Economic Survey of SINGAPORE

FIRST QUARTER 2017

MTI MINISTRY OF TRADE AND INDUSTRY SINGAPORE

May 2017

Ministry of Trade and Industry
Republic of Singapore

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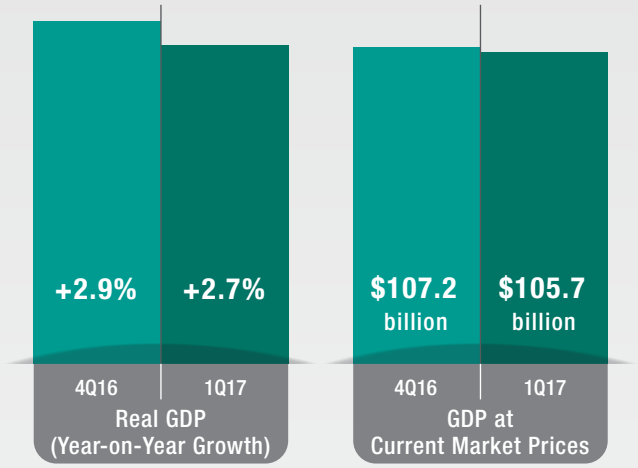
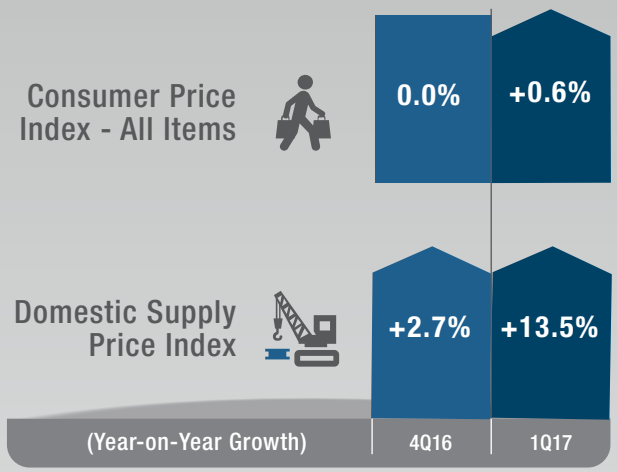
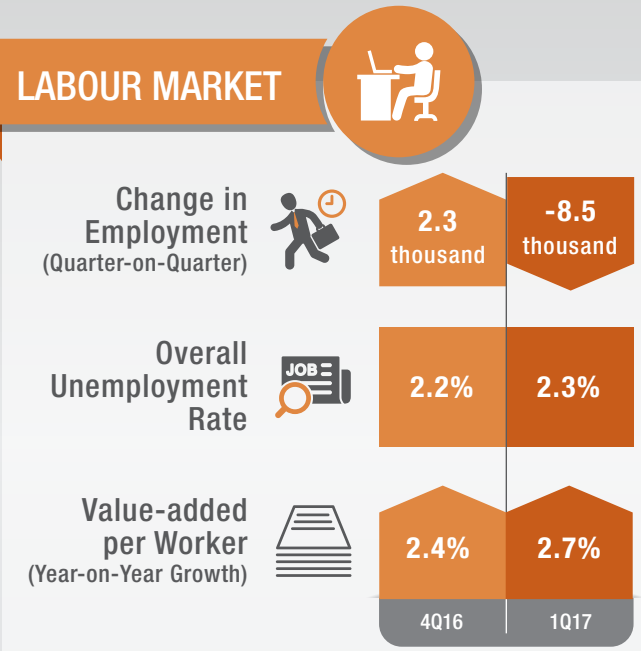


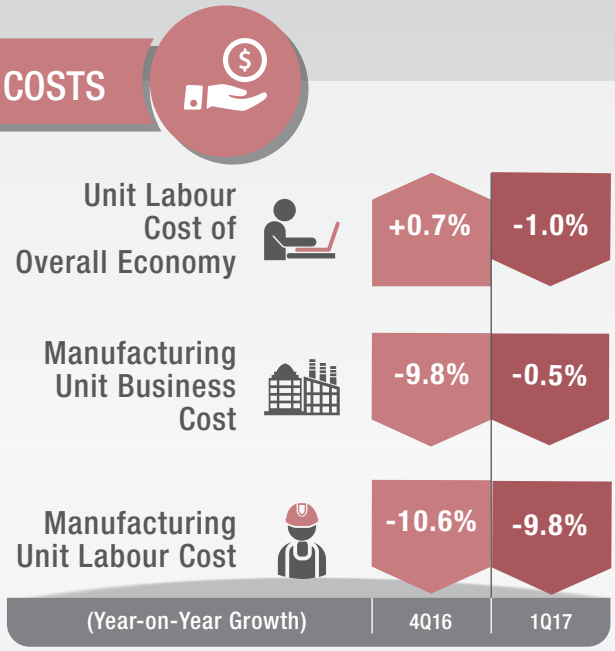
PRICES



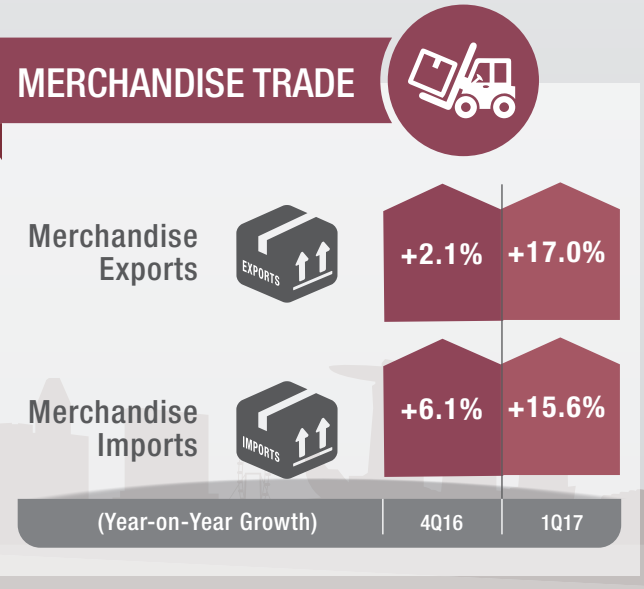
LABOUR MARKET



COSTS



MERCHANDISE TRADE



SERVICES TRADE

CHAPTER 1
Economic Performance

CHAPTER 1

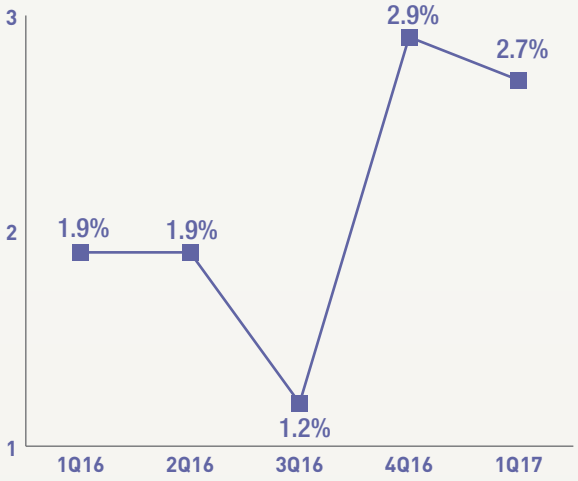
THE SINGAPORE ECONOMY

ECONOMIC PERFORMANCE

Real GDP grew by

2.7% in 1Q17

Quarterly Growth (Year-on-Year)



Main Drivers of Growth in 1Q17

MANUFACTURING

1.4%-point contribution

TRANSPORTATION & STORAGE

0.3%-point contribution

BUSINESS SERVICES

0.3%-point contribution

In total, these sectors accounted for

74% of GDP growth

LABOUR MARKET

RESIDENT UNEMPLOYMENT RATE

3.2% in 1Q17

EMPLOYMENT (Q-O-Q CHANGE)

-8,500 employed

Sectors with the Highest Employment Growth in 1Q17

OTHER SERVICES INDUSTRIES	FINANCIAL & INSURANCE SERVICES	INFORMATION & COMMUNICATIONS
+7,300 employed	+2,700 employed	+600 employed

PRODUCTIVITY

VALUE-ADDED PER WORKER (Y-O-Y GROWTH)

+2.7%

Sectors with the highest Value-added per Worker Growth in 1Q17

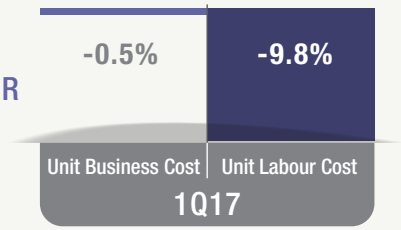
MANUFACTURING	CONSTRUCTION
+11.9%	+3.0%

COSTS

Overall Unit Labour Cost declined by

1.0% in 1Q17

WITHIN THE MANUFACTURING SECTOR

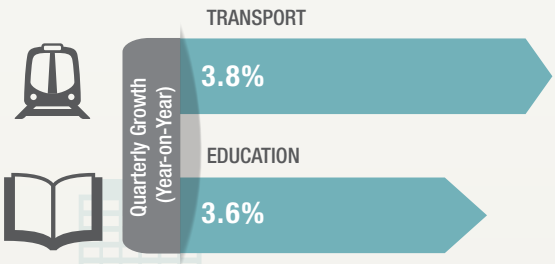


PRICES

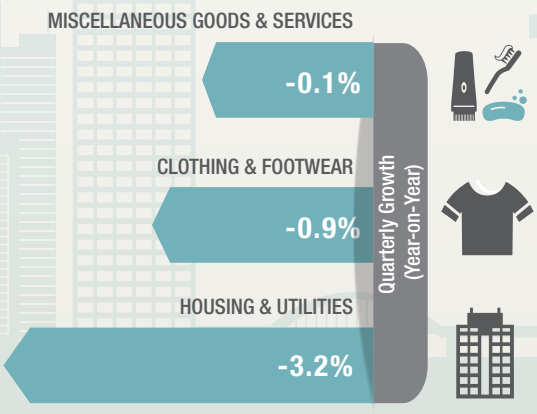
The Consumer Price Index (CPI) rose by

0.6% in 1Q17

CATEGORIES WITH PRICE INCREASES



CATEGORIES WITH PRICE DECLINES

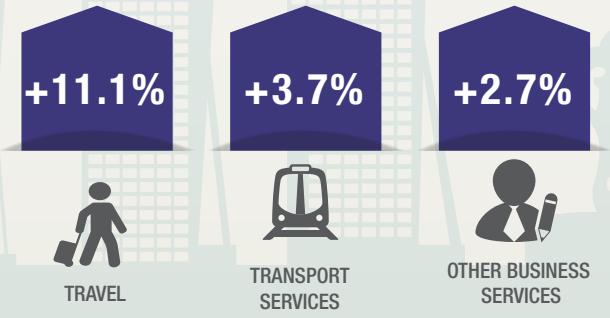


INTERNATIONAL TRADE

Total Merchandise Exports rose by

17.0% in 1Q17

Main Drivers of Services Export Growth were...



OVERVIEW

In the first quarter of 2017,

- The economy expanded by 2.7 per cent compared to the same period last year. The sectors that contributed the most to growth were the manufacturing, transportation & storage and business services sectors.
- The seasonally-adjusted unemployment rate was unchanged for residents (3.2 per cent) and citizens (3.5 per cent) in March 2017 as compared to December 2016. Total redundancies were lower compared to the previous quarter, but similar when compared to the same period a year ago.
- Total employment contracted by 8,500 on a quarter-on-quarter basis, compared to the gains of 13,000 in the same period a year ago. The contraction in employment was mainly due to a decrease in Work Permit Holders in the manufacturing and construction sectors.
- The Consumer Price Index increased by 0.6 per cent on a year-on-year basis.

OVERALL PERFORMANCE

The economy grew by 2.7 per cent on a year-on-year basis in the first quarter, slightly slower than the 2.9 per cent growth in the fourth quarter of 2016 (Exhibit 1.1). On a quarter-on-quarter seasonally-adjusted annualised basis, the economy contracted by 1.3 per cent, after posting a strong rebound of 12 per cent in the preceding quarter.

Exhibit 1.1: GDP and Sectoral Growth Rates in 1Q 2017

The manufacturing sector expanded by 8.0 per cent, extending the 11 per cent expansion in the previous quarter. Growth was primarily driven by the electronics and precision engineering clusters, even as the transport engineering and general manufacturing clusters continued to contract.

The services producing industries grew by 1.6 per cent, higher than the 1.0 per cent growth in the previous quarter. Among the services sectors, the transportation & storage sector posted the strongest growth of 4.2 per cent, supported primarily by the water transport segment. This was followed by the "other services industries" (2.3 per cent), business services (2.1 per cent) and information & communications (1.7 per cent) sectors. The finance & insurance (0.9 per cent) and wholesale & retail trade (0.5 per cent) sectors similarly recorded expansions in the first quarter. On the other hand, the accommodation & food services sector contracted by 1.9 per cent, weighed down by the food & beverage segment.

Meanwhile, the construction sector shrank by 1.4 per cent, extending the 2.8 per cent contraction in the preceding quarter. The decline was due to continued weakness in private sector construction activities.

The sectors that contributed the most to GDP growth in the first quarter were the manufacturing, transportation & storage and business services sectors (Exhibit 1.2). Collectively, they accounted for 74 per cent of overall GDP growth in the quarter.

Exhibit 1.2: Percentage-Point Contribution to Growth in Real GDP in 1Q 2017 (By Industry)

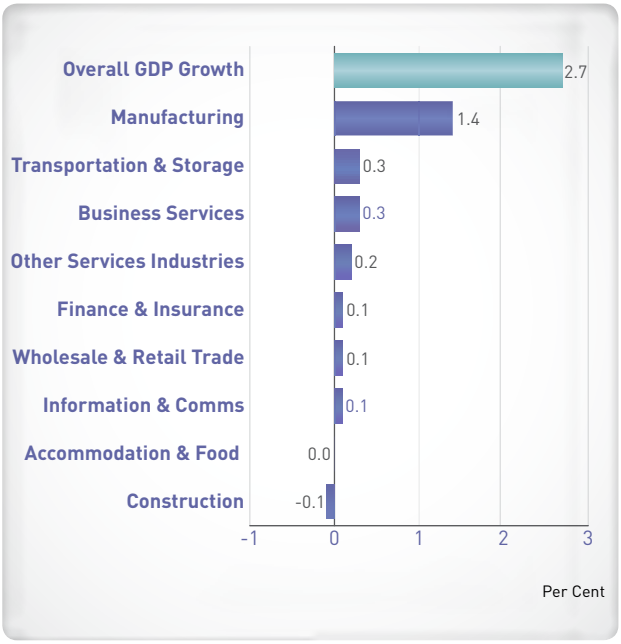


*Exhibit 1.3: Changes in Total Demand**

	2016				2017
	I	II	III	IV	I
Total Demand	1.1	1.4	-0.7	2.8	**4.1**
External Demand	-1.8	4.1	2.5	1.6	**5.1**
Total Domestic Demand	9.6	-5.9	-9.3	6.3	**1.2**
Consumption Expenditure	4.8	2.9	-0.1	-0.3	**1.1**
Public	9.6	10.1	-1.3	7.0	**5.5**
Private	3.3	1.2	0.2	-2.3	**-0.4**
Gross Fixed Capital Formation	-2.2	1.4	-4.3	-5.0	**-0.3**
Changes in Inventories	4.8	-5.9	-5.7	5.8	**0.4**

* *For inventories, this refers instead to change as percentage of GDP in the previous year.*

SOURCES OF GROWTH

Total demand rose at a faster pace of 4.1 per cent in the first quarter, compared to 2.8 per cent in the fourth quarter of 2016, on the back of an improvement in external demand (Exhibit 1.3). In particular, external demand increased by 5.1 per cent, accelerating from the 1.6 per cent growth in the previous quarter.

By contrast, domestic demand rose at a slower pace of 1.2 per cent in the first quarter compared to 6.3 per cent in the previous quarter, primarily due to a smaller build-up in inventories. Gross fixed capital formation also remained weak, declining by 0.3 per cent following the 5.0 per cent contraction in the preceding quarter. In particular, private investments fell by 4.0 per cent, largely weighed down by the weakness in private construction works. On the other hand, public investments registered a 11 per cent increase, supported by an expansion in public construction works.

Meanwhile, consumption expenditure rose by 1.1 per cent in the first quarter, reversing the 0.3 per cent decline in the previous quarter. Growth was supported by a 5.5 per cent increase in public consumption.

