (VA) of businesses that were not allowed to operate onsite during (i) the first 2 weeks of the CB period from 7 April to 21 April, (ii) the subsequent 2 weeks of tightened CB measures from 22 April to 4 May when more physical workplaces were required to close, and (iii) the last 4 weeks of CB measures from 5 May to 1 June when the tightened measures were gradually eased to prepare for the safe reopening of the economy after the end of the CB. In our estimation of the impact of the workplace closures, we assume that even though these firms were not allowed to operate onsite, their workers who were able to telecommute would continue to be productive.<sup>3</sup> The economic impact of the CB measures is then approximated by the estimated VA lost by these businesses due to their inability to operate at their physical workplace premises for each of the periods described above.<sup>4</sup> It should be noted that these estimates do not include the impact of sector-specific restrictions that remained in place after 1 June, such

<sup>3</sup> For modelling purposes, assumptions were made on the share of workers that could telecommute in each sector.

<sup>4</sup> The estimated VA lost assumes that the businesses would have generated VA if not for the workplace closures during CB. However, the VA levels that these businesses would have generated is unlikely to be the same as what they would have generated in a situation without COVID-19. As such, in estimating the VA lost, we first took into account the economic impact of COVID-19 on the VA of the different sectors before layering on the impact of the CB workplace closures.

as the later resumption of retail activity at physical outlets and dining-in services on 19 June<sup>5</sup>, as well as the delay in the restart of construction and marine & offshore engineering activities due to the COVID-19 outbreak in the foreign worker dormitories.

Our estimates show that the CB measures had a significant impact on the Singapore economy. In total, the closure of physical workplaces from 7 April to 1 June is estimated to have reduced Singapore's annual real GDP by 2.2 per cent. In nominal terms, the total economic cost of the CB measures to the Singapore economy is estimated at around \$11 billion [Exhibit 2]. As a share of the quarterly real GDP in the second quarter of last year, the impact works out to be around 8.9 per cent.

Exhibit 2: Estimated Impact of CB Measures

Impact on economy	Period of measures			Total
	7 Apr to 21 Apr	22 Apr to 4 May	5 May to 1 Jun	
Economic cost in terms of nominal GDP (\$m)	-2,851	-2,906	-5,505	-11,262
As a percentage of annual real GDP (%)	-0.56	-0.57	-1.08	-2.22

Source: Authors' Estimates

The impact of the CB measures was felt across all sectors. Some sectors were more adversely affected as more of their businesses were either non-essential or could not be conducted remotely. These sectors included the construction, business services, accommodation & food services, and transportation & storage sectors. Meanwhile, sectors such as finance & insurance and information & communications were less affected as many of their activities could be carried out remotely. The impact on the manufacturing sector varied across firms, as exemptions were provided for key manufacturing firms and their suppliers that are critical to local and global supply chains. These included key firms and activities in the electronics, biomedical manufacturing, transport engineering and chemicals clusters within the manufacturing sector.

In response to the severe disruptions caused by the COVID-19 pandemic and the CB measures implemented to contain local transmission of the virus, the Government introduced the Unity, Resilience, Solidarity and Fortitude Budgets in 2020, with the Solidarity and Fortitude Budgets providing direct assistance to businesses and workers affected by the CB measures. The next section discusses how the fiscal measures will help to cushion the impact of the COVID-19 pandemic and enable our businesses and workers to emerge stronger from this crisis.

