# ECONOMIC SURVEY OF SINGAPORE

## First Quarter 2021

MTI MINISTRY OF TRADE AND INDUSTRY SINGAPORE

May 2021

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

website: **www.mti.gov.sg**
email: **mti_email@mti.gov.sg**



# CONTENTS

# MAIN INDICATORS OF THE SINGAPORE ECONOMY

## OVERALL ECONOMY

| | 4Q20 | 1Q21 |
|---|---|---|
| **Real GDP** (Year-on-Year-Growth) | -2.4% | +1.3% |
| **GDP** at Current Market Price | $122.7 billion | $125.5 billion |

## PRICES

| | 4Q20 | 1Q21 |
|---|---|---|
| Consumer Price Index — All Items (Year-on-Year Growth) | -0.1% | +0.8% |
| Domestic Supply Price Index (Year-on-Year Growth) | -8.6% | +1.3% |

## LABOUR MARKET

| | 4Q20 | 1Q21 |
|---|---|---|
| Change in Employment (Quarter-on-Quarter) | -7.8 thousand | +6.7 thousand |
| Overall Unemployment Rate | 3.3% | 2.9% |
| Value-Added per Actual Hour Worked (Year-on-Year Growth) | +3.8% | +7.3% |

## COSTS

| | 4Q20 | 1Q21 |
|---|---|---|
| Unit Labour Cost of Overall Economy (Year-on-Year Growth) | -10.7% | -6.6% |
| Unit Business Cost of Manufacturing (Year-on-Year Growth) | -16.7% | -10.1% |
| Unit Labour Cost of Manufacturing (Year-on-Year Growth) | -22.3% | -18.5% |

## MERCHANDISE TRADE

| | 4Q20 | 1Q21 |
|---|---|---|
| Merchandise Exports | $133,627 million | $143,042 million |
| Year-on-Year Growth | -2.9% | +6.9% |
| Merchandise Imports | $116,806 million | $124,360 million |
| Year-on-Year Growth | -7.6% | +2.7% |

## SERVICES TRADE

| | 4Q20 | 1Q21 |
|---|---|---|
| Services Exports | $66,083 million | $63,983 million |
| Year-on-Year Growth | -13.8% | -7.8% |
| Services Imports | $59,201 million | $59,039 million |
| Year-on-Year Growth | -18.9% | -12.4% |

CHAPTER

01

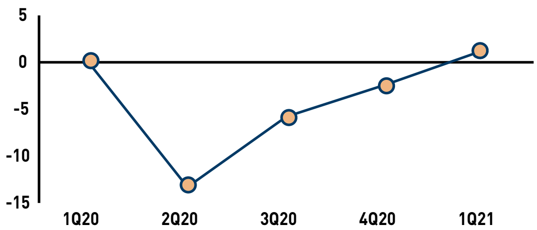
# THE SINGAPORE ECONOMY

# CHAPTER 1
# THE SINGAPORE ECONOMY

## ECONOMIC PERFORMANCE

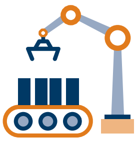
**Real GDP grew by**
**1.3%** in 1Q21

### Quarterly Growth (Year-on-Year)




### Main Drivers of Growth in 1Q21

Manufacturing



**2.2%-point**
contribution

Finance & Insurance

**0.7%-point**
contribution

## LABOUR MARKET

Resident
Unemployment Rate

**4.0%**
in 1Q21

Employment
(Q-O-Q Change)

**+6,700**
employed

### Sectors with the Highest Employment Growth in 1Q21

**+7,300**
employed

Other Services
Industries

**+2,300**
employed

Information &
Communications

**+1,900**
employed

Food & Beverage
Services

## PRODUCTIVITY

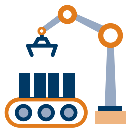
**Value-Added per Actual Hour Worked increased by 7.3% in 1Q21**

### Sectors with the Highest Growth in Value-Added per Actual Hour Worked in 1Q21

**59.6%**

Accommodation

**19.7%**



Manufacturing

## COSTS

**Overall Unit Labour Cost declined by**
**6.6%** in 1Q21

**Within the manufacturing sector**

-10.1%
Unit Business Cost

-18.5%
Unit Labour Cost

## INTERNATIONAL TRADE

**Total Merchandise Exports increased by 6.9% in 1Q21**

EXPORTS

13.6%
Re-exports

9.7%
Non-Oil Domestic Exports

-19.3%
Oil Domestic Exports

**Total Services Exports declined by 7.8% in 1Q21**

**Services Export Decline was led by...**

-4.5%-pt
Travel

-2.6%-pt
Transport Services

-1.4%-pt
Maintenance and Repair Services

## PRICES

**The Consumer Price Index (CPI) rose by**
**0.8%** in 1Q21

**Categories with Price Increases**

3.1%
Transport

1.5%
Food

1.1%
Household Durables & Services

# OVERVIEW

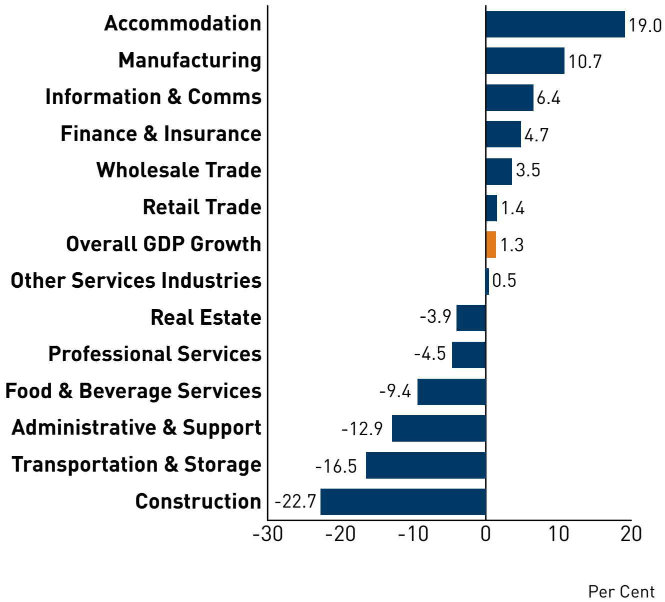
In the first quarter of 2021,

- The Singapore economy grew by 1.3 per cent on a year-on-year basis. The sectors that contributed the most to GDP growth were manufacturing, finance & insurance and wholesale trade.
- The seasonally-adjusted overall, resident and citizen unemployment rates declined in March 2021 as compared to December 2020, marking the second consecutive quarter of decline. The number of retrenchments also fell for the second consecutive quarter.
- Total employment increased by 6,700 on a quarter-on-quarter basis, a turnaround following four consecutive quarters of decline. Excluding Migrant Domestic Workers (MDWs), total employment expanded by 4,800 on the back of continued growth in resident employment, which more than offset a decline in non-resident employment.
- The Consumer Price Index-All Items (CPI-All Items) rose by 0.8 per cent on a year-on-year basis, in contrast to the 0.1 per cent decline in the previous quarter.

# OVERALL PERFORMANCE

The Singapore economy expanded by 1.3 per cent on a year-on-year basis in the first quarter of 2021, a reversal from the 2.4 per cent contraction in the preceding quarter (Exhibit 1.1). On a quarter-on-quarter seasonally-adjusted basis, the economy grew by 3.1 per cent, extending the 3.8 per cent growth in the previous quarter.

**Exhibit 1.1: GDP and Sectoral Growth Rates in 1Q 2021**




By sectors, the manufacturing sector expanded by 11 per cent year-on-year in the first quarter, similar to the 10 per cent growth in the previous quarter. Growth was due to output expansions in the electronics, precision engineering and chemicals clusters, which more than offset output declines in the transport engineering, general manufacturing and biomedical manufacturing clusters.

The services producing industries contracted by 0.5 per cent year-on-year in the first quarter, an improvement from the 4.7 per cent decline recorded in the previous quarter. Growth in the accommodation, information & communications, finance & insurance, wholesale trade, retail trade and other services sectors partially offset the contractions seen in the remaining services sectors. Among the services sectors that shrank, the transportation & storage (-17 per cent) and administrative & support services (-13 per cent) sectors recorded the largest contractions.

The construction sector contracted by 23 per cent year-on-year in the first quarter, extending the 27 per cent contraction in the previous quarter. The performance of the sector during the quarter was weighed down by declines in both public and private sector construction works.

The top three contributors to GDP growth in the first quarter were the manufacturing, finance & insurance and wholesale trade sectors (Exhibit 1.2).

**Exhibit 1.2: Percentage-Point Contribution to Growth in Real GDP in 1Q 2021 (By Industry)**


**Exhibit 1.3: Changes in Total Demand***

| | 2020 | | | | 2021 |
|---|---|---|---|---|---|
| | I | II | III | IV | I |
| **Total Demand** | 2.6 | -15.3 | -7.1 | -4.5 | **-2.2** |
| **External Demand** | 4.0 | -12.4 | -5.0 | -3.5 | **-1.3** |
| **Total Domestic Demand** | -0.8 | -22.5 | -12.5 | -7.0 | **-4.6** |
| **Consumption Expenditure** | -0.3 | -19.5 | -6.7 | -6.7 | **-3.9** |
| **Public** | 7.2 | 19.8 | 15.8 | 9.6 | **6.7** |
| **Private** | -2.9 | -29.4 | -13.0 | -11.3 | **-7.9** |
| **Gross Fixed Capital Formation** | 1.5 | -27.9 | -23.0 | -4.7 | **-5.7** |
| **Changes in Inventories** | -0.8 | -0.4 | -0.3 | -0.8 | **-0.1** |

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

## SOURCES OF GROWTH

Total demand declined by 2.2 per cent year-on-year in the first quarter, moderating from the 4.5 per cent drop in the previous quarter (Exhibit 1.3). Total demand was weighed down by both external and domestic demand.

External demand fell by 1.3 per cent year-on-year, although this was better than the 3.5 per cent decline in the previous quarter. Similarly, domestic demand decreased by 4.6 per cent year-on-year, improving from the 7.0 per cent contraction in the previous quarter. Both private consumption expenditure and gross fixed capital formation (GFCF) remained weak, thereby weighing on domestic demand during the quarter.

Within domestic demand, consumption expenditure fell by 3.9 per cent year-on-year, easing from the 6.7 per cent decline in the preceding quarter. The drop in consumption expenditure came on the back of a fall in private consumption expenditure (-7.9 per cent), even as public consumption expenditure rose (6.7 per cent).

Meanwhile, GFCF shrank by 5.7 per cent year-on-year, extending the 4.7 per cent decline in the previous quarter. The fall in GFCF was due to declines in both public and private sector GFCF. Public sector GFCF contracted by 21 per cent as a result of lower spending on public construction & works. At the same time, private sector GFCF declined by 1.5 per cent, weighed down by lower investments in transport equipment and construction & works.

## LABOUR MARKET

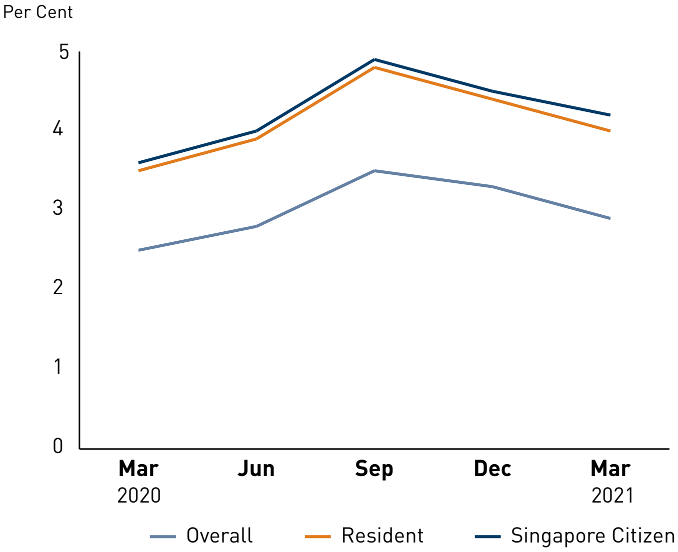
### Unemployment and Retrenchment[1]

Compared to December 2020, the seasonally-adjusted unemployment rates in March 2021 fell at the overall level (from 3.3 per cent to 2.9 per cent), as well as for residents (from 4.4 per cent to 4.0 per cent) and citizens (from 4.5 per cent to 4.2 per cent) (Exhibit 1.4). Although unemployment rates dipped for the second consecutive quarter, they remained elevated compared to pre-pandemic levels.[2]

In March 2021, an estimated 95,500 residents, including 85,400 Singapore citizens, were unemployed. These were lower than the number of unemployed residents (104,300) and citizens (90,000) in December 2020.[3]

1 *Retrenchment figures pertain to private sector establishments with at least 25 employees and the public sector.*
2 *The annual average overall, resident and citizen unemployment rates in 2019 were 2.3 per cent, 3.1 per cent and 3.3 per cent respectively.*
3 *Based on seasonally-adjusted data on the number of unemployed persons.*

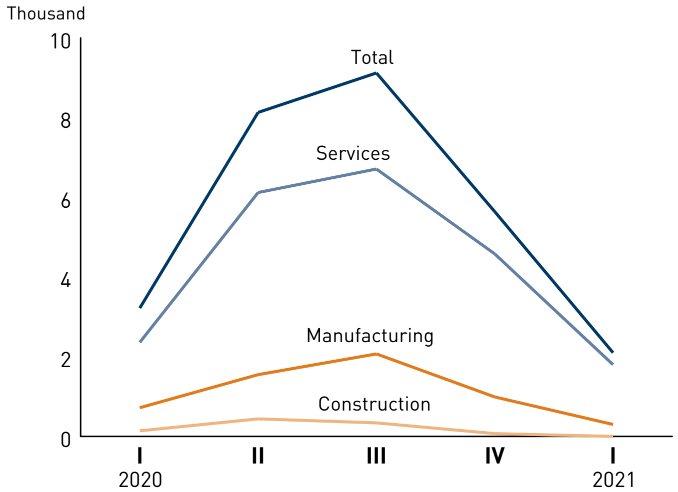
**Exhibit 1.4: Unemployment Rate (Seasonally-Adjusted)**




Total retrenchments fell sharply to 2,100 in the first quarter, from 5,640 in the preceding quarter (Exhibit 1.5). This was the second consecutive quarter of decline since the number of retrenchments peaked in the third quarter of 2020 (9,120).

Over the quarter, retrenchment declined in the services (from 4,580 to 1,800), manufacturing (from 990 to 300) and construction (from 70 to 0) sectors.

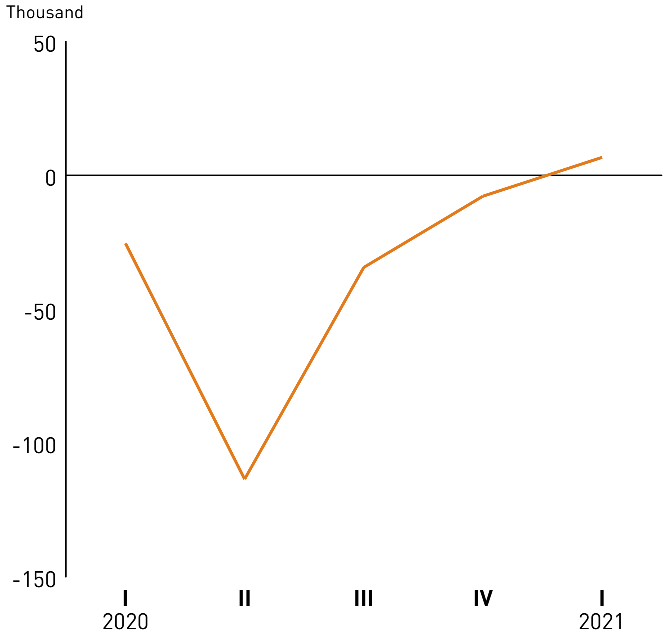
**Exhibit 1.5: Retrenchments**




## Employment[4]

Total employment increased by 6,700 on a quarter-on-quarter basis in the first quarter (Exhibit 1.6), a turnaround following four consecutive quarters of decline. Excluding MDWs, total employment rose by 4,800. The increase in total employment was driven by continued growth in resident employment, which more than offset a decline in non-resident employment.