LABOUR MARKET

Unemployment and Redundancy[1]

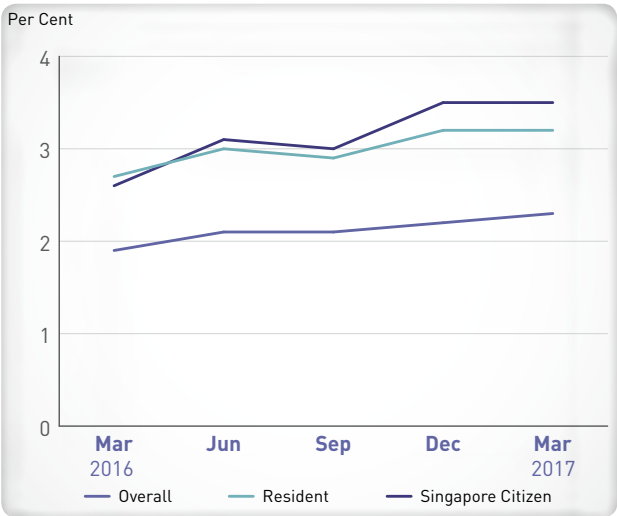
The seasonally-adjusted unemployment rate was unchanged for residents (3.2 per cent) and citizens (3.5 per cent) in March 2017 compared to December 2016, following an increase in December 2016 compared to September 2016. The overall unemployment rate rose slightly from 2.2 per cent in December 2016 to 2.3 per cent in March 2017 (Exhibit 1.4).

In March 2017, an estimated 74,400 residents, including 67,100 Singapore citizens, were unemployed. These were broadly similar to the number of unemployed residents (73,900) and citizens (67,300) in December 2016.[2]

[1] *Figures pertain to private sector establishments with at least 25 employees and the public sector.*

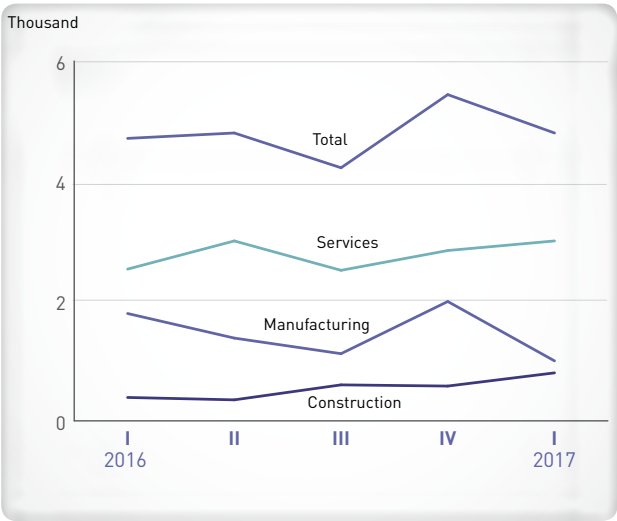
[2] *Based on seasonally-adjusted data on the number of unemployed persons.*

Exhibit 1.4: Unemployment Rate (Seasonally Adjusted)



Total redundancies fell over the quarter. Around 4,800 workers were made redundant in the first quarter, down from the 5,440 in the previous quarter, but similar when compared to the same period a year ago (Exhibit 1.5). By broad sectors, redundancies declined over the quarter in the manufacturing sector (from 1,990 to 1,000). On the other hand, redundancies rose over the quarter in the construction (from 580 to 800) and services (2,840 to 3,000) sectors.

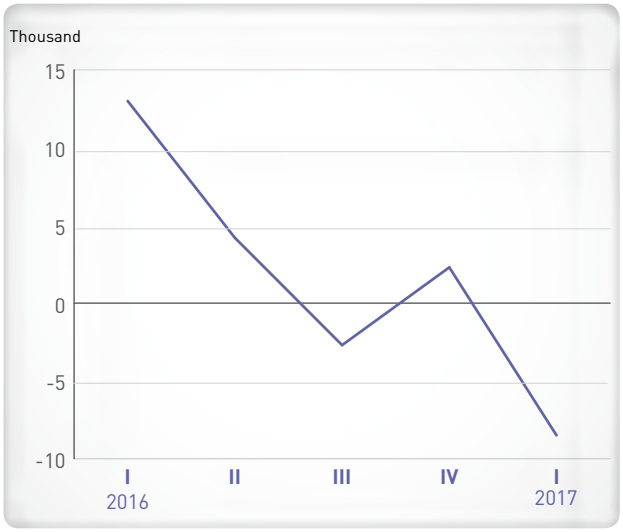
Exhibit 1.5: Total Redundancies



Employment[3]

Total employment declined by 8,500 on a quarter-on-quarter basis in the first quarter, compared to the growth of 13,000 registered in the same quarter a year ago (Exhibit 1.6).

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

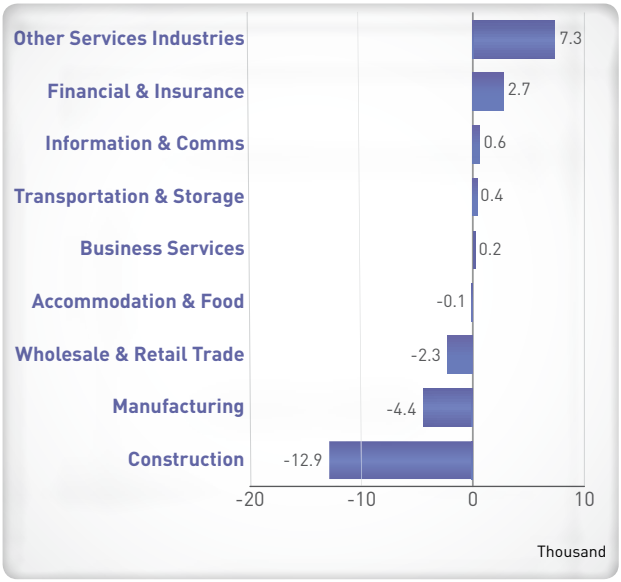


The decline in employment in the first quarter was mainly due to a fall in Work Permit Holders in the manufacturing and construction sectors. Employment in the manufacturing sector fell by 4,400 in the first quarter, the tenth consecutive quarter of decline, although this was a moderation from the contraction seen in the fourth quarter of 2016 (-6,500). In particular, employment in the marine & offshore engineering segment continued to be weighed down by the sluggish demand for oil rigs and oilfield equipment amidst low oil prices. Meanwhile, employment in the construction sector declined (-12,900) for the third consecutive quarter, due to continued weakness in private sector construction works (Exhibit 1.7).

Nonetheless, the declines in these sectors were partially offset by employment gains in the services industries (8,700), largely due to stronger employment growth in sectors such as other services industries (7,300) and financial & insurance services (2,700).

[3] *Based on preliminary estimates.*

Exhibit 1.7: Changes in Employment by Industry in 1Q 2017



Hiring Expectations

The hiring outlook of the manufacturing sector continued to be negatively affected by firms in the oil-related segments. According to EDB's Business Expectations Survey for the Manufacturing Sector, a net weighted balance of 5 per cent of manufacturers expected to hire fewer workers in the second quarter of 2017 as compared to the first quarter. The weak hiring sentiment was largely due to the marine & offshore engineering segment, where a net weighted balance of 38 per cent of firms expected lower levels of hiring. By contrast, firms in the other electronic modules & components and land engineering segments were the most optimistic, with a net weighted balance of 32 per cent and 23 per cent of firms in the respective segments expecting to increase hiring in the second quarter.

Hiring expectations for firms in the services sector were positive. According to DOS' Business Expectations Survey for the Services Sector, a net weighted balance of 1 per cent of services firms expected to increase hiring in the second quarter of 2017. In particular, a net weighted balance of 10 per cent of firms in the recreation, community & personal services segment and 6 per cent of firms in the wholesale trade segment expected to hire more workers.

COMPETITIVENESS

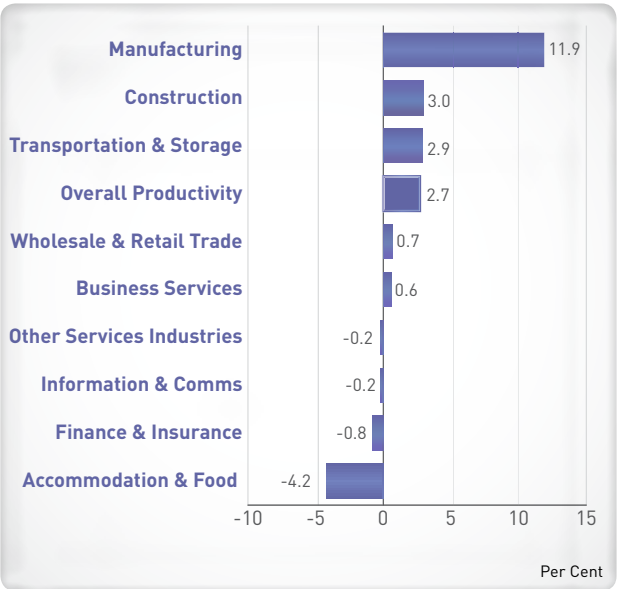
Productivity

Overall labour productivity, as measured by value-added per worker, grew by 2.7 per cent in the first quarter compared to the same period a year ago (Exhibit 1.8).

The manufacturing (12 per cent), construction (3.0 per cent) and transportation & storage (2.9 per cent) sectors saw the highest productivity growth rates. By contrast, the accommodation & food (-4.2 per cent) and finance & insurance (-0.8 per cent) sectors experienced the sharpest declines in productivity.

Outward-oriented sectors as a whole registered higher productivity growth than domestically-oriented sectors. Compared to the same period last year, the productivity of outward-oriented sectors grew by 3.9 per cent in the first quarter, while that of domestically-oriented sectors improved by 0.3 per cent.[4]

Exhibit 1.8: Changes in Value-added per Worker for the Overall Economy and Sectors in 1Q 2017



[4] *Based on MTI estimates. Outward-oriented sectors refer to manufacturing, wholesale trade, transportation & storage, accommodation, information & communications, finance & insurance and professional services. Domestically-oriented sectors refer to construction, retail trade, food & beverage services, other business services and other services industries.*

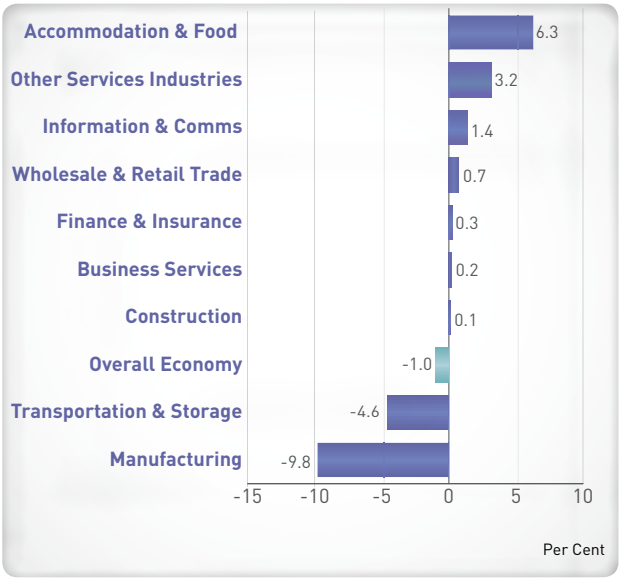
Unit Labour Cost and Unit Business Cost

Overall unit labour cost (ULC) for the economy fell by 1.0 per cent in the first quarter, a reversal from the 0.7 per cent increase in the fourth quarter of 2016 (Exhibit 1.9). The decline in overall ULC was due to positive labour productivity growth that exceeded the increase in labour cost per worker.

By sectors, the ULC for the manufacturing sector declined by 9.8 per cent, the fifth consecutive quarter of decline, on the back of strong productivity gains.

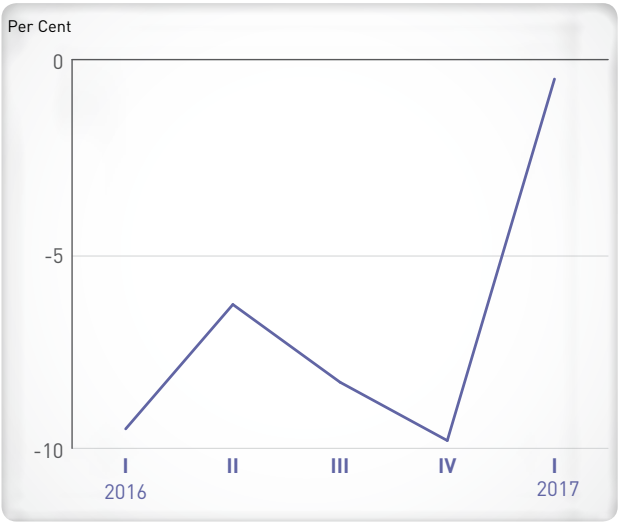
On the other hand, the services ULC increased by 1.2 per cent. All the services sectors, with the exception of transportation & storage, saw increases in their respective ULCs. Construction ULC also edged up by 0.1 per cent, as the rise in total labour cost per worker outpaced labour productivity growth for the sector.

Exhibit 1.9: Changes in Unit Labour Cost in 1Q 2017



Unit business cost (UBC) for the manufacturing sector fell by 0.5 per cent in the first quarter, a slower pace of decline as compared to the 9.8 per cent fall in the previous quarter (Exhibit 1.10). The smaller decline in manufacturing UBC was mainly driven by a 3.8 per cent increase in the unit services cost (which includes utilities cost), a reversal from the 9.3 per cent decline in the preceding quarter.

Exhibit 1.10: Changes in Unit Business Cost for Manufacturing

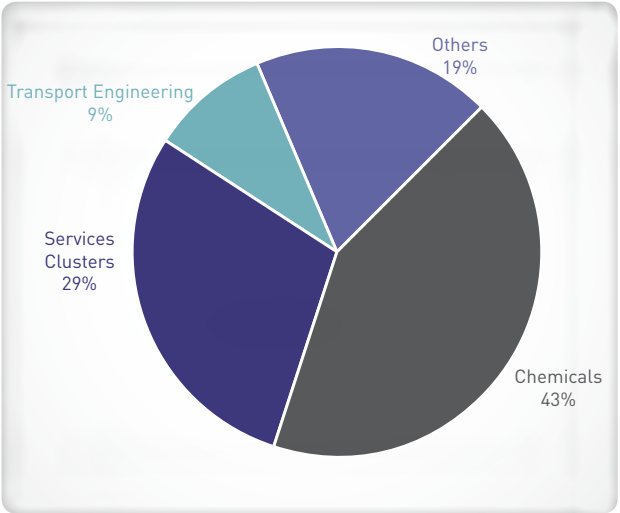


Investment Commitments

Investment commitments in terms of total Fixed Asset Investments (FAI) and Total Business Expenditure (TBE) amounted to $1.8 billion and $1.1 billion respectively in the first quarter (Exhibit 1.11 and Exhibit 1.12).

In terms of FAI, the largest contribution came from the chemicals cluster, which garnered $0.8 billion in commitments, mainly from the petrochemicals segment. This was followed by the services clusters, which attracted $0.5 billion in commitments. Investors from the United States contributed the most to FAI commitments, accounting for $0.9 billion (49 per cent) of total FAI commitments.

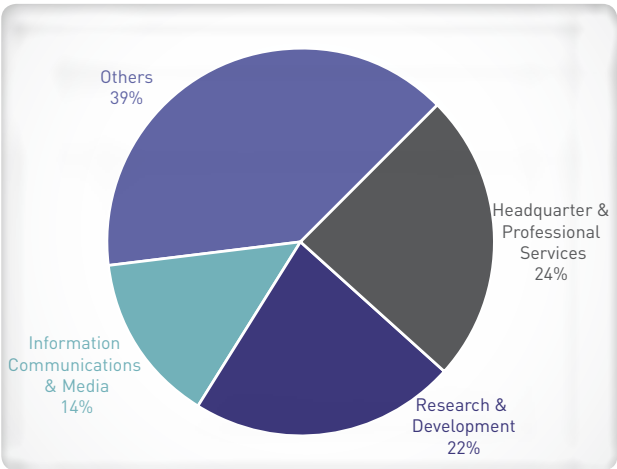
Exhibit 1.11: Fixed Asset Investments by Industry Cluster in 1Q 2017



In terms of TBE, the headquarters & professional services cluster garnered the highest amount of commitments at $0.3 billion, followed by the research & development cluster, at $0.2 billion. Similarly, investors from the United States were the largest source of TBE, accounting for $0.4 billion (36 per cent) of total TBE committed.

When fully realised, these commitments are expected to generate value-added of $3.8 billion and more than 3,900 jobs.

Exhibit 1.12: Total Business Expenditure by Industry Cluster in 1Q 2017

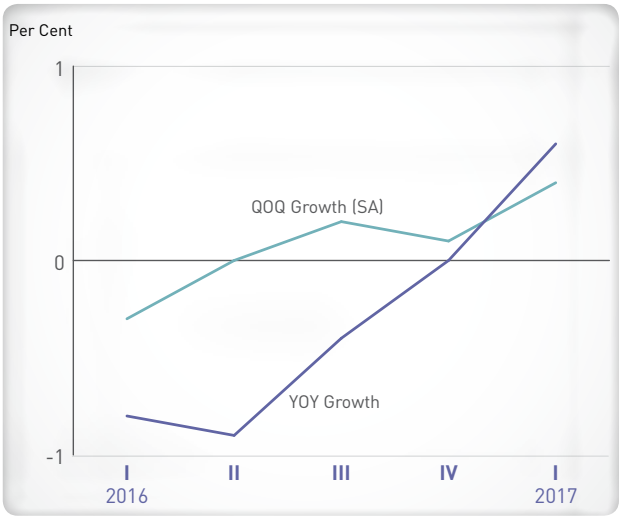


PRICES

Consumer Price Index

The Consumer Price Index (CPI) increased by 0.6 per cent on a year-on-year basis in the first quarter after remaining unchanged in the previous quarter (Exhibit 1.13). On a quarter-on-quarter seasonally-adjusted basis, the CPI rose by 0.4 per cent, faster than the 0.1 per cent increase in the preceding quarter.