### 3. OVERVIEW OF BUDGET MEASURES

The Government introduced four Budgets from February to May this year. With the Unity, Resilience, Solidarity and Fortitude Budgets, a total of \$93 billion, or 19.2 per cent of Singapore's nominal GDP, has been set aside to fight COVID-19. The focus of the Budgets has evolved in response to changing needs as the COVID-19 pandemic developed. In February 2020, when we first announced the **Unity** Budget, COVID-19 was relatively contained within China, and there had not yet been widespread transmission elsewhere. In the Unity Budget, we had thus focused our efforts on emergency preparedness, with resources directed to public health management and ensuring our supplies were secure. By April 2020, COVID-19 had been declared a global pandemic by the World Health Organisation (WHO) and we entered the CB period on 7 April 2020. In view of the acute economic impact on companies, workers and households, the **Resilience** and **Solidarity** Budgets focused on helping companies and saving jobs, as well as providing social support to households, to cushion the impact. Towards the end of CB, we shifted focus to preparing for a safe re-opening from June, where we would transit to a new normal while keeping the community spread of the virus contained. We announced the **Fortitude** Budget on 26 May 2020, where we continued to provide critical support to workers and firms, but with an eye on emerging stronger and finding new jobs in growth areas for affected workers.

<sup>5</sup> The additional impact of the slower resumption of retail and dining-in services is small (around 0.03 percentage-point reduction in annual real GDP). The retail trade and food services segments contributed to only 1.6 per cent and 1.2 per cent of Singapore's nominal GDP respectively in 2019.

The COVID-19 pandemic is a crisis unlike any we have seen. Safe management measures in Singapore and around the world, aimed at reducing the transmission of the virus and saving lives, have inevitably resulted in a sharp slowdown in economic activity. This means that the usual economic playbook – using fiscal stimulus to encourage economic activity – has to be adjusted.

In summary, the measures unveiled in the four Budgets aim to do the following:

- a. First, our economic response has to **work hand-in-hand with public health measures**. A safe re-opening would ensure sustained business activities (as opposed to recurring waves and lockdowns), build confidence and mitigate precautionary savings. Businesses which are unable to open are supported and helped to transform. Public health measures, where there are positive externalities (e.g., testing of higher-risk persons, provision of masks), are also subsidised.
- b. Second, we have to ensure that this “crisis of a generation” does not become a “crisis for a generation”. Long-term structural damage to our society and economy has to be avoided. This means that we have to ensure that we **preserve our key corporate and strategic capabilities**, and that our workers, even if temporarily displaced, can find opportunities for **continued human capital development**. We also have to ensure that we do not laden our future generations with unsustainable debt.
- c. Third, as COVID-19 has accelerated our structural transformation (e.g., in areas such as digitalisation, innovation and skills training), our measures aim to help businesses and workers use this period to **accelerate structural changes**.
- d. Lastly, as COVID-19 has had an uneven impact on sectors and workers, we have to **address the distributional aspect** of the crisis with differentiated tools. The hardest-hit sectors like the aviation and tourism sectors have been provided with higher levels of support. More support is also given to mid-career workers and lower-income workers as they are harder-hit during the crisis. Social support is also directed at households more in need.

The details of the Budget measures can be found in the various Budget statements. Key measures across the four Budgets are described below:

- a. For **firms**, measures include enterprise financing schemes to help them maintain access to credit amidst heightened uncertainty in the credit market. Rental relief is also given, with more given to sectors more affected. In addition, incentives to kick-start technology adoption and transform businesses have been provided. This includes up to 90% subsidies for productivity solutions under the Enterprise Development Grant and Productivity Solutions Grant, as well as up to \$10,000 cash grant under the Digital Resilience Bonus for taking up IT solutions.
- b. For **workers**, measures include the Jobs Support Scheme (JSS), which provides up to 75% support on the first \$4,600 of monthly wages for 10 months, to help retain jobs. The SGUnited Jobs and Skills package will also provide 100,000 job, traineeship and skills upgrading opportunities. As part of the skills upgrading programmes, a training allowance during the course of the training and job placement support are provided. For Self-Employed Persons (SEPs), they will benefit from the SEP Income Relief Scheme (SIRS), which provides \$1,000 cash payout per month for 9 months, and the SEP Training Support Scheme.
- c. For **households**, the direct cash transfers (e.g., \$600 Solidarity Payment and Care and Support Package – Cash, Workfare Special Payment) and social assistance schemes (e.g., Temporary Relief Fund and COVID-19 Support Grant) provide immediate relief, especially to those who have seen a loss in income or jobs. A greater proportion of cash transfers is provided to lower-income households.<sup>6</sup>

<sup>6</sup> Doing so will also generate higher multiplier effects as lower-income households have higher marginal propensities to consume.

