

Economic Survey of **SINGAPORE**

FIRST QUARTER 2015



May 2015

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

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

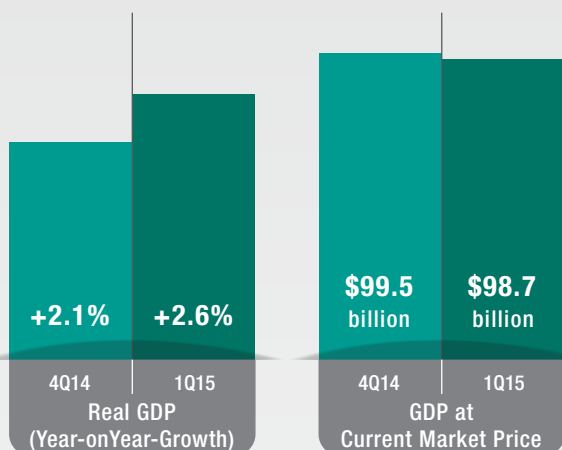
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanised, photocopying, recording or otherwise, without the prior permission of the copyright holder.

CONTENTS

MAIN INDICATORS	02
CHAPTER 1 The Singapore Economy	04
CHAPTER 2 Sectoral Performance	16
CHAPTER 3 Economic Outlook Box 3.1 Singapore's Economic Growth Potential Up to 2020	28
FEATURE ARTICLE Examining the Cost Drivers of Hawker Food Prices	38

MAIN INDICATORS OF THE SINGAPORE ECONOMY

OVERALL ECONOMY



PRICES



Consumer Price Index - All Items



+0.0% -0.3%

Domestic Supply Price Index



-10.7% -17.5%

(Year-on-Year Growth)

4Q14

1Q15

LABOUR MARKET



Changes in Employment (Quarter-on-Quarter)



40.7 thousand 0.3 thousand

Overall Unemployment Rate



1.9% 1.8%

Labour Productivity (Year-on-Year Growth)



-1.5% -0.6%

4Q14

1Q15

COSTS



Unit Labour Cost of Overall Economy



+3.6% +5.3%

Manufacturing Unit Business Cost



-0.9% +0.9%

Manufacturing Unit Labour Cost



+5.5% +7.2%

(Year-on-Year Growth)

4Q14

1Q15

MERCHANDISE TRADE



Merchandise Exports



-3.8% -5.4%

Merchandise Imports



-6.0% -16.1%

(Year-on-Year Growth)

4Q14

1Q15

SERVICES TRADE



Service Exports



+0.8% +2.1%

Service Imports



-1.4% +0.3%

(Year-on-Year Growth)

4Q14

1Q15

CHAPTER 1

The Singapore Economy





CHAPTER 1

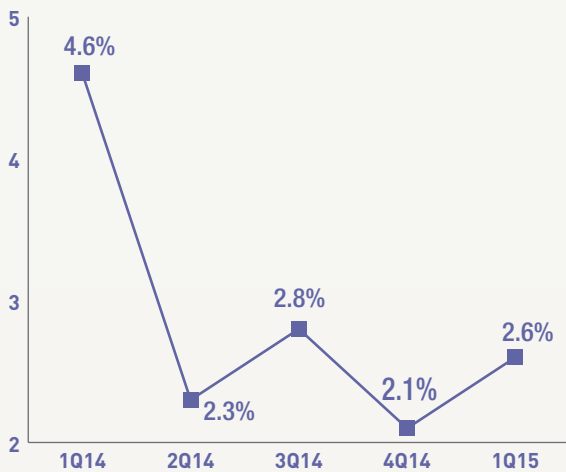
THE SINGAPORE ECONOMY

ECONOMIC PERFORMANCE



Real GDP grew by
2.6% in 1Q15

Quarterly Growth (Year-on-Year)



Main Drivers of Growth in 1Q15



FINANCE & INSURANCE

0.9%-point contribution



WHOLESALE & RETAIL TRADE

0.7%-point contribution



BUSINESS SERVICES

0.4%-point contribution

In total, these sectors accounted for
79% of GDP growth

LABOUR MARKET



RESIDENT
UNEMPLOYMENT
RATE



2.5%
in 1Q15

EMPLOYMENT
(Q-O-Q CHANGE)



+300
employed

Sectors with the Highest Employment Growth in 1Q15

+7,700
employed



OTHER
SERVICES INDUSTRIES

+1,900
employed



TRANSPORTATION
& STORAGE

+1,400
employed



INFORMATION
& COMMUNICATIONS

PRODUCTIVITY



PRODUCTIVITY



-0.6%

Sectors with the highest Productivity Growth in 1Q15

+3.4%



FINANCE &
INSURANCE

+1.0%



CONSTRUCTION

+0.5%



WHOLESALE
& RETAIL TRADE

COSTS



Overall Unit Labour Cost grew by
5.3% in 1Q15

WITHIN THE MANUFACTURING SECTOR



7.2%

0.9%

Unit Labour Cost

Unit Business Cost

1Q15

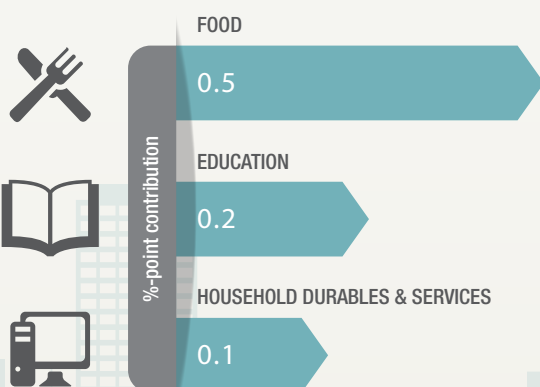
PRICES



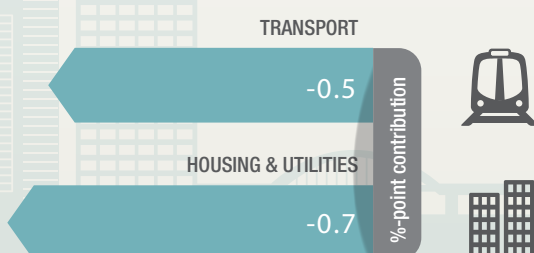
The Consumer Price Index
(CPI) declined by

0.3% in 1Q15

CATEGORIES WITH PRICE INCREASES



CATEGORIES WITH PRICE DECLINES



INTERNATIONAL TRADE



Total Merchandise Exports
declined by

5.4% in 1Q15

+4.8%

+1.6%

-34.7%



NON-OIL
DOMESTIC EXPORTS



RE-EXPORTS



OIL
DOMESTIC EXPORTS

Main Drivers of Services Export Growth were...

+13.0%

+1.8%

+1.3%



FINANCIAL
SERVICES



OTHER
BUSINESS SERVICES



TRANSPORT
SERVICES

OVERVIEW

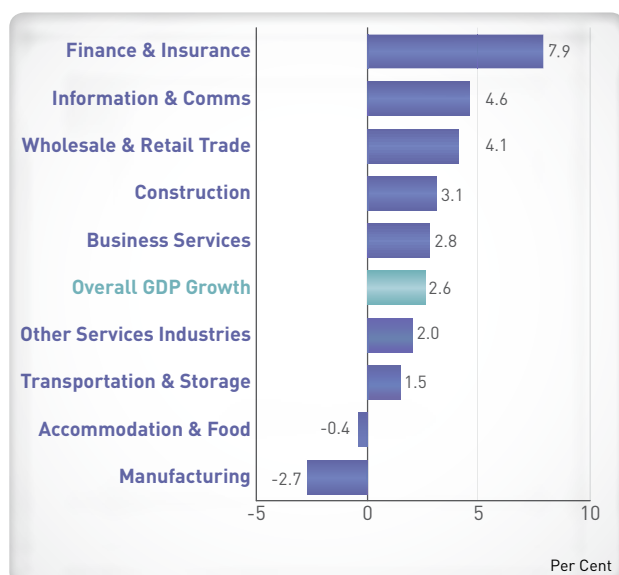
In the first quarter of 2015,

- The economy expanded by 2.6 per cent compared to the same period last year, led by growth in the finance & insurance, wholesale & retail trade and business services sectors.
- Employment rose by 300 on a quarter-on-quarter basis, moderating in part due to seasonal factors as workers hired for the year-end and Chinese New Year festivities left employment at the end of the festivities, as well as a drop in manufacturing and construction employment.
- The labour market remained tight as overall unemployment rate declined in the first quarter compared to the previous quarter. The number of redundancies also fell over the same period, while hiring expectations remained positive.
- The Consumer Price Index (CPI) declined by 0.3 per cent compared to the same period a year ago.

OVERALL PERFORMANCE

The economy grew by 2.6 per cent in the first quarter, faster than the 2.1 per cent growth in the preceding quarter (Exhibit 1.1). On a quarter-on-quarter seasonally-adjusted annualised basis, the economy expanded by 3.2 per cent, moderating from the 4.9 per cent growth in the previous quarter.

Exhibit 1.1: GDP and Sectoral Growth Rates in 1Q 2015



Among the various sectors, the manufacturing sector recorded the weakest performance, contracting by 2.7 per cent in the first quarter, extending the 1.3 per cent decline in the previous quarter. The contraction in the sector was primarily due to declines in the output of the transport engineering, electronics and biomedical manufacturing clusters.

The services producing industries performed better, with all sectors except for the accommodation & food services sector registering expansions. The finance & insurance sector posted the strongest growth of 7.9 per cent, followed by the information & communications (4.6 per cent) and wholesale & retail trade (4.1 per cent) sectors. By contrast, the accommodation & food services sector contracted slightly by 0.4 per cent, weighed down by lacklustre visitor arrivals. Meanwhile, the construction sector grew by 3.1 per cent, an improvement over the 0.7 per cent growth in the preceding quarter.

The sectors that contributed the most to economic growth in the first quarter were the finance & insurance, wholesale & retail trade and business services sectors (Exhibit 1.2). Together, they accounted for about 79 per cent of overall economic growth.

Exhibit 1.2: Percentage-Point Contribution to Growth in Real GDP in 1Q 2015 (By Industry)



SOURCES OF GROWTH

Total demand rose by 0.7 per cent in the first quarter, a marginal improvement from the 0.4 per cent expansion in the previous quarter (Exhibit 1.3). Growth was supported by external demand which increased by 4.7 per cent, following the 0.2 per cent expansion in the preceding quarter.

However, the growth in external demand was partly offset by the decline in total domestic demand. Total domestic demand plunged by 9.8 per cent, a reversal from the 0.8 per cent expansion in the previous quarter. This was due to a sharp 9.3 per cent decline in inventories, compared to the 0.8 per cent contraction in the preceding quarter.

In comparison, consumption expenditure rose at a faster pace of 3.3 per cent, following the 2.4 per cent growth in the previous quarter. This was supported by better performance in both public and private consumption.

Exhibit 1.3: Changes in Total Demand*

	2014				2015
	I	II	III	IV	I
Total Demand	4.8	2.4	-0.9	0.4	0.7
External Demand	6.9	2.0	-0.3	0.2	4.7
Total Domestic Demand	-0.4	3.3	-2.6	0.8	-9.8
Consumption Expenditure	-0.6	4.9	1.5	2.4	3.3
Public	-9.8	13.6	-0.2	3.3	4.7
Private	2.8	3.1	1.9	2.2	2.8
Gross Fixed Capital Formation	-0.7	-2.4	-5.6	1.2	2.6
Changes in Inventories	0.2	1.0	-1.0	-0.8	-9.3

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

Growth in gross fixed capital formation also accelerated to 2.6 per cent, from 1.2 per cent in the previous quarter. The faster pace of growth was due to a rebound in private investments, which more than offset the weaker growth in public investments. Notably, private investments rose by 3.3 per cent, reversing the slight decline of 0.1 per cent in the previous quarter. By contrast, growth in public investments slowed to 0.1 per cent, after posting a healthy expansion of 7.3 per cent in the preceding quarter.

LABOUR MARKET

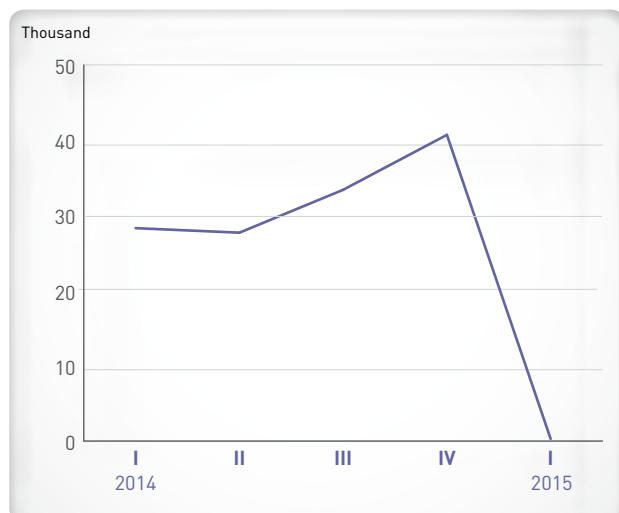
Employment¹

Overall employment continued to grow in the first quarter (300). However, the pace of growth moderated significantly compared to the seasonally-high gains in the previous quarter (40,700), as well as the increase in the first quarter of 2014 (28,300) (Exhibit 1.4).

With continued employment growth, the total number of employed persons increased to 3,624,200 in March 2015, 2.9 per cent higher than the same period a year ago. However, the rate of increase was slower as compared to that in December 2014 (3.7 per cent).

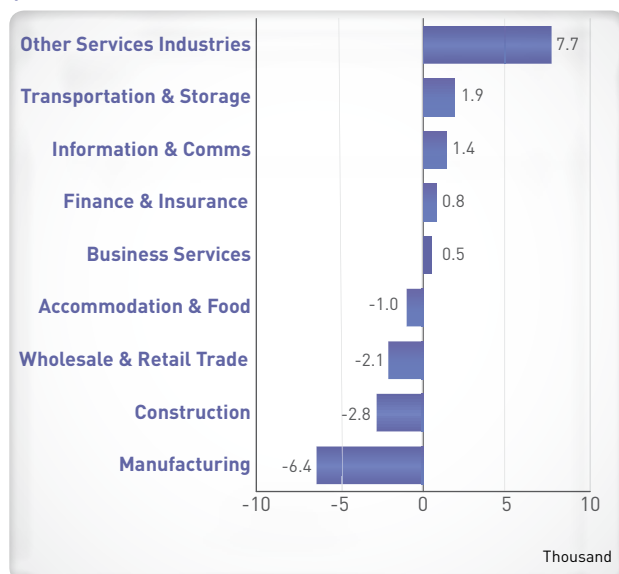
¹ Based on preliminary estimates.