Exhibit 1.13: Changes in CPI



Among the CPI categories, the largest positive contributor to headline inflation in the first quarter was transport costs, which rose by 3.8 per cent on a year-on-year basis (Exhibit 1.14). In particular, while bus & train fares fell, private road transport costs picked up on the back of higher petrol prices, the expiry of the road tax rebate, as well as the rise in parking charges and car prices. Food prices rose by 1.5 per cent due to price increases for hawker food and restaurant meals, as well as non-cooked food items such as fish & seafood and vegetables.

Education costs increased by 3.6 per cent on account of higher fees at commercial institutions, universities, polytechnics, childcare centres and kindergartens. Healthcare costs went up by 2.7 per cent due to more expensive hospital and outpatient services. The prices of household durables & services rose by 1.7 per cent as a result of higher salaries for foreign domestic workers. Recreation & culture costs edged up by 0.4 per cent on account of a rise in the costs of holiday travel and newspapers. Communications costs rose by 0.3 per cent because of the higher cost of telecommunication services.

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

					Per Cent
	2016				2017
	I	II	III	IV	I
All items	-0.8	-0.9	-0.4	0.0	**0.6**
Food	2.0	2.2	2.1	2.0	**1.5**
Clothing & Footwear	2.1	0.6	-1.6	-0.2	**-0.9**
Housing & Utilities	-4.1	-4.2	-4.3	-3.8	**-3.2**
Household Durables & Services	-0.8	2.3	3.1	2.6	**1.7**
Health Care	0.7	0.9	0.6	2.1	**2.7**
Transport	-2.9	-5.2	-1.6	0.1	**3.8**
Communication	-1.1	-0.5	0.8	-0.6	**0.3**
Recreation & Culture	0.4	1.2	1.1	0.9	**0.4**
Education	2.5	3.2	3.4	3.2	**3.6**
Miscellaneous Goods & Services	0.5	0.4	0.0	0.1	**-0.1**

The price gains in these CPI categories were partially offset by declines in other categories. In particular, housing & utilities posed the largest drag on headline inflation, with prices declining by 3.2 per cent as the fall in accommodation costs outweighed the rise in electricity tariffs, housing maintenance charges and refuse collection fees. Clothing & footwear costs fell by 0.9 per cent due to cheaper footwear and ready-made garments. The prices of miscellaneous goods & services dipped by 0.1 per cent on account of the lower cost of personal care items.

INTERNATIONAL TRADE

Merchandise Trade

Singapore's total merchandise trade expanded by 16 per cent year-on-year in the first quarter of 2017, extending the 4.0 per cent increase in the preceding quarter (Exhibit 1.15). This was mainly due to the 77 per cent increase in total oil trade in nominal terms on the back of a rise in oil prices from levels a year ago.

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

						Per Cent
	2016					2017
	I	II	III	IV	Ann	I
Merchandise Trade	-11.0	-6.0	-6.6	4.0	-4.9	**16.3**
Merchandise Exports	-13.1	-4.8	-4.5	2.1	-5.1	**17.0**
Domestic Exports	-16.9	-5.0	-8.0	7.6	-5.8	**29.2**
Oil	-33.3	-18.0	-13.7	20.2	-12.6	**72.0**
Non-Oil	-9.6	1.2	-5.4	2.7	-2.8	**15.2**
Re-Exports	-9.5	-4.6	-1.0	-2.4	-4.4	**6.5**
Merchandise Imports	-8.5	-7.4	-9.1	6.1	-4.7	**15.6**
Oil	-37.6	-29.2	-23.9	16.8	-20.6	**89.8**
Non-Oil	-0.6	-0.7	-4.9	3.9	-0.6	**3.0**

Total merchandise exports rose by 17 per cent in the first quarter, following the 2.1 per cent increase in the preceding quarter. This marked the second consecutive quarter of growth, and was due to an increase in both domestic exports and re-exports of 29 per cent and 6.5 per cent respectively.

The increase in domestic exports was due to an expansion in both oil and non-oil domestic exports. In particular, oil domestic exports grew by 72 per cent in the first quarter, extending the 20 per cent growth in the previous quarter, mainly due to higher oil prices compared to a year ago. In volume terms, oil domestic exports rose by 14 per cent.

Non-oil domestic exports (NODX) expanded by 15 per cent in the first quarter, extending the 2.7 per cent increase in the previous quarter. The expansion was due to the growth in both electronics and non-electronics NODX.

Total merchandise imports rose by 16 per cent in the first quarter, following the 6.1 per cent increase posted in the previous quarter. This was due to an increase in both oil and non-oil imports. Specifically, oil imports increased by 90 per cent on the back of higher oil prices and higher import volumes. Meanwhile, non-oil imports rose by 3.0 per cent, driven by an increase in both electronics and non-electronics imports.

Services Trade

Total services trade grew at a faster rate of 4.3 per cent in the first quarter, as compared to the 3.4 per cent growth in the previous quarter (Exhibit 1.16). Services exports rose by 3.9 per cent, faster than the 3.1 per cent growth recorded in the preceding quarter. The growth in services exports can be attributed to an increase in travel, transport, and other business services exports. Services imports grew by 4.6 per cent, picking up from the 3.7 per cent growth in the previous quarter. The growth in services imports was mainly due to increases in the imports of transport and other business services as well as payments for the use of intellectual property.

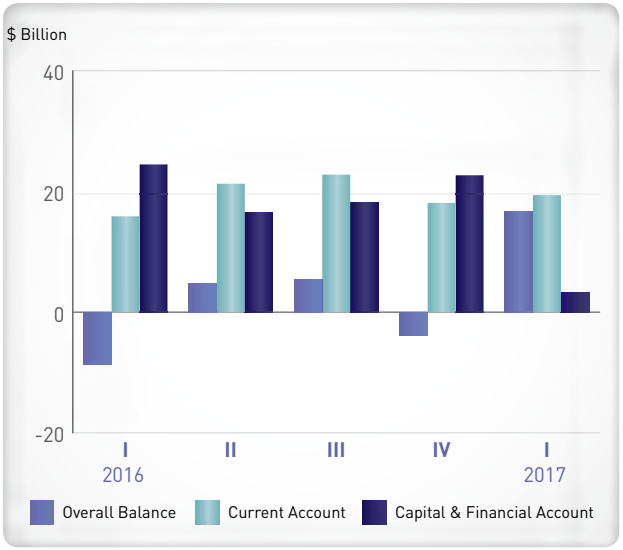
Exhibit 1.16: Growth Rates of Total Services Trade, Services Exports and Services Imports (In Nominal Terms)

						Per Cent
	2016					2017
	I	II	III	IV	Ann	I
Total Services Trade	-0.5	1.4	0.4	3.4	1.2	**4.3**
Services Exports	-1.0	2.0	0.6	3.1	1.2	**3.9**
Services Imports	0.0	0.9	0.2	3.7	1.2	**4.6**

BALANCE OF PAYMENTS

The overall balance of payments recorded a surplus of $17 billion in the first quarter, a reversal from the deficit of $3.9 billion in the previous quarter. This arose as net outflows from the financial account shrank substantially, while the surplus in the current account increased.

Exhibit 1.17: Balance of Payments[5]



Current Account

The current account surplus rose to $19 billion in the first quarter, from $18 billion in the preceding quarter. Although the surplus in the goods balance narrowed, this was more than offset by the decline in the primary income deficit. Meanwhile, the deficits in the services and secondary income balances were broadly stable.

The surplus in the goods balance declined by $0.9 billion to $27 billion in the first quarter, from $28 billion in the previous quarter.

By contrast, the deficit in the primary income balance narrowed from $3.7 billion to $1.7 billion in the first quarter, as primary income receipts rose while income payments decreased slightly.

At the same time, the deficit in the services balance remained broadly unchanged at around $2.5 billion. Although net payments for travel, transport and other business services, as well as charges for the use of intellectual property fell, these were largely matched by declines in net receipts from financial, insurance, as well as maintenance and repair services.

[5] *Decrease in assets and liabilities, and 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".*

Capital and Financial Account

Net outflows from the capital and financial account shrank to $3.3 billion in the first quarter, from $23 billion a quarter ago. Financial derivatives turned from net outflows to net inflows, while net outflows of portfolio investment fell over this period. These outweighed the decrease in the net inflows of direct investment and the increase in net outflows of "other investment".

The financial derivatives account recorded $8.3 billion of net inflows in the first quarter of the year after registering net outflows of $3.4 billion in the preceding quarter. Meanwhile, net outflows of portfolio investment decreased by $11 billion to $2.9 billion. This largely reflected the reversal of portfolio investment in the non-bank private sector to net inflows, as foreigners switched from net divestments to net acquisition of local securities.

In comparison, net inflows of direct investment fell by $2.1 billion to $17 billion in the first quarter of the year, as residents' direct investment abroad increased by more than foreign direct investment into Singapore.

At the same time, net outflows from the "other investment" account picked up to $25 billion in the first quarter from $24 billion in the previous quarter. This was driven by the reversal from net inflows to net outflows from domestic deposit-taking corporations, which more than offset the reduction in net outflows from the non-bank private sector.


SHOP

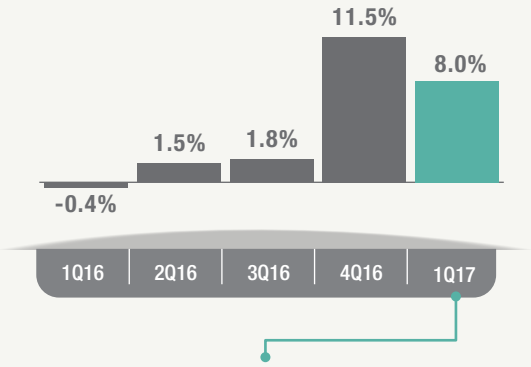
CHAPTER 2
Sectoral Performance

Image courtesy of Singapore Economic Development Board

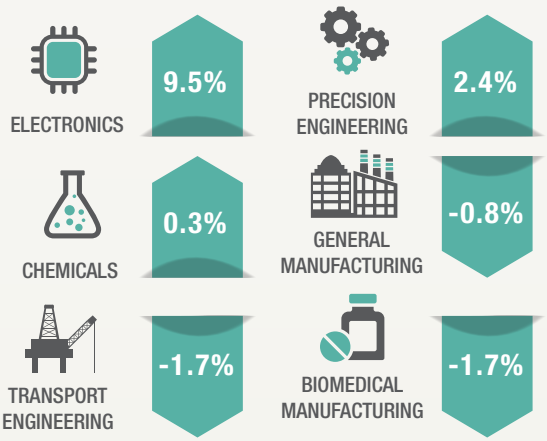
CHAPTER 2
SECTORAL PERFORMANCE

MANUFACTURING

Real Growth

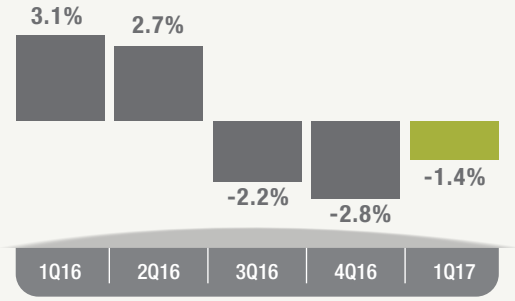


Clusters in Manufacturing Sector %-point contribution in 1Q17

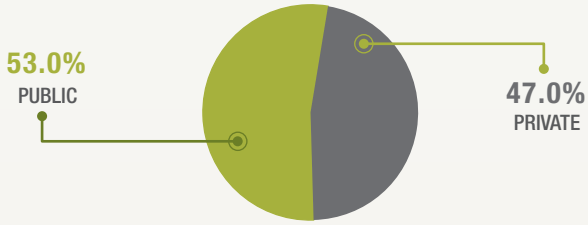


CONSTRUCTION

Real Growth



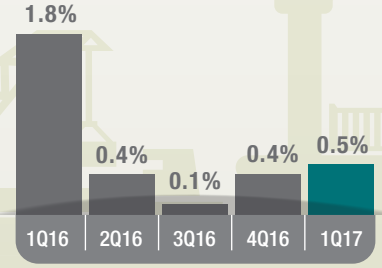
Certified Payments in 1Q17



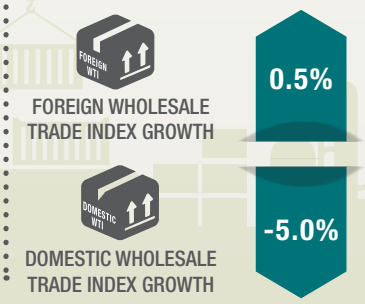
Contracts Awarded in 1Q17

WHOLESALE & RETAIL TRADE

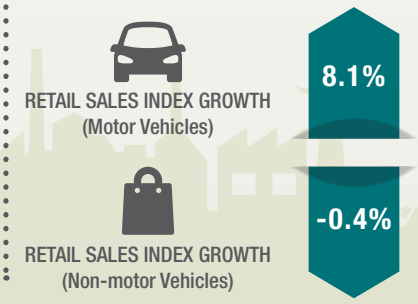
Real Growth



Wholesale Trade

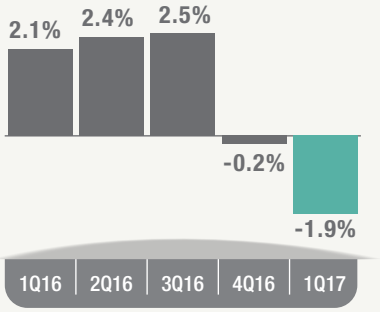


Retail Trade



ACCOMMODATION & FOOD SERVICES

Real Growth



Accommodation

Performance of hotels

LUXURY

UPSCALE

MID-TIER

ECONOMY

Gross lettings growth: -1.5%

Room revenue growth: -3.0%

Food Services

Performance of F&B (Sales growth)

CATERING 0.2%

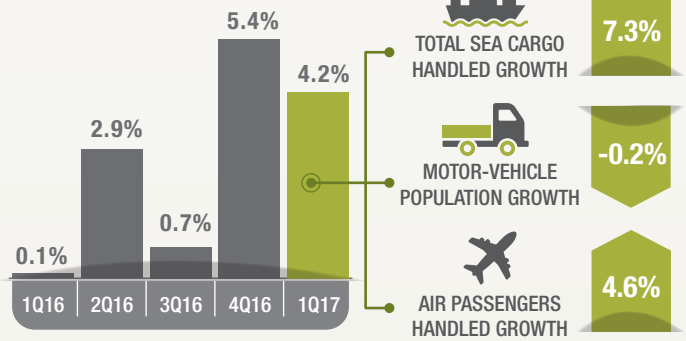
FAST FOOD 0.1%

OTHERS -0.9%

RESTAURANTS -10.2%

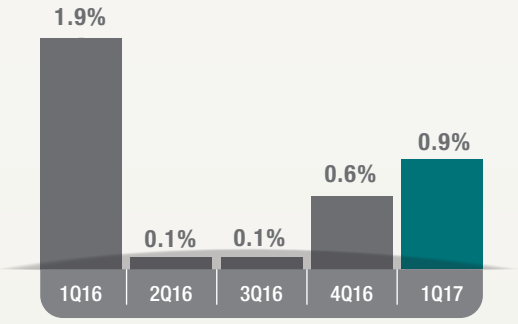
TRANSPORTATION & STORAGE

Real Growth



FINANCE & INSURANCE

Real Growth



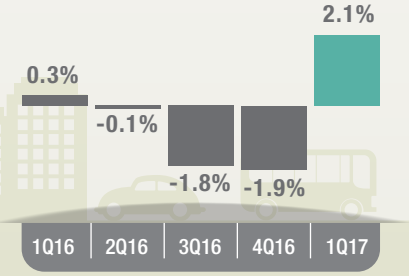
Growth of bank loans & advances to non-bank customers in 1Q17

+8.1% LOANS TO BUSINESSES

+3.8% CONSUMER LOANS

BUSINESS SERVICES

Real Growth



Private Residential Real Estate

82.7% UNITS TRANSACTED (Y-O-Y CHANGE)

-0.4% PRICE INDEX (Q-O-Q CHANGE)

OVERVIEW

In the first quarter of 2017,

- The manufacturing sector expanded by 8.0 per cent, extending the 11 per cent growth in the previous quarter. Growth was largely supported by higher output in the electronics and precision engineering clusters, while lower output levels in the biomedical manufacturing, transport engineering and general manufacturing clusters weighed on growth.