## 4. ESTIMATED IMPACT OF BUDGET MEASURES

While it is still too early to assess the long-term impact of the Budget measures, we attempt to estimate the impact of the Budgets on the Singapore economy based on the size of the fiscal injections and the fiscal multipliers, which are in turn affected by the composition of the measures.<sup>7</sup>

Our preliminary analysis would not be able to account for many factors. First, it would not be able to take into account the longer-term impact of the pandemic. In particular, a crisis of this scale would likely cause some level of hysteresis and economic scarring for many economies. The US and EU took 6 years to about a decade respectively for their labour markets to recover to what they were like prior to the Global Financial Crisis. Effective short-term management, however, could avoid long-term impairment. Second, the impact of the four Budgets may not be felt immediately, as there may be transmission lags, especially against an uncertain economic backdrop. For instance, notwithstanding the transfers to households, the impact on consumption may not be immediate as there were significant restrictions on dining-out and making of purchases in-store during the CB. The impact on consumption should see some pick-up in the post-CB period. Third, the fiscal multiplier could also be dampened by the current uncertain economic environment, with precautionary savings holding back consumption and investments.

In consultation with the Monetary Authority of Singapore (MAS), we estimate that the four Budgets for 2020 would help to reduce the rise in resident unemployment rate by 1.7 percentage-points this year, with effects persisting into next year [Exhibit 3]. A large part of this is expected to be driven by the jobs-related measures, such as the JSS, which alone is estimated to contribute an expected 0.9 percentage-point reduction in the resident unemployment rate this year. We also estimate that the four Budgets could avert a loss in real GDP of about 5.5 per cent in 2020. This implies that, without the Budget measures, the economy could have contracted by a larger magnitude.

Exhibit 3: Combined Macroeconomic and Labour Market Impact of the Four Budgets<sup>8</sup>

Impact on economy	2020	2021
Real GDP level (percentage deviation)	+5.5	+4.1
Resident unemployment rate (percentage-point deviation)	-1.7	-2.9

Source: MAS Estimates<sup>9</sup>

Overall, the four Budgets have supported economic livelihoods and prevented an even more significant disruption to income and cash flows. They also contribute to the longer-term objective of helping viable firms stay afloat and facilitating a quicker recovery. Apart from these economic benefits, there will also be positive externalities from the public health management measures that have been put in place to safeguard Singapore from COVID-19.

## 5. CONCLUSION

The COVID-19 pandemic and consequential measures to contain the pandemic, including lockdowns and travel restrictions, have adversely affected economic activity globally. In Singapore, the CB measures, which were necessary to reduce the community spread of COVID-19 and save lives, had a negative impact on the economy. In particular, the closure of most physical workplace premises from 7 April to 1 June, which had affected businesses that could not operate remotely from home, is estimated to have reduced Singapore's annual real GDP by 2.2 per cent.

The Government's strong response to the economic fallout of the outbreak, in the form of four Budgets announced between February and May, is expected to cushion the fall in employment and economic output arising from COVID-19. Taken together, the four Budgets are estimated to reduce the rise in the resident unemployment rate by 1.7 percentage-points, and avert a real GDP loss of about 5.5 per cent, in 2020.

<sup>7</sup> The fiscal multiplier measures the impact of discretionary fiscal policy on output. In other words, it is defined to be the effect of a \$1 change in spending or tax revenue on the level of real GDP.

<sup>8</sup> The impact reported here refers to the deviation from a counterfactual scenario in the absence of Budget measures.

<sup>9</sup> Simulations are performed using MAS' Monetary Model of Singapore, which is a macro computable general equilibrium model that is used to analyse policy effects dynamically at both the economy and sector levels.

Overall, the four Budgets have supported economic livelihoods and prevented an even more significant disruption to income and cash flows. They also contribute to the longer-term objective of helping viable firms stay afloat and facilitating a quicker recovery. Apart from these economic benefits, there will also be positive externalities from the public health management measures that have been put in place to safeguard Singapore from COVID-19.