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




In the overall services sector, employment rose by 10,800 (or 9,000 excluding MDWs). Employment growth in the services sector was supported by employment gains in the other services industries (+7,300), information & communications (+2,300) and food & beverage services (+1,900) sectors (Exhibit 1.7). Employment in the construction sector grew by 200, as the decline in non-resident employment moderated significantly. By contrast, manufacturing employment fell by 4,400, albeit lower than the decline registered in the preceding quarter (-10,800).

4 *Based on preliminary estimates.*

**Exhibit 1.7: Changes in Employment by Industry in 1Q 2021**


## Hiring Expectations

According to EDB's latest Business Expectations Survey for the Manufacturing Sector, hiring expectations in the sector were positive, with a net weighted balance of 9 per cent of manufacturers expecting to increase hiring in the second quarter of 2021 as compared to the first quarter. Firms in the pharmaceuticals segment of the biomedical manufacturing cluster were the most optimistic, with a net weighted balance of 36 per cent of firms expecting to increase hiring in the second quarter. By contrast, firms in the food, beverages & tobacco segment of the general manufacturing cluster were the most pessimistic, with a net weighted balance of 8 per cent of firms expecting a lower level of hiring in the second quarter.

Hiring expectations for services firms were also positive. According to DOS' latest Business Expectations Survey for the Services Sector, a net weighted balance of 6 per cent of services firms expected to increase hiring in the second quarter of 2021 as compared to the first quarter. Firms in the other services industries had the strongest hiring sentiments, with a net weighted balance of 19 per cent of firms expecting to increase hiring in the second quarter. On the other hand, firms in the accommodation sector had the weakest hiring sentiments, with a net weighted balance of 5 per cent of firms expecting to hire fewer workers in the second quarter.

# COMPETITIVENESS

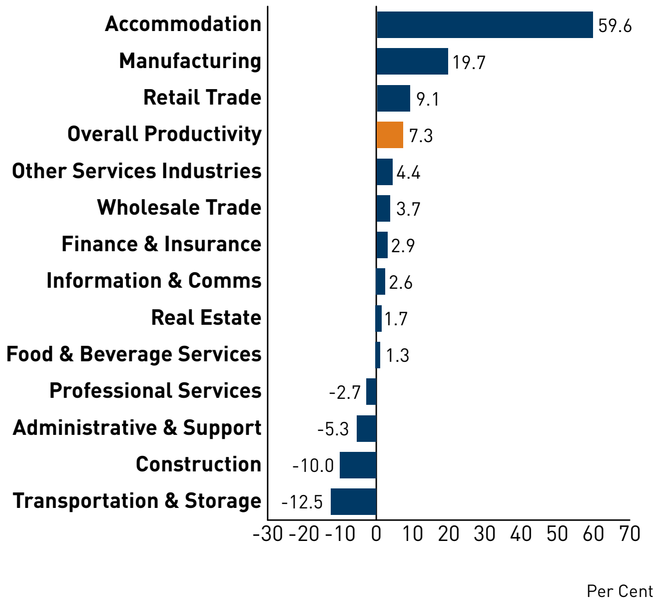
## Productivity

Overall labour productivity, as measured by real value-added per actual hour worked, rose by 7.3 per cent year-on-year in the first quarter, faster than the 3.8 per cent growth in the previous quarter (Exhibit 1.8).[5]

Among the sectors, the accommodation (60 per cent) and manufacturing (20 per cent) sectors registered the strongest productivity gains in the first quarter. The retail trade (9.1 per cent), other services industries (4.4 per cent), wholesale trade (3.7 per cent), finance & insurance (2.9 per cent), information & communications (2.6 per cent), real estate (1.7 per cent) and food & beverage services (1.3 per cent) sectors also posted productivity improvements. By contrast, productivity declines were observed in the transportation & storage (-13 per cent), construction (-10 per cent), administrative & support services (-5.3 per cent) and professional services (-2.7 per cent) sectors.

In the first quarter, the productivity of outward-oriented sectors as a whole rose by 7.3 per cent year-on-year, exceeding the 6.4 per cent increase in the previous quarter.[6] The productivity of domestically-oriented sectors as a whole rose by 1.1 per cent year-on-year, reversing the 5.3 per cent decline in the preceding quarter.

**Exhibit 1.8: Changes in Value-Added per Actual Hour Worked for the Overall Economy and Sectors in 1Q 2021**



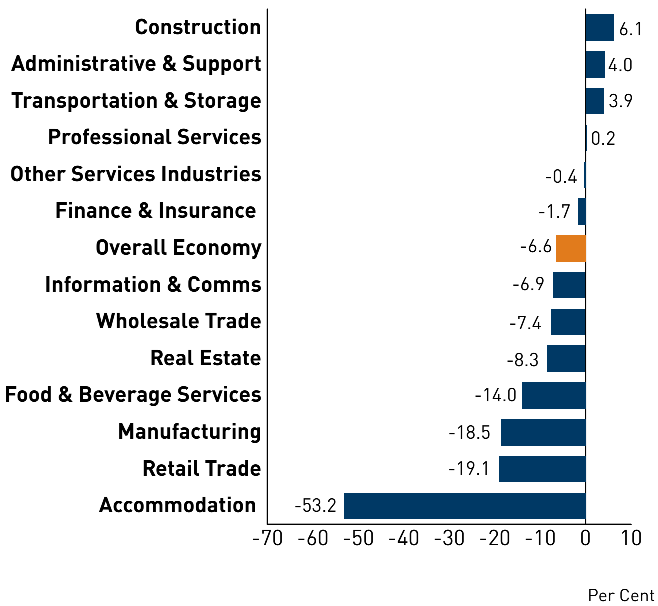

5 *Overall labour productivity, as measured by real value-added per worker, rose by 6.0 per cent in the first quarter as compared to the 2.4 per cent growth in the preceding quarter. The difference in trends between real value-added per actual hour worked and real value-added per worker in the first quarter was due to a fall in the number of actual hours worked per worker.*

6 *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, real estate, administrative & support services and other services industries.*

## Unit Labour Cost and Unit Business Cost

Overall unit labour cost (ULC) for the economy fell by 6.6 per cent on a year-on-year basis in the first quarter, moderating from the 11 per cent decline in the preceding quarter (Exhibit 1.9). The drop in the overall ULC was due to the combined effect of a fall in total labour cost per worker and an increase in labour productivity as measured by real value-added per worker.

**Exhibit 1.9: Changes in Unit Labour Cost in 1Q 2021**



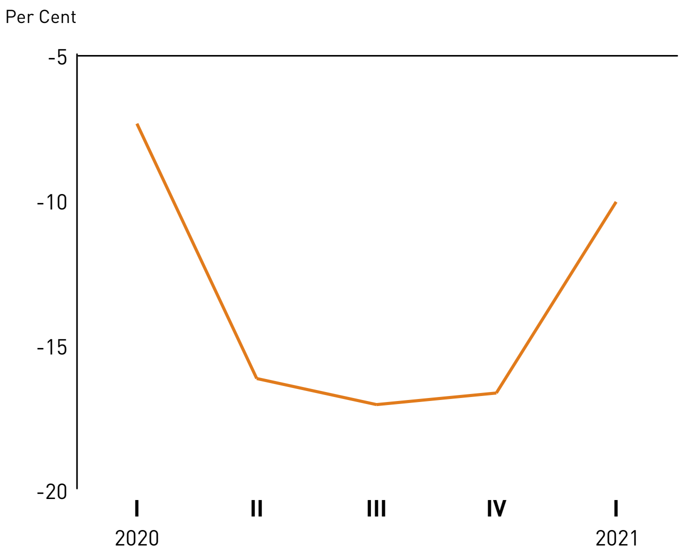

By broad sectors, the ULC for the manufacturing sector contracted by 19 per cent year-on-year, easing from the 22 per cent decline registered in the preceding quarter. The fall occurred on the back of productivity gains alongside a decline in total labour cost per worker in the sector.

Similarly, the ULC for services producing industries fell by 3.5 per cent, a moderation from the 6.6 per cent fall in the preceding quarter. Amongst the services producing industries, ULC decreased the most in the accommodation sector, reflecting strong productivity gains alongside a fall in total labour cost per worker. On the other hand, ULC increased the most in the administrative & support services sector, as a fall in labour productivity outpaced a decline in total labour cost per worker in the sector.

The ULC for the construction sector rose by 6.1 per cent in the first quarter, a reversal from the decline of 15 per cent in the preceding quarter. The increase came on the back of a fall in labour productivity, which exceeded a decline in total labour cost per worker.

Unit business cost (UBC) for the manufacturing sector fell by 10 per cent year-on-year in the first quarter, extending the 17 per cent drop in the previous quarter (Exhibit 1.10). This was due to declines in the manufacturing ULC (-19 per cent) and unit services cost (-6.9 per cent), which more than offset an increase in unit non-labour production taxes (15 per cent).

**Exhibit 1.10: Changes in Unit Business Cost for Manufacturing**

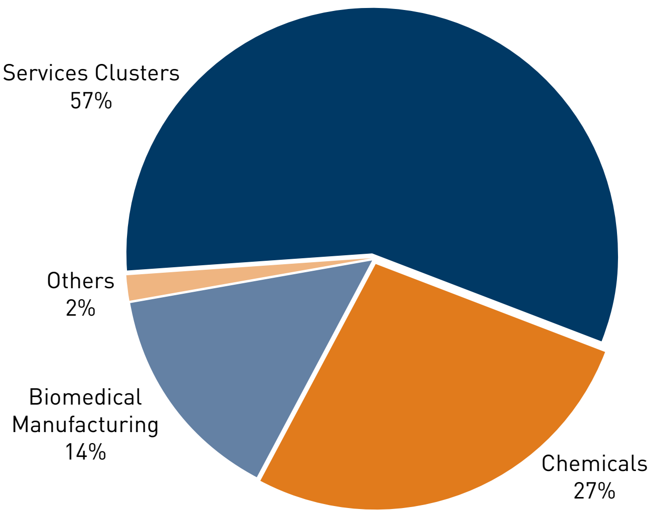



## Investment Commitments

Investment commitments garnered by the Economic Development Board (EDB) in terms of Fixed Asset Investments (FAI) and Total Business Expenditure (TBE) amounted to $2.8 billion and $1.9 billion respectively in the first quarter (Exhibit 1.11 and Exhibit 1.12).

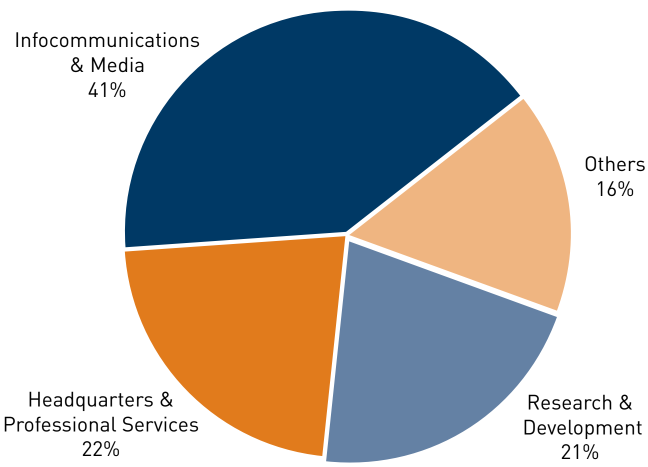
For FAI, the largest contribution came from the services sector, which attracted $1.6 billion worth of commitments. Within the services sector, the infocommunications & media cluster garnered the largest amount of commitments, at $1.1 billion. Meanwhile, the chemicals and biomedical manufacturing clusters attracted the most FAI commitments within the manufacturing sector, at $753 million and $404 million respectively. Investors from the United States contributed the most to total FAI, at $1.9 billion (67 per cent), followed by investors from Europe, at $565 million (20 per cent).

**Exhibit 1.11: Fixed Asset Investments by Industry Cluster in 1Q 2021**




For TBE, the services clusters attracted the highest amount of commitments, at $1.7 billion. This was driven by the infocommunications & media cluster, which garnered $760 million in TBE commitments, followed by the headquarters & professional services and research & development clusters, at $413 million and $391 million respectively. Among the manufacturing clusters, the chemicals cluster attracted the largest amount of TBE commitments, at $59 million, followed by the transport engineering cluster, at $57 million. Investors from the United States were the largest source of TBE commitments, with commitments of $995 million (53 per cent). They were followed by investors from Asia Pacific & Others which contributed $356 million of TBE commitments (19 per cent).

**Exhibit 1.12: Total Business Expenditure by Industry Cluster in 1Q 2021**



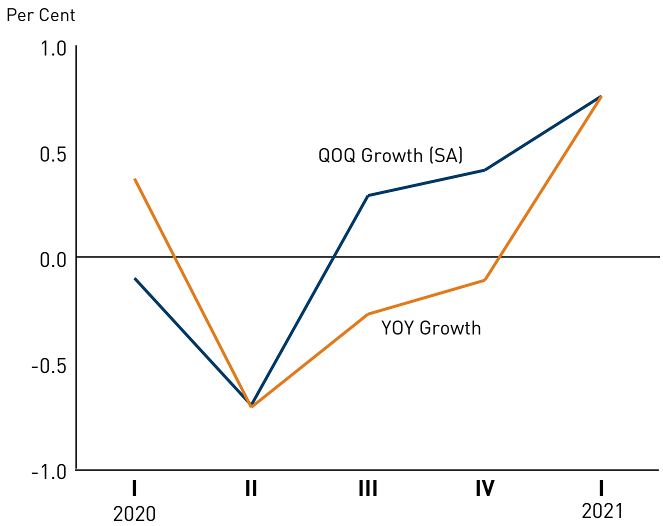

When these projects are fully implemented, they are expected to generate $7.5 billion of value-added and create more than 3,700 jobs in the coming years.

# PRICES

## Consumer Price Index

The Consumer Price Index-All Items (CPI-All Items) increased by 0.8 per cent on a year-on-year basis in the first quarter, a reversal from the 0.1 per cent decline in the previous quarter (Exhibit 1.13). On a quarter-on-quarter seasonally-adjusted basis, CPI-All Items rose by 0.8 per cent, faster than the 0.4 per cent increase in the preceding quarter.

**Exhibit 1.13: Changes in CPI**




Price increases in the following CPI categories contributed positively to CPI-All Items inflation on a year-on-year basis in the first quarter (Exhibit 1.14). Food prices rose by 1.5 per cent on the back of an increase in the costs of food serving services like hawker food and restaurant meals, as well as non-cooked food items such as vegetables, milk and cheese & eggs. Prices of household durables & services climbed by 1.1 per cent on account of more expensive domestic & household services and household durables. Health care costs edged up by 0.3 per cent as a rise in hospital services and health insurance costs outweighed a fall in outpatient services fees. Transport costs went up by 3.1 per cent due to an increase in the prices of cars and motorcycles that more than offset lower Electronic Road Pricing (ERP) charges. Communication costs picked up by 0.9 per cent on account of a rise in telecommunication services costs. Education costs rose by 0.9 per cent as a result of higher fees at universities and commercial institutions.