- The construction sector shrank by 1.4 per cent, extending the 2.8 per cent contraction in the preceding quarter. The drop in output came on the back of a decline in private sector construction activities, which was in turn pulled down by a fall in private industrial building works and private residential building works.

- The wholesale & retail trade sector grew by 0.5 per cent, similar to the 0.4 per cent growth in the previous quarter. The subdued growth of the sector can largely be attributed to the wholesale trade segment.

- The transportation & storage sector grew by 4.2 per cent, extending the 5.4 per cent expansion in the previous quarter. Growth was supported by the water transport and air transport segments, which were in turn bolstered by an increase in the volume of sea cargo handled and air passenger traffic respectively.

- The accommodation & food services sector contracted by 1.9 per cent, extending the 0.2 per cent decline recorded in the previous quarter, weighed down by the poor performance of the food services segment.

- The finance & insurance sector grew by 0.9 per cent, a modest increase from the 0.6 per cent growth in the preceding quarter. Stronger outturns in the financial intermediation and fund management segments contributed to the higher growth of the sector.

- The business services sector expanded by 2.1 per cent, rebounding from the 1.9 per cent contraction in the preceding quarter. Growth in the sector was supported primarily by the professional services and others segments. On the other hand, weakness in the real estate segment continued to pose a drag on the sector.

MANUFACTURING

In the first quarter, manufacturing output rose by 8.0 per cent, following the increase of 11 per cent in the previous quarter (Exhibit 2.1). The robust performance of the sector was underpinned by sustained growth in the electronics, precision engineering and chemicals clusters. On the other hand, declines in the output of the biomedical manufacturing, transport engineering and general manufacturing clusters weighed on growth (Exhibit 2.2).

Exhibit 2.1: Manufacturing Sector's Growth Rates

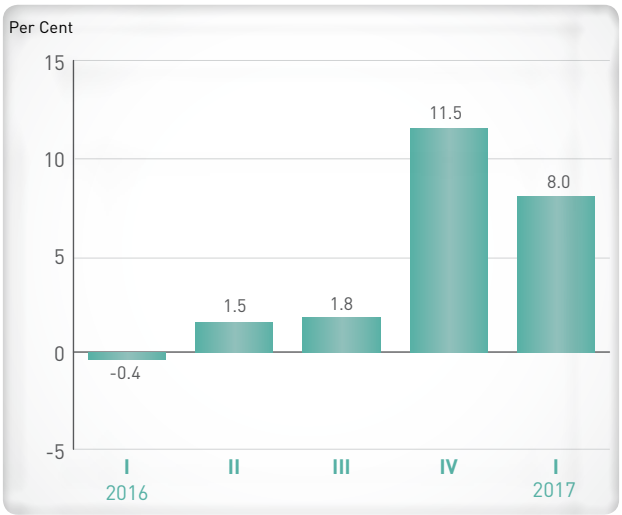
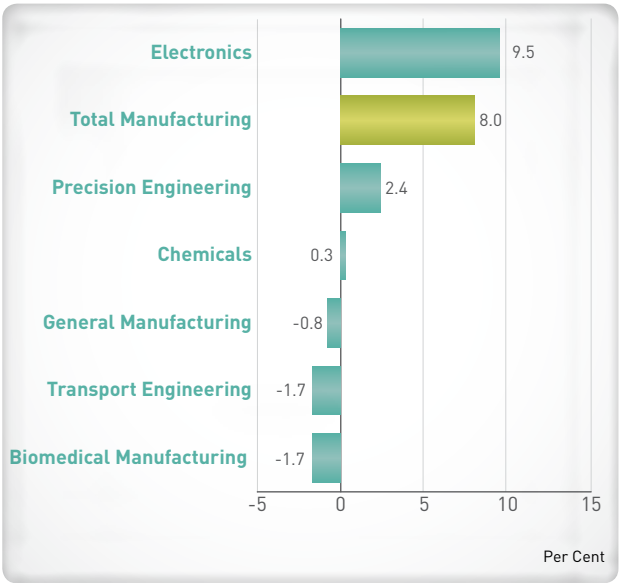


Exhibit 2.2: Percentage-Point Contribution to Manufacturing Sector's Growth in 1Q 2017



The output of the electronics cluster increased by 33 per cent in the first quarter, largely driven by the semiconductors segment, which saw its output surge by 50 per cent. The strong performance of the semiconductors segment can be attributed to the continued recovery in global semiconductors demand, driven in turn by healthy demand in key end markets such as smartphone and automotive applications. At the same time, the other electronic modules & components and computer peripherals segments grew by 9.0 per cent and 1.2 per cent respectively. On the other hand, output in the data storage and infocomms & consumer electronics segments declined by 12 per cent and 4.3 per cent respectively, amidst continued weakness in the PC devices market.

The precision engineering cluster expanded by 19 per cent in the first quarter, supported by both the machinery & systems (M&S) and precision modules & components (PMC) segments. Output in the M&S segment rose by 24 per cent on the back of robust export demand for semiconductor manufacturing equipment. Meanwhile, the PMC segment grew by 11 per cent due to an increase in the production of dies, moulds, tools, jigs & fixtures, optical instruments and metal precision components.

The output of the chemicals cluster increased by 2.9 per cent in the first quarter, supported primarily by growth in the petrochemicals (9.8 per cent) and specialty chemicals (2.9 per cent) segments. Growth in the petrochemicals segment was partly the result of a low base effect as production levels a year ago were weak due to plant maintenance shutdowns. Meanwhile, growth in the specialty chemicals segment was underpinned by a higher level of production of mineral oil additives due to stronger export demand. On the other hand, the other chemicals segment contracted by 5.6 per cent on account of a lower level of production of fragrances.

The general manufacturing industries shrank by 6.7 per cent in the first quarter. In particular, the output of the miscellaneous industries segment fell by 12 per cent due to a decline in the production of fibreglass products and construction-related products & materials. The printing segment contracted by 21 per cent, as demand for commercial printing remained weak. On the other hand, the food, beverage & tobacco segment expanded by 3.2 per cent, supported by healthy export demand.

The output of the transport engineering cluster fell by 11 per cent in the first quarter, as continued weakness in the marine & offshore engineering (M&OE) segment placed a drag on the cluster. Output in the M&OE segment declined by 26 per cent on account of a lower level of offshore rig-building activity and soft demand for oilfield & gasfield equipment. This more than offset expansions in the aerospace (10 per cent) and land (7.0 per cent) segments. The aerospace segment, in particular, was supported by an increase in demand for aircraft and engine maintenance work.

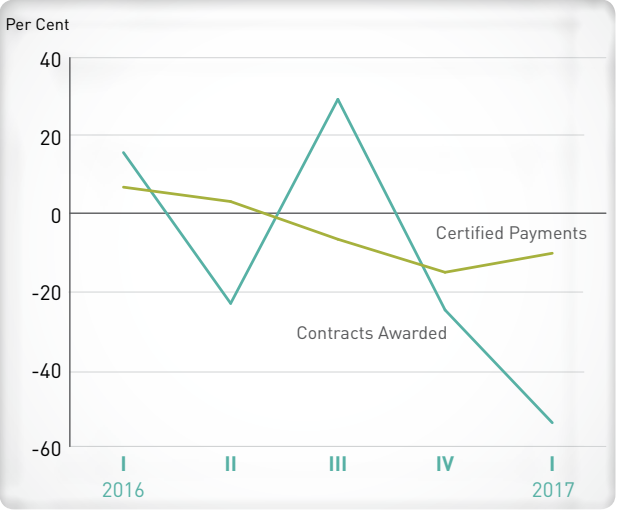
The biomedical manufacturing cluster contracted by 7.5 per cent in the first quarter. Within the cluster, the medical technology segment recorded robust growth of 14 per cent, supported by higher export demand for medical instruments. However, this was outweighed by a 14 per cent decline in the output of the pharmaceuticals segment as the production of active pharmaceutical ingredients fell.

CONSTRUCTION

The construction sector contracted by 1.4 per cent in the first quarter, extending the 2.8 per cent decline recorded in the previous quarter. This was primarily due to the weakness in private sector construction activities, which was in turn pulled down by lower levels of private industrial building works and private residential building works.

Nominal certified progress payments (a proxy for construction output) fell by 10 per cent in the first quarter, extending the 15 per cent drop in the preceding quarter (Exhibit 2.3). The decline was due to a 24 per cent contraction in private certified progress payments, led by a slowdown in private industrial building works (-37 per cent) and private residential building works (-22 per cent). The fall in private sector construction works was partially offset by an increase in public sector construction works. Specifically, public certified progress payments rose by 7.2 per cent, following the expansion in public institutional & other building works (43 per cent) and public industrial building works (102 per cent).

Exhibit 2.3: Changes in Contracts Awarded and Certified Payments



Construction demand in terms of contracts awarded weakened in the first quarter, decreasing by 54 per cent, extending the 25 per cent decline in the previous quarter (Exhibit 2.3). The contraction was due to a drop in public sector construction demand (-69 per cent), led by segments such as public civil engineering contracts (-94 per cent) and public institutional & other building contracts (-71 per cent). However, public industrial building contracts helped to cushion the fall in public construction demand, with contracts awarded for the construction of a fourth desalination plant at Marina East and HDB's Defu Industrial City. Meanwhile, private sector construction demand (14 per cent) grew on the back of an increase in private industrial building contracts (32 per cent) and private commercial building contracts (29 per cent).

Notwithstanding the decline in contracts awarded in the first quarter, BCA expects construction demand to come in at $28 billion to $35 billion for the full year. At the mid-point of the range, a 21 per cent increase in construction demand from 2016's level is expected. The public sector is expected to account for approximately 70 per cent of total construction demand.

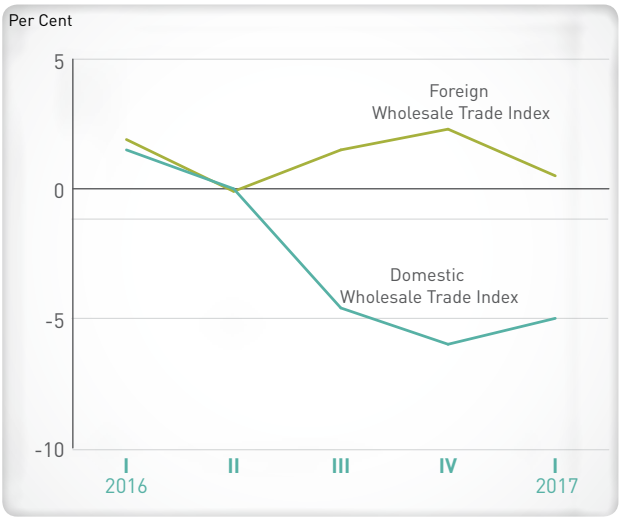
WHOLESALE & RETAIL TRADE

The wholesale & retail trade sector grew by 0.5 per cent in the first quarter, similar to the 0.4 per cent growth in the previous quarter.

Growth in the wholesale trade segment was weighed down by the weakness in domestic wholesale trade sales volume. In particular, the domestic wholesale trade index declined by 5.0 per cent in the first quarter, extending the 6.0 per cent contraction in the previous quarter (Exhibit 2.4). The weak performance in domestic wholesale trade can be largely attributed to a decline in the sales volume of petroleum & petroleum products (-9.3 per cent) and telecommunications & computers (-8.2 per cent).

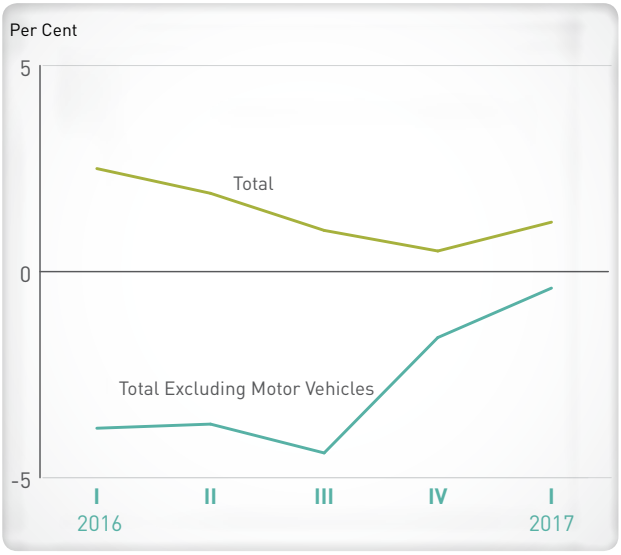
By contrast, the foreign wholesale trade index expanded marginally by 0.5 per cent, moderating from the 2.3 per cent growth in the previous quarter. The increase in the index was largely driven by a rise in the sales volume of telecommunications & computers (29 per cent) and metals, timber & construction materials (29 per cent). On the other hand, a 10 per cent contraction in the sales volume of petroleum & petroleum products weighed on overall foreign wholesale trade sales volume.

Exhibit 2.4: Changes in Wholesale Trade Index at Constant Prices



For the retail trade segment, overall retail sales volume rose by 1.2 per cent in the first quarter, accelerating from the 0.5 per cent growth in the preceding quarter (Exhibit 2.5). Growth was supported by an 8.1 per cent increase in the volume of motor vehicle sales, in tandem with an on-year increase in the supply of Certificate of Entitlements in the first quarter. Excluding motor vehicle sales, retail sales volume contracted by 0.4 per cent in the first quarter, moderating from the 1.6 per cent decline recorded in the previous quarter. Specifically, retail sales volume (excluding motor vehicle sales) was weighed down by the poor performance of department stores (-4.6 per cent), optical goods & books (-2.5 per cent), and computer & telecommunications equipment (-1.9 per cent).

Exhibit 2.5: Changes in Retail Sales Index at Constant Prices

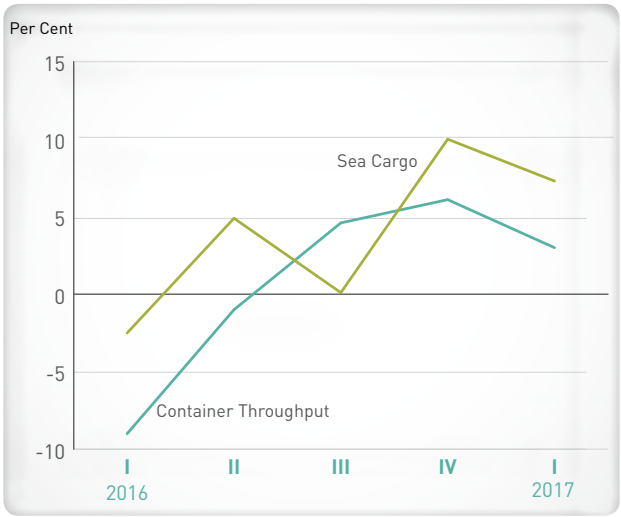


TRANSPORTATION & STORAGE

Growth in the transportation & storage sector came in at 4.2 per cent in the first quarter, easing from the 5.4 per cent expansion in the previous quarter.

The water transport segment remained resilient during the quarter, as the volume of sea cargo handled grew by 7.3 per cent, extending the 10 per cent rise in the previous quarter (Exhibit 2.6). The increase in the volume of sea cargo handled in the first quarter was driven by a rise in oil-in-bulk cargo (18 per cent) and container throughput handled (3.0 per cent) at Singapore's ports.

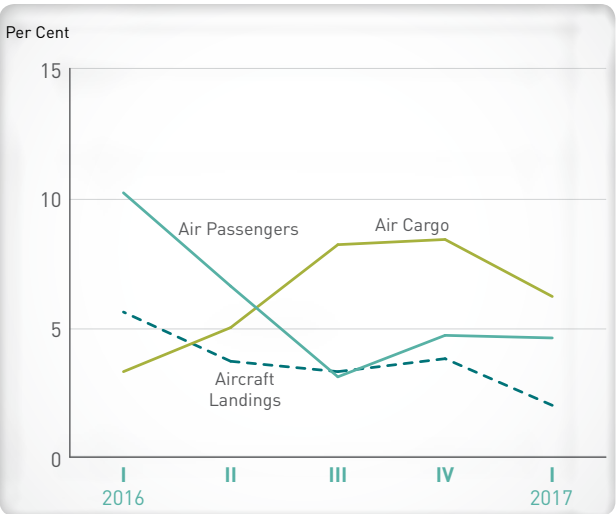
Exhibit 2.6: Changes in Container Throughput and Sea Cargo Handled



Similarly, the air transport segment was supported by an increase in air passenger volume handled at Changi Airport. Specifically, the volume of air passenger traffic passing through Changi Airport rose by 4.6 per cent in the first quarter, similar to the 4.7 per cent increase in the previous quarter (Exhibit 2.7). The increase in air passenger traffic was underpinned by robust growth on the Singapore-China and Singapore-Indonesia routes. At the same time, total air cargo shipments handled at Changi Airport expanded by 6.3 per cent in the first quarter, easing from the 8.4 per cent growth in the preceding quarter.