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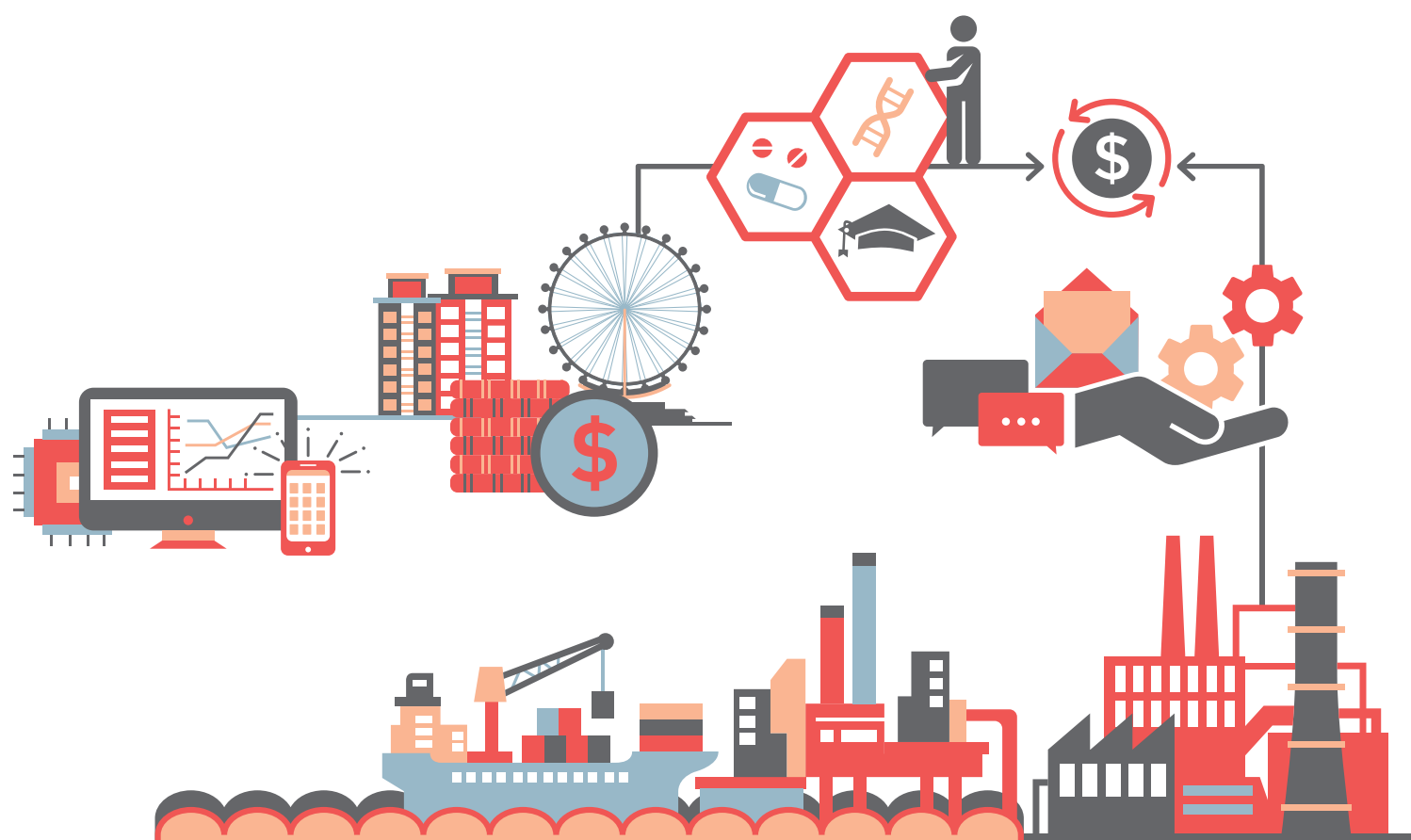
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