Exhibit 1.4: Changes in Total Employment, Quarter-on-quarter Basis



Employment growth in the first quarter differed across broad sectors. Services employment continued to grow (9,300), albeit at a slower pace as compared to the same period a year ago (24,900). The slower pace of growth was due to employment declines in the wholesale & retail trade and accommodation & food sectors (Exhibit 1.5).

Exhibit 1.5: Changes in Employment by Industry in 1Q 2015, Quarter-on-quarter Basis



Manufacturing employment fell by 6,400 in the first quarter, higher than the decline of 1,400 recorded in the same period a year ago. The decline came on the back of the completion of chemical maintenance projects, and the weaker outlook in the marine & offshore industry. Construction employment also shrank (-2,800), in contrast to gains a year ago (4,700). The decline in construction employment was likely due in part to the softer outlook in the private residential market as well as the tight foreign manpower policies.

Unemployment, Redundancy², and Hiring Expectations

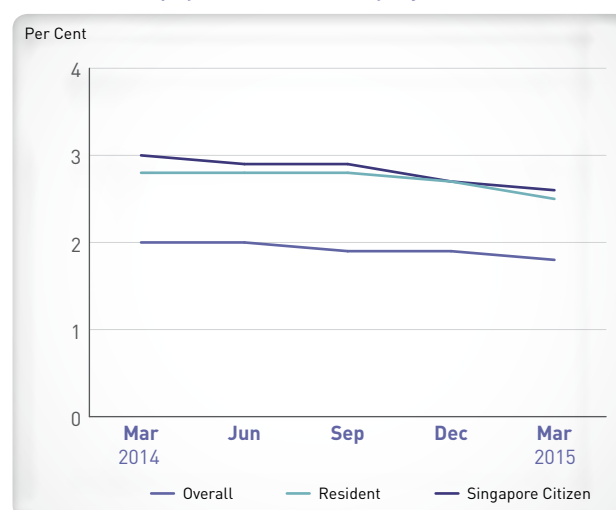
Despite the slowdown in employment growth, other indicators suggest that the labour market remained tight.

First, overall unemployment rates remained at historically low levels, with the overall seasonally-adjusted unemployment rate dipping by 0.1 percentage-points from December 2014 to 1.8 per cent in March 2015 (Exhibit 1.6). Similarly, the unemployment rate fell by 0.2 percentage-points and 0.1 percentage-points over the quarter for residents and citizens, to reach 2.5 per cent and 2.6 per cent respectively in March 2015.

An estimated 54,500 residents, including 47,800 Singapore citizens, were unemployed in March 2015.

The seasonally-adjusted figures were 56,500 for residents and 50,200 for citizens.

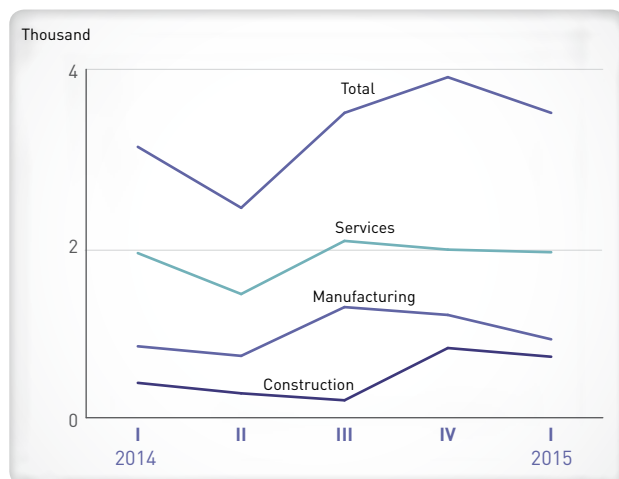
Exhibit 1.6: Unemployment Rate (Seasonally Adjusted)



² Figures pertain to private sector establishments each with at least 25 employees and the public sector.

Second, fewer workers were made redundant in the first quarter of 2015 (3,500) compared to the preceding quarter (3,910), although this was still above that in the first quarter of 2014 (3,110) (Exhibit 1.7).

Exhibit 1.7: Total Redundancies



Redundancies declined across all major sectors in the first quarter of 2015 as compared to the preceding quarter, with the manufacturing sector registering the largest decline (1,180 to 900). The services sector saw a decline in redundancies from 1,930 to 1,900, while the construction sector saw redundancies fall from 800 to 700 over the quarter.

Third, hiring expectations for the next three months remained positive at the overall level. For the services sector, a net weighted balance of 8 per cent of firms expected an increase in hiring in the second quarter of 2015 over the preceding quarter. Hiring expectations were especially strong in the finance & insurance, recreation, community & personal services, and information & communications sectors, with a net weighted balance of 30 per cent, 19 per cent and 9 per cent of firms expecting an increase in hiring respectively.

While hiring expectations in the manufacturing sector were more muted, a net weighted balance of 1 per cent of firms in the sector still expected to hire more workers in the second quarter as compared to the first quarter. The electronics and biomedical manufacturing clusters were the most optimistic about hiring in the three months ahead, with a net weighted balance of 22 per cent and 9 per cent of firms in these clusters expecting to increase headcount respectively.

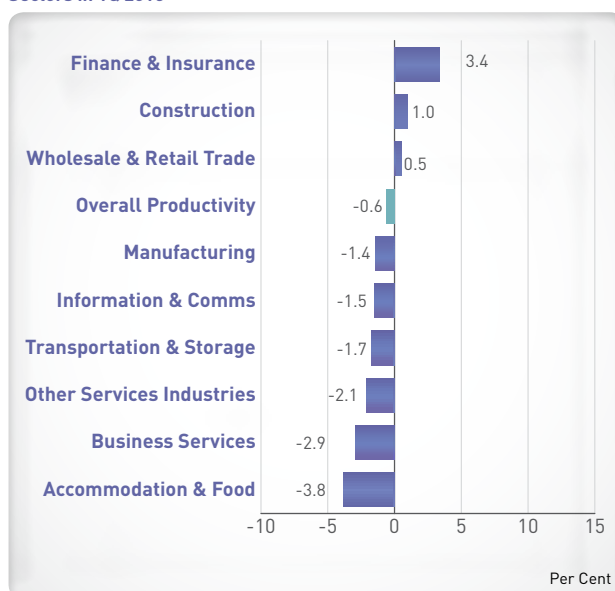
COMPETITIVENESS

Productivity

Labour productivity declined by 0.6 per cent in the first quarter compared to the same period a year ago (Exhibit 1.8). This was an improvement from the decline of 1.5 per cent in the preceding quarter.

The finance & insurance (3.4 per cent), construction (1.0 per cent) and wholesale & retail trade (0.5 per cent) sectors registered the highest productivity growth rates. The sectors with the sharpest declines in productivity were accommodation & food services (-3.8 per cent) and business services (-2.9 per cent), in line with a moderation in the sectors' value-added growth.

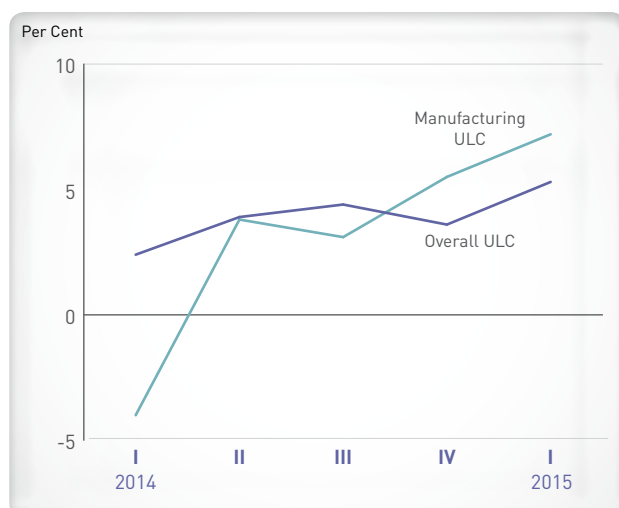
Exhibit 1.8: Change in Labour Productivity for the Overall Economy and Sectors in 1Q 2015



Unit Labour Cost and Unit Business Cost

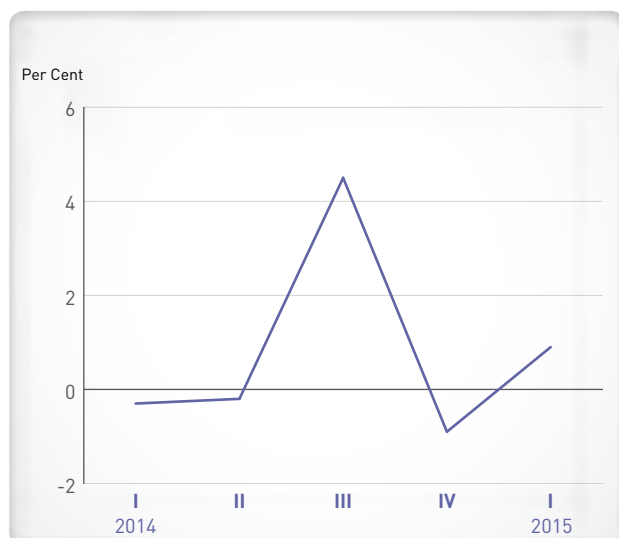
Overall unit labour cost (ULC) for the economy rose by 5.3 per cent in the first quarter compared to the same period a year ago (Exhibit 1.9). This was faster than the 3.6 per cent increase in the preceding quarter. Overall ULC rose at a faster pace as labour costs continued to increase, amidst a decline in productivity.

Exhibit 1.9: Changes in Unit Labour Cost



Manufacturing ULC rose by 7.2 per cent in the first quarter, an uptick from the 5.5 per cent increase a quarter ago. The increase in manufacturing ULC can be attributed to a significant decline in productivity for the sector, even as labour costs continued to rise. Unit business cost (UBC) in the manufacturing sector rose by 0.9 per cent in the first quarter, a reversal from the decline of 0.9 per cent in the previous quarter (Exhibit 1.10). The increase in manufacturing UBC was mainly driven by the increase in manufacturing ULC, which more than offset the decline in services cost.

Exhibit 1.10: Changes in Unit Business Cost

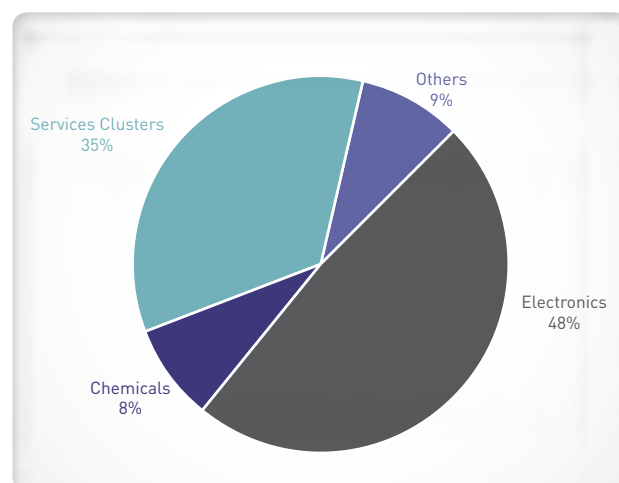


Investment Commitments

Investment commitments in terms of total fixed asset investments (FAI) and total business expenditure (TBE) amounted to \$3.3 billion and \$2.2 billion respectively in the first quarter (Exhibit 1.11 and Exhibit 1.12).

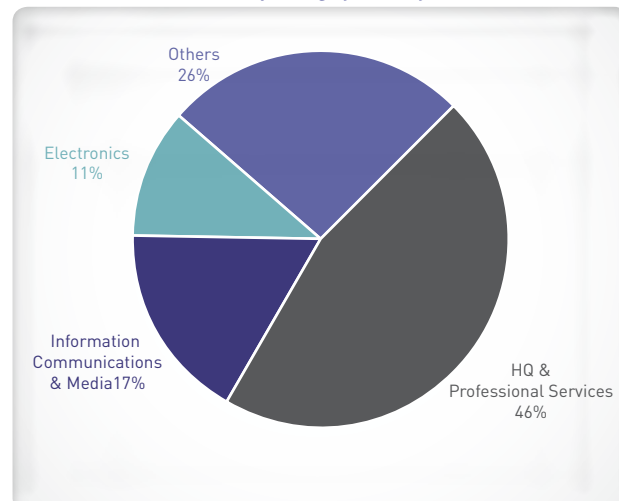
In terms of FAI, the largest contributor was the electronics cluster which garnered \$1.6 billion in commitments, mainly from the semiconductors segment. This was followed by the headquarters & professional services cluster, which attracted \$0.6 billion in commitments. Investors from the United States were the largest foreign source of FAI commitments, accounting for \$2.4 billion (75 per cent) of total FAI commitments.

Exhibit 1.11: Fixed Asset Investments by Industry Cluster in 1Q 2015



In terms of TBE, the headquarters & professional services cluster attracted the highest amount of TBE, at \$1.0 billion, followed by the information communications & media cluster, at \$375 million. Similarly, investors from the United States were the largest foreign source of TBE, contributing \$921 million (42 per cent) to total TBE commitments.

Exhibit 1.12: Total Business Spending by Industry Cluster in 1Q 2015



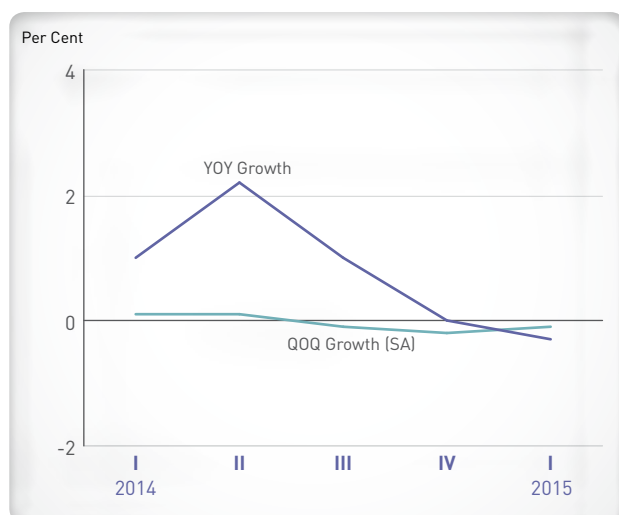
When fully realised, these commitments are expected to generate value-added of \$5.3 billion and more than 4,800 skilled jobs.