The number of aircraft landings rose by 2.0 per cent in the first quarter to reach 45,282, lower than the 3.8 per cent expansion in the previous quarter.

Exhibit 2.7: Changes in Air Transport



As of March 2017, the total number of motor vehicles registered with the Land Transport Authority fell slightly by 0.2 per cent to a total of 950,582 (Exhibit 2.8). These comprised 547,024 private and company cars, 58,027 rental cars, 26,734 taxis, 18,569 buses, 142,704 motorcycles and scooters, and 157,524 goods vehicles & other vehicle types.

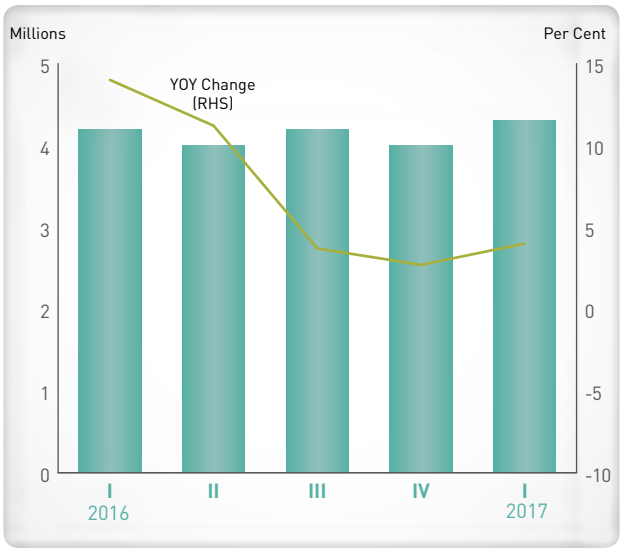
Exhibit 2.8: Motor Vehicles Registered

ACCOMMODATION & FOOD SERVICES

The accommodation & food services sector contracted by 1.9 per cent in the first quarter, extending the marginal 0.2 per cent decline recorded in the previous quarter. The sector's performance was weighed down by the food services segment.

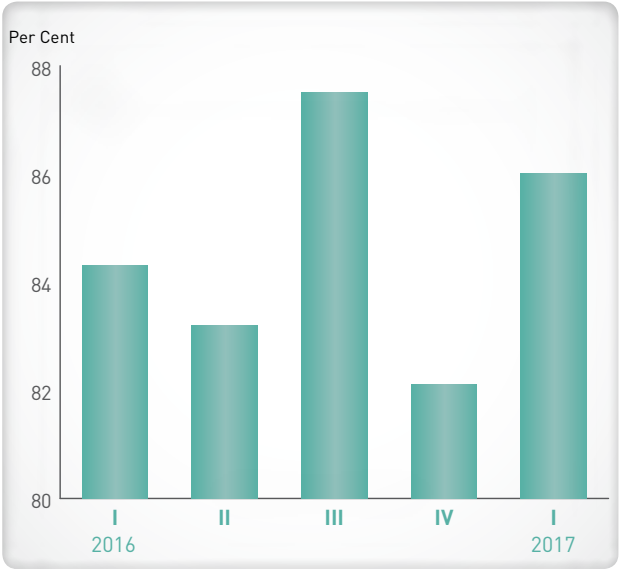
The accommodation segment was supported by healthy visitor arrivals in the first quarter. Specifically, total visitor arrivals rose by 4.0 per cent, improving from the 2.7 per cent increase in the previous quarter (Exhibit 2.9). Visitor arrivals in the first quarter was largely supported by buoyant travel demand from the Chinese source market as Chinese arrivals rose by 14 per cent, extending the 20 per cent growth in the previous quarter.

Exhibit 2.9: Visitor Arrivals



In tandem with the increase in visitor arrivals, the overall average occupancy rate of gazetted hotels rose by 1.8 percentage-points from a year ago to reach 86 per cent in the first quarter (Exhibit 2.10). The improvement was broad-based, with occupancy rates rising across most hotel tiers. In particular, the average occupancy rate at economy, mid-tier and upscale hotels rose by 4.1 percentage-points, 1.1 percentage-points and 2.5 percentage-points respectively as compared to the same period a year ago.

Exhibit 2.10: Overall Average Occupancy Rate



On the other hand, the volume of food & beverage sales declined at a sharper pace of 4.2 per cent in the first quarter, compared to the 1.9 per cent contraction in the previous quarter (Exhibit 2.11). The food & beverage sales volume was primarily weighed down by restaurant sales, which shrank by 10 per cent, extending the 9.6 per cent decline in the preceding quarter. The sales volume in other eating places also dipped by 0.9 per cent, reversing the 3.1 per cent increase in the previous quarter.

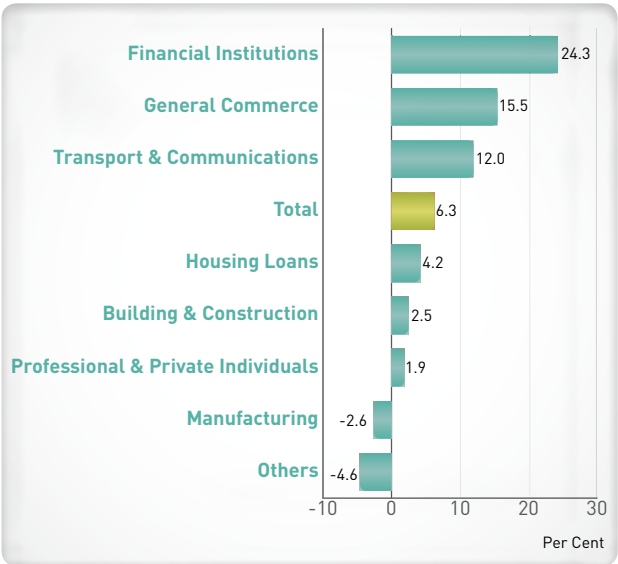
Exhibit 2.11: Changes in Food & Beverage Services Index at Constant Prices

FINANCE & INSURANCE

The finance & insurance sector expanded by 0.9 per cent in the first quarter, extending the 0.6 per cent growth in the preceding quarter.

The improvement largely resulted from the robust performance of the financial intermediation segments. Domestic Banking Unit (DBU) non-bank lending expanded by 6.3 per cent in the first quarter, with firmer loan demand recorded across the general commerce, transport, storage & communication, business services and non-bank financial institutions segments (Exhibit 2.12). Asian Currency Unit (ACU) non-bank lending also grew by 1.1 per cent in the quarter, a turnaround from the 4.7 per cent decline in the previous quarter. On a year-ago basis, non-bank lending to Europe and the Americas picked up, while the fall in lending to East Asia eased. Furthermore, banks registered strong growth in net fees and commissions earned, amidst an uptick in demand for services such as underwriting and portfolio management.

Exhibit 2.12: Growth of DBU Loans & Advances to Non-Bank Customers by Industry in 1Q 2017



The sentiment-sensitive cluster saw mixed performances. While average daily forex turnover contracted by 8.1 per cent in the quarter, this was mitigated by gains in the fund management segment. Net fees and commissions received by fund managers saw robust growth, supported by investor expectations of improving macroeconomic conditions globally. In particular, hedge funds that invested in emerging Asia saw strong performances in early 2017.

BUSINESS SERVICES

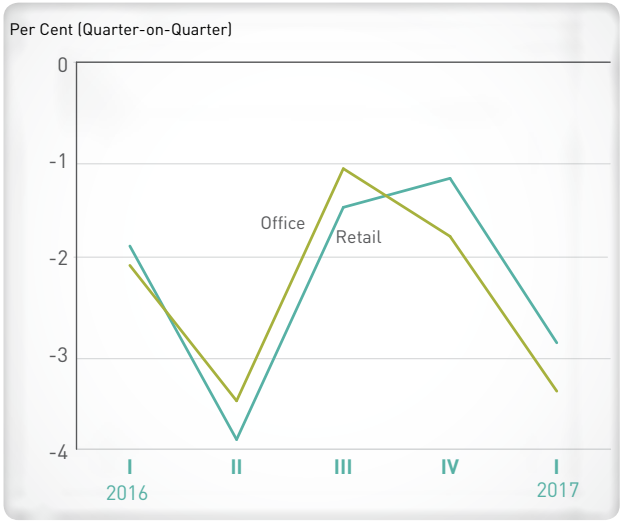
The business services sector grew by 2.1 per cent in the first quarter, a reversal from the 1.9 per cent decline recorded in the previous quarter.

Growth in the business services sector was supported by both the professional services and others segments.[1] However, the real estate segment continued to contract on the back of sustained weakness in private residential property prices, even though sales transactions had seen a recovery. Notably, private residential property prices deteriorated by 0.4 per cent on a quarter-on-quarter basis in the first quarter, the fourteenth consecutive quarter of decline. By contrast, the sales transactions of private residential units rose as the residential property market continued to adjust to lower prices, supported by the launch of new condominiums such as Grandeur Park Residences and Clement Canopy. Specifically, private home sales rose by 83 per cent year-on-year in the first quarter, faster than the 37 per cent growth registered in the preceding quarter (Exhibit 2.13).

Exhibit 2.13: Total Sales Transactions for Private Residential Units and Private Residential Property Price Index

For the private retail space segment, rentals shrank by 2.9 per cent on a quarter-on-quarter basis in the first quarter, extending the 1.2 per cent decline registered in the previous quarter (Exhibit 2.14). This came about as retailers continued to face challenging operating conditions, contributed by labour cost pressures and lacklustre consumer demand, even as the supply of retail space continued to increase. Reflecting the sluggish retail space market, occupancy rates deteriorated slightly, reaching an average of 91 per cent in the first quarter, lower than the 92 per cent in the preceding quarter.

Exhibit 2.14: Changes in Rentals of Private Sector Office and Retail Spaces

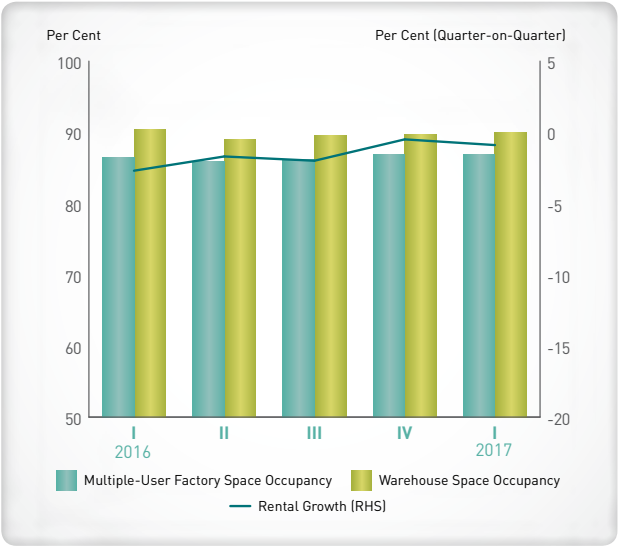


Similarly, the private office space segment weakened on the back of slowing demand and rising supply. In particular, rentals contracted by 3.4 per cent on a quarter-on-quarter basis, extending the 1.8 per cent fall in the previous quarter. Occupancy rates also weakened slightly to reach an average of 87 per cent in the first quarter as compared to the 88 per cent in the previous quarter.

[1] *The others segment consists of (i) rental & leasing, (ii) other professional, scientific & technical services and (iii) other administrative & support services. Rental & leasing activities include rental & leasing of motor vehicles, rental & leasing of other machinery, equipment and tangible goods and the leasing of non-financial intangible assets.*

In the private industrial space market, overall rentals dropped by 0.9 per cent on a quarter-on-quarter basis, similar to the 0.5 per cent decline in the previous quarter. The occupancy rate in the private sector multiple-user factory space segment stood at 87 per cent, unchanged from the previous quarter (Exhibit 2.15). Likewise, the occupancy rate for private sector warehouse space was unchanged at 90 per cent in the first quarter.

Exhibit 2.15: Occupancy Rate and Rental Growth of Private Sector Industrial Space



BOX ARTICLE 2.1

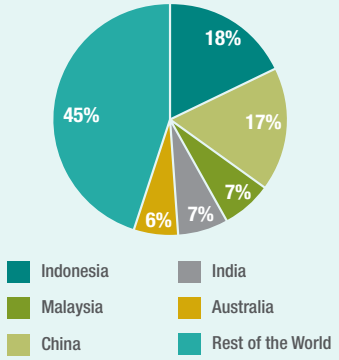
RECENT PERFORMANCE IN SINGAPORE'S TOURISM INDUSTRY AND TOURISM YIELD

INTRODUCTION

Singapore's tourism industry posted robust growth in 2016.

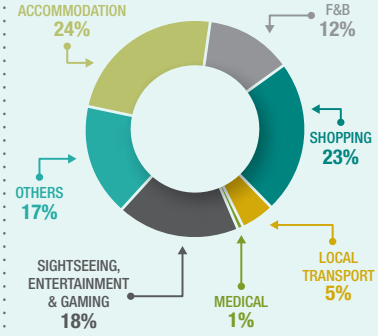
International visitor arrivals grew by 7.7% to reach 16 million in 2016.

VISITOR ARRIVALS BY MARKET, 2016



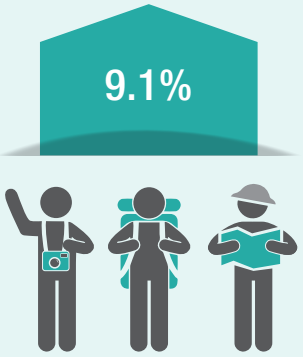
Tourism receipts increased by 13% in the first three quarters of 2016 and amounted to $18 billion.

TOURISM RECEIPTS BY COMPONENTS, 1Q-3Q16



Tourism value-added rose by 9.1% in the first three quarters of 2016 and came in at $11 billion.

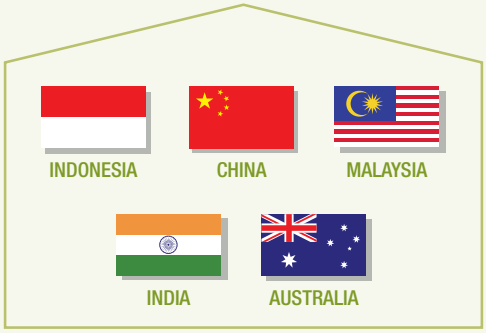
TOURISM VALUE-ADDED, 1Q-3Q16



FINDINGS

Finding 1: The improvement in tourism value-added^ in the first three quarters of 2016 was driven by the healthy growth in visitor arrivals and a recovery in tourism yield.

Finding 2: The better tourism yield performance was broad-based, with all top five tourist source markets registering improvements in yield.



^Excluding expenditure on sightseeing, entertainment & gaming

The medium-term outlook for the tourism industry remains positive and the Singapore Tourism Board remains committed to our Quality Tourism strategy.

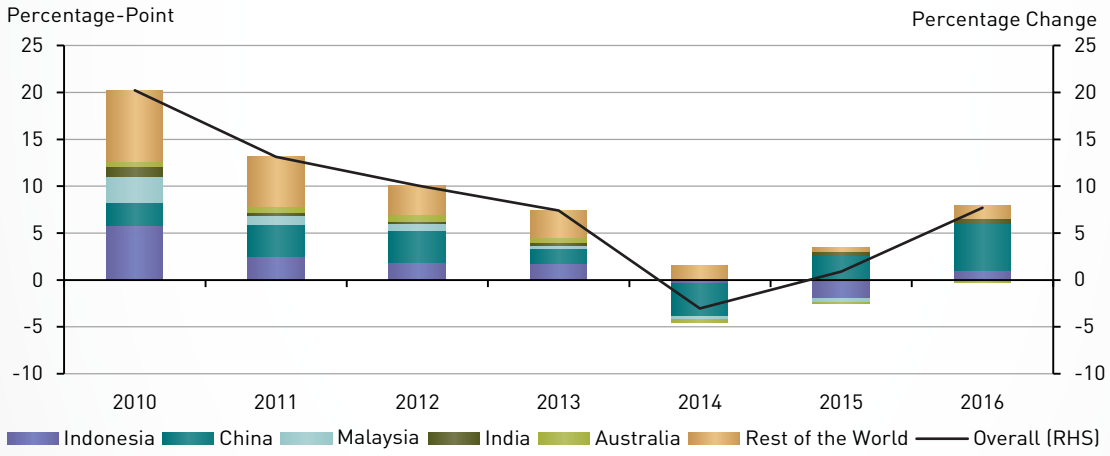
The tourism industry is an important pillar of the Singapore economy. Apart from adding diversity and vibrancy to our economy, tourism also directly contributes to Singapore's Gross Domestic Product (GDP) through spending by tourists. This article examines the recent performance of the tourism industry and its contribution to the Singapore economy. It also analyses the trends in tourism yield and that for Singapore's key tourism inbound markets.