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

Per Cent

| | 2020 | | | | 2021 |
|---|---|---|---|---|---|
| | I | II | III | IV | I |
| **All items** | 0.4 | -0.7 | -0.3 | -0.1 | **0.8** |
| **Food** | 1.6 | 2.2 | 1.9 | 1.7 | **1.5** |
| **Clothing & Footwear** | -3.1 | -3.6 | -4.0 | -4.7 | **-5.3** |
| **Housing & Utilities** | -0.2 | 0.1 | -0.7 | -0.3 | **-0.3** |
| **Household Durables & Services** | 0.4 | -0.2 | 0.4 | 0.5 | **1.1** |
| **Health Care** | -1.5 | -1.8 | -1.9 | -0.9 | **0.3** |
| **Transport** | 2.0 | -3.9 | -0.8 | -0.1 | **3.1** |
| **Communication** | 0.5 | -0.3 | 1.8 | 0.8 | **0.9** |
| **Recreation & Culture** | -1.0 | -2.6 | -1.6 | -2.0 | **-0.2** |
| **Education** | -0.6 | -0.6 | -0.5 | -0.9 | **0.9** |
| **Miscellaneous Goods & Services** | -0.1 | -1.4 | -1.7 | -1.5 | **-1.3** |

On the other hand, price declines in the following CPI categories contributed negatively to CPI-All Items inflation in the first quarter. Clothing & footwear prices dropped by 5.3 per cent due to cheaper ready-made garments and footwear. Housing & utilities costs fell by 0.3 per cent as lower electricity prices outweighed a rise in accommodation costs. Recreation & culture prices edged down by 0.2 per cent as a result of a fall in the cost of holiday travel[7]. Prices of miscellaneous goods & services declined by 1.3 per cent on account of cheaper personal care and personal effects items.

# INTERNATIONAL TRADE

## Merchandise Trade

Singapore's total merchandise trade increased by 4.9 per cent on a year-on-year basis in the first quarter, after posting a decline of 5.1 per cent in the preceding quarter (Exhibit 1.15). The growth in total merchandise trade was due to an increase in non-oil trade (9.5 per cent), which outweighed a decline in oil trade (-15 per cent).

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

Per Cent

| | 2020 | | | | | 2021 |
|---|---|---|---|---|---|---|
| | I | II | III | IV | Ann | I |
| **Merchandise Trade** | 3.4 | -13.9 | -4.8 | -5.1 | -5.2 | **4.9** |
| **Merchandise Exports** | 4.0 | -11.4 | -2.2 | -2.9 | -3.2 | **6.9** |
| **Domestic Exports** | 4.9 | -16.2 | -5.1 | -10.3 | -6.8 | **-0.2** |
| **Oil** | 3.9 | -53.3 | -29.1 | -30.6 | -28.1 | **-19.3** |
| **Non-Oil** | 5.4 | 5.8 | 6.5 | -0.5 | 4.3 | **9.7** |
| **Re-Exports** | 3.2 | -6.9 | 0.3 | 3.4 | 0.1 | **13.6** |
| **Merchandise Imports** | 2.6 | -16.6 | -7.6 | -7.6 | -7.4 | **2.7** |
| **Oil** | -6.2 | -57.5 | -32.3 | -39.2 | -34.0 | **-12.5** |
| **Non-Oil** | 5.1 | -5.2 | -1.5 | 0.4 | -0.3 | **6.5** |

Total merchandise exports rose by 6.9 per cent in the first quarter, reversing the 2.9 per cent decline in the preceding quarter. This was due to an increase in re-exports (14 per cent) even as domestic exports fell (-0.2 per cent).

The fall in domestic exports was 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 19 per cent. In volume terms, oil domestic exports decreased by 27 per cent.

7 *Holiday travel services were either fully or partially unavailable from April 2020 to March 2021 due to international measures implemented to contain the COVID-19 pandemic. Price changes for such services were thus imputed, in line with international guidelines.*

On the other hand, NODX expanded by 9.7 per cent in the first quarter, reversing the 0.5 per cent decline in the previous quarter. The rise in NODX was supported by an increase in both non-electronics and electronics domestic exports.

Total merchandise imports grew by 2.7 per cent in the first quarter, in contrast to the 7.6 per cent decline in the previous quarter. The expansion in imports was due to an increase in non-oil imports, which more than offset a decrease in oil imports. Specifically, oil imports declined by 13 per cent. By contrast, non-oil imports increased by 6.5 per cent as higher electronics imports outweighed a fall in non-electronics imports.

## Services Trade

Total services trade contracted by 10 per cent on a year-on-year basis in the first quarter, smaller than the 16 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 7.8 per cent, following the 14 per cent decline in the preceding quarter. The fall in services exports was largely attributable to declines in the exports of travel services, transport services and maintenance & repair services. Meanwhile, services imports contracted by 12 per cent, easing from the 19 per cent fall in the previous quarter. The decline in services imports was mainly due to lower imports of travel services, transport services and other business services.

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

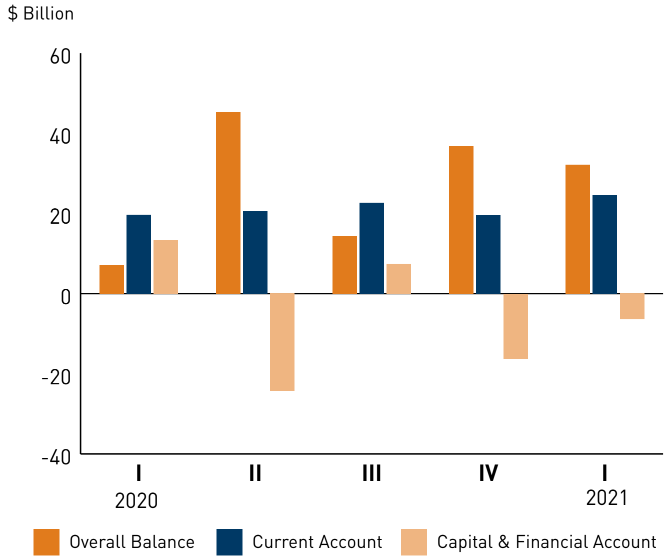
Per Cent

| | 2020 | | | | | 2021 |
|---|---|---|---|---|---|---|
| | I | II | III | IV | Ann | I |
| **Total Services Trade** | -3.0 | -21.4 | -16.3 | -16.3 | -14.3 | **-10.1** |
| **Services Exports** | -3.3 | -19.1 | -14.1 | -13.8 | -12.7 | **-7.8** |
| **Services Imports** | -2.7 | -23.7 | -18.7 | -18.9 | -16.1 | **-12.4** |

# BALANCE OF PAYMENTS

The overall balance of payments recorded a smaller surplus of $32 billion in the first quarter, compared to the surplus of $37 billion in the preceding quarter (Exhibit 1.17).

**Exhibit 1.17: Balance of Payments**




## Current Account

The current account surplus rose to $25 billion in the first quarter, from $20 billion in the previous quarter. This was due to an increase in the goods surplus, as well as a reduction in the primary income deficit, which collectively more than offset a fall in the services trade surplus.

The surplus in the goods balance edged up to $32 billion in the first quarter, from $31 billion in the previous quarter, as goods exports rose more than goods imports.

By contrast, the surplus in the services balance decreased to $4.9 billion in the first quarter, from $6.9 billion in the preceding quarter. This was mainly due to higher net payments for charges for the use of intellectual property, a shift from net receipts to net payments for other business services, as well as a decline in net receipts for transport services.

Meanwhile, the deficit in the primary income balance narrowed significantly to $9.8 billion, as primary income receipts rose faster than primary income payments. The deficit in the secondary income balance remained unchanged, with higher receipts broadly matched by an increase in payments.

## Capital and Financial Account[8]

Net inflows to the capital and financial account fell to $6.4 billion in the first quarter, from $16 billion in the previous quarter. This was due to a sharp decline in the net inflows of "other investment", which more than offset a reduction in the net outflows of portfolio investment and an increase in the net inflows of direct investment.

Net inflows of "other investment" decreased significantly to $3.4 billion in the first quarter, from $33 billion in the preceding quarter. This mainly reflected movements in the banking sector with smaller net inflows to resident deposit-taking corporations.

At the same time, net outflows of portfolio investment fell to $13 billion in the first quarter, from $31 billion in the previous quarter. This was largely due to resident deposit-taking corporations shifting to a net inflow position from the net outflow position in the preceding quarter, along with a decrease in net outflows from the non-bank private sector.

Meanwhile, net inflows of direct investment rose to $21 billion in the first quarter from $19 billion in the previous quarter, as foreign direct investments into Singapore increased by a larger magnitude than residents' direct investments abroad.

Finally, net outflows of financial derivatives eased to $4.8 billion in the first quarter, from $5.6 billion in the preceding quarter.

*8 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".*


Image courtesy of Illumina

CHAPTER

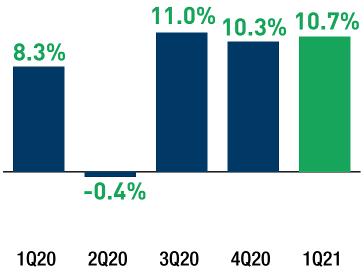
02

# SECTORAL PERFORMANCE

# CHAPTER 2
# SECTORAL PERFORMANCE

## MANUFACTURING

### REAL GROWTH

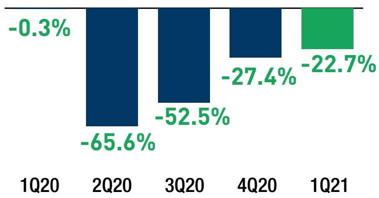



### CLUSTERS IN MANUFACTURING SECTOR (Y-O-Y CHANGE)

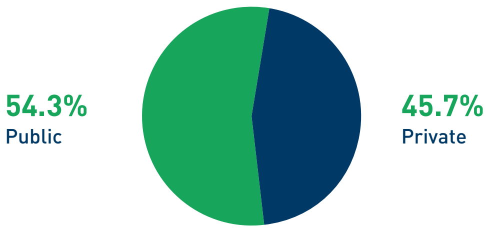
- Electronics: 28.1%
- Precision Engineering: 12.2%
- Chemicals: 7.0%
- Biomedical Manufacturing: -0.9%
- General Manufacturing Industries: -1.9%
- Transport Engineering: -20.8%

## CONSTRUCTION

### REAL GROWTH




### CERTIFIED PAYMENTS IN 1Q21

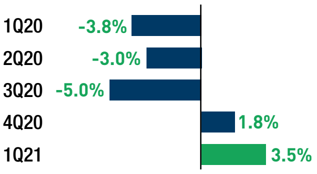



### CONTRACTS AWARDED IN 1Q21

- Residential: 19.3%
- Institutional & Others: -13.9%
- Commercial: -22.5%
- Civil Engineering: -27.7%
- Industrial: -64.9%

## WHOLESALE TRADE

### REAL GROWTH

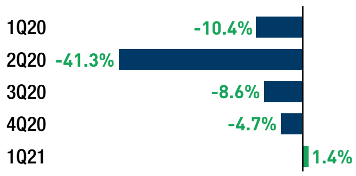



Foreign WTI — Foreign Wholesale Trade Index Growth: 6.7%

Domestic WTI — Domestic Wholesale Trade Index Growth: -10.9%

## RETAIL TRADE

### REAL GROWTH

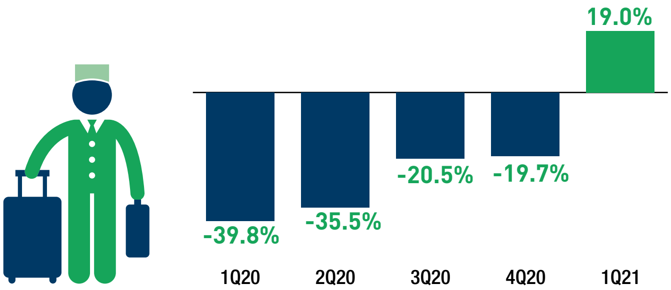



Retail Sales Index Growth (Motor Vehicles): 4.2%

Retail Sales Index Growth (Non-Motor Vehicles): 0.5%

## ACCOMMODATION

### REAL GROWTH




### OCCUPANCY RATES OF HOTELS (Y-O-Y CHANGE)

Luxury
**-14.1%-pt**

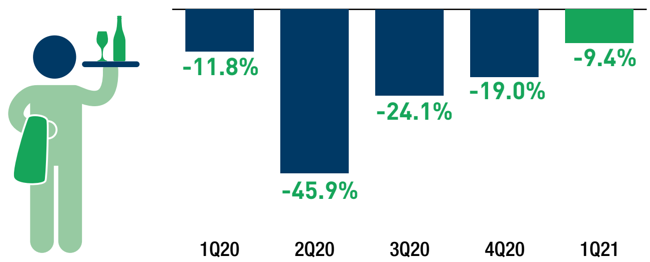
Upscale
**-13.5%-pt**

Mid-Tier
**-19.3%-pt**

Economy
**-7.7%-pt**

## FOOD & BEVERAGE SERVICES

### REAL GROWTH




### F&B SALES INDEX GROWTH (Y-O-Y CHANGE)

Fast Food
**-1.1%**

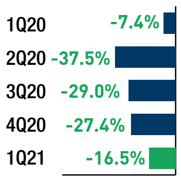
Others
**-3.1%**

Restaurants
**-7.2%**

Food Caterers
**-60.6%**

## TRANSPORTATION & STORAGE

### REAL GROWTH

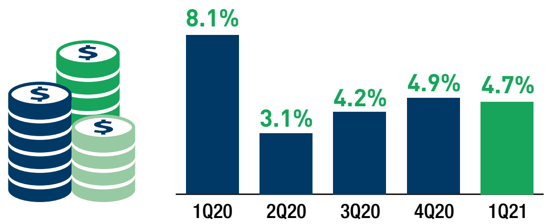



Total Sea Cargo Handled Growth **-0.6%**

Air Passengers Handled Growth **-96.1%**

## FINANCE & INSURANCE

### REAL GROWTH



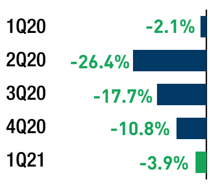

### GROWTH OF BANK LOANS & ADVANCES TO NON-BANK CUSTOMERS IN 1Q21

Loans to Businesses **-1.5%**

Consumer Loans **2.1%**

## REAL ESTATE

### REAL GROWTH




### PRIVATE RESIDENTIAL REAL ESTATE

Units Transacted (Y-O-Y Change) **89.7%**

Price Index (Q-O-Q Change) **3.3%**

# OVERVIEW

In the first quarter of 2021,

- The manufacturing sector expanded by 11 per cent year-on-year, extending the 10 per cent growth in the previous quarter. Within the sector, the output of the electronics, precision engineering and chemicals clusters expanded, whereas that of the biomedical manufacturing, general manufacturing and transport engineering clusters declined.
- The construction sector shrank by 23 per cent, extending the 27 per cent contraction in the preceding quarter, due to lower levels of private and public sector construction output.
- The wholesale trade sector grew by 3.5 per cent, faster than the 1.8 per cent expansion in the previous quarter.
- The retail trade sector expanded by 1.4 per cent, a reversal from the 4.7 per cent contraction in the previous quarter.
- The transportation & storage sector shrank by 16 per cent, a moderation from the 27 per cent decline in the preceding quarter, primarily because of the weak performance of the air transport, water transport and land transport segments.
- The accommodation sector grew by 19 per cent, a turnaround from the 20 per cent contraction in the previous quarter.
- The food & beverage services sector shrank by 9.4 per cent, an improvement from the 19 per cent contraction in the preceding quarter.
- The finance & insurance sector expanded by 4.7 per cent, extending the 4.9 per cent growth in the previous quarter. Growth was underpinned by expansions in the banking and insurance segments.
- The real estate sector shrank by 3.9 per cent, moderating from the 11 per cent decline in the previous quarter.
- The professional services sector contracted by 4.5 per cent, easing from the 7.5 per cent contraction in the preceding quarter.