PRICES

Consumer Price Index

The CPI declined by 0.3 per cent on a year-on-year basis in the first quarter, after staying flat in the previous quarter (Exhibit 1.13). On a quarter-on-quarter seasonally-adjusted basis, the CPI fell by 0.1 per cent, following the 0.2 per cent decline in the preceding quarter.

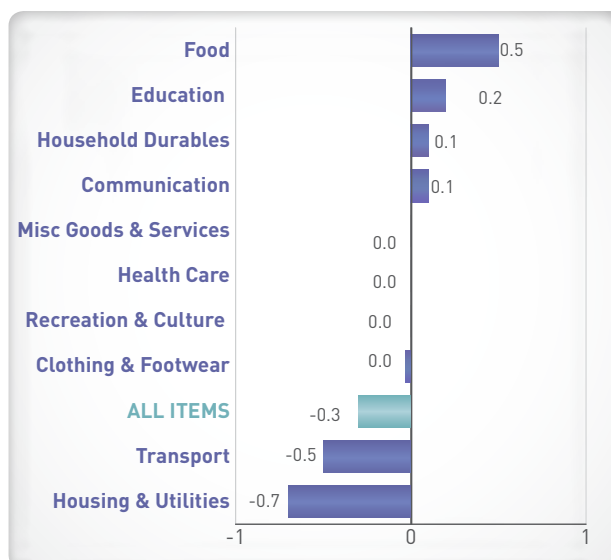
Exhibit 1.13: Changes in CPI



Food was the largest positive contributor to CPI inflation, with prices rising by 2.3 per cent on a year-on-year basis (Exhibit 1.14). This was due to price increases for hawker food and restaurant meals, as well as non-cooked food items such as fish & seafood, milk & eggs, fruits and vegetables.

Education costs rose by 3.4 per cent due to higher fees at commercial institutions, universities, polytechnics, childcare centres, kindergartens and playgroups. The prices of household durables & services increased by 1.6 per cent on account of more expensive household durables and the higher salaries paid to foreign maids.

Exhibit 1.14: Percentage-point Contribution to Change in Overall CPI in 1Q 2015



Communication costs rose by 1.6 per cent because of the higher costs of telecommunication services. The prices of miscellaneous goods & services rose by 0.8 per cent as the prices of alcoholic drinks & tobacco increased by more than the decline in the prices of personal care and personal effects items.

Healthcare costs went up by 0.2 per cent as the higher prices of hospital services and medical products, appliances & equipment more than offset the fall in the prices of outpatient services. Recreation & culture costs inched up by 0.1 per cent due to the higher costs of recreational services, which outweighed the lower costs of holiday travel.

However, the price gains registered in these CPI categories were more than offset by the price declines in the other categories. In particular, housing & utilities exerted the largest drag on headline inflation, with prices declining by 2.5 per cent on the back of a fall in accommodation costs and electricity tariffs.

Transport costs decreased by 3.2 per cent due to lower petrol and car prices, which more than offset the impact of higher train and bus fares. Similarly, clothing & footwear costs fell by 1.0 per cent due to cheaper ready-made garments and footwear.

INTERNATIONAL TRADE

Merchandise Trade

Singapore's total merchandise trade declined by 10 per cent in the first quarter compared to the same period a year ago, following the 4.8 per cent drop in the preceding quarter (Exhibit 1.15). This was mainly due to a 40 per cent contraction in oil merchandise trade.

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

	2014					Per Cent
	I	II	III	IV	Ann	2015 I
Merchandise Trade	7.1	2.9	-3.5	-4.8	0.3	-10.5
Merchandise Exports	7.4	2.7	-1.4	-3.8	1.1	-5.4
Domestic Exports	3.3	3.2	-0.7	-6.6	-0.3	-11.5
Oil	10.2	14.4	-3.3	-17.7	0.5	-34.7
Non-Oil	-1.0	-3.4	1.1	0.5	-0.7	4.8
Re-Exports	12.5	2.3	-2.3	-0.6	2.6	1.6
Merchandise Imports	6.8	3.0	-5.7	-6.0	-0.6	-16.1
Oil	11.6	5.6	-5.5	-18.0	-1.7	-44.2
Non-Oil	4.6	1.8	-5.8	-0.6	-0.1	-2.0

Total merchandise exports declined by 5.4 per cent in the first quarter, extending the 3.8 per cent contraction in the preceding quarter. This marked the third consecutive quarter of decline and was mainly caused by the 11 per cent fall in domestic exports, which more than offset the 1.6 per cent growth in re-exports.

The fall in domestic exports was mainly due to continued weakness in oil domestic exports, which posted a decline of 35 per cent in the first quarter. This was in turn attributed to the weakness in oil prices, which depressed the nominal value of oil domestic exports. In volume terms, oil domestic exports rose by 6.2 per cent. On the other hand, non-oil domestic exports (NODX) posted its third consecutive quarter of expansion, increasing by 4.8 per cent in the first quarter. The increase in NODX was due to expansions in both electronic and non-electronic NODX.

Total merchandise imports declined by 16 per cent in the first quarter, mainly due to the decline in oil imports. Oil imports decreased by 44 per cent as the weakness in oil prices depressed the nominal value of oil imports. In volume terms, oil imports increased by 1.8 per cent. Non-oil imports fell by 2.0 per cent in the first quarter, driven by declines in both electronic and non-electronic imports.

Services Trade

Total services trade expanded by 1.2 per cent in the first quarter, reversing the decline of 0.3 per cent in the previous quarter (Exhibit 1.16). Services exports increased by 2.1 per cent, faster than the 0.8 per cent growth in the previous quarter. Growth in services exports can be mainly attributed to the expansion in financial services, other business services and transport services exports. Services imports expanded by 0.3 per cent, a reversal from the 1.4 per cent contraction in the previous quarter.

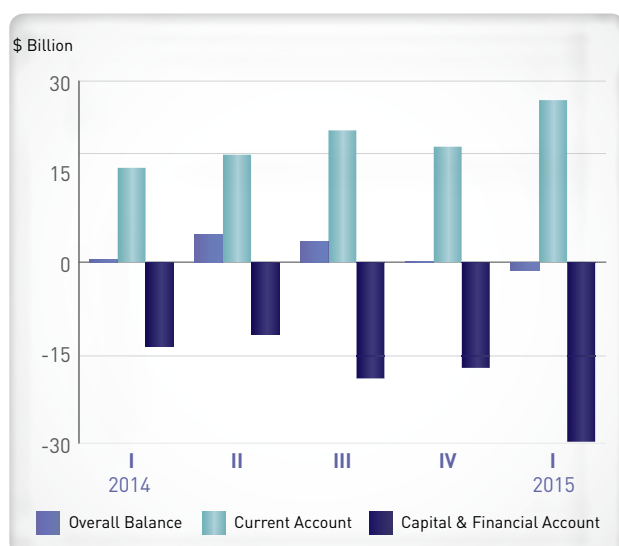
Exhibit 1.16: Growth Rates of Total Services Trade, Exports and Imports (In Nominal Terms)

	2014					Per Cent
	I	II	III	IV	Ann	2015 I
Total Services Trade	7.0	1.6	1.5	-0.3	2.4	1.2
Services Exports	8.5	2.3	3.0	0.8	3.6	2.1
Services Imports	5.5	1.0	0.1	-1.4	1.2	0.3

BALANCE OF PAYMENTS

The overall balance of payments recorded a deficit of \$1.3 billion in the first quarter, compared to a surplus of \$0.1 billion in the previous quarter (Exhibit 1.17). Although the current account surplus rose for the quarter, this was more than offset by the larger deficit in the capital and financial account.

Exhibit 1.17: Balance of Payments



Current Account

The current account surplus rose by \$7.7 billion to reach \$27 billion in the first quarter, largely due to a larger goods surplus. The services balance swung from a deficit to a surplus position, while the shortfall in primary income balance fell slightly. Meanwhile, the secondary income deficit was largely unchanged.

The surplus in the goods balance widened by \$6.2 billion to \$31 billion in the first quarter, as the fall in imports exceeded that of exports.

The services balance recorded a surplus of \$0.8 billion, reversing the deficit of \$0.6 billion a quarter ago. Net receipts for maintenance & repair services and transport services rose, while net payments for travel services fell. These outweighed the increase in net payments for insurance services.

By contrast, the primary income deficit fell slightly to \$3.0 billion, as income payments declined by more than income receipts. The deficit in the secondary income balance remained fairly stable at around \$2.3 billion.

Capital and Financial Account

The deficit in the capital and financial account widened to \$30 billion in the first quarter, from \$18 billion in the previous quarter.

This was due to a sharp reversal in the portfolio investment account, which registered net outflows of \$11 billion in the first quarter compared to net inflows of \$0.5 billion in the previous quarter. The domestic non-bank private sector increased its purchases of overseas securities, while deposit-taking corporations disposed less of their portfolio investments abroad.

In comparison, net inflows of direct investment increased by \$0.4 billion in the first quarter, with the decline in residents' investments abroad exceeding the fall in foreign direct investment flows into Singapore.

At the same time, net outflows from the "other investment" account declined to \$36 billion from \$37 billion in the previous quarter. This largely reflected lower net outflows from the deposit-taking corporate sector.

CHAPTER 2

Sectoral Performance





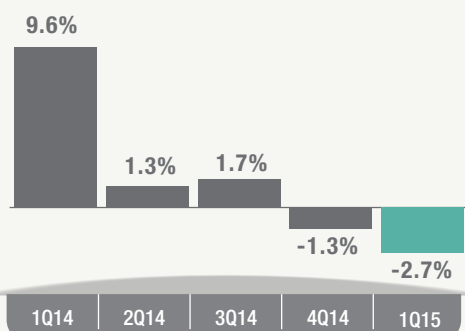
CHAPTER 2

SECTORAL PERFORMANCE

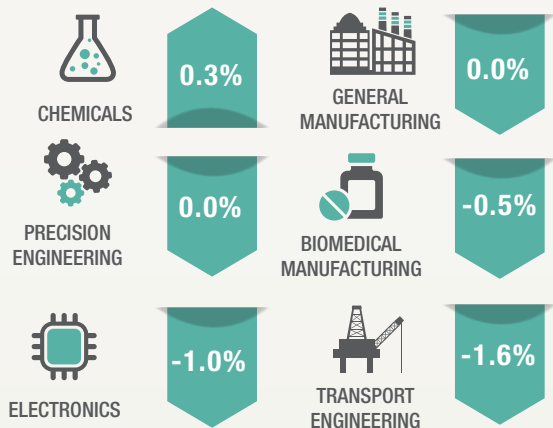
MANUFACTURING



Real Growth



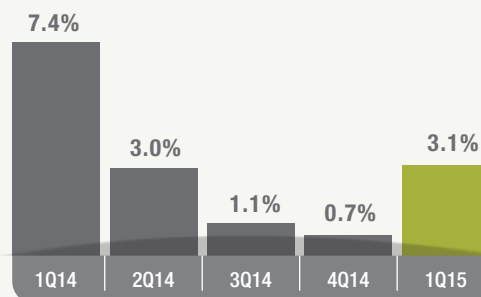
Clusters in Manufacturing Sector %-point contribution in 1Q15



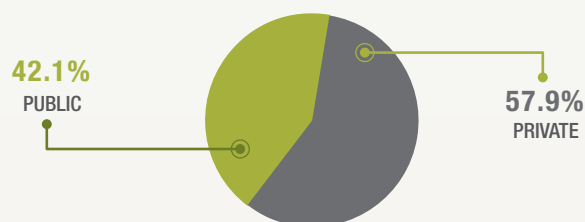
CONSTRUCTION



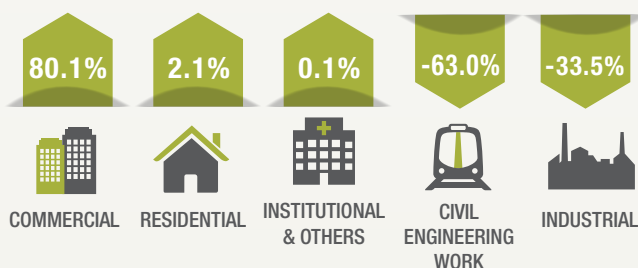
Real Growth



Certified Payments in 1Q15



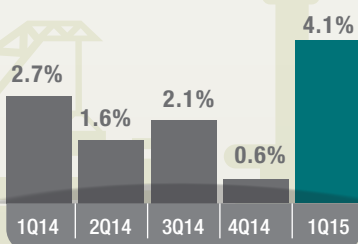
Contracts Awarded in 1Q15



WHOLESALE & RETAIL TRADE



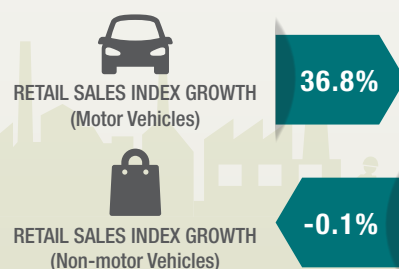
Real Growth



Wholesale Trade



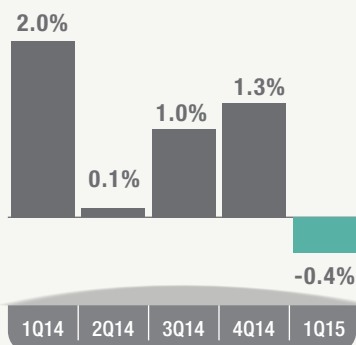
Retail Trade



ACCOMMODATION & FOOD SERVICES



Real Growth



Accommodation

Performance of hotels



Gross lettings growth: 2.3%
Room revenue growth: -3.1%

Food Services

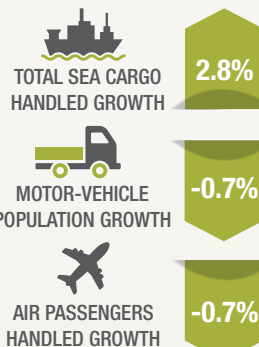
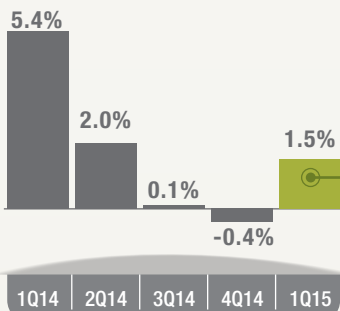
Performance of F&B (Sales growth)