Singapore's tourism industry has generally performed well over the years

Between 2010 and 2016, international visitor arrivals (IVA)[1] to Singapore increased by 5.9 per cent on a compounded annual growth rate (CAGR) basis. The increase in IVA came on the back of improvements in Singapore's tourism infrastructure and offerings, including the opening of the two Integrated Resorts, the introduction of a wide range of events such as the Women's Tennis Association (WTA) Finals and the Ultra Music Festival, as well as the development of the cruise industry, among others. Even though IVA declined in 2014 due to a sharp drop in Chinese arrivals[2] and remained weak in 2015 due to challenging economic conditions in the region, it has since rebounded strongly, with the total number of visitors increasing by a robust 7.7 per cent to reach 16 million in 2016 (Exhibit 1).

The healthy IVA performance in 2016 was driven by improvements in arrivals across key tourism inbound markets, especially China and Indonesia.[3] Notably, the number of Chinese arrivals surged by 36 per cent in 2016 on the back of robust demand for outbound travel in China along with a renewed interest in Singapore-Malaysia travel itineraries. The expansion of flight routes and capacity between Singapore and China also bolstered the growth in Chinese arrivals, especially from Tier 2 cities. For the Indonesian market, the number of arrivals rose by 5.9 per cent in 2016, a turnaround from the 9.7 per cent decline in 2015. The improvement was likely due to the stabilisation of the Rupiah against the Singapore dollar and an uptick in consumer sentiments, which in turn supported Indonesians' demand for outbound travel.

Exhibit 1: Growth in International Visitor Arrivals, 2010-2016



Source: Singapore Tourism Board

Driven in part by the growth in visitor arrivals, overall tourism receipts[4] (TR) also rose in most years over the period of 2010 to 2016[5] (Exhibit 2). Specifically, overall TR increased from $19 billion in 2010 to $24 billion in 2014, before falling by 7.5 per cent in 2015 to $22 billion as spending by tourists from the region weakened amidst subdued economic conditions in their home countries and the strong Singapore dollar. However, TR rebounded strongly in the first three quarters of 2016, increasing by 13 per cent compared to the same period in 2015 to reach $18 billion.

[1] This excludes Malaysian land arrivals.

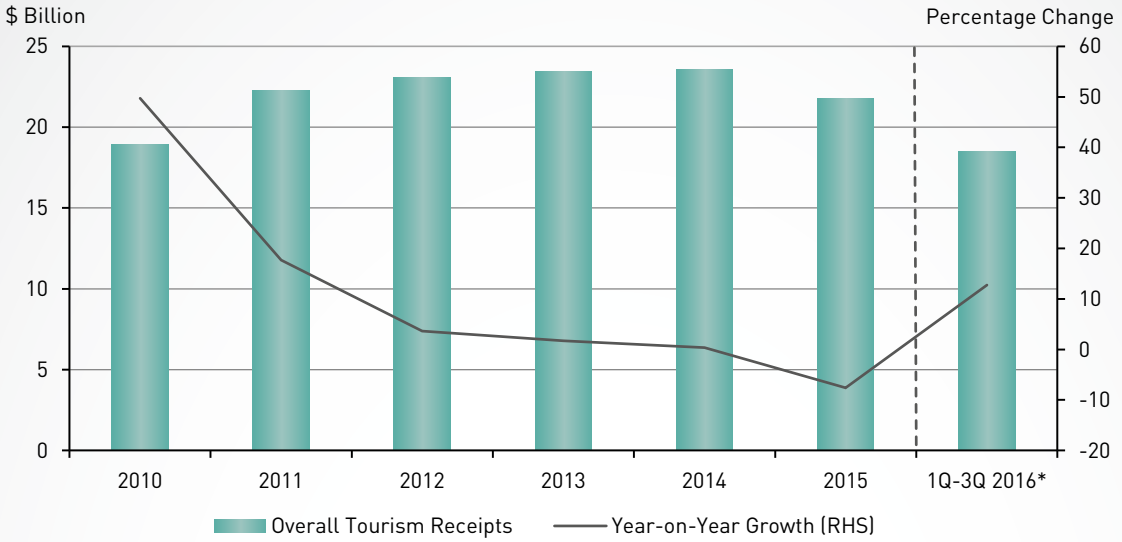
[2] The sharp drop in Chinese visitors in 2014 was largely attributable to the air incidents involving the Malaysian national carrier which had in turn adversely affected the demand for Singapore-Malaysia-Thailand travel itineraries, as well as the banning of zero fare tours by the Chinese authorities since October 2013.

[3] The Indonesian and Chinese inbound markets were Singapore's largest and second largest tourist source markets in 2016 respectively, with 2.89 million and 2.86 million arrivals for the full year respectively.

[4] Data for overall TR includes expenditure by Malaysian land arrivals.

[5] Data for TR in 2016 is only available up to the third quarter of the year.

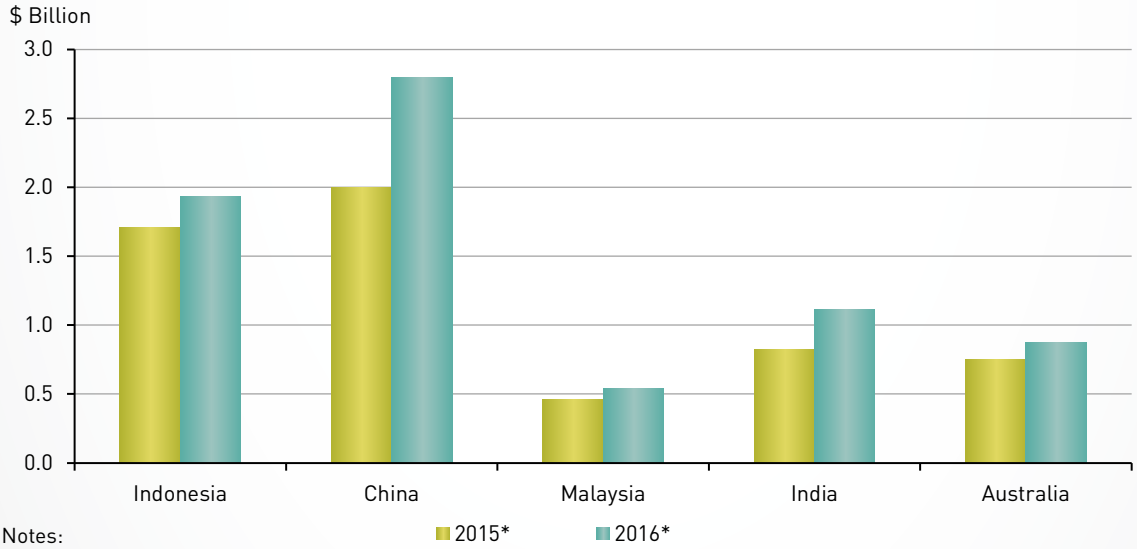
Exhibit 2: Overall Tourism Receipts, 2010 – 2016



Notes:
* As TR data for the fourth quarter of 2016 is unavailable at the time of publication, the 2016 figures are based on TR for the first three quarters of 2016, with the growth rate computed on a year-on-year basis (i.e., compared to the same period in 2015).
Source: Singapore Tourism Board

In terms of markets, the pickup in TR, excluding expenditure on sightseeing, entertainment & gaming (SEG)[6], was seen across all key inbound markets in the first three quarters of 2016 (Exhibit 3). In terms of the expenditure components, the recovery in TR was due to increased spending on shopping, dining and accommodation.

Exhibit 3: Tourism Receipts (excluding SEG) by Key Inbound Markets, 2015-2016



Notes:
* As TR data for the fourth quarter of 2016 is unavailable at the time of publication, the 2016 figures are based on TR for the first three quarters of 2016. For comparison, the 2015 figures are similarly based on TR for the first three quarters of 2015.
Source: Singapore Tourism Board

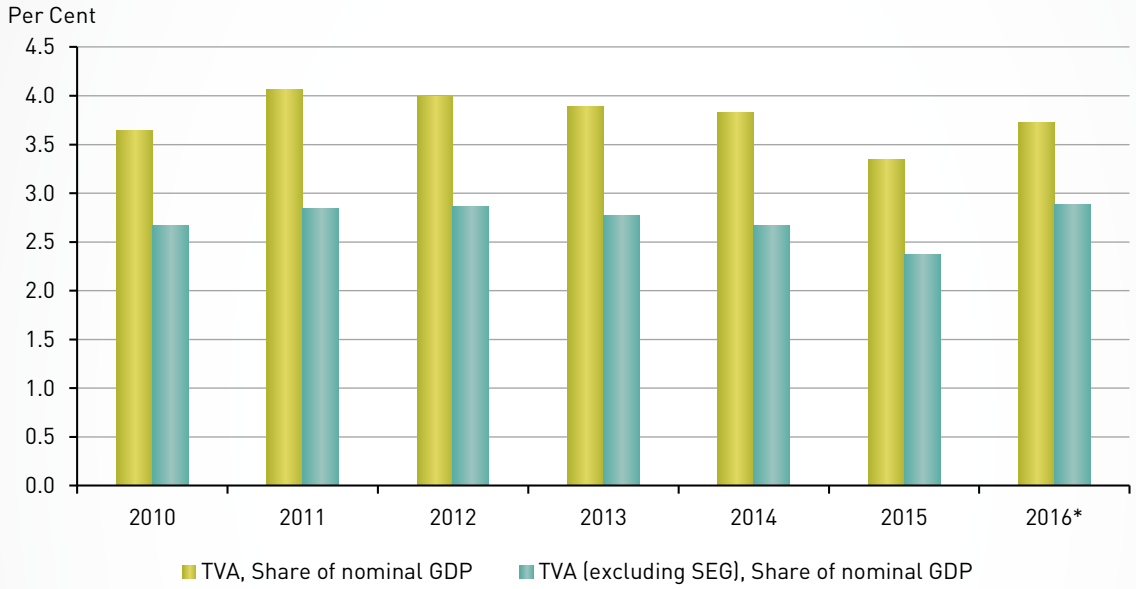
[6] *A breakdown of tourist expenditure on sightseeing, entertainment & gaming by markets is not available.*

As a share of nominal GDP, overall tourism value-added increased from 3.3 per cent in 2015 to 3.7 per cent in 2016, boosted by the recovery in TR

In order to better understand the economic contribution of the tourism industry, we estimate the value-added (VA) that accrues to the economy from tourist spending. Reflecting the trends in overall TR, tourism value-added (TVA)[7] increased from $11 billion (3.6 per cent of nominal GDP) in 2010 to $14 billion (3.8 per cent of nominal GDP) in 2014.[8] While TVA fell in 2015 to $13 billion (3.3 per cent of nominal GDP) due to the drop in TR in the same year, it rebounded strongly in the first three quarters of 2016 on the back of the recovery in TR. Specifically, TVA expanded by 9.1 per cent in the first three quarters of 2016 as compared to the same period a year ago (Exhibit 4), to reach $11 billion (3.7 per cent of nominal GDP).

Excluding SEG, TVA (excluding SEG) exhibited similar trends, and rose to account for 2.9 per cent of nominal GDP in the first three quarters of 2016.

Exhibit 4: Tourism Value-Added as a Share of Nominal GDP, 2010-2016



Notes:

* As TR data for the fourth quarter of 2016 is unavailable at the time of publication, the 2016 figures are estimated based on TR for the first three quarters of 2016.

Source: Singapore Tourism Board and MTI Staff Estimates

The improvement in TVA (excluding SEG) in 2016 was partly due to a rise in tourism yield…

To gain deeper insights into the drivers of TVA including by markets, we decompose TVA (excluding SEG) into three components, namely visitor arrivals , average length of stay (ALOS) and tourism yield, where tourism yield is defined as the VA generated from each tourist's spending (excluding SEG) on a per day basis:[10]

[7] TVA measures the direct VA generated from tourist spending on goods and services (e.g., accommodation, food & beverage, shopping, medical and local transportation), as well as the indirect VA generated in the rest of the economy when tourism-related industries purchase goods and services from other industries. Mathematically, TVA is computed by applying component-specific VA multipliers on each expenditure component of TR:

$$\text{TVA} = \sum_i \text{TR Component}_i \times \text{VA Multiplier}_i$$

where, i denotes expenditure components such as accommodation, food & beverage, shopping, local transport, medical, and others. The VA multipliers are from various issues of the Department of Statistics' Input-Output Tables.

[8] Estimates for TVA are based on overall TR, which includes expenditure by Malaysian land arrivals.

[9] This includes both IVA and Malaysian land arrivals.

[10] As mentioned previously, tourist expenditure on SEG is not available at the market level. As such, the decomposition is done on TVA (excluding SEG) in order to draw insights on the trends in tourism yield by markets.

$$\text{TVA (ex SEG)} = \sum_i \text{Visitor Arrivals}_i \times \text{ALOS}_i \times \text{Tourism Yield}_i \qquad \text{[Equation 1]}$$

where i refers to tourism inbound markets.

From equation 1, the growth in TVA (excluding SEG) in time t can be decomposed into the growth in visitor arrivals, ALOS and tourism yield for each market i:

$$\%\Delta\text{TVA(ex SEG)}_t \approx \sum_i (\%\Delta\text{Visitor Arrivals}_{i,t} + \%\Delta\text{ALOS}_{i,t} + \%\Delta\text{Tourism Yield}_{i,t}) \times \frac{\text{TVA (ex SEG)}_{i,t-1}}{\text{TVA (ex SEG)}_{t-1}}$$

A key feature of this decomposition framework is that it allows for an analysis into the extent to which the growth in TVA (excluding SEG) was driven by increases in tourist volume (i.e., visitor arrivals) or improvements in yield. An improvement in tourism yield along with healthy increases in tourist volume is important for the sustainable growth of Singapore's tourism industry over the longer term, particularly since Singapore is a small economy with resource constraints.

Using this decomposition approach, we find that tourism yield (excluding SEG) improved over the 2010 to 2014 period, and averaged at around $153 per tourist per day (Exhibit 5). As a result, the growth in TVA (excluding SEG) over this period was driven by both visitor arrivals and tourism yield (Exhibit 6). In 2015, however, TVA (excluding SEG) growth dipped into negative territory, primarily because of a fall in tourism yield as a strong Singapore dollar coupled with economic uncertainty in the region negatively affected tourist spending.

The subsequent sharp rebound in TVA (excluding SEG) in the first three quarters of 2016 was driven by a strong recovery in tourism yield, alongside an improvement in visitor arrivals. Specifically, tourism yield rose from $142 in 2015 to an average of $153 in the first three quarters of 2016, an increase of 7.5 per cent. Correspondingly, approximately 47 per cent[11] of the growth in TVA (excluding SEG) in 2016 can be attributed to the increase in tourism yield.

Exhibit 5: Overall Tourism Yield (excluding SEG), 2010-2016

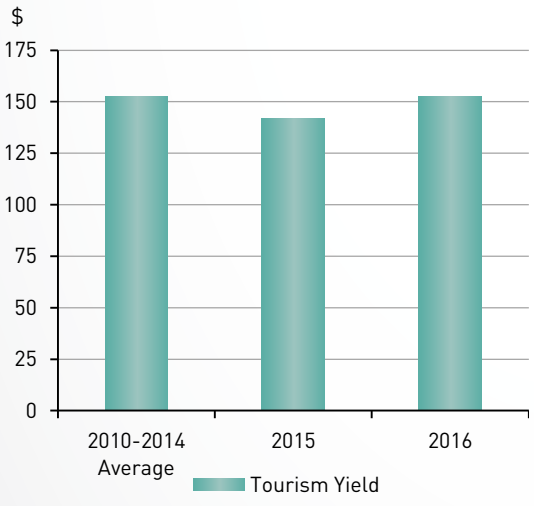
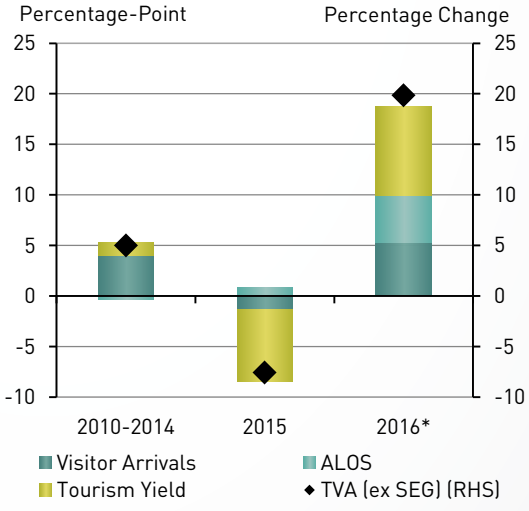


Exhibit 6: Decomposition of Tourism Value-Added (excluding SEG) Growth, 2010-2016



Notes:

* As TR data for the fourth quarter of 2016 is unavailable at the time of publication, the 2016 figures are based on the growth in TVA for the first three quarters of 2016 as compared to the same period a year ago.