# MANUFACTURING

Manufacturing output increased by 11 per cent on a year-on-year basis in the first quarter (Exhibit 2.1). Growth of the sector was supported by output expansions in the electronics, precision engineering and chemicals clusters. On the other hand, the biomedical manufacturing, general manufacturing and transport engineering clusters registered output declines (Exhibit 2.2).

**Exhibit 2.1: Manufacturing Sector's Growth Rate**

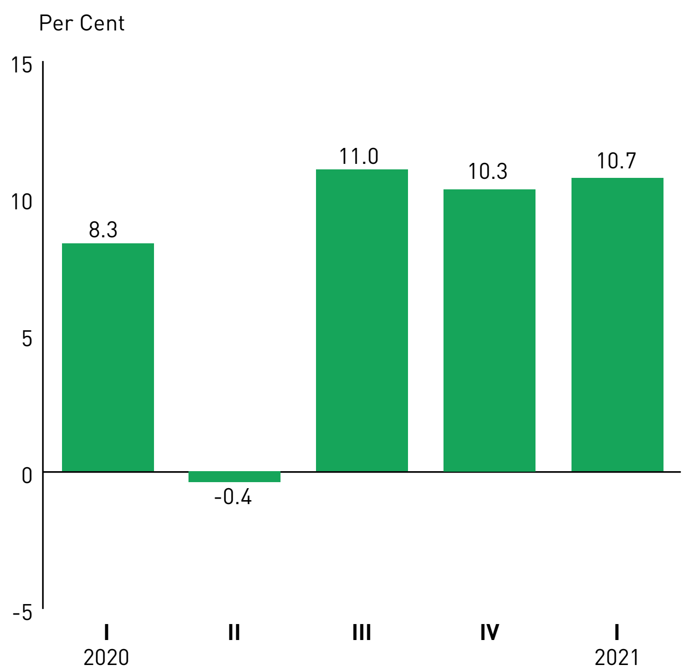
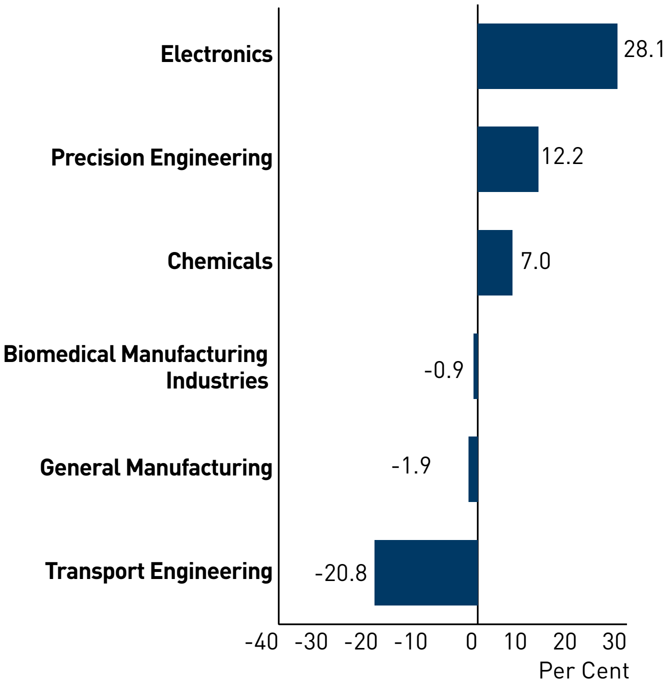


**Exhibit 2.2: Manufacturing Clusters' Growth Rates in 1Q 2021**




The electronics cluster expanded by 28 per cent in the first quarter, driven mainly by the semiconductors segment, which grew by 33 per cent on account of robust demand from cloud services, data centres, automotive producers and the 5G market. Meanwhile, the computer peripherals & data storage and other electronics modules & components segments expanded by 13 per cent and 2.0 per cent respectively. By contrast, output in the infocomms & consumer electronics segment fell by 6.9 per cent.

Output in the precision engineering cluster increased by 12 per cent in the first quarter, supported by expansions in both the machinery & systems (M&S) and precision modules & components (PMC) segments. The M&S segment expanded by 16 per cent on the back of strong global demand for semiconductor equipment, while the PMC segment grew by 3.7 per cent, driven by a higher level of output of optical instruments and metal precision components.

The chemicals cluster grew by 7.0 per cent in the first quarter, supported by output expansions in all segments except for the petroleum segment. The petrochemicals segment expanded by 13 per cent from the low base a year ago caused by plant maintenance shutdowns. Similarly, the specialty chemicals segment grew by 11 per cent on account of a higher level of production of industrial gases and mineral oil additives, while output in the other chemicals segment increased by 3.0 per cent, supported by the production of fragrances. Conversely, the petroleum segment contracted by 24 per cent as demand for transportation fuel remained weak amidst international travel restrictions to contain the spread of COVID-19.

Output in the biomedical manufacturing cluster fell by 0.9 per cent in the first quarter, as a contraction in the pharmaceuticals segment outweighed an expansion in the medical technology segment. The pharmaceuticals segment contracted by 6.4 per cent on account of a different mix of active pharmaceutical ingredients produced and a fall in the output of biological products. By contrast, the medical technology segment grew by 16 per cent due to higher export demand for medical devices.

The general manufacturing cluster contracted by 1.9 per cent in the first quarter, weighed down by output declines in all segments except for the miscellaneous industries segment. Output in the food, beverages & tobacco (FBT) and printing segments declined by 3.8 per cent and 15 per cent respectively, with the former coming on the back of a fall in the production of milk products due to weaker export demand. Conversely, output in the miscellaneous industries segment rose by 5.1 per cent on account of a recovery in domestic demand for construction-related materials, as well as a higher level of production of batteries.

The transport engineering cluster shrank by 21 per cent in the first quarter, weighed down by the weak performance of the aerospace and marine & offshore engineering (M&OE) segments. In particular, output in the aerospace segment plunged by 30 per cent due to a fall in the demand for repair and maintenance works from commercial airlines as aircraft were grounded amidst global travel restrictions. Likewise, output in the M&OE segment declined by 18 per cent as work at the shipyards was weighed down by the requirement to implement safe management measures, as well as labour shortages due to border restrictions. On the other hand, the land transport segment expanded by 22 per cent on the back of an increase in the output of parts and accessories for motor vehicles.

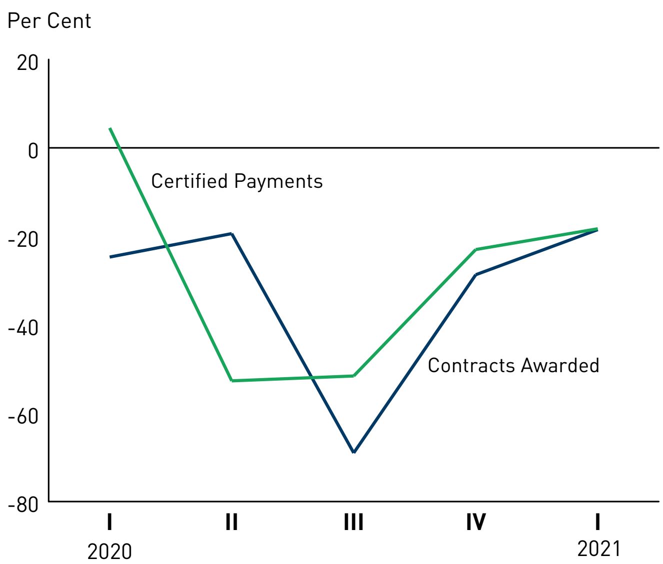
## CONSTRUCTION

The construction sector contracted by 23 per cent year-on-year in the first quarter, extending the 27 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 18 per cent, a moderation from the 23 per cent decline recorded in the previous quarter (Exhibit 2.3). The fall in certified progress payments was mainly because of the need to comply with safe management measures at worksites, as well as labour shortages due to border restrictions. Declines in certified progress payments were seen in both the private (-11 per cent) and public (-24 per cent) sectors. The slump in private certified progress payments was largely driven by private industrial building works (-9.5 per cent) and private commercial building works (-18 per cent). On the other hand, the plunge in public certified progress payments was led by public institutional & others building works (-36 per cent) and public civil engineering works (-17 per cent).

Meanwhile, construction demand in terms of contracts awarded shrank by 19 per cent in the first quarter, moderating from the 29 per cent decline in the previous quarter. This was due to weaker demand for both private (-33 per cent) and public (-5.4 per cent) sector construction works. The former was driven by a fall in contracts awarded for private sector residential building works (-41 per cent) and private sector industrial building works (-44 per cent), while the latter was led by a decline in contracts awarded for public civil engineering works (-31 per cent) and public industrial building works (-87 per cent).

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



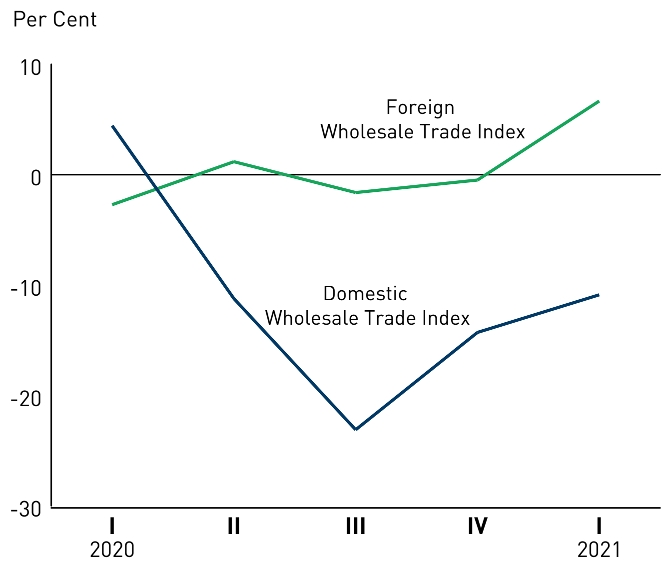

## WHOLESALE TRADE

The wholesale trade sector grew by 3.5 per cent year-on-year in the first quarter, faster than the 1.8 per cent expansion in the previous quarter.

The wholesale trade segment was bolstered by a 6.7 per cent increase in foreign wholesale trade sales volume (Exhibit 2.4), which was in turn a reversal from the 0.5 per cent drop seen in the previous quarter. The rise in foreign wholesale trade sales volume came on the back of an increase in the sales volumes of telecommunications equipment & computers (66 per cent) and electronic components (51 per cent), which more than offset declines in the sales volumes of petroleum & petroleum products (-3.2 per cent) and metals, timber & construction materials (-8.2 per cent).

By contrast, the domestic wholesale trade sales volume fell by 11 per cent in the first quarter, extending the 15 per cent decline in the previous quarter. The drop was largely due to a fall in the sales volumes of petroleum & petroleum products (-24 per cent), ship chandlers & bunkering (-18 per cent) and industrial & construction machinery (-18 per cent).

**Exhibit 2.4: Changes in Wholesale Trade Index**

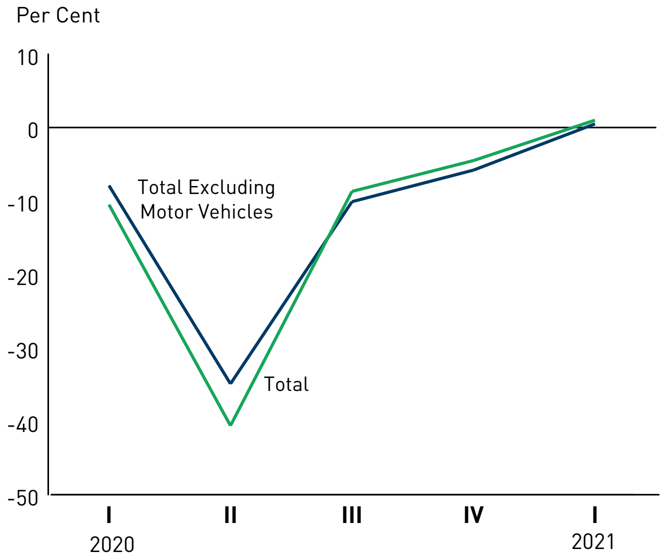


## RETAIL TRADE

The retail trade sector expanded by 1.4 per cent year-on-year in the first quarter, a reversal from the 4.7 per cent contraction in the previous quarter.

Overall retail sales volume increased by 1.0 per cent in the first quarter, in contrast to the 4.5 per cent decline in the previous quarter (Exhibit 2.5). The turnaround was partly due to a low base, as overall retail sales volume had shrunk by 10 per cent a year ago.[1] Retail sales volume in the first quarter was supported by both motor vehicular sales (4.2 per cent) and non-motor vehicular sales (0.5 per cent). The latter saw support from the increased sales of goods such as computers & telecommunications equipment (21 per cent), recreational goods (20 per cent), furniture & household equipment (14 per cent), and supermarkets & hypermarkets (1.1 per cent). The healthy growth in the sales of these goods is likely spurred by the continued prevalence of work-from-home practices. Meanwhile, the sales volumes of goods such as watches & jewellery (16 per cent) and wearing apparel & footwear (6.6 per cent) also rose, albeit on the back of a low base in the first quarter of 2020. On the other hand, the sales of goods such as food & alcohol (-27 per cent) and cosmetics, toiletries & medical goods (-21 per cent) continued to decline.

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

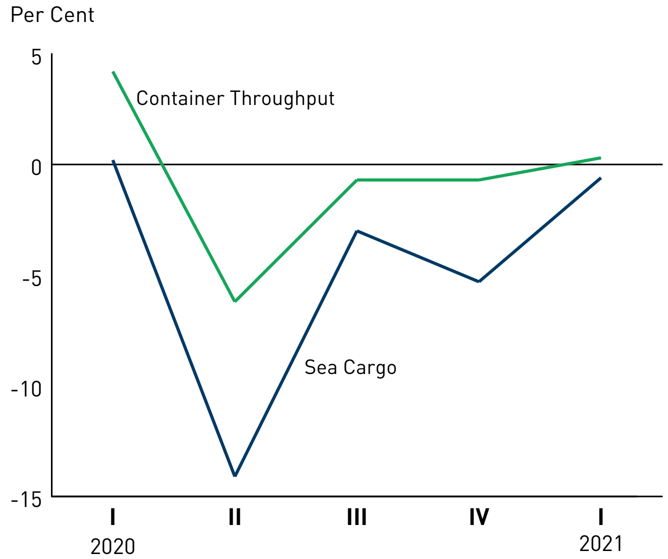



## TRANSPORTATION & STORAGE

The transportation & storage sector contracted by 16 per cent year-on-year in the first quarter, extending the 27 per cent decline in the previous quarter. The poor performance of the sector was driven mainly by the air transport, water transport and land transport segments.