TRANSPORTATION & STORAGE



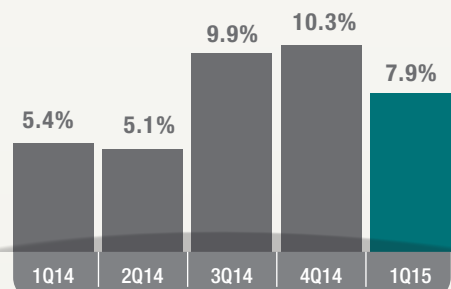
Real Growth



FINANCE & INSURANCE



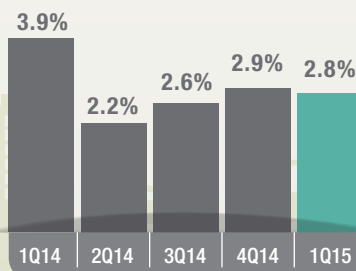
Real Growth



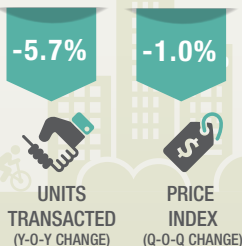
BUSINESS SERVICES



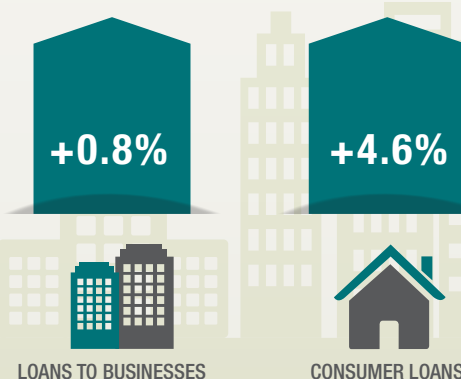
Real Growth



Private Residential Real Estate



Growth of bank loans & advances to non-bank customers in 1Q15



OVERVIEW

In the first quarter of 2015,

- Manufacturing output declined by 2.7 per cent, extending the 1.3 per cent fall in the previous quarter. The transport engineering cluster posed the largest drag on growth due to weak external demand for both the aerospace and marine & offshore engineering segments.
- The construction sector expanded by 3.1 per cent, faster than the 0.7 per cent growth in the previous quarter. The improvement came on the back of an uptick in private sector construction activities, which was in turn supported by private commercial building and private residential building works.
- The wholesale & retail trade sector grew by 4.1 per cent, extending the 0.6 per cent growth in the previous quarter. The wholesale trade segment was driven by increased sales to both domestic and foreign markets.
- Supported by the water transport segment, growth of the transportation & storage sector rebounded to 1.5 per cent, from -0.4 per cent in the preceding quarter.
- The accommodation & food services sector contracted by 0.4 per cent, a reversal from the 1.3 per cent growth in the previous quarter, largely due to the 6.1 per cent decline in visitor arrivals.
- The finance & insurance sector expanded by 7.9 per cent, moderating from the 10 per cent increase in the preceding quarter. Growth in the sector was underpinned by a steady expansion in the banking cluster.
- The business services sector grew by 2.8 per cent, similar to the 2.9 per cent expansion in the previous quarter. Growth in the sector was supported by the rental and leasing segment, as well as the other professional, scientific & technical services segment.

MANUFACTURING

Manufacturing output decreased by 2.7 per cent on a year-on-year basis in the first quarter, extending the contraction of 1.3 per cent in the previous quarter (Exhibit 2.1). The fall in manufacturing output was due largely to output declines in the transport engineering, electronics and biomedical manufacturing clusters. On the other hand, output in the chemicals cluster increased (Exhibit 2.2).

Exhibit 2.1: Manufacturing Growth Rates

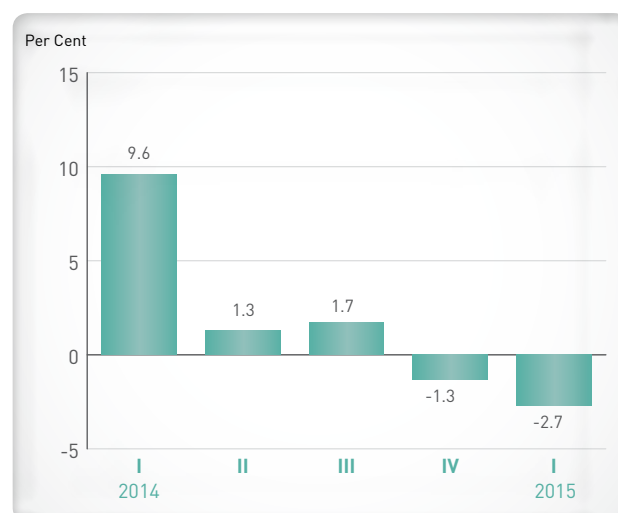
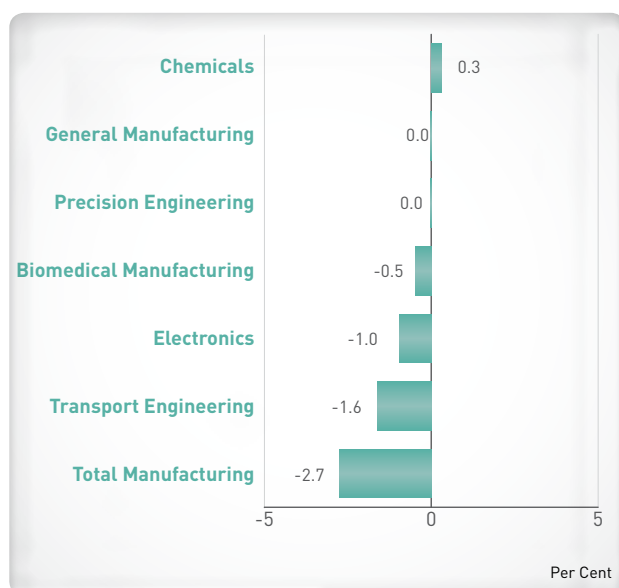


Exhibit 2.2: Percentage-Point Contribution to Manufacturing Sectors' Growth in 1Q 2015



In the chemicals cluster, output increased by 2.8 per cent in the first quarter, boosted by expansions in the specialty chemicals and petroleum segments. In particular, the specialty chemicals segment grew by 7.5 per cent on the back of new production capacities. The petroleum segment expanded by 11 per cent, largely due to the low base last year when some plants had maintenance shutdowns. By contrast, the petrochemicals segment declined by 4.1 per cent, weighed down by plant maintenance shutdowns.

The precision engineering cluster shrank marginally by 0.2 per cent in the first quarter. Growth was weighed down by the machinery & systems segment, which contracted by 1.9 per cent due to lower output in mechanical engineering works and lifts & escalators. On the other hand, the precision modules & components segment registered a modest expansion of 2.0 per cent.

The transport engineering cluster's performance remained weak in the first quarter, registering a decline of 9.0 per cent. Growth was dragged down by the aerospace and marine & offshore engineering segments. Specifically, the aerospace segment recorded its fourth consecutive contraction (-17 per cent) on the back of weak demand for engine repair jobs, which could be partly attributed to airlines replacing older fleets with newer planes that required less maintenance. For the marine & offshore engineering segment, weak contributions from rig building, ship repairing and conversion jobs led to a 6.9 per cent decline in output.

The biomedical manufacturing cluster contracted by 2.2 per cent in the first quarter. This was due to a 7.2 per cent decline in pharmaceuticals output, which came on the back of a lower production of active pharmaceutical ingredients and biological products. On the other hand, the medical technology segment expanded robustly by 21 per cent, supported by higher export demand for medical instruments.

The electronics cluster contracted by 3.3 per cent in the first quarter. The poor performance came on the back of a 10 per cent decline in the semiconductors segment, which was partially offset by expansions in all other segments. Specifically, output of the electronic modules & components, infocomms & consumer electronics, computer peripherals and data storage segments increased by 33 per cent, 5.7 per cent, 5.6 per cent and 0.9 per cent respectively.

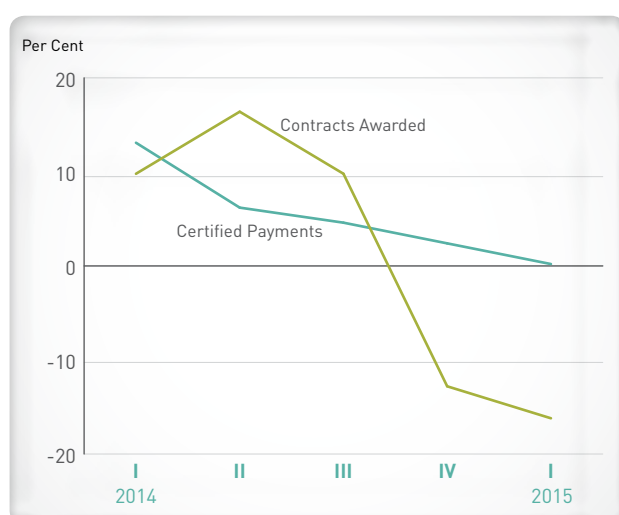
The general manufacturing industries cluster declined by 0.1 per cent in the first quarter. The food, beverages & tobacco and miscellaneous industries segments grew by 1.8 per cent and 0.5 per cent respectively, with the former supported by higher festive demand. However, this was more than offset by the 5.0 per cent decline in the output of the printing segment.

CONSTRUCTION

The construction sector expanded by 3.1 per cent in the first quarter, higher than the 0.7 per cent expansion registered in the previous quarter. The step-up in growth largely resulted from a pick-up in private sector construction activities, which was in turn due to an increase in private commercial and residential building works.

Nominal certified progress payments rose by 0.2 per cent, extending the 2.4 per cent increase recorded in the previous quarter (Exhibit 2.3). Growth was supported by a 2.6 per cent uptick in private certified progress payments. Private certified progress payments was in turn bolstered by private commercial building works (35 per cent), including the construction of Changi Airport's Project Jewel and Mediapolis@One-North; private residential building works (4.2 per cent); and public residential building works (13 per cent).

Exhibit 2.3: Changes in Contracts Awarded and Certified Payments



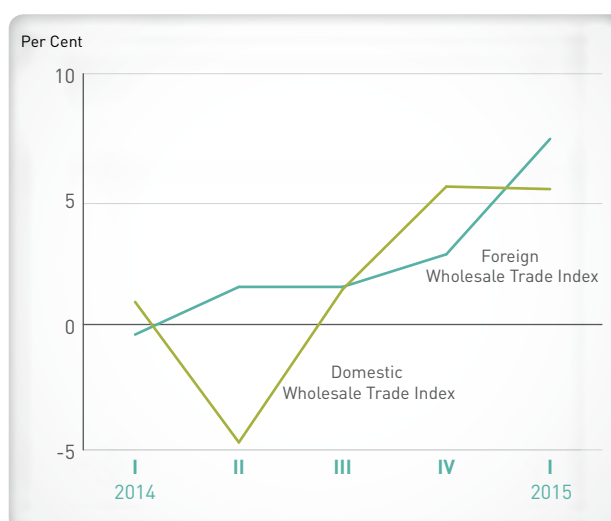
However, construction demand in terms of contracts awarded continued to weaken in the first quarter, declining by 16 per cent, after the 13 per cent fall in the previous quarter. The fall in construction demand follows from the sharp pullback in private sector demand (-37 per cent), with segments such as private industrial building (-45 per cent), private residential building (-34 per cent), and private institutional and other building (-59 per cent) registering hefty declines in contracts awarded. On the other hand, growth in public sector contracts awarded remained resilient and expanded by 18 per cent, reversing the 42 per cent decline posted in the preceding quarter. In particular, robust demand for public institutional and other building developments (81 per cent), as well as public residential building developments (70 per cent) provided support to overall construction demand.

WHOLESALE & RETAIL TRADE

The wholesale & retail trade sector grew by 4.1 per cent, extending the 0.6 per cent growth in the previous quarter.

The healthy performance of the wholesale trade sector in the first quarter came on the back of robust growth in both foreign and domestic wholesale trade sales volume (Exhibit 2.4). Specifically, the foreign wholesale trade index increased by a faster 7.4 per cent in the first quarter compared to 2.8 per cent in the preceding quarter. The strong performance was supported by the increased sales of petroleum & petroleum products (18 per cent) and chemicals & chemical products (9.6 per cent).

Exhibit 2.4: Change in Wholesale Trade Index at Constant Prices

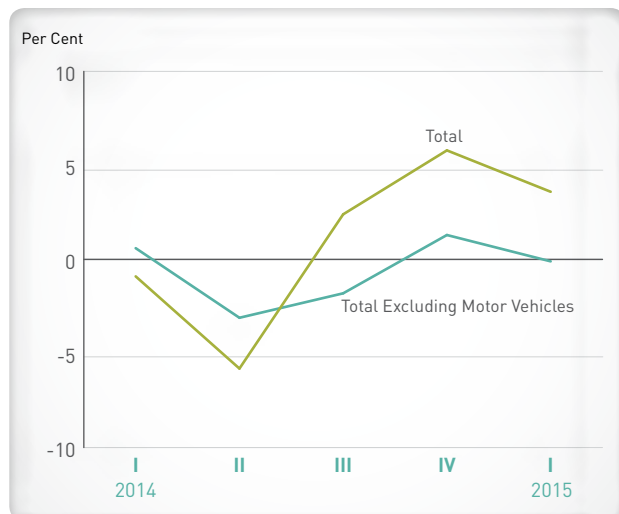


Likewise, the domestic wholesale trade index rose by 5.4 per cent, in line with the 5.5 per cent growth in the previous quarter. Similar to the foreign wholesale trade index, growth was primarily due to strong sales of petroleum & petroleum products (12 per cent), chemicals & chemical products (19 per cent) as well as electronic components (12 per cent).