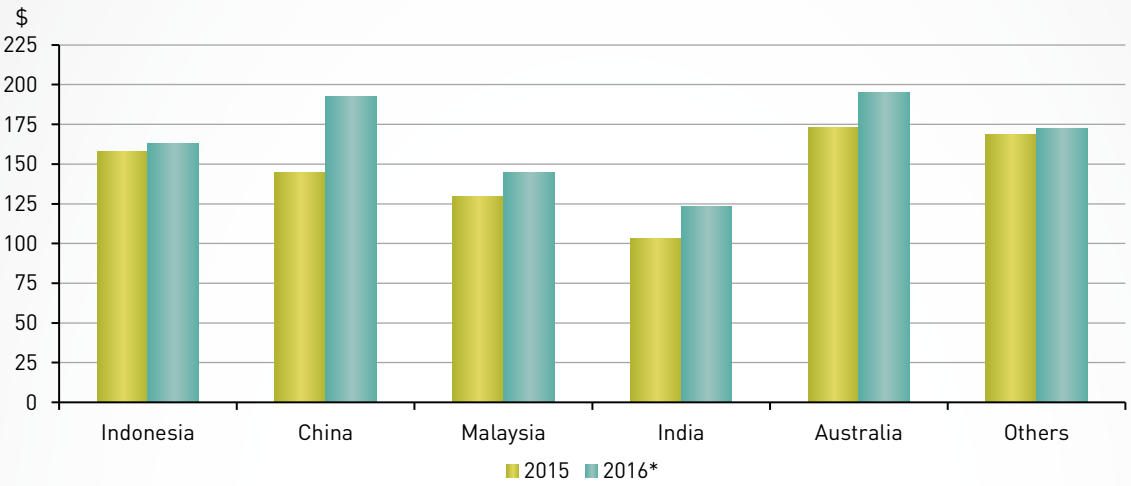
Source: Singapore Tourism Board and MTI Staff Estimates

[11] *Computed as |c|/(|a|+|b|+|c|), where a, b and c refer to the growth contributions of (i) visitor arrivals, (ii) ALOS and (iii) tourism yield respectively.*

…which was observed across the key tourism inbound markets

In terms of markets, we find that the pickup in tourism yield in the first three quarters of 2016 was broad-based, with all top five tourist source markets registering improvements in yield (Exhibit 7). In particular, tourism yield for the Chinese, Australian and Indian markets registered the largest increases between 2015 and 2016.

Exhibit 7: Tourism Yield (excluding SEG) Performance of Key Tourism Markets, 2015 – 2016



Notes:

* As TR data for the fourth quarter of 2016 is unavailable at the time of publication, the 2016 figures are based on tourism yield in the first three quarters of 2016.

Source: Singapore Tourism Board and MTI Staff Estimates

Some key observations by inbound markets are as follows:

a. The Chinese market showed a marked improvement in tourism yield in 2016. Specifically, yield surged by 33 per cent on the back of a higher per day expenditure on accommodation, shopping and dining as compared to the year before. The higher yield of Chinese visitors to Singapore was consistent with the trend observed globally. Based on data from the United Nations World Tourism Organisation (UNWTO), the rise in Chinese tourists' travel expenditure (12 per cent) outpaced the increase in Chinese international outbound travellers (6 per cent) in 2016.[12]

b. For the Indonesian market, tourism yield improved by 3.3 per cent in 2016. The better performance was partly due to the stabilisation of the Rupiah against the Singapore dollar as well as an uptick in consumer sentiments, which likely bolstered the travel spending of Indonesian visitors.

c. For the Malaysian, Indian and Australian markets, the improvements in their respective tourism yields in 2016 could be due to an increase in the share of visitors that came from major cities. For instance, in the case of India, a higher proportion of visitors came from cities such as Mumbai and Delhi. As visitors from major cities are likely to have a higher propensity to spend, the change in the composition of visitors from these markets could have bolstered the growth in tourist expenditure, and hence tourism yield, for these markets in 2016.

[12] *Source: "Chinese tourists spent 12% more in travelling abroad in 2016", UNWTO World Tourism Barometer, 12 April 2017*

Looking forward, the outlook for the tourism industry in Singapore remains bright

The outlook for the tourism industry in Singapore remains positive over the medium term as demand for outbound travel in the region is expected to be robust, supported by rising incomes and a growing middle class. For instance, the Pacific Asia Travel Association (PATA) has projected that international tourism traffic into the Asia-Pacific region will grow by an average annual growth rate of 5 per cent between 2016 and 2021.[13] Amidst strong growth opportunities in the region, STB remains committed to its Quality Tourism strategy and will work with key industry partners to ensure that Singapore continues to be an attractive destination for travellers in the years ahead.

Contributed by:
Ngiaw Kwee Ann, Economist
Economics Division
Ministry of Trade and Industry

[13] *Source: "Asia Pacific Visitor Forecasts 2017-2021", Pacific Asia Travel Association, May 2017*

SHOP

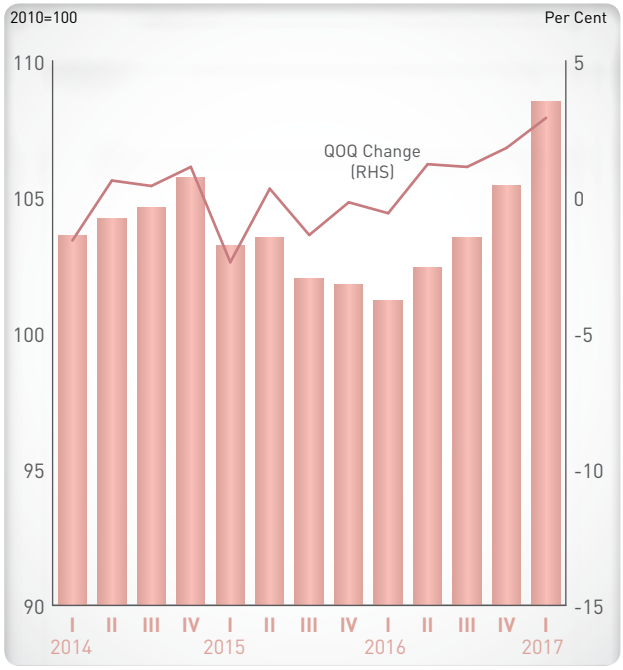
CHAPTER 3
Economic Outlook

CHAPTER 3
ECONOMIC OUTLOOK

LEADING INDICATORS

The near-term economic outlook for Singapore has improved slightly. The composite leading index (CLI) rose at a faster pace of 2.9 per cent on a quarter-on-quarter basis in the first quarter of 2017, compared to the 1.8 per cent increase in the previous quarter (Exhibit 3.1).

Exhibit 3.1: Composite Leading Index Levels and Growth Rate



Of the nine components within the CLI, eight of them increased compared to the preceding quarter, namely stock of finished goods, money supply, US Purchasing Managers' Index, domestic liquidity, stock price, new companies formed, non-oil sea cargo handled, money supply and wholesale trade. On the other hand, non-oil retained imports declined compared to a quarter ago.

OUTLOOK FOR 2017

The outlook for the global economy has improved slightly since early 2017 on the back of an improvement in the growth outlook for the advanced economies. Overall, global growth this year is expected to be higher than that in 2016.

The US economy, in particular, is projected to grow at a faster pace in 2017. While the US' growth momentum slowed in the first quarter, the slowdown is likely to be transitory. Growth for full year is expected to be supported primarily by domestic demand on the back of resilient labour and housing market conditions. On the other hand, growth in the Eurozone is likely to remain modest given that consumption growth may be dampened to some extent by rising energy prices, which could have a negative impact on consumers' real disposable income.

In Asia, China's economic growth is projected to ease marginally this year, as the continued slowdown in the heavy industries is likely to weigh on investments for the rest of the year. Meanwhile, growth among the key ASEAN economies is expected to pick up in 2017, supported by resilient domestic demand and the recovery in merchandise exports.

Despite the improved growth prospects for the global economy, uncertainties and downside risks remain. First, rising anti-globalisation sentiments could have an adverse impact on global trade if they lead to increased protectionism, with knock-on effects on global growth. Furthermore, political risks and economic uncertainties persist, including in Europe where the UK is navigating through "Brexit" and in the US where policy uncertainties remain elevated. Second, monetary conditions may tighten further in China amidst efforts to contain leverage and risks in the financial system. Should there be a steeper-than-intended pullback in credit, investment spending and hence growth in China could slow down more sharply than expected.

Against this external backdrop, trade-related sectors such as the manufacturing and transportation & storage sectors are likely to provide support to the Singapore economy in 2017. In particular, growth in the electronics and precision engineering clusters is expected to be sustained for the rest of the year on the back of the strong recovery in global demand for semiconductors and semiconductor manufacturing equipment. Likewise, the transportation & storage sector is likely to benefit from the projected improvement in global trade flows. Meanwhile, the information & communications and education, health & social services sectors are expected to remain resilient. However, cautious consumer sentiments amidst sluggish labour market conditions are likely to weigh on the food services and retail trade segments, while the construction sector is expected to be adversely affected by the weakness in private sector construction activities.

Taking these factors into account, the GDP growth forecast for 2017 is maintained at **"1.0 to 3.0 per cent"**. Although the performance of the Singapore economy was resilient in the first quarter, and the global growth outlook has improved slightly, downside risks in the global economy remain. Barring the materialisation of downside risks, GDP growth is likely to come in higher than the 2.0 per cent in 2016.

FEATURE ARTICLE

FEATURE ARTICLE

IMPACT OF THE IMPLEMENTATION OF RETIREMENT AND RE-EMPLOYMENT ACT ON OLDER WORKERS' EMPLOYMENT OUTCOMES

BACKGROUND

In 2012, the Retirement and Re-employment Act (RRA) was enacted for older workers to work beyond the retirement age of 62 by setting out re-employment conditions under which employers are to offer eligible workers re-employment.

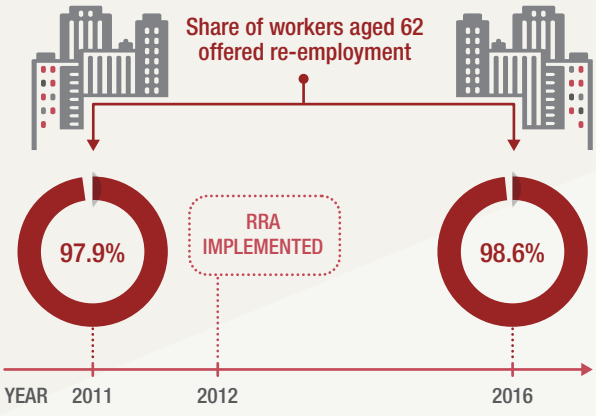
FINDINGS ON THE IMPACT OF THE RRA

The RRA has raised employment rate of the targeted group of employees by an average of 1.6 percentage-points per annum since implementation.

CHANNELS THROUGH WHICH THE RRA OPERATES

The RRA could have affected[2] employment rates via two channels.

Firms' demand for workers channel: The RRA could directly affect firms' demand for workers as it compels employers to offer re-employment to eligible employees past the statutory retirement age of 62. However, this channel could be limited as most who turned 62 and wished to continue working were already offered re-employment in 2011 (prior to the implementation of RRA).



Social norm channel: The RRA could have set the age of 65 as the new "mental anchor" for workers in terms of the appropriate age to retire, instead of the statutory retirement age of 62.

Note:

[1] *Note that the definition of employment rate in this study deviates from the official definition. Refer to the write-up for the difference between the two.*

[2] *While retirement policies in other countries typically links pension payout to retirement age, the RRA is not linked to pension age eligibility. Hence, it does not change the financial incentives of older workers to continue working at different ages.*

EXECUTIVE SUMMARY

- The Retirement and Re-employment Act (RRA) was implemented in 2012 to provide older workers with the opportunity to work beyond the age of 62 by setting out the conditions under which employers are to offer eligible workers re-employment till age 65. This study evaluates the impact of the implementation of the RRA on the employment outcomes of older workers.
- We find that the RRA has raised the employment rate[1] of the older employees covered by the RRA by an average of 1.6 percentage-points per annum since implementation. The RRA likely affected employment rates through the social norm channel, as workers could have taken the re-employment age of 65 as the new "mental anchor" on the appropriate age to retire, instead of the statutory retirement age of 62. We also find no evidence of a pre-emptive shedding of older workers in 2011 before the implementation of the RRA.

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, Ministry of Manpower, or the Government of Singapore.[2]

INTRODUCTION

Against the backdrop of an aging workforce, the Retirement and Re-employment Act (RRA) was enacted in 2012[3] to provide older workers with the opportunity to work longer, while allowing employers the flexibility to continue to tap on the experience of older workers. Specifically, the RRA sets out the conditions under which employers are to offer eligible[4] workers re-employment beyond the retirement age of 62, up to age 65. In the event employers are unable to do so after a thorough review, employers are required to offer Employment Assistance Payment to help the workers while they look for alternative employment or undergo re-training.

In this study, we examine the employment outcomes of older workers arising from the implementation of the RRA. The RRA may affect the employment outcomes of older workers through the following channels: (i) firms' demand for older workers as the legislation requires them to offer re-employment beyond age 62 and up to age 65, and (ii) supply of older workers (i.e., their decision to accept re-employment past age 62). In addition, we investigate whether there were pre-emptive layoffs of older workers by firms before the re-employment obligations under the RRA came into force in 2012[5].

The rest of the paper is organised as follows. We first present a brief literature review. We then discuss the data and empirical methodology used to quantify the net impact of the RRA on employment outcomes. Lastly, we present the results before concluding.

[1] For the ease of communicating the results, the employment rate in this study refers to the share of workers who continued in employment out of the full sample of workers who had worked for the same employer in the past three years (note that to be eligible for re-employment under the RRA, one of the requirements is that workers have to have served the current employer for at least three years before turning 62). This is a working definition of the employment rate used for this study and differs from the official definition which refers to the proportion of employed persons in the working-age population.

[2] We would like to thank Tan Kok Kong, Tee Koon Hui, Yong Yik Wei and Andy Feng for their useful suggestions and comments. We are also grateful to Toh Hanqing, Teo Ya Chih and Sim Li Chuan for their support and inputs to this study. All remaining errors belong to the authors.

[3] The intention to enact RRA was announced in 2007, which stipulated that the re-employment legislation will be enacted in 2012. See Annex A for a brief timeline of retirement-related legislation in Singapore.

[4] Broadly, workers are eligible for re-employment if they (i) are Singapore citizens or permanent residents, (ii) have served the current employer for at least three years before turning 62 years of age, (iii) have satisfactory work performance as assessed by the employer, and (iv) are medically fit to continue working.

[5] Under the Retirement Age Act which was introduced in 1993, it is an offence to dismiss workers below the statutory minimum retirement age (60 in 1993, and later raised to 62 in 1999). If employers are found guilty of dismissing workers on grounds of age, MOM will take appropriate enforcement actions.

LITERATURE REVIEW

Many studies[6] have found that an increase in pension-linked retirement age leads to relatively large increases in employment rates. For example, in Austria, two pension reforms raised the early retirement age at which individuals can first claim retirement benefits from 60 to 62 for men, and from 55 to 58.25 for women. The reforms led to the employment rates of affected men and women rising by 9.8 and 11 percentage-points respectively. In the UK, the state pension age for women was increased from 60 to 61, and caused the employment rate of women at age 60 to rise by 7.3 percentage-points. Such results are likely driven in part by financial incentives where, for example, the raising of pension-linked retirement age makes it necessary for those with lesser means to continue working to make up for the loss in pension income.

Other than financial incentives, behavioural explanations such as social norms are likely to have also played a part[7]. A study by Behaghel and Blau (2012) provides evidence of social norms at play in retirement decisions. The authors found that in the US, a pre-existing spike in retirement at age 65 shifted in tandem with a reform to delay the full retirement age[8] by a few months, even though the reform did not create substantial financial incentives for workers to change the age at which they retire[9]. The authors argued that the workers' retirement behaviour and responses to the policy change reflected an aversion to deviating from the official retirement age norm. In particular, workers could have perceived that they would be in a worse-off situation if they deviated from a perceived social norm or "mental anchor" on the age to retire.

IMPACT CHANNELS OF THE RRA

The RRA could affect the employment outcomes of older workers through both supply and demand channels. On the supply-side, as the RRA is not linked to age eligibility for Central Provident Fund (CPF) pay-outs from individuals' retirement accounts, older workers' decision to accept re-employment and continue working is unlikely to be influenced by financial incentives[10]. Rather, such decisions could be affected through the social norm channel. By stipulating that workers are eligible for re-employment up to the age of 65, the RRA could have set the age of 65 as the new "mental anchor" for workers in terms of the appropriate age to retire, instead of the statutory retirement age of 62. More workers may then continue to work till 65 years old, thereby raising the employment rate of older persons. Indeed, among private sector local employees offered re-employment at age 62, the percentage who accepted the offer increased from 94.8 per cent in 2011 (prior to the implementation of the RRA) to 98.1 per cent in 2016.