For the water transport segment, the volume of sea cargo handled fell by 0.6 per cent year-on-year in the first quarter, an improvement from the 5.3 per cent decline recorded in the previous quarter (Exhibit 2.6). The fall in sea cargo volume handled was due to a decline in oil-in-bulk cargo volume (-4.3 per cent), which outweighed an increase in container throughput (0.3 per cent).

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




The global travel restrictions put in place to limit the spread of COVID-19 across borders, alongside weak travel demand, continued to adversely affect the air transport segment. In particular, the volume of air passenger traffic handled at Changi Airport plunged by 96 per cent year-on-year in the first quarter, extending the 98 per cent decline in the previous quarter (Exhibit 2.7). The decline in air passenger traffic volume was seen for Singapore's routes with all major regions around the world. Meanwhile, total air cargo shipments handled at Changi Airport fell by 5.7 per cent, an improvement from the 20 per cent contraction recorded in the previous quarter. At the same time, the number of aircraft landings plummeted by 71 per cent to reach 11,144 in the first quarter, following the 79 per cent decline in the previous quarter.

1 *Border restrictions and safe distancing measures, which were first introduced in the first quarter of 2020 to contain the COVID-19 outbreak, weighed on retail sales in the first quarter of 2020.*

**Exhibit 2.7: Changes in Air Transport**

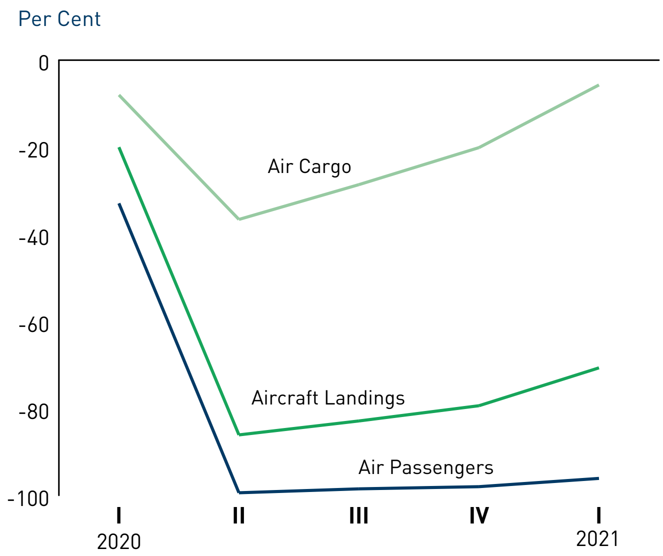
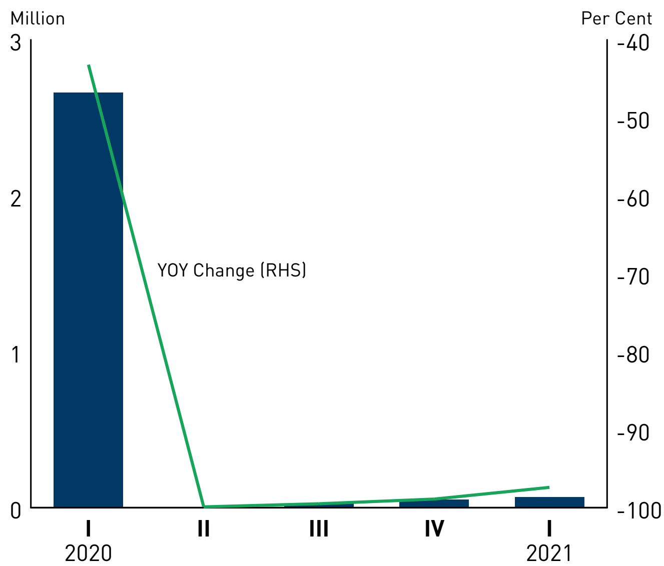



**Exhibit 2.8: Visitor Arrivals**



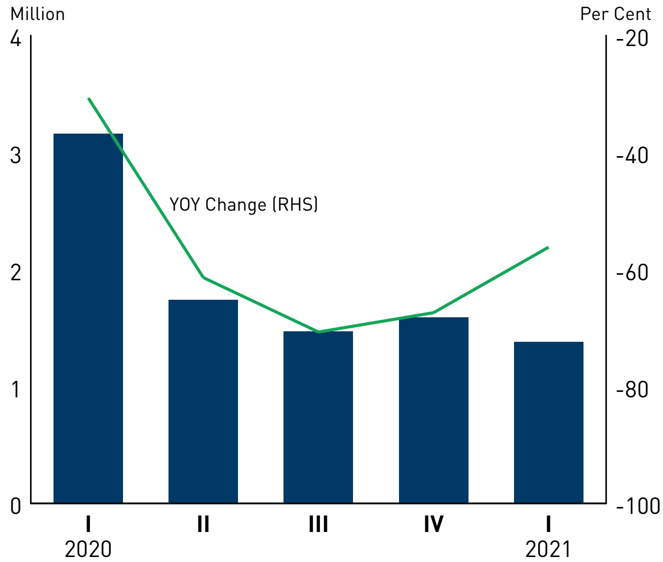

## ACCOMMODATION

The accommodation sector expanded by 19 per cent year-on-year in the first quarter, a turnaround from the 20 per cent contraction in the preceding quarter. This was largely due to low base effects as border restrictions, implemented to limit the importation of the COVID-19 virus, caused the value-added of the sector to plunge by 40 per cent a year ago.[2]

Total visitor arrivals shrank by 97 per cent year-on-year in the first quarter, although this was a slight improvement from the 99 per cent decline in the previous quarter (Exhibit 2.8). The slump in visitor arrivals during the quarter was on account of continued global and domestic travel restrictions to limit the cross-border spread of COVID-19.[3]

In tandem with the plunge in visitor arrivals, gross lettings at gazetted hotels plummeted by 56 per cent in the first quarter, extending the 67 per cent drop in the preceding quarter (Exhibit 2.9). As gross lettings fell by more than the decline in available room-nights (-43 per cent), the average occupancy rate of gazetted hotels slipped by 14 percentage-points on a year-on-year basis to reach 44 per cent in the first quarter, lower than the average occupancy rate of 57 per cent registered in the previous quarter.

**Exhibit 2.9: Gross Lettings at Gazetted Hotels**




2 The Multi-ministry Task Force began barring short-term visitors from entering or transiting through Singapore in the first quarter of 2020 to contain the COVID-19 outbreak. This had adversely affected the accommodation sector's performance during the quarter.

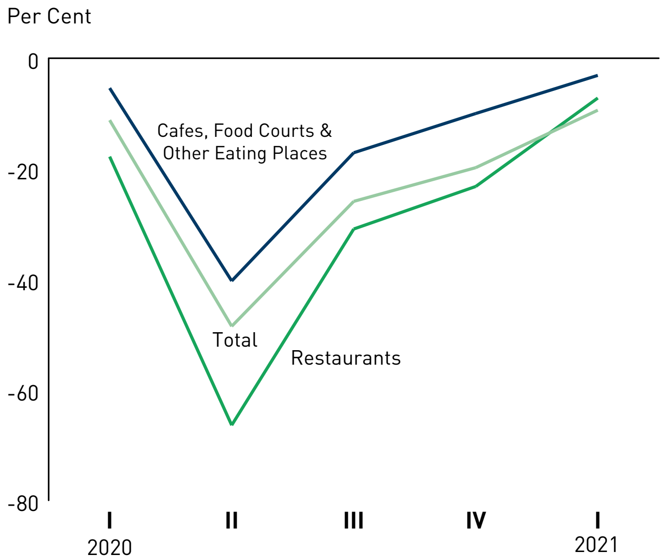
3 Singapore prohibited all short-term visitors from entering or transiting through Singapore on 24 March 2020. Although Singapore has gradually allowed the entry of all visitor types through unilaterally opening our borders to countries with low COVID-19 incidence rates and comprehensive public health surveillance systems (e.g., China, New Zealand), travel demand remains weak in part because these countries currently discourage or restrict travel for their residents.

## FOOD & BEVERAGE SERVICES

The food & beverage services sector shrank by 9.4 per cent year-on-year in the first quarter, improving from the 19 per cent contraction observed in the preceding quarter.

Food & beverage sales volume fell by 9.4 per cent in the first quarter, a smaller decline compared to the 20 per cent drop in the previous quarter (Exhibit 2.10). Lower sales volumes were seen across all segments during the quarter, with food caterers registering the largest decline (-61 per cent) as they continued to be adversely affected by restrictions on large-scale events and gatherings. Restaurants (-7.2 per cent), cafes, food courts & other eating places (-3.1 per cent) and fast food outlets (-1.1 per cent) also contracted during the quarter, as they were weighed down by capacity constraints arising from safe distancing measures as well as weak visitor arrivals during the period.

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

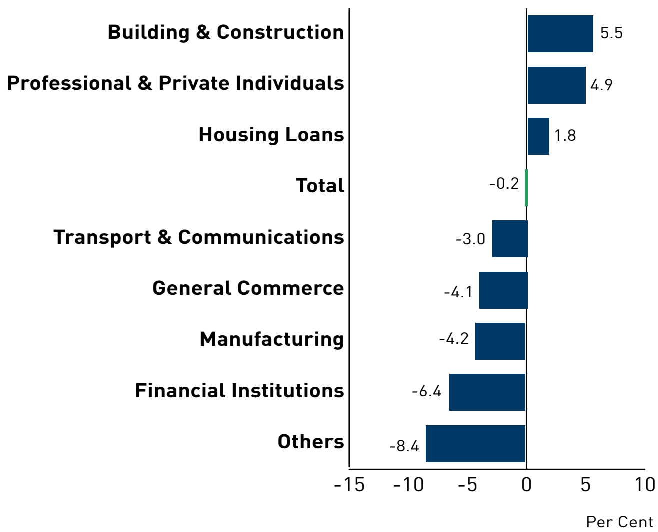



## FINANCE & INSURANCE

The finance & insurance sector grew by 4.7 per cent year-on-year in the first quarter, extending the 4.9 per cent growth in the preceding quarter. Growth was largely underpinned by expansions in the banking and insurance segments.

The banking segment posted a steady pace of expansion in the first quarter, reflecting the continued growth of interest income from loans, as well as net commissions received from brokerage and other services. Asian Currency Unit (ACU) non-bank loans climbed by 2.8 per cent due to robust credit expansion to East Asia. By contrast, Domestic Banking Unit (DBU) non-bank lending declined slightly by 0.2 per cent, largely due to a drop in the loans extended to financial institutions (-6.4 per cent) as well as firms in the general commerce (-4.1 per cent) and manufacturing sectors (-4.2 per cent) (Exhibit 2.11). Meanwhile, loans to the building & construction sector and professional & private individuals rose strongly, at 5.5 per cent and 4.9 per cent respectively.

**Exhibit 2.11: Growth of DBU Loans & Advances to Non-Bank Customers by Industry in 1Q 2021**



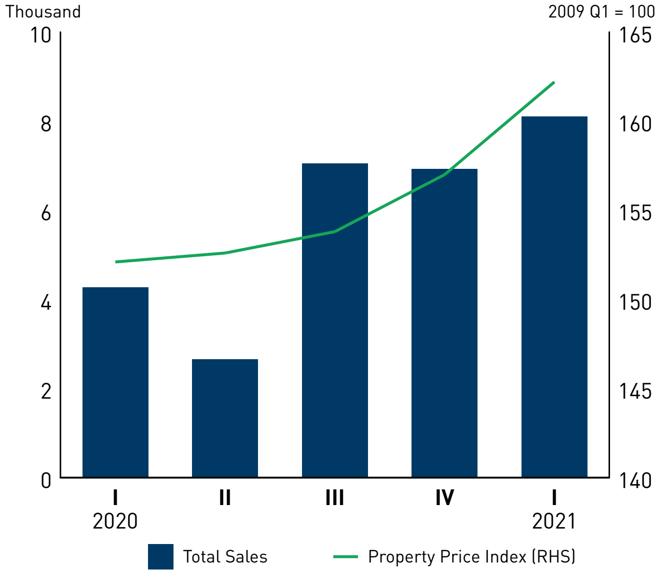

In the first quarter, the insurance segment continued to benefit from sustained demand for life insurance products, while demand for general insurance products improved in tandem with the wider economic recovery. Other auxiliary activities increased as the shift towards e-payments benefited payments processing activities. Robust outturns were also recorded in sentiment-sensitive segments such as forex, security dealing activities and fund management despite renewed COVID-19 infections around the world, as global equity markets continued to perform well.

## REAL ESTATE

The real estate sector shrank by 3.9 per cent year-on-year in the first quarter, moderating from the 11 per cent contraction in the preceding quarter.

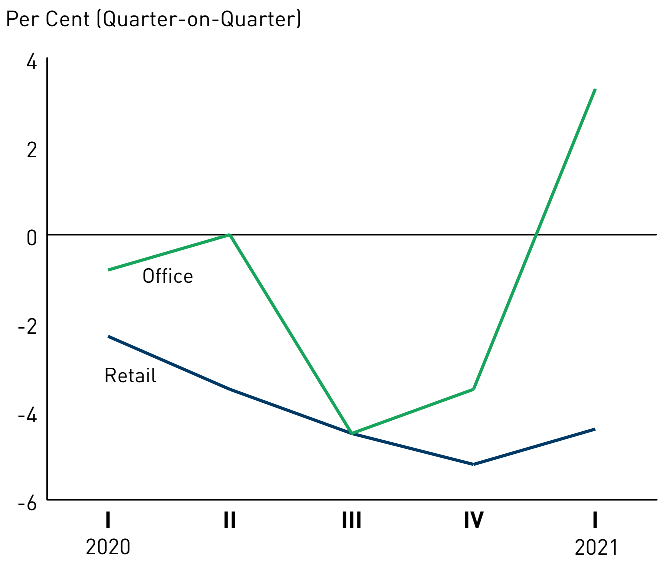
Within the real estate segment, the number of private residential sales transactions rose by 90 per cent on a year-on-year basis in the first quarter on the back of an increase in sales across all regions of Singapore. Similarly, private residential property prices rose by 3.3 per cent on a quarter-on-quarter basis during the quarter, faster than the 2.1 per cent increase in the previous quarter (Exhibit 2.12).

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



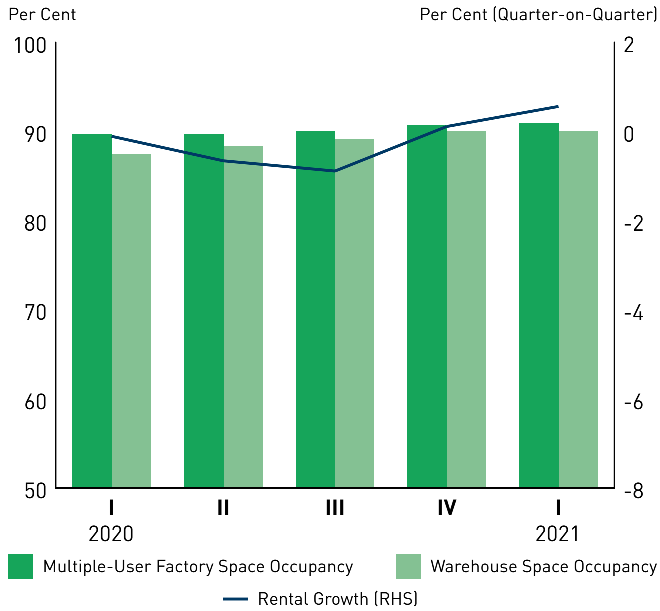

Conditions in the commercial and industrial property space markets were mixed. For the private retail space market, rentals declined by 4.4 per cent on a quarter-on-quarter basis in the first quarter, extending the 5.2 per cent drop in the previous quarter (Exhibit 2.13). Meanwhile, the average occupancy rate of private retail space was 90 per cent during the quarter, unchanged from the preceding quarter. By contrast, rentals for private office space rose by 3.3 per cent on a quarter-on-quarter basis in the first quarter, reversing the 3.5 per cent decline in the previous quarter. The average occupancy rate of private office space came in at 87 per cent, the same as that observed in the previous quarter.