Retail sales volume increased by 3.6 per cent in the first quarter to record its third consecutive quarter of growth (Exhibit 2.5). This steady performance was supported by a 37 per cent expansion in motor vehicle sales volume, following an increase in the supply of Certificates of Entitlement compared to the same period a year ago.

Excluding motor vehicles, retail sales volume registered a dip of 0.1 per cent in the first quarter, on the back of poor discretionary sales. Specifically, sales of recreational goods and wearing apparel & footwear fell by 9.5 per cent and 1.5 per cent respectively. The decline in visitor arrivals and tight labour constraints are likely factors that could have weighed on non-motor vehicle retail sales volume.

Exhibit 2.5: Changes in Retail Price Index at Constant Prices

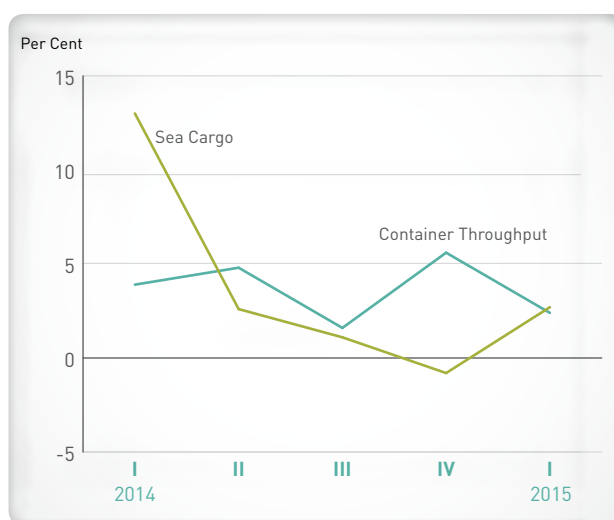


TRANSPORTATION & STORAGE

The transportation & storage sector grew by 1.5 per cent, reversing the 0.4 per cent decline in the previous quarter.

Growth in the sector was due to an expansion in the water transport segment. Specifically, the volume of sea cargo handled grew by 2.8 per cent, on the back of growth in both general cargo (2.8 per cent) and bulk cargo (2.9 per cent). In tandem with the expansion in global trade activities, total container throughput maintained its growth momentum and rose by 2.4 per cent in the first quarter (Exhibit 2.6).

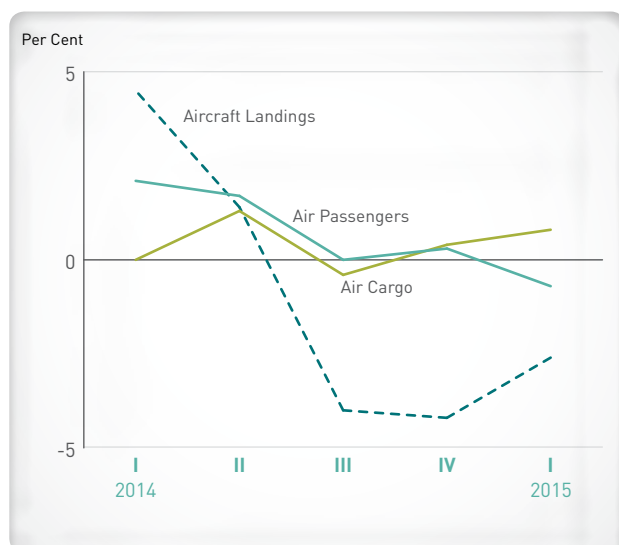
Exhibit 2.6: Change in Container Throughput and Sea Cargo Handled



On the other hand, the number of air passengers handled by Changi Airport fell by 0.7 per cent in the first quarter, a reversal from the marginal growth of 0.3 per cent in the preceding quarter (Exhibit 2.7). This came on the back of declines in air passenger traffic to and from Indonesia and Malaysia, which were partially offset by a recovery in traffic on the Thailand and China routes. By contrast, total air cargo shipments handled at Changi Airport registered a small increase of 0.8 per cent, extending the 0.4 per cent growth in the previous quarter. The uptick in air cargo shipments was supported by improvements in electronics exports in the first quarter.

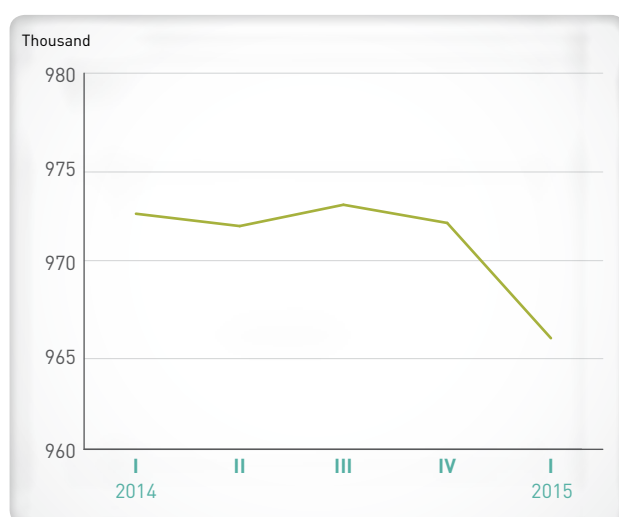
The number of aircraft landings declined by 2.6 per cent in the first quarter to reach 42,023, the third consecutive quarter of contraction.

Exhibit 2.7: Changes in Air Transport



As of March 2015, the number of vehicles registered with the Land Transport Authority declined marginally by 0.7 per cent to a total of 965,910 (Exhibit 2.8). These comprised 594,357 private and company cars, 19,665 rental cars, 28,672 taxis, 17,612 buses, 144,737 motorcycles and scooters, and 160,867 goods vehicles and other vehicle types.

Exhibit 2.8: Motor Vehicles Registered



ACCOMMODATION & FOOD SERVICES

The accommodation & food services sector contracted by 0.4 per cent, compared to the 1.3 per cent growth in the previous quarter. This was largely due to lacklustre visitor arrivals.

Exhibit 2.9: Visitor Arrivals

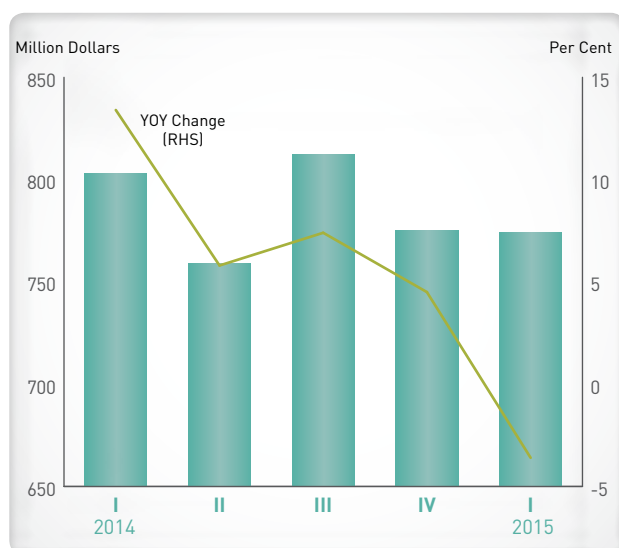


Total visitor arrivals declined by 6.1 per cent in the first quarter, extending the 1.2 per cent drop in the previous quarter (Exhibit 2.9). The poor performance was mainly due to fewer visitors from key markets such as Indonesia, China, Australia and Malaysia. Notably, Indonesian arrivals recorded a sharper drop of 16 per cent in the first quarter, as compared to the 5.5 per cent fall in the preceding quarter.

The overall softness in visitor arrivals likely stemmed from weakness in the currencies of some key markets, as well as intensified efforts by regional destinations to attract tourists.

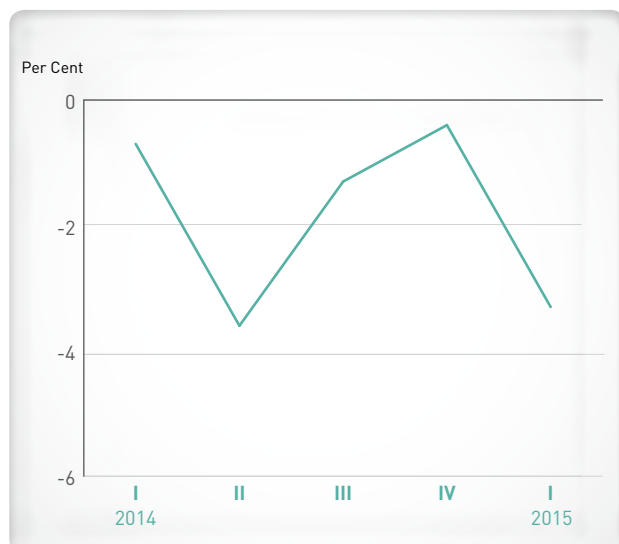
On the back of weak demand from tourists, the gross lettings of gazetted hotels recorded modest growth of 2.3 per cent, the slowest pace of increase since the fourth quarter of 2012. Average room rates also softened, declining by 5.4 per cent to \$247. As a result, hotel room revenue shrank by 3.1 per cent to record the first decline since the fourth quarter of 2009 (Exhibit 2.10).

Exhibit 2.10: Hotel Room Revenue



Similarly, food & beverage sales volume remained weak in the first quarter. In particular, the pace of decline in food & beverage sales volume accelerated to 3.3 per cent, from 0.4 per cent in the previous quarter (Exhibit 2.11). This was mainly due to subdued restaurant sales which fell by 3.2 per cent, a reversal from the flat growth in the previous quarter, in line with the contraction in visitor arrivals.

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

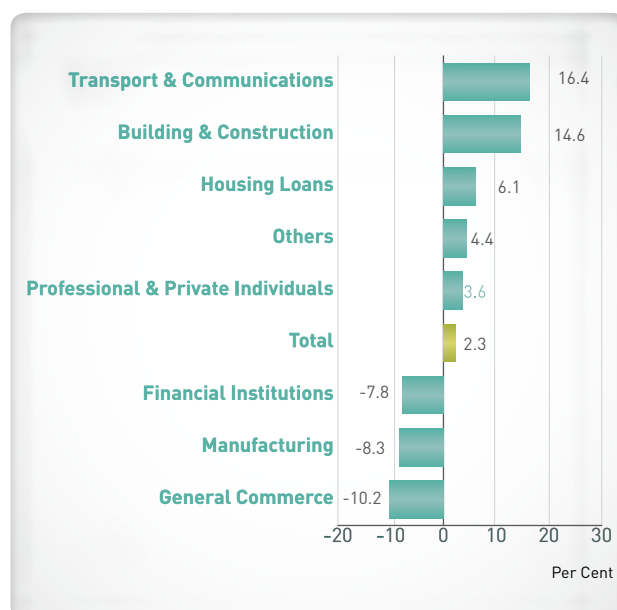


FINANCE & INSURANCE

The financial & insurance sector expanded by 7.9 per cent, following the robust 10 per cent increase in the preceding quarter. On a seasonally-adjusted quarter-on-quarter annualised basis, however, the sector contracted by 12 per cent, after the 36 per cent surge in the previous quarter.

Growth in the first quarter was supported by the banking cluster. Notably, in the domestic banking unit (DBU) segment, non-bank loan volumes expanded, albeit at a slower pace of 2.3 per cent as compared to the 5.9 per cent recorded in the preceding quarter. The moderation was partly due to a step-down in corporate loans growth to 0.8 per cent year-on-year, from 6.4 per cent in the preceding quarter, amid sluggish credit demand by the commerce and non-bank financial institutions segments (Exhibit 2.12).

Exhibit 2.12: Growth of Bank Loans & Advances to Non-Bank Customers by Industry in 1Q 2015



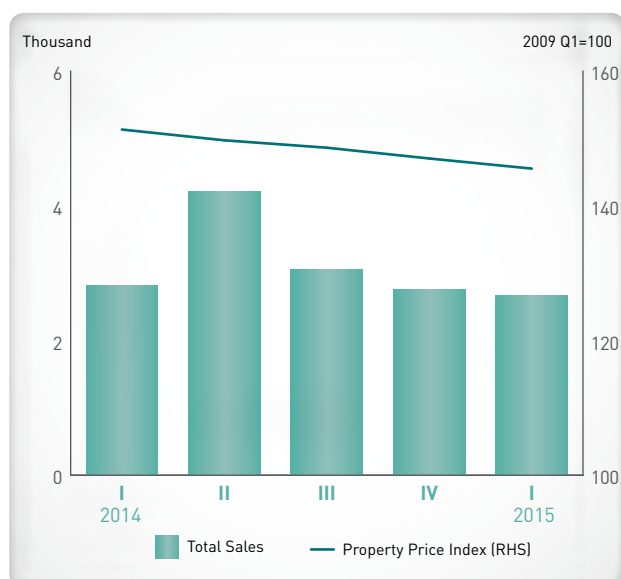
Meanwhile, the sentiment-sensitive cluster saw some pullback. Amid tepid investor interest in the local equity scene, average daily turnover volume on the local bourse fell by 46 per cent year-on-year in the first quarter of 2015, following the 43 per cent decline in the quarter before. IPO activities likewise stalled, with no new equity raised on the local bourse during the quarter. The forex market also registered a downshift in average daily turnover growth, from 21 per cent year-on-year in the fourth quarter of 2014 to 11 per cent. Furthermore, net fees and commissions in the fund management industry grew more slowly than in the preceding quarter, as the boost from the end-year performance bonus fees dissipated.

BUSINESS SERVICES

The business services sector expanded by 2.8 per cent in the first quarter, extending the 2.9 per cent growth in the previous quarter. Growth in the sector was supported by the rental and leasing segment, as well as the other professional, scientific & technical services segment.