On the demand-side, the RRA could directly affect firms' demand for workers as it compels employers to offer re-employment to eligible employees past age 62. However, the RRA's impact on firms' demand is likely to be limited as private sector firms were already offering re-employment to a large majority (97.9 per cent) of workers who just turned 62 and wished to continue working in 2011 (prior to the implementation of RRA) (Exhibit 1). In addition, the majority of workers who accepted re-employment in the same job at age 62, either on a new or existing contract, did not see a wage reduction upon re-employment both before and after the implementation of the RRA, suggesting that firms continued to have a strong demand for such workers. The strong demand for older workers by firms could in part be due to the relatively tight labour market during this period, given the tightened foreign worker policy.

[6] See Staubli and Zweimuller (2013), Cribb, Emmerson & Tetlow (2014) and Mastrobuoni (2009) for studies on the impact of changes in pension-linked retirement age in the US, UK and Austria respectively.

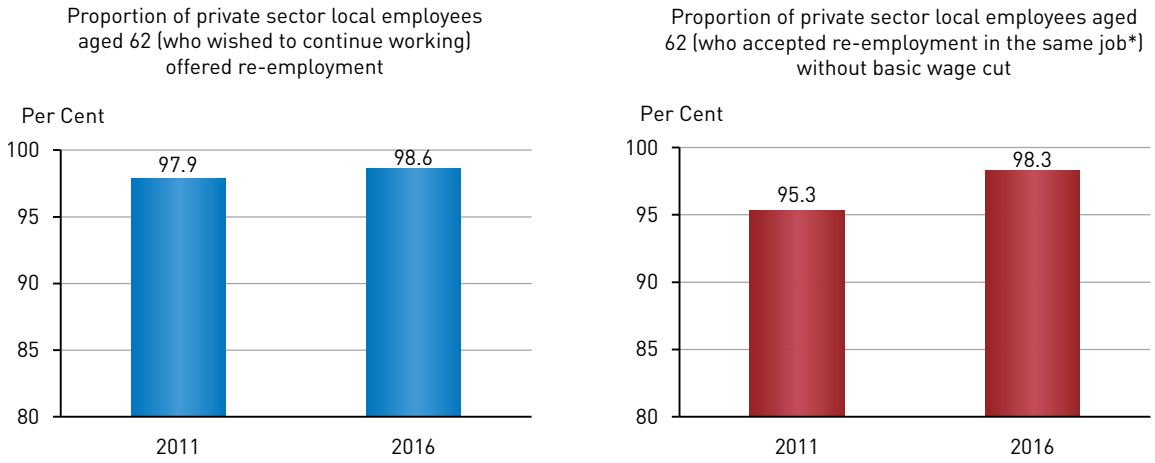
[7] For example, a comprehensive study of social security provisions and retirement behaviour in 11 developed countries showed that even very detailed empirical models of retirement incentives could not fully account for the large jumps in retirement rates at the normal and early pension eligibility age, which suggests that social norm could have caused a significant group of people to retire at a specific age. See Gruber and Wise (2004).

[8] The full retirement age (FRA) is the reference age at which a pension benefit claimant can receive a specific amount of benefit. The reform delayed the FRA and was equivalent to cutting the benefits for claimants claiming at ages from 62 to 70, i.e., the benefits schedule shifted downwards for all claiming age.

[9] The authors evaluated that the change in financial incentives due to the cut in benefits was too small to account for the shift in the spike in retirement age to coincide with the new FRA.

[10] This is distinct from many developed countries where the retirement age is linked directly to age eligibility for pension withdrawal.

Exhibit 1: A large majority of private sector local employees aged 62 who wished to continue working were offered re-employment in both 2011 and 2016, and a large majority of those who accepted re-employment in the same job* did so without experiencing a cut in basic wages



Source: Labour Market Supplementary Survey, Manpower Research and Statistics Department, MOM
*Note: Re-employment in the same job refers to either a new contract or a continuation on an existing contract. In 2016, 99.5% of the re-employment offered to local employees aged 62 were of this form.

The RRA is also unlikely to impose a costly burden on employers as flexibility for employers has been built into the RRA. For example, employers are allowed to assess whether the employees meet work performance standards before offering them re-employment. Re-employment also need not be for the same job, as both the employer and employee have the flexibility to make changes to existing job arrangements to suit their needs, including lesser work load and correspondingly lesser pay. Nevertheless, if the RRA is costly to employers, there is a possibility that firms could have pre-emptively laid off older workers before the RRA came into force in 2012. We investigate whether this was systematically observed in 2011 in our analysis below.

In summary, we expect the net impact of the RRA on the employment outcomes of older workers to be positive, though modest. First, on the supply-side, the RRA is not linked to pension age eligibility, which means that the financial incentives to adjust retirement behaviour may not be large. Second, on the demand-side, the RRA's impact on firms' demand is likely to be limited given that most firms were already offering re-employment past age 62 before 2012. Instead, the likely channel affecting the employment outcomes of older workers could be through the changing of the social norm on the appropriate age to retire.

DATA AND EMPIRICAL METHODOLOGY

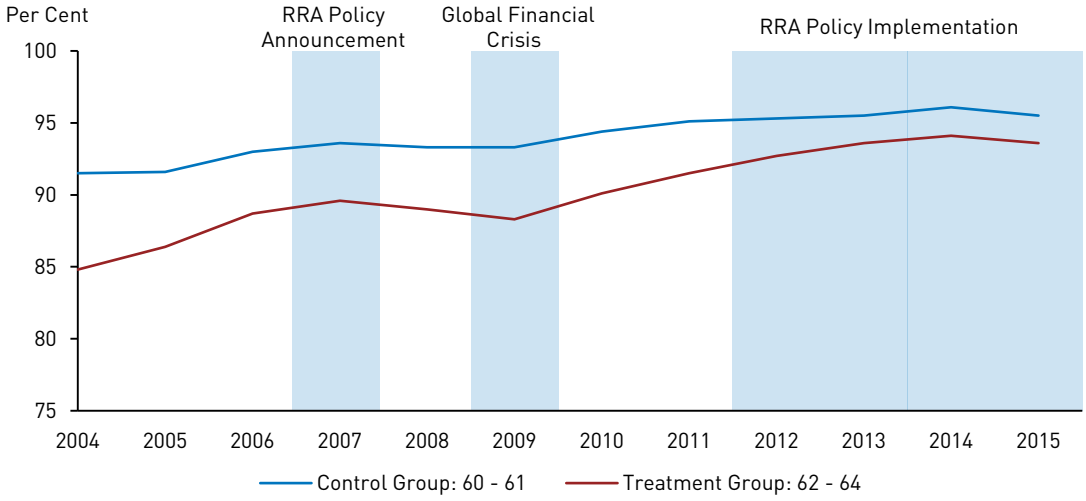
To study the impact of the implementation of the RRA, we use an individual-level dataset collected from administrative sources that contains variables such as gross wages, industry, gender and age. The dataset spans the period of 2001 to 2015.

As the RRA covers Singaporeans and permanent residents who have served their current employers for at least three years prior to them turning age 62, we only include in the dataset individuals in each year who fulfilled this criteria. We then construct the employment outcome (i.e., employed or not employed) for each individual in each year. The constructed employment outcomes for the individuals sum up to an employment rate for each age group in each year. As such, our employment rate for each group in each year show the share of workers in that group who continued working that year, having already worked for the same employer in the past three years.

The employment rates for two age bands are plotted in Exhibit 2 – the first band contains individuals aged 60 and 61, while the second band contains individuals aged 62 to 64 (i.e., the target group covered by the re-employment provisions in the RRA). We observe the following trends:

(i) Employment rates of individuals in both bands had been generally rising over the years, reflecting delayed retirement;
(ii) Employment rates of individuals in both bands dipped slightly during the Global Financial Crisis, likely due to a stressed labour market then; and
(iii) The employment rate of individuals in the 62 to 64 age band who were affected by the RRA rose at a faster pace than that of individuals in the 60 to 61 age band from 2012 to 2015, suggestive of a positive impact due to the implementation of the RRA.

Exhibit 2: Employment Rates of Workers by two Age Bands



However, these top line trends do not take into account factors such as industry composition which could differ across age cohorts. To control for these factors and also to establish statistical significance, we formally estimate the impact of the RRA on employment rate by adopting a difference-in-differences (DID) regression strategy. Specifically, by exploiting the RRA age eligibility criterion, we compare changes in the employment outcomes of individuals who were eligible for RRA by age (62 to 64 years old) with the outcomes of individuals who were slightly younger and hence not eligible for RRA (60 to 61 years old), while controlling for the characteristics of the individuals (e.g., gender and industry of employment). In the absence of the RRA, the employment rate of the older group of individuals is likely to have continued on an upward trend. Using the slightly younger group of individuals as a control group allows us to take into account this counterfactual upward trend, thereby enabling the causal impact of the RRA to be isolated.

We implement the DID by pooling together individuals in the 2011 to 2015 time periods who were aged 60 to 64. The regression specification is:

$$y_{iat} = \beta_1 + \beta_2 D_t + \beta_3 T_{at} + \beta_4 T_{at} \times D_t + \sum_{k=1}^{2} \beta_k controls_{it} + \epsilon_{iat} \quad (1)$$

Where:

y_{iat} represents employment outcome of individual i, of age band a, in year t (i.e., whether the individual from a specific age band was working in year t or not);

D_t is a vector of time dummies taking a value of 1 for each year since the implementation of the RRA (i.e., 2012 and beyond). It accounts for any macro-economic effects (e.g., economic fluctuations) during the periods of observation;

T_{at} is a dummy taking a value of 1 if an individual i meets the RRA's age eligibility criterion (i.e., age band containing individuals aged 62 to 64) in year t and 0 otherwise;

$T_{at} \times D_t$ is the interaction term and its coefficient measures the effect of the RRA;

β_1 is a constant;

$controls_{it}$ include gender and industry dummies.

The coefficient of interest is β_4, which measures the impact of the RRA on employment outcomes. It captures the net impact of the RRA through both the demand and supply channels. A positive coefficient suggests that the RRA led to older workers continuing to work beyond 62 years old.

To determine whether the above empirical strategy is valid, we first conduct a parallel trends test using year 2010 and 2011 to examine whether the employment rate trends of the two age bands (i.e., 60-61 age band and 62-64 age band) were similar before the RRA was implemented in 2012. In line with the top line trends in Exhibit 2, Exhibit 3 below shows that there is no significant difference in the employment trends of individuals in the two age bands in 2011 before the implementation of the RRA.

Exhibit 3: Regression Results for Parallel Trend Test

Dependent variable: Employment outcome of individuals covered by RRA	
Impact in 2011: $T_{at} \times D_t$ (β_4)	0.0066
Number of observations	90,069

*, ** and *** indicate significance at the 95%, 99%, and 99.5% levels, respectively

To further investigate if there was pre-emptive shedding of older workers by firms before the re-employment obligation came into force in 2012, we run a similar regression specification as equation (1), but with the following changes. First, for the time periods, we examine a sample of workers from 2010 to 2011. Second, we only include in the dataset individuals in each year who had worked for at least two (instead of three) years with the same employer and were aged 60 to 63. We focus on these workers as they would have been covered by RRA in the subsequent year and as such, were at risk of being pre-emptively shed in 2011.

RESULTS AND DISCUSSION

Our findings suggest that the RRA has a positive, though small, impact on the employment rate of eligible older workers, raising it by 1.6 percentage-points on average per annum (Exhibit 4). As the RRA's impact on firms' demand for older workers is likely to be negligible, the modest positive impact is likely to be due to social norms; that is, more workers decided to continue working in line with the new "mental anchor" of retirement, linked to the re-employment age of 65. Hence, despite the fact that a large majority of private sector firms were already offering re-employment before 2012, the implementation of the RRA still had a positive impact in encouraging workers to continue working beyond age 62.

Separately, we find no evidence of the pre-emptive shedding of workers in 2011 before the implementation of the RRA as can be seen from the results in column 2 of Exhibit 4. It is likely that employers were making decisions on the employment of their workers based on business considerations and the ability of their workers, rather than trying to replace them pre-emptively which could be disruptive to business. This finding is consistent with our view that the RRA is not onerous on employers and did not reduce the demand for workers by firms.

Exhibit 4: Regression Results

Dependent variable: Employment outcome of individuals covered by RRA		
	(1)	(2)
Impact of RRA: $T_{at} \times D_t$ (β_4)	0.016***	0.0054
Time periods (Year)	2011 to 2015	2010 to 2011
Number of observations	289,381	89,343

*, ** and *** indicate significance at the 95%, 99%, and 99.5% levels, respectively

Standard errors are clustered at individual level

CONCLUSION

Against the backdrop of an aging workforce, the RRA was enacted in 2012 to provide opportunities for older workers to work beyond the retirement age of 62. The introduction of the RRA in 2012, coupled with the efforts by the tripartite partners to encourage age-friendly workplaces, has made a positive impact on the employment of older Singaporeans. This study finds that the RRA has raised the employment rate of the targeted group of older employees by an average of 1.6 percentage-points per annum since its implementation, possibly by influencing retirement social norms on the supply-side.

From 1 July 2017, the re-employment age will be raised from 65 to 67 to allow older workers to work longer. Besides legislative changes, the government will continue to shape policies to be inclusive for older workers and to help them work for as long as they are willing and able.

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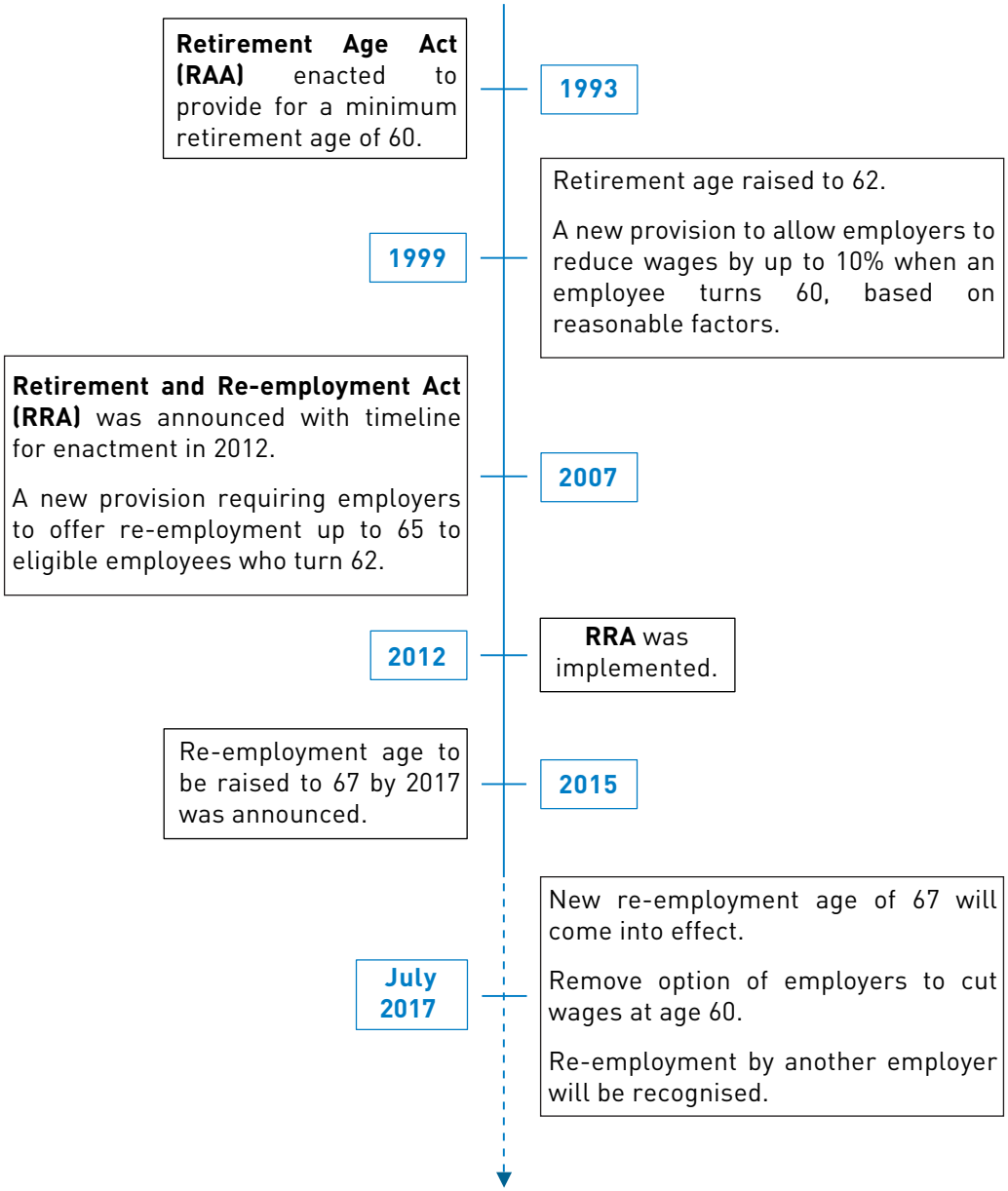
ANNEX A: TIMELINE OF RETIREMENT-RELATED LEGISLATION IN SINGAPORE

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