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




As for the private industrial space market, rentals rose by 0.6 per cent on a quarter-on-quarter basis in the first quarter, a step-up from the 0.1 per cent increase in the previous quarter. The occupancy rates for private sector multiple-user factory space and private sector warehouse space stood at 91 per cent and 90 per cent respectively, the same as that seen in the previous quarter (Exhibit 2.14).

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



## PROFESSIONAL SERVICES

In the first quarter, the professional services sector shrank by 4.5 per cent year-on-year, a moderation from the 7.5 per cent decline recorded in the preceding quarter. The contraction was broad-based, with all segments registering declines. The largest contributors to the sector's weak performance were the architectural & engineering, technical testing & analysis segment, as well as the other professional, scientific & technical services segment.

## BOX ARTICLE 2.1

# THE PROFESSIONAL SERVICES AND ADMINISTRATIVE & SUPPORT SERVICES SECTORS IN SINGAPORE

Since the Annual Economic Survey of Singapore 2020, the business services sector has been disaggregated into its constituent sectors of real estate, professional services and administrative & support services.

Given that the professional services and administrative & support services sectors cover a wide range of activities which have different growth drivers, this article details the composition of the two sectors, as well as characterises their growth drivers. The article also describes the past performance of the two sectors, before concluding with the outlook for the sectors in 2021 amidst the COVID-19 pandemic.

### The professional services and administrative & support services sectors cover a diverse range of activities

The professional services and administrative & support services sectors, which accounted for 5.9 per cent and 4.5 per cent of the overall economy's nominal value-added (VA) in 2020 respectively, provide a wide variety of services that are essential for business operations, such as accounting and advertising services. The detailed segments within the two sectors and their nominal VA shares are shown in Exhibits 1A and 1B below.

**Exhibit 1A: Segments of the Professional Services Sector and Their Nominal VA Shares**

| Segment | Description | Nominal VA Share of Sector (%) |
|---|---|---|
| Legal | Activities of legal representation of one party's interest against another party | 8.8 |
| Accounting | Preparation or auditing of financial accounts and preparation of income tax returns | 6.9 |
| Head Offices & Business Representative Offices | Activities of units mainly set up to assess business opportunities in Singapore for a related foreign commercial entity | 34 |
| Business & Management Consultancy | Provision of advice and guidance on management and operational issues to businesses | 9.4 |
| Architectural & Engineering, Technical Testing & Analysis | Architectural, building inspection and surveying services, as well as engineering design services | 25 |
| Other Professional, Scientific & Technical Services | Advertising, market research, interior design, commercial photography and translation services | 17 |

Source: Singapore Department of Statistics

**Exhibit 1B: Segments of the Administrative & Support Services Sector and Their Nominal VA Shares**

| Segment | Description | Nominal VA Share of Sector (%) |
|---|---|---|
| Rental & Leasing | Renting and leasing of motor vehicles, household goods (e.g., furniture) and machinery & equipment (e.g., air transport equipment), as well as the leasing of patents and trademarks | 60 |
| Other Administrative & Support Services | Activities of employment agencies, travel agencies and tour operators, security and investigation firms, cleaning firms, and event organisers | 40 |

Source: Singapore Department of Statistics

## The professional services and administrative & support services sectors are reliant on intermediate demand from other sectors of the economy

The output of the professional services sector is largely consumed by other sectors of the Singapore economy. Singapore's 2017 Input-Output Tables show that 52 per cent of the sector's output is purchased as intermediate inputs by various sectors of the economy, higher than that of other key sectors such as manufacturing (26 per cent) and wholesale trade (17 per cent) (Exhibit 2). The major purchasing sectors across the different segments of the professional services sector include the finance & insurance, information & communications, wholesale trade, and manufacturing sectors (Exhibit 3).

**Exhibit 2: Percentage of Total Output Purchased as Intermediate Inputs, for Selected Sectors**


Source: Singapore Supply, Use and Input-Output Tables 2017, Singapore Department of Statistics

**Exhibit 3: Major Purchasing Sectors of Professional Services' Intermediate Output**

| Segment | Top 5 Purchasing Sectors | Share of Intermediate Output Sold to Purchasing Sector (%) |
|---|---|---|
| Legal | 1. Finance & Insurance | 23 |
| | 2. Wholesale Trade | 15 |
| | 3. Real Estate | 10 |
| | 4. Other Professional, Scientific & Technical Activities | 9.7 |
| | 5. Legal | 8.3 |
| Accounting | 1. Finance & Insurance | 20 |
| | 2. Wholesale Trade | 20 |
| | 3. Other Services | 8.9 |
| | 4. Information & Communications | 8.7 |
| | 5. Manufacturing | 8.3 |
| Head Offices & Business Representative Offices | 1. Manufacturing | 34 |
| | 2. Information & Communications | 18 |
| | 3. Administrative & Support Services | 8.2 |
| | 4. Finance & Insurance | 7.3 |
| | 5. Wholesale Trade | 6.4 |
| Business & Management Consultancy | 1. Wholesale Trade | 22 |
| | 2. Information & Communications | 22 |
| | 3. Finance & Insurance | 8.1 |
| | 4. Other Services | 7.7 |
| | 5. Transport & Storage | 7.3 |
| Architectural & Engineering, Technical Testing & Analysis | 1. Real Estate | 24 |
| | 2. Manufacturing | 17 |
| | 3. Architectural & Engineering, Technical Testing & Analysis | 16 |
| | 4. Wholesale Trade | 9.3 |
| | 5. Finance & Insurance | 6.1 |
| Other Professional, Scientific & Technical Services | 1. Wholesale Trade | 17 |
| | 2. Other Services | 17 |
| | 3. Manufacturing | 13 |
| | 4. Other Professional, Scientific & Technical Activities | 11 |
| | 5. Information & Communications | 11 |

Source: Singapore Supply, Use and Input-Output Tables 2017, Singapore Department of Statistics

Compared to the professional services sector, the administrative & support services sector is far more reliant on intermediate demand from other sectors of the economy, with 78 per cent of its output purchased as intermediate inputs by other sectors (Exhibit 2). Its major purchasing sectors include the manufacturing, wholesale trade and other services industries (Exhibit 4).

**Exhibit 4: Major Purchasing Sectors of Administrative & Support Services' Intermediate Output**

| Segment | Top 5 Purchasing Sectors | Share of Intermediate Output Sold to Purchasing Sector (%) |
|---|---|---|
| Rental & Leasing | 1. Manufacturing | 57 |
| | 2. Wholesale Trade | 12 |
| | 3. Transport & Storage | 8.6 |
| | 4. Construction | 8.1 |
| | 5. Rental & Leasing | 5.5 |
| Other Administrative & Support Services | 1. Other Services | 18 |
| | 2. Real Estate | 17 |
| | 3. Other Administrative & Support Services | 12 |
| | 4. Information & Communications | 11 |
| | 5. Wholesale Trade | 10 |

Source: Singapore Supply, Use and Input-Output Tables 2017, Singapore Department of Statistics

The two sectors also vary in terms of their reliance on external demand. The professional services sector is more dependent on external demand than the administrative & support services sector: in 2017, domestic exports made up 33 per cent of the professional services sector's total output, larger than the 20 per cent recorded for the administrative & support services sector.[1]

## From 2014 to 2019, both the professional services sector and the administrative & support services sector outperformed the Singapore economy

Between 2014 and 2019 (i.e., prior to the COVID-19 pandemic), the real VA of the professional services sector grew by 4.4 per cent on a compound annual growth rate (CAGR) basis, outpacing real GDP growth of 3.1 per cent, reflecting in part Singapore's continued development as a global business hub. Among the various segments of the sector, the highest CAGRs were seen for the (i) head offices & business representative offices; (ii) business & management consultancy; and (iii) other professional, scientific & technical services segments. These segments also saw stronger growth from 2014 to 2019 compared to the decade as a whole (i.e., the period of 2010 to 2019) (Exhibit 5).

**Exhibit 5: Real VA Growth of the Segments of the Professional Services Sector**

| Segment | Real VA CAGR, % | |
|---|---|---|
| | Longer-Term Trend (2010 – 2019) | Shorter-Term Trend (2014 – 2019) |
| Legal | 1.7 | 1.8 |
| Accounting | 3.5 | 0.9 |
| Head Offices & Business Representative Offices | 7.4 | 8.7 |
| Business & Management Consultancy | 1.9 | 4.4 |
| Architectural & Engineering, Technical Testing & Analysis | 1.4 | 2.5 |
| Other Professional, Scientific & Technical Services | 1.1 | 2.6 |

Source: Singapore Department of Statistics

1 *Based on Singapore Supply, Use and Input-Output Tables 2017*

Similar to the professional services sector, the administrative & support services sector also outperformed the Singapore economy between 2014 and 2019, with its real VA expanding at a CAGR of 5.6 per cent. Both segments of the sector expanded at a faster pace than the overall economy during this period. However, when compared to the decade as a whole (i.e., the period of 2010 to 2019), their growth during the more recent period of 2014 to 2019 was weaker (Exhibit 6).

**Exhibit 6: Real VA Growth of the Segments of the Administrative & Support Services Sector**

| Segment | Real VA CAGR, % | |
|---|---|---|
| | Longer-Term Trend (2010 – 2019) | Shorter-Term Trend (2014 – 2019) |
| Rental & Leasing | 11.2 | 6.9 |
| Other Administrative & Support Services | 5.2 | 3.5 |

Source: Singapore Department of Statistics

## The professional services and administrative & support services sectors sharply contracted in 2020 on account of the COVID-19 pandemic

2020 was a challenging year for both the professional services and administrative & support services sectors due to the economic fallout from the COVID-19 pandemic. The former shrank by 9.7 per cent, sharply reversing the 5.4 per cent growth in 2019; meanwhile, the latter contracted by 15 per cent, worse than the 11 per cent decline recorded in the previous year.

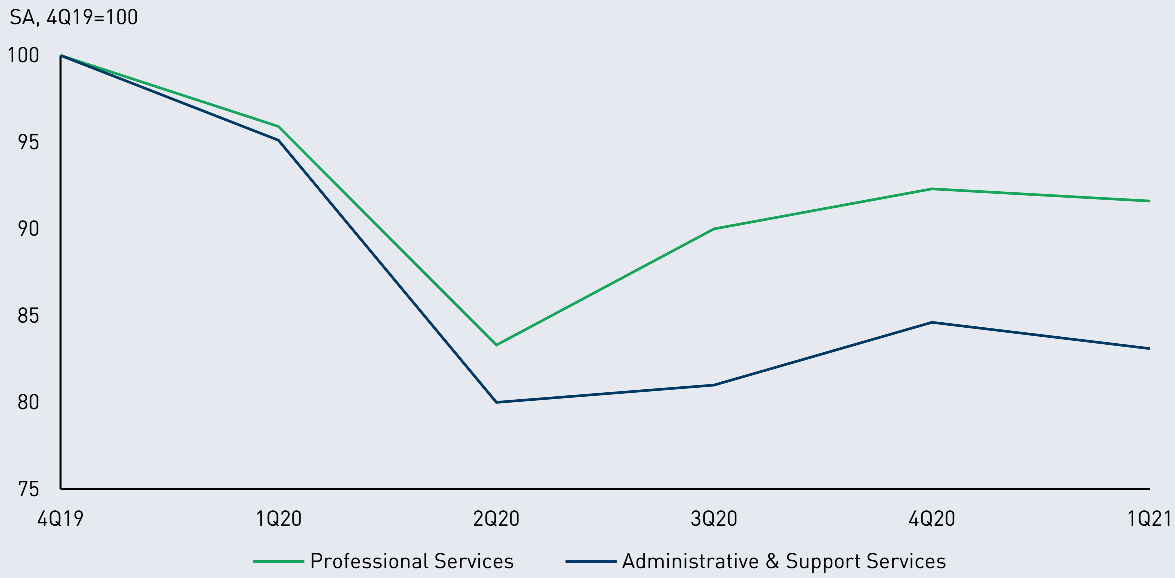
While all segments of the professional services sector shrank in 2020, the overall contraction of 9.7 per cent was mainly contributed by the architectural & engineering, technical testing & analysis (-16 per cent), as well as the other professional, scientific & technical services (-14 per cent) segments. The former segment contracted on the back of weak demand for architectural & surveying services and engineering design & consultancy services, given the sharp plunge in construction contracts awarded in 2020, as well as the slow pace of activity at construction worksites due to (i) the stoppage of almost all construction works during the Circuit Breaker period; and (ii) the need to implement safe management measures (SMMs) at construction worksites post-Circuit Breaker.[2] On the other hand, the other professional, scientific & technical services segment shrank mainly on account of a decline in the demand for advertising and market research activities, which was in turn caused by businesses cutting back on spending on such services amidst the economic downturn arising from the COVID-19 pandemic.

As for the administrative & support services sector, its weak performance in 2020 came on the back of a decline in the real VA of both the rental & leasing (-14 per cent) and other administrative & support services (-17 per cent) segments. In particular, global travel restrictions, slower work progress at construction worksites due to SMMs and labour shortages, and weaker domestic economic conditions contributed to a decline in rental and leasing activities, as well as the activities of travel agencies, tour operators and MICE organisers during the year.

Given the ongoing effect of the pandemic, the real VA of both sectors, which fell below pre-COVID (i.e., 4Q19) levels throughout 2020, continued to remain below pre-COVID levels in 1Q21 (Exhibit 7).

*2 Delays in construction activities affect the cash flow of developers and impede their ability to plan for new projects, thereby lowering their demand for architectural & surveying services and engineering design & consultancy services.*

**Exhibit 7: Real VA of the Professional Services and Administrative & Support Services Sectors (Seasonally Adjusted, 4Q19 = 100)**




Source: Singapore Department of Statistics

## Looking ahead, while the professional services and administrative & support services sectors are expected to recover in 2021, their real VA is unlikely to reach pre-COVID levels even by the end of the year

The professional services sector is projected to see a recovery in 2021. In particular, improvements in regional economic activity are expected to support activities in segments such as business & management consultancy, as well as head offices & business representative offices. At the same time, the projected pickup in construction demand and gradual recovery in construction activity are likely to benefit the architectural & engineering, technical testing & analysis segment of the sector. Similarly, the administrative & support services sector is expected to recover in 2021 in tandem with domestic economic activity.

However, the real VA of the two sectors is unlikely to reach pre-COVID levels even by the end of 2021 due to two main factors. First, the slow lifting of international travel restrictions is likely to weigh on the recovery of the business & management consultancy and head offices & business representative offices segments of the professional services sector. It is also expected to dampen the recovery in demand for the rental and leasing of air transport equipment, as well as the activities of travel agencies, tour operators and MICE organisers, which will in turn weigh on the performance of the administrative & support services sector.

Second, construction activity is expected to see a slow recovery and remain substantially below pre-COVID levels by the end of the year due to labour shortages arising from border restrictions, as well as the need to comply with SMMs at worksites. As such, the recovery of the architectural & engineering, technical testing & analysis segment of the professional services sector, as well as activities relating to the rental and leasing of construction machinery & equipment within the administrative & support services sector, is expected to be weak.