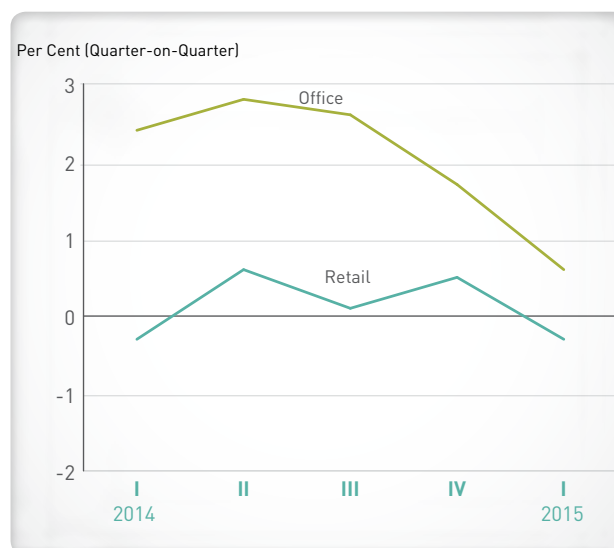
In the real estate segment, growth remained soft in the first quarter, following sustained weakness in the private residential market. Private home sales contracted by 5.7 per cent year-on-year, extending the 30 per cent decline in the previous quarter (Exhibit 2.13). This represented the ninth consecutive quarter of decline in sales transactions. In line with the weakness in market activity, private residential property prices fell by 1.0 per cent on a quarter-on-quarter basis in the first quarter.

Exhibit 2.13: New Sales Transaction for Private Residential Units and Private Residential Property Price Index



Rental growth in the private retail space segment continues to be restrained, declining by 0.3 per cent on a quarter-on-quarter basis, reversing the 0.5 per cent growth recorded in the previous quarter (Exhibit 2.14). This comes as retailers face an increasingly challenging operating environment with weak visitor arrivals and tight labour conditions. In tandem with tepid rental growth, occupancy rates worsened slightly to 92 per cent, from the 93 per cent recorded the quarter before.

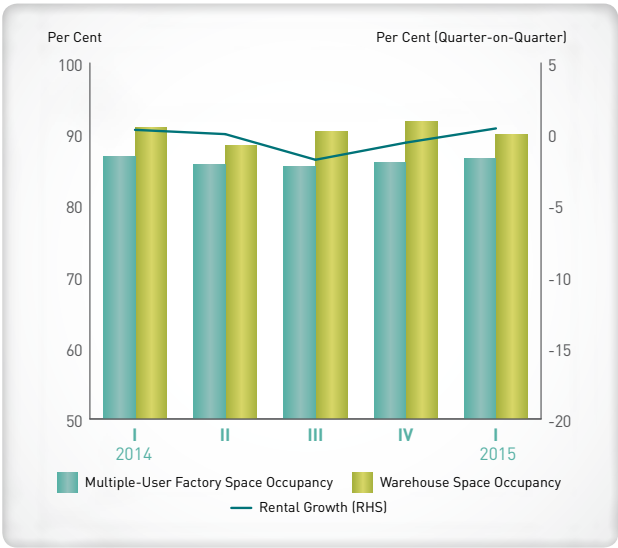
Exhibit 2.14: Changes in Rentals of Private Sector Office and Retail Spaces



By contrast, the office space segment remained resilient on the back of sustained demand for prime office space. Office rentals rose by 0.6 per cent quarter-on-quarter in the first quarter, extending the 1.7 per cent growth registered in the previous quarter. At the same time, occupancy rates remained stable at 89 per cent.

In the industrial space market, overall rentals increased by 0.4 per cent on a quarter-on-quarter basis, reversing the 0.6 per cent decline in the previous quarter. This comes on the back of a slight increase in occupancy rate for private multiple-user factory space, from 86 per cent in the previous quarter to 87 per cent (Exhibit 2.15). By contrast, the occupancy rate for private sector warehouse space declined slightly to 90 per cent in the first quarter, compared to 92 per cent in the previous quarter.

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



CHAPTER 3

Economic Outlook





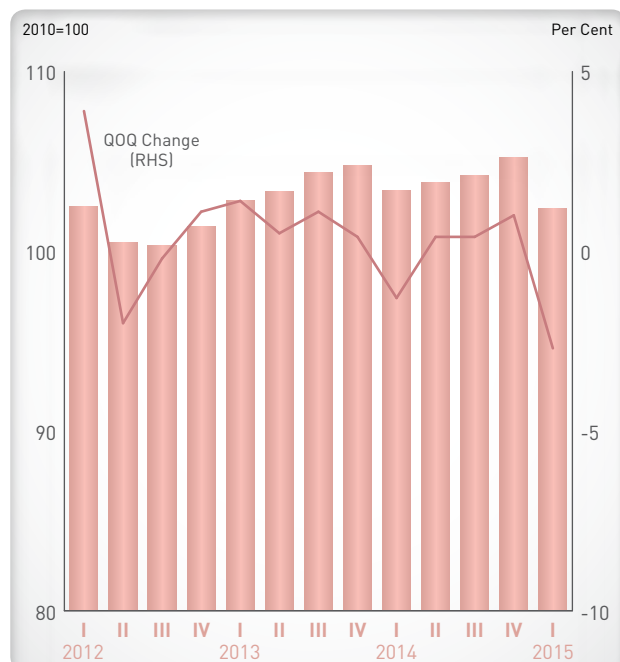
CHAPTER 3

ECONOMIC OUTLOOK

LEADING INDICATORS

The global economic outlook remains clouded with uncertainties and downside risks. Against this backdrop, the composite leading index (CLI) declined by 2.7 per cent on a quarter-on-quarter basis in the first quarter of 2015, reversing the 1.0 per cent increase in the preceding quarter (Exhibit 3.1).

Exhibit 3.1: Composite Leading Index Levels and Growth Rate



Of the nine components within the index, six of them declined compared to the previous quarter, namely non-oil sea cargo handled, wholesale trade, non-oil retained imports, new companies formed, US PMI and stock of finished goods. On the other hand, the indicators that improved were money supply, stock price and domestic liquidity.

OUTLOOK FOR 2015

The global economic outlook has remained broadly unchanged since the start of the year, with global growth in 2015 expected to be marginally better than in 2014. The pace of growth is also likely to remain uneven across economies. In particular, while advanced economies are expected to see a pick-up in growth, emerging markets and developing economies are projected to see slower growth.

In the US, a combination of factors, including the harsh winter and port strikes, led to a sharp slowdown in growth in the first quarter. As the effect of some of these factors dissipates, the US economy is likely to pick up over the course of the year. For 2015 as a whole, the US is projected to see faster growth as compared to 2014, supported by domestic demand. The Eurozone economy is also expected to improve in 2015, supported by the quantitative easing measures that have been implemented since March. However, growth will likely remain modest due to sluggish labour market conditions and deflationary pressures. In Asia, China's growth is projected to ease, weighed down by the on-going property market correction. Nonetheless, the slowdown is likely to remain contained as the Chinese government is expected to roll out additional easing measures to support growth. Meanwhile, growth in most key ASEAN economies is likely to improve in 2015 on the back of resilient domestic demand.

At the same time, the external outlook remains clouded with significant uncertainties and downside risks. In China, there remains the risk of a sharp correction in the real estate market, which could have severe negative spill-over effects on construction and real estate investment activities. In the Eurozone, there are uncertainties over Greece's future in the bloc, as well as fears of deflation in the region. In the US, there are lingering uncertainties over when, and the pace at which, the Federal Reserve (Fed) will raise the Fed Funds rate. Finally, with low commodity prices, the appreciation of the US dollar and the anticipated normalisation of US interest rates, emerging markets could face capital outflows and added pressures on their currencies and asset markets.

Given the expected improvement in global economic conditions in 2015, externally-oriented sectors such as wholesale trade and finance & insurance are likely to see improved growth prospects. However, sector-specific factors could weigh on the growth of some sectors. For instance, low oil prices have dampened the outlook of the marine & offshore industry, while tourism-related sectors such as accommodation & food services may face headwinds in the near term due to lacklustre visitor arrivals. Domestically, the labour market is expected to remain tight, given low unemployment and elevated vacancy rates. As such, labour-intensive sectors such as construction, retail and food services may see their growth weighed down by labour constraints. Nonetheless, other domestically-oriented sectors such as business services are expected to remain resilient.

Taking into account the above factors, and barring the full materialisation of downside risks, the Singapore economy is expected to grow at a modest pace of **2.0 to 4.0 per cent** in 2015.

Singapore's Economic Growth Potential Up To 2020

2020 EYE ON THE FUTURE

ECONOMIC GROWTH IN THE NEXT FIVE YEARS

THE TEST

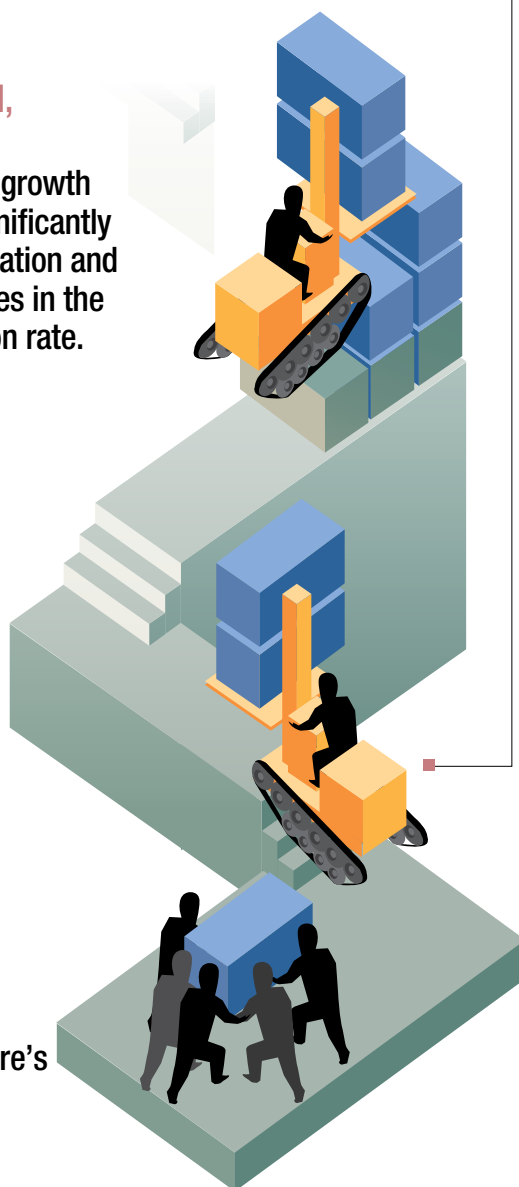
■ SLOWER RESIDENT WORKFORCE GROWTH, AGEING POPULATION

The resident workforce growth is expected to taper significantly due to our ageing population and limits to further increases in the labour force participation rate.

Resident workforce growth will drop to an average of 20,000 per year towards the end of the decade, a sharp slowdown from the growth of 66,000 on average in the last five years.

■ CHALLENGING GLOBAL ENVIRONMENT

Five years after the Global Financial Crisis, the global economy remains sluggish. If this persists, Singapore's economy could be adversely affected.



THE QUEST

■ RESTRUCTURE ■ INNOVATE ■ FACILITATE

GDP is likely to grow by 2 to 4 per cent per year from now to 2020.

To overcome the challenges of an uncertain global economy and slower resident workforce growth, we should continue to focus on economic restructuring and innovation, so as to raise productivity. These will help to overcome constraints of a tight labour market and raise income levels of Singaporeans.

The Government will continue to support businesses and workers in the restructuring journey towards productivity-driven growth.

In early 2010, the Economic Strategies Committee (ESC) recommended a medium-term GDP growth range of 3-5 per cent per annum from 2009 to 2019¹, supported by productivity growth of 2-3 per cent per annum and workforce growth of 1-2 per cent per annum.

As this year marks the half-way mark of the ESC's timeframe, this article reviews Singapore's economic performance since 2009, as well as sets out Singapore's medium-term growth projections for the rest of the decade, from 2014 to 2020.

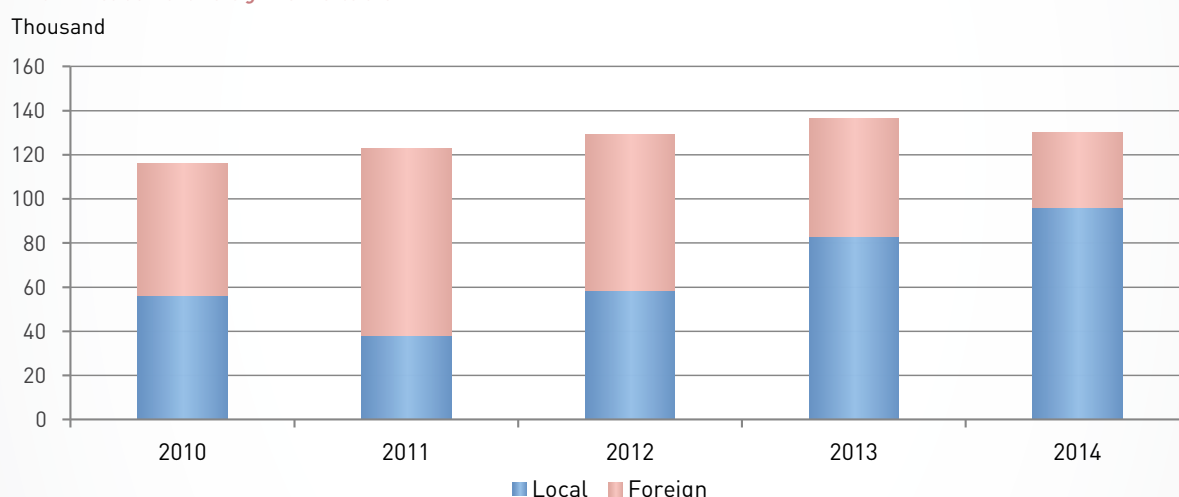
Our economy has performed relatively well since 2009...

The Singapore economy grew at a compounded annual growth rate (CAGR) of 6.4 per cent from 2009 to 2014, above the ESC's 3-5 per cent GDP growth range. Growth was driven by both workforce growth (3.8 per cent) and productivity growth (2.5 per cent).

...driven by strong resident workforce growth in recent years

The strong workforce growth experienced in the past five years was largely due to resident workforce growth, especially in recent years (see Exhibit 1). In particular, resident workforce growth is estimated to have contributed 1.9 percentage-points to the 3.8 per cent increase in total workforce over this period.