Over the longer term, as the global and domestic economies recover from the COVID-19 pandemic, the prospects for the professional services sector remain bright. The administrative & support services sector will also continue to play an essential role in supporting the business operations of the various sectors of the Singapore economy.

*Contributed by:*

Mr Thong Wei En
Economist
Economics Division
Ministry of Trade and Industry

*With inputs from:*

Singapore Department of Statistics

CHAPTER

# 03

# ECONOMIC OUTLOOK

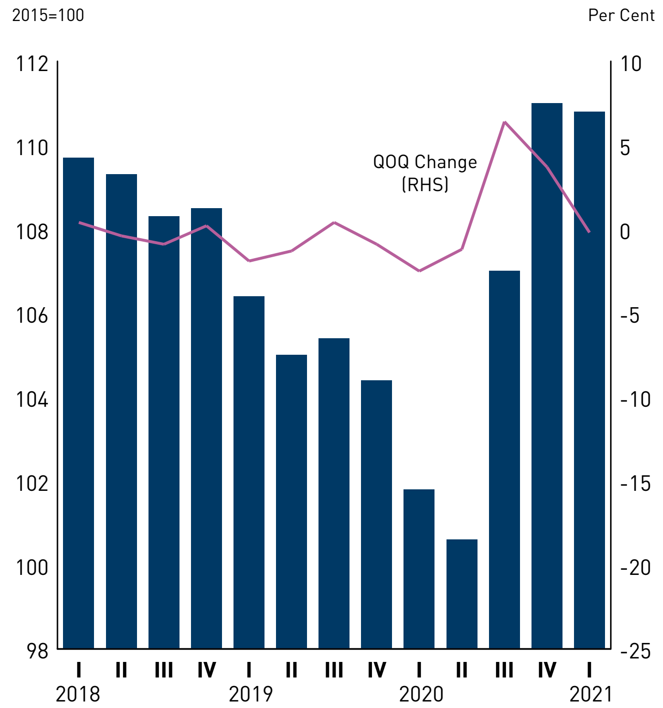
# CHAPTER 3
# ECONOMIC OUTLOOK

## LEADING INDICATORS

On a quarter-on-quarter basis, the composite leading index (CLI) declined by 0.2 per cent in the first quarter of 2021, a reversal from the 3.7 per cent increase in the fourth quarter of 2020 (Exhibit 3.1).

Of the nine components in the CLI, five components increased quarter-on-quarter, namely stock price, US Purchasing Managers' Index, wholesale trade, non-oil retained imports and non-oil sea cargo handled. By contrast, money supply was flat, while new companies formed, domestic liquidity and stock of finished goods declined compared to the previous quarter.

**Exhibit 3.1: Composite Leading Index Levels and Growth Rate**




## OUTLOOK FOR 2021

Since February, the external economic environment has improved, even though the pandemic continues to disrupt activities in many economies and threatens to undermine any recovery.

In the US, the economy is projected to see robust expansion in 2021. The rollout of a large fiscal stimulus package, improvements in the domestic health situation and rapid deployment of vaccines are expected to boost labour market recovery, which will in turn bolster personal consumption expenditure in the US. The Eurozone economy, which has been adversely affected by disruptions caused by repeated waves of infections, is also expected to recover gradually this year as its vaccination drive makes more progress and domestic restrictions are eased in tandem.

In Asia, China's GDP growth is expected to strengthen in 2021, with the driver of growth increasingly shifting from investment to private consumption. In India, even though the recent surge in COVID-19 cases has disrupted its economy, GDP is projected to recover from the low base in 2020 and as the pace of vaccination picks up. Japan's economy is also expected to recover in 2021 on the back of stronger external demand given the global economic rebound.

Within Southeast Asia, economies such as Malaysia, Indonesia and Thailand are projected to rebound in 2021 from the contractions in 2020, supported in large part by external demand. However, the extent of their recovery hinges on their respective COVID-19 situations. While the number of new COVID-19 infections has appeared to stabilise in economies such as Indonesia, others like Malaysia, Thailand and Vietnam are grappling with a resurgence of infections, which is likely to be a drag on their economic recoveries.

Domestically, the performance of the Singapore economy in the first quarter of 2021 was stronger than expected. While the recent tightening of domestic restrictions and border controls represents a setback to segments of the economy, the broader economy should still see a recovery this year in tandem with the global economic rebound and further progress in the domestic vaccination programme.

Against this backdrop, the pace of recovery of the various sectors of the economy this year is likely to be more uneven than earlier expected. First, outward-oriented sectors, including trade-related services sectors (e.g., wholesale trade), are projected to benefit from the pickup in external demand. In particular, the manufacturing sector is expected to expand more strongly than earlier projected due to robust semiconductor demand from the 5G and automotive markets. At the same time, growth in the finance & insurance and information & communications sectors is likely to remain strong, supported in part by further improvements in domestic and foreign credit demand, as well as healthy demand for digital solutions and games & software publishing activities, respectively.

Second, tourism- and aviation-related sectors (e.g., air transport, accommodation and arts, entertainment & recreation) are likely to see further delay in their recovery. International travel restrictions are likely to be lifted much more slowly, even among countries that have contained their domestic COVID-19 situation, amidst rising global infections and uncertainties over the spread of more contagious variants of the virus. The recent reduction in operating capacity limits at attractions will also weigh on the recovery of the arts, entertainment & recreation segment. Taking these factors into account, activity in the tourism- and aviation-related sectors will remain significantly below pre-COVID levels even by the end of the year, and the prospects of a significant recovery remain challenging.

Third, the projected recovery in consumer-facing sectors (e.g., retail trade and food & beverage services), partly due to low base effects, will be affected by the recent tightening of domestic restrictions and a more subdued tourism outlook. These sectors are also expected to end the year below pre-COVID levels.

Fourth, the construction and marine & offshore engineering sectors are projected to see some recovery from the low base last year. However, recent border restrictions on the entry of foreign workers from South Asia will exacerbate ongoing severe labour shortages at construction worksites and shipyards. The manpower crunch, along with the requirement to comply with safe management measures, will significantly impede the recovery of these sectors. Their output is thus projected to be substantially below pre-COVID levels even by year-end.

While it is possible that the Singapore economy will outperform the "4.0 to 6.0 per cent" growth forecast for 2021, there are also significant downside risks. The most important is the trajectory of the COVID-19 pandemic. Countries are experiencing recurring waves of infections, with the emergence of more transmissible strains of the virus, the easing of safe management restrictions, and delays in vaccinating populations. These resurgences, as well as the countries' public health responses to them, will inevitably affect their economic growth. Given the experience of the last 15 months, there is hope that even if outbreaks flare up again, countries will be able to avoid repeated blanket lockdowns and their high economic cost, but this is far from certain. As these countries include some of our major economic partners in our region, the uncertainty in their outlook also affects Singapore.

Domestically, while COVID-19 is generally well under control, and we are making good progress vaccinating the entire population, there remain significant risks and uncertainties in our own COVID-19 situation. These non-economic risks can have a major impact on our GDP growth this year.

Taking into account the above factors, and **considering the larger-than-usual degree of uncertainty over the course of the pandemic globally as well as our domestic situation**, MTI has decided to **maintain the GDP growth forecast for 2021 at "4.0 to 6.0 per cent" for now**. A review of the forecast will be undertaken in August when there is another quarter of data, as well as greater clarity over the global and domestic economic situations.

FEATURE ARTICLE

# FEATURE ARTICLE

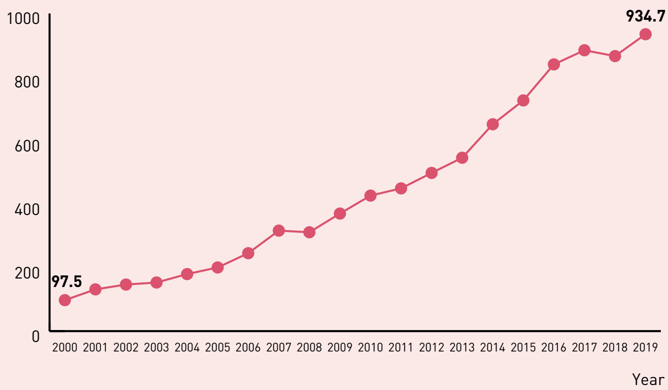
# IMPACT OF DIRECT INVESTMENT ABROAD ON FIRM-LEVEL OUTCOMES OF SINGAPORE-BASED FIRMS

## INTRODUCTION

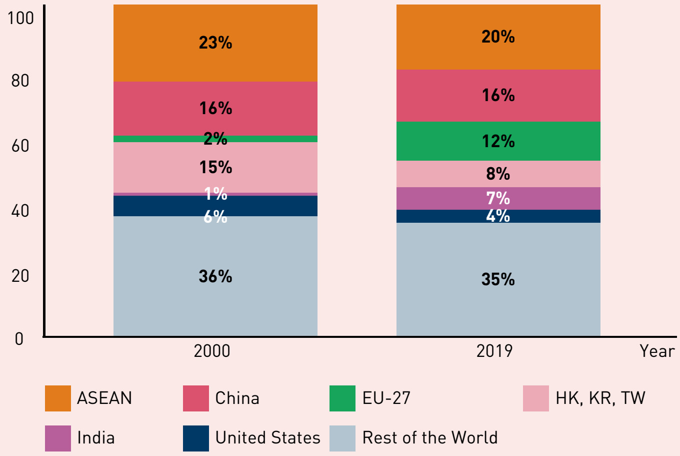
Singapore's Direct Investment Abroad (DIA) refers to an investment where a Singapore entity owns 10 per cent or more of the voting power of an overseas enterprise. Singapore's DIA consists of direct equity investment in overseas enterprises and inter-company lending between the Singapore entities and the overseas enterprises.

Singapore's DIA stock has grown rapidly, from S$97.5 billion in 2000 to S$934.7 billion in 2019, with the ASEAN economies and China being key destinations of investment. As such, this article examines the impact of a firm's direct investments abroad on its operations in Singapore.

**Singapore's DIA Stock (S$, billion)**




**Singapore's DIA stock by Destination (%)**




*Percentages may not sum to 100% due to rounding*

## FINDINGS

### Finding 1

Overseas investments by Singapore-based firms have a positive effect on their revenue, profits, value-added and employment in Singapore.

**Positive effect on revenue, profits, VA and employment from overseas investment**

### Finding 2

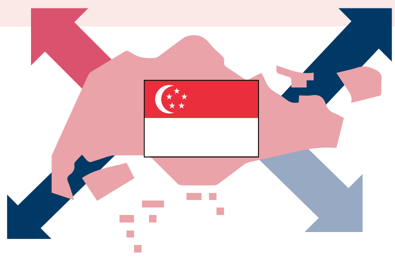
Firms engaging in overseas investment for the first time and firms with an established overseas presence both benefit from investment abroad.

**Firms investing overseas for the first time**

**Firms with an established overseas presence**

## POLICY TAKEAWAY

Overall, the study's findings provide support to continuing efforts to encourage more Singapore firms to expand beyond the Singapore market, including those considering investing abroad for the first time.



# EXECUTIVE SUMMARY


- Singapore's stock of Direct Investment Abroad (DIA) grew significantly from S$97.5 billion in 2000 to S$934.7 billion in 2019, reflecting in part the result of the Government's ongoing efforts to encourage Singapore-based firms to expand overseas. A key impetus for these efforts is the recognition that Singapore has a small domestic market. Another reason is the belief that expansion abroad improves the outcomes of firms' operations domestically, which in turn generates broader benefits for the Singapore economy.

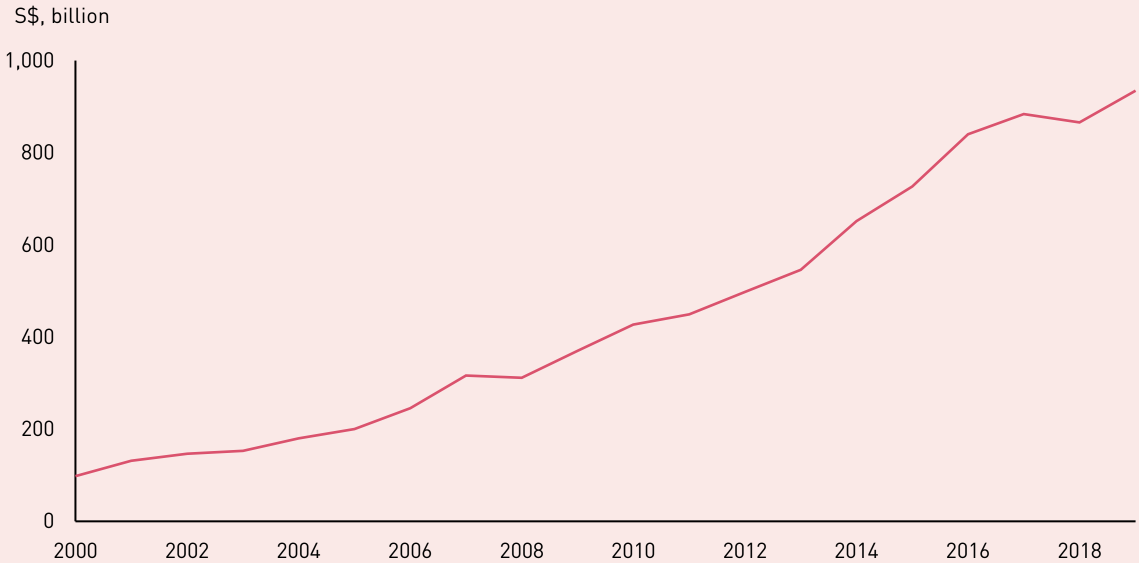
- This article examines the impact of investments abroad on firm-level outcomes in Singapore. Our findings suggest that overseas investments by Singapore-based firms have a positive impact on their operations in Singapore (i.e., the home country). On average, an increase in a Singapore-based firm's DIA stock leads to higher revenue, profits, value-added and employment for its operations in Singapore. In addition, our study finds that these benefits accrue to firms regardless of whether they are investing overseas for the first time or have an established presence abroad. Our findings thus support continuing efforts by the Government to encourage more Singapore firms to expand beyond the domestic market.


*The views expressed in this paper are solely those of the authors and do not necessarily reflect those of the Ministry of Trade and Industry, the Department of Statistics Singapore, Enterprise Singapore or the Government of Singapore.*[1]

## INTRODUCTION

Between 2000 and 2019, Singapore's stock of Direct Investment Abroad (DIA)[2] grew rapidly from S$97.5 billion to S$934.7 billion, representing a compound annual growth rate (CAGR) of 12.6 per cent (Exhibit 1).

**Exhibit 1: Singapore's DIA stock, 2000-2019**




Source: Department of Statistics Singapore (DOS)

1 *We would like to thank Yong Yik Wei, Dr Andy Feng and Alphonsus Gomez for their useful suggestions and comments, as well as the Department of Statistics, particularly Leon Tay, for the invaluable statistical support. We are also grateful to Enterprise Singapore for their inputs to this article. All errors belong to the authors.*

2 *Singapore's DIA refers to an investment where a Singapore entity owns 10 per cent or more of the voting power of an overseas enterprise. Singapore's DIA consists of direct equity investment in overseas enterprises and inter-company lending between the Singapore entities and the overseas enterprises.*

The largest destinations for Singapore's DIA are the Association of Southeast Asian Nations (ASEAN) economies[3], China and the European Union (EU)[4]. Specifically, of Singapore's DIA stock in 2019, 20 per cent was in ASEAN, 16 per cent in China, and 12 per cent in the EU. Other major destinations for Singapore's DIA stock include the NIE-3 economies[5] (8 per cent in 2019), India (7 per cent in 2019) and the United States (4 per cent in 2019).

The strong growth in Singapore's DIA stock in a wide range of countries over the years reflects in part the result of ongoing efforts by the Government to encourage more Singapore-based firms to expand overseas. A key impetus for doing so is the recognition that Singapore has a small domestic market. Another reason is the belief that expansion abroad improves the outcomes of firms' operations domestically, which in turn generates broader benefits for the Singapore economy.

To the best of our knowledge, there has not been any empirical study on the impact of investing abroad on the firm-level outcomes of Singapore-based firms. This study thus attempts to examine this issue using firm-level data.

The rest of the article is organised as follows. We first review the literature relating to the relationship between overseas investments and the outcomes of the investing firm in the home country. We then describe the data and methodology employed for our study, before reporting our findings. The final section concludes.

## LITERATURE REVIEW

In theory, a firm's overseas investments and its domestic operations can be either substitutes or complements. The overseas operations of a firm are substitutes if an expansion abroad is accompanied by a reduction in its domestic activities. By contrast, an overseas investment is complementary if it increases the firm's sales opportunities within the overseas market that are then fulfilled from its operations in the home country (e.g., via exports produced in the home country), or if it leads to the need for more functional support from the firm's operations in the home country for the international operations, such as the provision of legal and financial professional services support from the home country.

The empirical literature suggests that overseas expansion is generally complementary, and thus has a positive impact on the investing firm's domestic operations. Yamashita and Fukao (2008) studied the outcomes of Japanese manufacturing multinational corporations (MNCs) and found a small positive relationship between their foreign affiliates' employment and revenue, and the home employment of the parent firm in Japan. Specifically, they found an elasticity of 0.01 between employment in the overseas subsidiary and the home employment of the parent firm in Japan, and a similar elasticity between the overseas subsidiary's revenue and the parent firm's home employment. Similarly, Hanson et al. (2003) found that an increase in the revenue of the overseas subsidiaries of US MNCs led to a small increase in the parent firm's labour demand in the US.

Notwithstanding the generally positive relationship between overseas investments and the domestic (i.e., home country) operations of firms, the effect of overseas investments on the investing firm's outcomes in the home country may differ by investment destination. For example, Liu and Ni (2018) found that investments in Asian economies by Japanese manufacturing firms had a positive impact on domestic job creation in Japan, but the impact on domestic job creation was negative for their investments in Europe or North America.

## DATA AND EMPIRICAL METHODOLOGY

To estimate the impact of DIA on firm-level outcomes in Singapore, our study utilises longitudinal data on firms' revenue, profits, value-added (VA), employment and DIA stock from the Department of Statistics (DOS) over the period of 2010 to 2018.

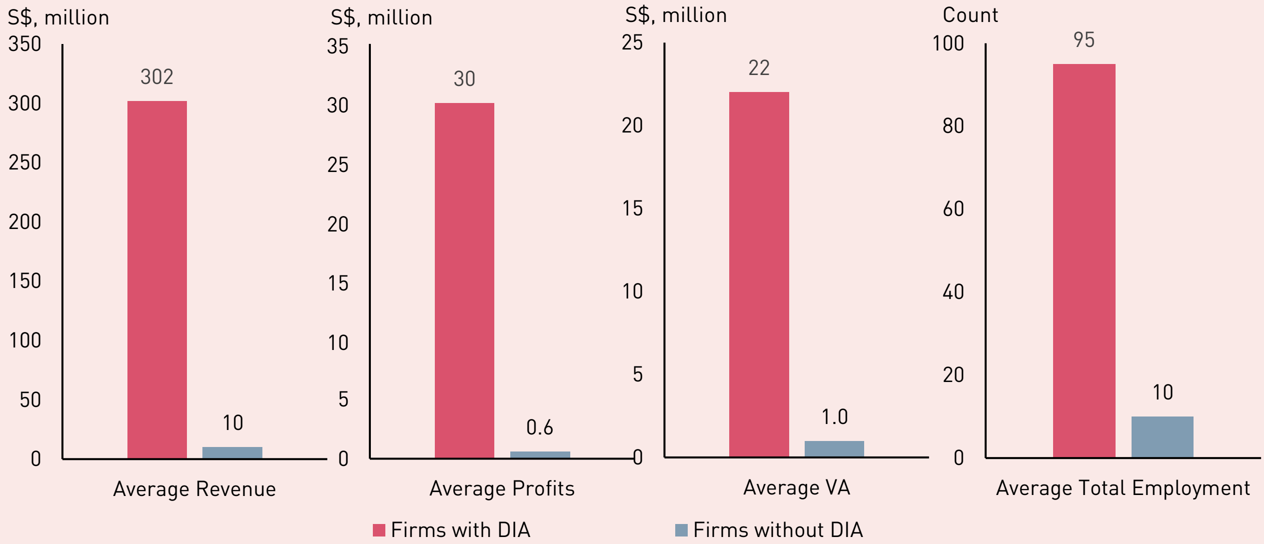
The data shows that on average, firms with DIA stock have substantially higher revenue, profits, VA and total employment in Singapore than firms that do not invest abroad (Exhibit 2). On average, the revenue and profits of firms with DIA stock are more than 30 times that of firms without DIA stock. Firms with DIA stock also employ about 10 times as many employees as firms without DIA stock on average.

3 *Apart from Singapore, ASEAN comprises Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Thailand and Vietnam.*

4 *This refers to Singapore's DIA stock in the European Union (EU-27), which comprises Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain and Sweden. However, for the regression analyses in subsequent sections of the paper covering the period of 2010-2018, the EU refers to EU-28, which includes the aforementioned economies, as well as the United Kingdom. The United Kingdom accounted for 6 per cent of Singapore's DIA stock in 2019.*

5 *The NIE-3 economies comprise Hong Kong, South Korea and Taiwan.*

**Exhibit 2: Firms with DIA Stock and Firms Without DIA Stock, Average Sizes Over 2010-2018**




Source: Department of Statistics Singapore (DOS)

However, these differences may not reflect the causal impact of investing abroad and may instead be due to other unobserved characteristics of the firms such as their risk appetite and access to financing. For example, firms that invest abroad may have greater risk appetite or access to financing compared to those that do not invest abroad. If these characteristics are positively correlated with their revenue, profits, VA or employment, the better outcomes observed for firms that invest abroad may be due to these characteristics rather than their overseas investments. To overcome such selection biases, we narrow our analysis sample to include only firms with positive DIA stock for at least one year over the period of 2010 to 2018.

We then perform fixed-effects regressions on the analysis sample to estimate the impact of DIA on the investing firms' outcomes in Singapore. The fixed-effects regressions control for the time-invariant observable and unobservable characteristics of firms in order to isolate the causal impact of DIA on their outcomes. Our main regression specification is as follows:

$$\log \mathrm{Y}_{it} = \beta_1 \log \mathit{DIAStock}_{it} + \alpha_i + d_t + \varepsilon_{it} \qquad (1)$$

Where:

- $\mathrm{Y}_{it}$ refers to the Revenue, Profits, VA or Total Employment of firm *i* in year *t* recorded in Singapore;
- $\mathit{DIAStock}_{it}$ refers to the DIA stock of firm *i* in year *t*;
- $\alpha_i$ denotes firm fixed effects;
- $d_t$ denotes year fixed effects;
- $\varepsilon_{it}$ is the error term that captures the unobservable factors that affect $\mathrm{Y}_{it}$.

The coefficient of interest ($\beta_1$) measures the average percentage change in revenue, profits, VA or total employment of the investing firm given a one per cent increase in its DIA stock. A positive and statistically significant $\beta_1$ would support the hypothesis that a firm's overseas investments and its operations in Singapore are complementary.

We adopt a second regression specification to examine whether the impact of a firm's overseas investments on its outcomes in Singapore differs by investment destination. For this regression specification, each firm's DIA stock is partitioned into separate variables measuring its DIA stock in ASEAN, China, EU-28 (which includes the United Kingdom), India, the NIE-3 economies, the US and the Rest of the World. Specifically, the regression specification used is as follows:

$$\log \mathrm{Y}_{it} = \sum_{n=1}^{destinations} \beta_n \log \mathit{DIAStock\ to\ destination}_{it} + \alpha_i + d_t + \varepsilon_{it} \qquad (2)$$

Where:

- $\mathit{DIAStock\ to\ destination}_{it}$ refers to the DIA stock of firm *i* in year *t* in ASEAN, China, EU-28, India, the NIE-3 economies, the US, or the Rest of the World

Finally, we perform a third regression to examine if the outcomes from overseas investments differ for firms engaging in DIA for the first time compared to established firms with existing overseas investments. In this regression specification, a statistically significant $\beta_2$ would support the hypothesis that the effects of investing abroad are different for first-time investors compared to established ones:

$$\log Y_{it} = \beta_1 \log DIAStock_{it} + \beta_2 \log DIAStock_{it} \times firsttimeDIA_{it} + \alpha_i + d_t + \varepsilon_{it} \quad (3)$$

Where:

- $firsttimeDIA_{it}$ = 1 when firm $i$ is engaging in DIA for the first time in our sample period in time $t$, and = 0 otherwise

## RESULTS

Our findings suggest that overseas investments by Singapore-based firms lead to positive and statistically significant effects on their operations in Singapore (Exhibit 3).

Specifically, on average, a one per cent increase in a Singapore-based firm's DIA stock leads to a 0.03 per cent increase in its revenue, a 0.02 per cent increase in its profits and a 0.02 per cent increase in its VA in Singapore. In dollar terms, a S$100 increase in a firm's DIA stock results in a S$6.09 increase in its revenue, a S$0.40 increase in its profits, and a S$0.29 increase in its VA in Singapore. Meanwhile, a one per cent increase in the firm's DIA stock leads to a 0.01 per cent increase in its employment in Singapore.[6] It should be noted that these benefits are on top of other returns (such as overseas revenue) that may accrue to the firm from its overseas investments.

**Exhibit 3: Effects of DIA on Firms' Outcomes in Singapore**

| Dependent Variable | $\beta_1$ | Estimated dollar impact of a S$100 increase in DIA stock, for an average-sized firm with DIA stock |
|---|---|---|
| Revenue | 0.03*** | S$6.09 |
| Profits | 0.02*** | S$0.40 |
| VA | 0.02*** | S$0.29 |
| Employment | 0.01*** | - |

*** Statistically significant at the 1% level

Next, we examine the relationship between DIA stock and firm-level outcomes for investments by Singapore-based firms in different overseas economies (Exhibit 4). In general, we find that overseas investments by Singapore firms across our key investment markets have a positive and statistically significant effect on their operations in Singapore. Gains are also seen for investments in the Rest of the World, indicating returns for firms which have ventured beyond our traditional investment markets to other economies.

**Exhibit 4: Effects of DIA on Firms' Outcomes in Singapore, by Investment Destination**

| Dependent Variable | $\beta_{ASEAN}$ | $\beta_{CHINA}$ | $\beta_{EU\text{-}28}$ | $\beta_{INDIA}$ | $\beta_{NIE\text{-}3}$ | $\beta_{US}$ | $\beta_{ROTW}$ |
|---|---|---|---|---|---|---|---|
| Revenue | 0.02*** | 0.02*** | 0.02*** | n.s. | 0.01* | n.s. | 0.02*** |
| Profits | 0.01*** | n.s. | 0.02*** | 0.02*** | n.s. | n.s. | 0.01* |
| VA | 0.01*** | 0.01*** | n.s. | 0.01*** | 0.01** | 0.02*** | 0.01*** |
| Employment | 0.01*** | 0.005*** | n.s. | 0.01*** | 0.01*** | 0.01*** | 0.01*** |

* Statistically significant at the 10% level. ** Statistically significant at the 5% level. *** Statistically significant at the 1% level. n.s. indicates no statistically significant relationship between the particular dependent variable and DIA stock in the investment destination

6 *As a robustness check to ensure that these results are not driven by restructuring or a reorganisation of activities within the company, we conduct the same analysis at the company group level. We find similar results. Specifically, a S$100 increase in the company group's DIA stock is associated with a S$8.99 increase in its revenue, a S$0.67 increase in its profits and a S$0.37 increase in its VA in Singapore.*

Finally, we examine if the firm-level outcomes from overseas investments differ between firms engaging in DIA for the first time and firms with existing overseas investments (Exhibit 5). Our results show that for revenue, profits and VA, there are no significant differences in the benefits from overseas investments that accrue to the two types of firms. The only difference arises for employment, where firms with an established overseas presence were found to benefit more than firms investing overseas for the first time. Overall, the results suggest that overseas investments are beneficial for the domestic operations of both firms investing abroad for the first time as well as those with an established overseas presence.[7]

**Exhibit 5: Effects of DIA on Firms' Outcomes in Singapore, by First-Time Investor Status**

| Dependent Variable | $\beta_1$ (for firms with existing DIA stock) | $\beta_2$ (incremental difference for firms engaging in DIA for the first time) |
|---|---|---|
| Revenue | 0.03*** | n.s. |
| Profits | 0.02*** | n.s. |
| VA | 0.02*** | n.s. |
| Employment | 0.01*** | -0.01** |

*** Statistically significant at the 1% level. ** Statistically significant at the 5% level. n.s. indicates no significant relationship for the particular dependent variable

## CONCLUSION

In summary, our study finds that overseas investments by Singapore-based firms have a positive impact on their operations in Singapore, in terms of revenue, profits, VA and employment. We also find that these benefits accrue to firms regardless of whether they are investing overseas for the first time or have an established presence abroad. These benefits are also likely to come on top of other returns (such as overseas revenue) that may accrue to firms from their overseas investments.

The study's findings support continuing efforts by agencies such as Enterprise Singapore to encourage more Singapore firms to expand beyond the Singapore market, including those considering investing abroad for the first time. While the ongoing COVID-19 pandemic has made it more challenging for firms to expand overseas, helping our firms seize opportunities globally remains an important long-term strategy. The Government will continue to support firms in their internationalisation journey through financing schemes, talent development programmes, and market facilitation programmes.

*Contributed by*:

Ms Bali Kaur Sodhi
Senior Economist
Supply Chain Resilience Division
Ministry of Trade and Industry

Mr Nicholas Chiang
Economist
Economics Division
Ministry of Trade and Industry
(*currently on secondment to the Ministry of Social and Family Development*)

7 *For firms investing abroad for the first time, the total impact of their DIA stock is the sum of $\beta_1$ and $\beta_2$.*

## REFERENCES

Hanson, G. H., Raymond, J. Mataloni Jr. and M. J. Slaughter (2003) 'Expansion Abroad and the Domestic Operations of US Multinational Firms.' ITPF/AEI Seminar on Domestic Effects of Foreign Direct Investment, Washington, D.C.

Liu Yang and Ni Bin (2018) 'Outward Foreign Direct Investment and Firm-Level Employment Dynamics in Japanese Manufacturing Firms.' RIETI Discussion Paper Series 18-E-069

Yamashita, Nobuaki and Kyoji Fukao (2008) 'The Effects of Overseas Operations on Home Employment of Japanese Multinational Enterprises.' Hi-Stat Discussion Paper Series d08-251, Institute of Economic Research, Hitotsubashi University

**MINISTRY OF TRADE AND INDUSTRY**
100 High Street, #09-01 The Treasury
Singapore 179434

ISSN 2382-6541