Exhibit 1: Resident and Foreign Workforce Growth



Source: Administrative Records and Labour Force Survey, Ministry of Manpower (MOM)

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

The growth in the resident workforce was due to two factors:

- Increase in the resident working-age population.** Between 2009 and 2014, the resident working-age population aged 20 to 64 increased by around 100,000, from 2.5 million to 2.6 million.
- Gains in the resident labour force participation rate (LFPR).** The LFPR for residents aged 20 to 64 has seen a steady increase over the years, from 78.4 per cent in 2009 to 80.2 per cent in 2014. Singapore's LFPR for this age group is now higher than the OECD average and that for advanced economies like the US and Japan.² While the increase in the resident LFPR over this period was broad-based across most age groups, the increase in the LFPR of residents in the older age groups was the most pronounced. The increase in LFPR came on the back of continued job creation for Singaporeans, as well as the various Government incentives to attract and retain Singaporeans in the workforce (e.g., the Workfare Income Supplement (WIS) scheme).

¹ In this article, unless otherwise stated, the start year of the reference time period is the base year from which growth will take place. In this case, the base year is 2009, and the first year of growth is in 2010.

² Please see MOM's "Statement on Labour Market Developments", March 2015.

On the other hand, foreign workforce growth has moderated significantly in recent years, given the sluggish global economic environment and tighter foreign manpower policies. In particular, foreign workforce growth (excluding foreign domestic workers) averaged around 67,000 per year in the years 2010 to 2012, much of which was in the construction sector as the Government ramped up building and infrastructure works (e.g., public housing and MRT lines). This fell to around 48,000 in 2013 and further to 26,000 in 2014.

...while productivity growth has been relatively lacklustre

While productivity growth came in at 2.5 per cent on a CAGR basis from 2009 to 2014, it was largely lifted by the 11.6 per cent surge in 2010, when the economy rebounded from the Global Financial Crisis (GFC). Excluding the rebound year, productivity growth was weak at 0.3 per cent per annum from 2010 to 2014.

The weakness in productivity growth in recent years can be attributed to a number of factors³:

- a. Uncertain and sluggish global economic environment. Productivity tends to be highly pro-cyclical in the short-run, especially for small, open economies like Singapore. The weak external environment since the GFC has dampened productivity growth not just in Singapore, but also several advanced economies and the Asian NIEs.⁴
- b. Low productivity growth in domestically-oriented sectors. Overall productivity growth has been weighed down by the domestically-oriented sectors. From 2010 to 2014, the productivity of the domestically-oriented sectors declined by 0.1 per cent per annum, even as export-oriented sectors achieved productivity growth of 2.2 per cent per annum despite the challenging external environment.⁵
- c. Employment shift into less productive, domestically-oriented sectors. Productivity has been further dampened by a shift in employment shares towards less productive, domestically-oriented sectors like construction and food services.
- d. Slowdown in capital intensity (i.e., capital per worker) and labour quality improvements. Excluding residential buildings, capital intensity growth is estimated to have fallen from 1.8 per cent in 2010 to 0.0 per cent in 2014, in part due to weaker private investments in response to the uncertain and sluggish global economic environment. Similarly, overall labour quality improvements slowed on the back of an increase in less-skilled foreign workers in the construction sector due to the ramp-up in building and infrastructural works, as well as the entry of less-educated Singaporeans into the workforce, possibly incentivised by schemes like WIS.

Nonetheless, there are signs that our productivity initiatives are gaining traction on the ground. Companies are responding positively to the call to raise productivity, with more of them tapping on government schemes such as the Productivity & Innovation Credit (PIC) to raise productivity. Measures such as construction site productivity (i.e., floor area constructed per man day) that are used as supplementary indicators to monitor the progress of our productivity drive in the various sectors are also showing steady improvements.

³ Please see "Drivers of Labour Productivity Growth Trends in Singapore", *Economic Survey of Singapore, 2014*, pages 76-87 for more details.

⁴ For instance, from 2009 to 2014, productivity growth in the US, Korea and Hong Kong came in at 1.3%, 2.0% and 2.1% per annum respectively, compared to the 2.5% per annum in Singapore.

⁵ Domestically-oriented sectors refer to construction, retail trade, food & beverage services, information & communications, business services, and other services industries. Export-oriented sectors refer to manufacturing, wholesale trade, transportation & storage, accommodation and finance & insurance.

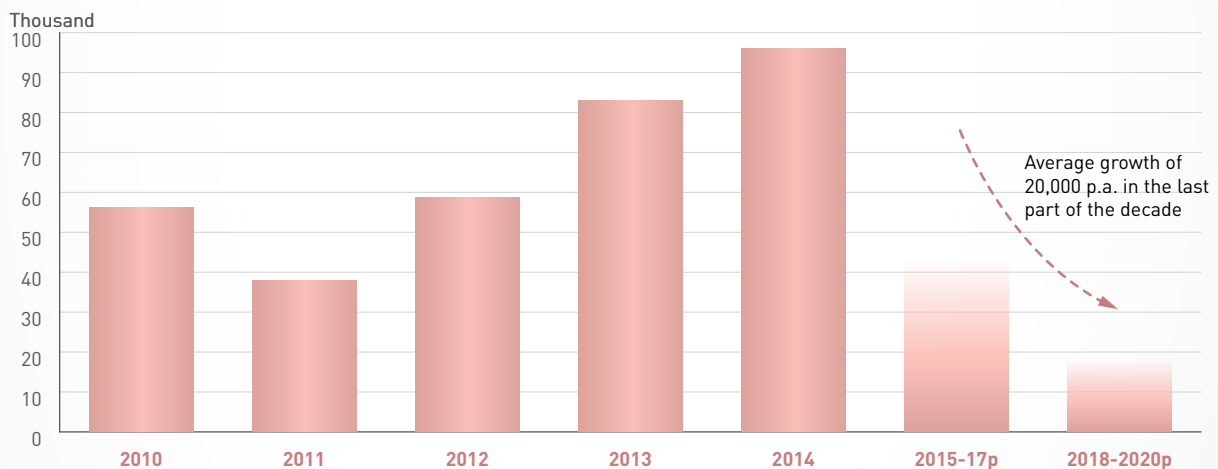
From 2014 to 2020, we expect GDP growth to be increasingly driven by productivity gains as the resident workforce growth slows

As the Singapore economy continues to mature, GDP growth for the rest of the decade is expected to moderate from that experienced in the past five years. From a supply-side perspective, workforce growth is expected to slow significantly in the years ahead, even as productivity growth is expected to pick up. From a demand-side perspective, there are downside risks to manpower demand and productivity growth arising from the uncertain and sluggish global economic environment. These factors are elaborated on in turn.

In terms of workforce growth, the resident workforce growth is expected to taper significantly due to our ageing population and limits to further increases in the resident LFPR. In particular, MOM has projected that resident workforce growth will drop to an average of 20,000 per year towards the end of the decade, a sharp slowdown from the growth of 66,000 on average in the last five years (see Exhibit 2). Factoring in the projected resident workforce supply and continued tightness in foreign manpower policies, the total workforce is estimated to grow by 1-2 per cent per annum for the rest of the decade.

On the other hand, productivity growth is expected to pick up as our productivity efforts gain momentum. Overall, we expect to achieve the ESC's target of 2-3 per cent productivity growth per annum from 2009 to 2019, although productivity growth is more likely to come in closer to the lower end of the range.

Exhibit 2: Resident Workforce Growth and Projections⁶



Source: Administrative Records and Labour Force Survey, MOM; MOM projections

p: projected

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

Projected figures are average per annum.

Taking into account the backdrop of a challenging global economic environment...

However, there are downside risks to growth arising from challenges in the external environment. The global economy remains sluggish five years since the end of the GFC. In particular, the major European economies and Japan have yet to see a firm recovery from the GFC. While the US has performed relatively better, its growth has also slowed in recent years. In Asia, the slowdown in China's economic growth will likely weigh on the region's growth. Furthermore, uncertainties in the global economy, such as the risk of a hard landing in China and possible deflation in the Eurozone, remain. If global economic conditions remain uncertain and sluggish for a protracted period of time, businesses' expansion plans, investment decisions and demand for workers may be adversely affected. Under such circumstances, workforce and productivity growth may come in lower than expected.

⁶ The timeframes in the chart refer to the years in which the workforce growth occurred or is expected to occur.

...GDP is expected to grow by 2 per cent to 4 per cent per annum for the rest of the decade

Taking into account both supply- and demand-side considerations, MTI has projected that GDP growth for the rest of the decade (i.e., from 2014 to 2020) could range from 2 per cent to 4 per cent per annum, or around 3 per cent per annum on average. The lower end of the range takes into account the downside risks to growth posed by the external environment.

Although GDP growth is expected to slow, it is likely to be increasingly driven by productivity growth as workforce growth slows, especially towards the end of the decade. Achieving this will take a concerted, collaborative effort on the part of the Government, businesses and unions to uplift productivity growth, especially in our domestically-oriented sectors. The Government will continue to provide the necessary support to businesses and workers as we continue on our restructuring journey.

Productivity growth remains vital in ensuring sustainable economic growth and higher wages for Singaporeans

To sum up, the Singapore economy performed relatively well in the last five years, and is on track to achieve the growth range of 3 per cent to 5 per cent per annum envisaged by the ESC for the decade. Since 2009, the economy has expanded by 6.4 per cent per annum. For the rest of the decade to 2020, GDP growth is expected to slow to 2 per cent to 4 per cent per annum, or 3 per cent per annum on average.

The moderation in GDP growth in the remainder of the decade is expected to come on the back of a significant slowdown in resident workforce growth, especially towards the end of the decade. Beyond 2020, resident workforce growth is expected to slow even more and become nearly negligible as our population continues to age.⁷

Productivity growth thus remains crucial in our drive to achieve sustainable economic growth in this decade and beyond. The Government will continue to work with businesses and unions to raise productivity in the economy and enhance the quality of our workforce through continued investments in skills deepening and lifelong learning. This will in turn lead to higher real wages for Singaporeans.

Prepared by:
Economics Division
Ministry of Trade and Industry

⁷ In the 2013 Population White Paper, total workforce growth from 2020 to 2030 is expected to slow to around 1% per annum on average, with the resident workforce projected to contribute to 0.1 percentage-points of this growth.



○ **FEATURE
ARTICLE**



Res URate

1Q 2010: 3.2%

1Q 2011: 2.4%



Inclusive
Growth

social
capital

Income
mobility

PROGRESSIVE SOCIETY

Demographics

skills &
Education

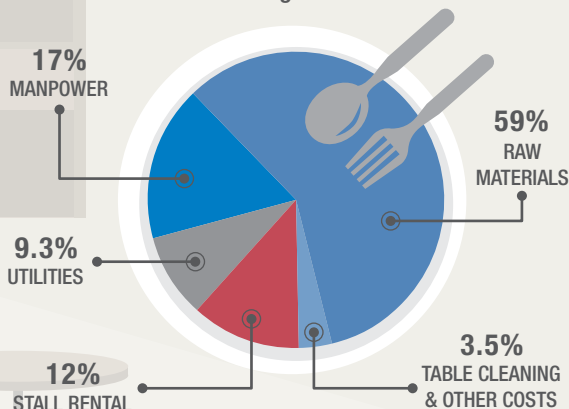


FEATURE ARTICLE

EXAMINING THE COST DRIVERS OF HAWKER FOOD PRICES

Raw materials constitute the largest cost component for the average hawker

Cost components for the average hawker stall



The majority of hawkers who raised food prices did not experience rental changes

AMONG STALLS WHICH RAISED FOOD PRICES



AMONG STALLS WHICH EXPERIENCED RENTAL CHANGES



Policies to moderate hawker stall rentals

No subletting and assignment of hawker stalls

Removal of reserve rents (i.e., minimum acceptable bid)

Policies to increase accessibility of affordable food

Increase supply of hawker centres

Develop an online platform to publish prices and locations of affordable food

FINDINGS

Food prices are more sensitive to raw material costs than rental costs



1% INCREASE IN RAW MATERIAL COSTS

RESULTS IN



RENTAL

1% INCREASE IN RENTAL COSTS

RESULTS IN



Hawkers in the CBD raise their prices by a greater amount for the same increment in rentals



CBD
HIGHER RENTAL COST
PASS-THROUGH



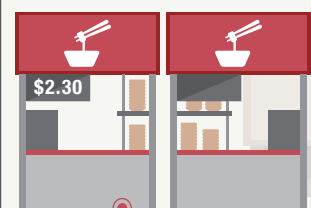
OUTSIDE CBD
LOWER RENTAL COST
PASS-THROUGH

The price of a particular food item in a hawker centre tends to be lower when more stalls sell the same food item

HAWKER CENTRE 1



HAWKER CENTRE 2



On average, the price is 8.4% lower when there is one other similar stall

EXECUTIVE SUMMARY

- Hawker centres are an integral part of the Singaporean way of life, offering a wide selection of affordable food to Singaporeans in a clean and hygienic environment. This study looks at the cost structure of hawker stalls and examines the relationship between the various cost components and hawker food prices.
- We find that the largest cost component for hawker stalls is raw material costs, which account for 59 per cent of their total costs on average. Manpower and rental costs represent the second and third largest cost components, accounting for much smaller shares of 17 per cent and 12 per cent of total costs respectively.
- Our findings suggest that hawker food prices are affected by a range of factors. Regression analysis shows that an increase in the cost of raw materials is associated with a larger increase in hawker food prices than an increase in rental costs. Demand factors also appear to influence the extent of pass-through from rentals to hawker food prices. Lastly, we find evidence that competition dampens hawker food inflation.

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 (MTI), the Ministry of Environment and Water Resources (MEWR), or the Government of Singapore.¹

INTRODUCTION

Hawker centres were built by the Government between the 1960s and 1980s to re-settle street hawkers into permanent, purpose-built buildings. Hawker centres have since become an integral part of the Singaporean way of life, offering a wide selection of food to Singaporeans in a clean and hygienic environment at affordable prices. They complement coffee shops and food courts by ensuring greater diversity and choice for Singaporeans.

Given the important role that hawker centres play in the Singapore society, hawker food inflation often comes under scrutiny. To better understand the drivers of hawker food inflation, this study looks at the cost structure of hawker stalls and examines the relationship between the various cost components and hawker food prices.

The rest of the paper proceeds as follows. We begin by presenting a broad review of the academic literature on cost pass-through to consumer prices. Next, we describe our datasets and provide summary statistics on the key drivers of hawker food prices. Then, we describe our empirical methodology before discussing the findings. Finally, we conclude with a discussion of hawker centre policies.

LITERATURE REVIEW OF COST PASS-THROUGH TO PRICES

To our knowledge, there has been no empirical study that examines the pass-through of costs to hawker food prices in Singapore. Nevertheless, we have reviewed the academic literature on cost pass-through to prices in different contexts.

¹ The authors would like to thank Yong Yik Wei, Wendy Ang, Walter Theseira, Christopher Tan, Martin Yij, Jeremy Tay, Cheong Wei Seng, Tay Wei Ping, Wen Yu Sheng and NEA's Hawker Centre Division for their comments and suggestions. The authors would also like to acknowledge invaluable statistical support from Alvin Lim, Lim Pei Chin and Alvin Tian (NEA's Research and Statistics Unit), as well as Foo-Wu Wen Chee, Foo Cheng Wen, Phang Ee Li and Lee Ling Xuan (DOS' Consumer Price Indices Section). All remaining errors belong to the authors.

MacDonald and Aaronson (2000) examined the impact of minimum wage increases on restaurant prices in the United States (US) and found that prices rose broadly in line with the costs imposed by the minimum wage increases. The researchers also found that the price responses occurred within a six-month window around the wage increase.

For the wholesale electricity market, Fabra and Reguant (2014) estimated that emissions costs, induced by changes in carbon prices, were almost fully passed through to electricity prices in Spain. They argued that the high-frequency uniform-price auctions that characterised trading in the Spanish wholesale electricity market, coupled with almost perfectly inelastic demand, allowed firms to pass on cost changes almost fully.

DATA

For our study on the pass-through of costs to hawker food prices in Singapore, two datasets are used. The first dataset is a panel dataset which merges monthly survey data on hawker food prices collected by the Department of Statistics (DOS) and administrative data on rentals collected by the National Environment Agency (NEA) at the stall level to form a balanced panel. The dataset tracks the monthly price and rental of a sample of hawker stalls from July 2012 and April 2014. The sample in the dataset includes both subsidised and non-subsidised hawker stalls.² We augment the dataset with data on the import prices of raw materials³ and average monthly earnings in the food and beverage (F&B) industry⁴, which will be used as proxies for the raw material and manpower costs faced by hawker stallholders respectively.

A second repeated cross-section dataset was created using data collected from the NEA 2012 and 2013 Cost Components Survey.⁵ The data collected include average monthly costs incurred by the hawker stallholders on rentals, table cleaning, raw materials, manpower, and so on; as well as the prevailing prices of the food items sold at the stalls at the point of the survey. The surveys in 2012 and 2013 captured different stalls because not all the stallholders responded in both years. While this dataset does not have the panel dimension, it contains richer information on the cost structure of each hawker stall.

SUMMARY STATISTICS

Cost Components of Hawker Stalls

Cost structure data from the repeated cross-section dataset indicates that there is a wide range of cost components that could affect hawker food prices [Exhibit 1]. The largest cost component for hawker stalls is raw material costs, which on average account for 59 per cent of their monthly total costs. Manpower costs represent the second-largest cost component for the average stall (17 per cent), followed by rental costs (12 per cent). The significant share of raw material costs in total costs suggests that changes in raw material costs may have a larger impact on hawker food prices than changes in manpower or rental costs.

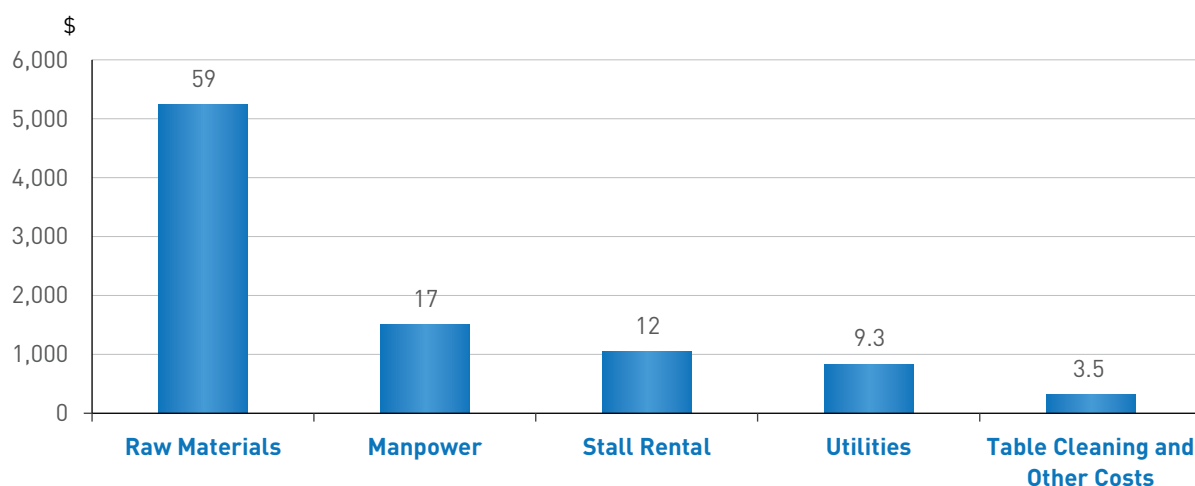
² Hawker stall rental subsidies were provided to the original stallholders who re-settled from the streets in the early 1970s to encourage them to move into hawker centres. Rental subsidies were also provided to those who were allocated stalls under the Government's hardship scheme (discontinued in 1980). Among the non-subsidised stalls, there are two types of rentals – tendered rentals and assessed market rentals. NEA tenders vacant stalls out based on a price auction every month. At tenancy renewals after an initial three-year term, stallholders can choose to pay assessed market rentals on their stalls to continue operating the same stall or to bid for a new stall. Assessed market rentals are based on valuations from professional valuation firms.

³ This is an import price index of raw materials. The index is derived by taking the average of the import price sub-indices for food-related imports (e.g., meat & meat preparations, dairy products & birds' eggs, fish, seafood, cereals and vegetables & fruits).

⁴ The F&B industry includes a wide variety of food places in addition to hawker centres. More granular wage data for hawker centres were not available at monthly frequency.

⁵ The NEA Cost Component Survey is an annual face-to-face survey of hawker stallholders selling five types of food: chicken rice, fishball noodles, carrot cake, mee siam and drinks. There were about 1,000 respondents in each run of the survey in 2012 and 2013, covering stalls selling the five food items across the 104 hawker centres with cooked food stalls.

Exhibit 1: Average Monthly Total Cost Components of Hawker Stalls

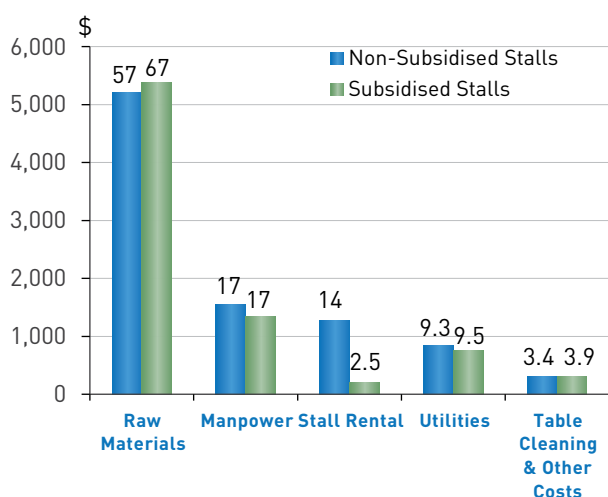


Note: Figures refer to the percentages of costs for a typical stall.
Source: NEA Cost Component Survey 2012 and 2013

Comparison of Costs and Prices of Subsidised and Non-subsidised Hawker Stalls

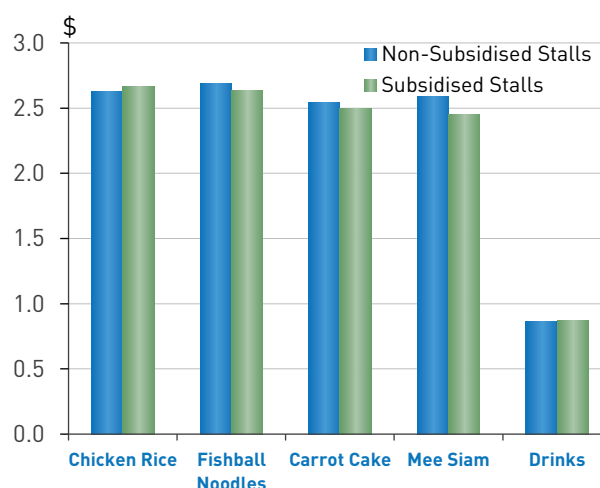
Around half of the 5,500 rental cooked food hawker stalls⁶ in Singapore are subsidised and thus enjoy lower rentals. From the repeated cross-section dataset, we find that on average, the monthly rental for a subsidised stall was \$200, far lower than the average of \$1,250 for a non-subsidised stall. Consequently, as a proportion of monthly total operating costs, rental accounts for 2.5 per cent of the total costs of a subsidised stall, and 14 per cent of the total costs of a non-subsidised stall [Exhibit 2]. The monthly total operating costs of the two types of stalls also vary, with costs averaging \$8,000 for subsidised stalls compared to \$9,200 for non-subsidised stalls. Despite the difference in costs, the food prices of subsidised and non-subsidised stalls are broadly similar across most food types [Exhibit 3]. One possible reason could be that hawkers price their food based on what the market can bear, rather than solely based on their costs.

Exhibit 2: Average Monthly Total Cost Components of Hawker Stalls by Stall Type



Source: NEA Cost Component Survey 2012 and 2013
Note: Figures refer to the percentages of costs for a typical stall.

Exhibit 3: Average Monthly Food Prices by Food Type and Stall Type



Source: NEA Cost Component Survey 2012 and 2013

⁶ In total, there are around 6,100 cooked food stalls in hawker centres throughout Singapore, of which around 600 were sold to incumbent stallholders on 20-year leases under the Stall Ownership Scheme between 1994 and 1997. As these stalls do not pay monthly rentals, they are excluded from our analysis. Of the remaining 5,500 stalls, around half of them enjoy rental subsidies from the Government.

Stall-level Changes in Rentals and Prices

To further investigate the relationship between rentals and food prices, we turn to the panel dataset. We find that among the hawker stalls which increased food prices between July 2012 and April 2014, only about a third had experienced rental changes [Row (B), Exhibit 4]. For these stalls, the change in food prices occurred with an average lag of four to six months after the change in rentals occurred. Conversely, among the stalls which did not experience rental changes, 39 per cent of them (mostly subsidised stalls) raised their food prices [Column (I), Exhibit 4]. By comparison, only a slightly higher 46 per cent of those which experienced rental changes changed their food prices [Column (II), Exhibit 4]. These summary statistics suggest that a significant proportion of stalls raised food prices for reasons other than an increase in stall rentals.

Exhibit 4: Breakdown of stalls which changed rentals and/or food prices

	No change in rental (I) (%)		Change in rental* (II) (%)	Total (%)
	Subsidised stalls	Non-subsidised stalls	Non-subsidised stalls	
No change in food prices (%) (A)	41	0.7	17	59
Change in food prices (%) (B)	24	3.0	14	41
Total (%)	65	3.7	31	100

* None of the subsidised stalls saw an increase in rental between July 2012 and April 2014.

Note: Figures may not sum due to rounding.

Source: NEA's rental data and DOS' price data

METHODOLOGY

Estimating the Pass-through of Costs to Hawker Food Prices

We next use a fixed effects regression model with the panel dataset to estimate the impact of various cost components on hawker food prices. Specifically, our model controls for stall-level fixed effects. This allows us to control for the effect of all unobserved, time-constant factors that may affect the prices of hawker food sold by individual stalls, including the quality of food, the stall location within the hawker centre and the location of the hawker centre. To proxy for changes in raw material and manpower costs, we include the import price index of raw materials and the average monthly earnings in the F&B industry respectively in the regression. The regression specification is thus as follows:

$$price_{ijt} = \beta_1 rent_{ijt} + \beta_2 SNCC_{ijt} + \beta_3 controls_t + \mu_i + \epsilon_{ijt} \quad (1)$$

where, $price_{ijt}$ is the log of the average food price index at stall i in hawker centre j at time t ,

$rent_{ijt}$ is the log of the rental at stall i in hawker centre j at time t ,

$SNCC_{ijt}$ is the service and conservancy charges paid by stall i in hawker centre j at time t ,

$controls_t$ is a vector of macro indicators (e.g., import price index of raw materials, import price index of gas, and average monthly earnings in the F&B industry) at time t ,

μ_i is a set of stall-level fixed effects,

ϵ_{ijt} is a random shock to stall i in hawker centre j at time t .

The specification above includes only selected macro indicators as controls, and does not control for all time-varying factors which affect hawker stalls. For instance, there may be changes in aggregate demand for food (e.g., changes in preferences) which affect all hawker stalls. Hence, in another specification, we control for all time-varying factors with the inclusion of time fixed effects⁷:

$$price_{ijt} = \beta_1 rent_{ijt} + \beta_2 SNCC_{ijt} + \mu_i + \mu_t + \epsilon_{ijt} \quad (2)$$

where, in addition to the previously defined variables, μ_t is a set of time fixed effects.

We also repeat specification (2) separately for hawker stalls located in the Central Business District (CBD) and outside the CBD to explore geographical effects and the relevance of demand-side factors in influencing cost pass-through. The inclusion of time fixed effects in this regression allows us to control for changes in demand preferences over time, thereby allowing us to isolate the effect of region-specific differences in demand.

Estimating the Effect of Competition on Hawker Food Prices

In addition, we explore the effect of competition on hawker food prices. Specifically, we use the repeated cross-section dataset to examine whether having more stalls selling the same type of food within a hawker centre has an impact on hawker food prices.⁸

$$price_{ij} = stall_{ij} + \beta controls_{ij} + \mu_t + \epsilon_{ij} \quad (3)$$

where, $price_{ij}$ is the log of the average food price at stall i in hawker centre j ,
 $stall_{ij}$ is a vector of dummy variables indicating the number of stalls selling the same type of food as stall i in hawker centre j ,
 $controls_{ij}$ is a vector of controls for the various cost components (e.g., rental costs, raw material costs, manpower costs, utilities charges and table cleaning charges) at stall i in hawker centre j ,
 μ_t is a set of time fixed effects,
 ϵ_{ij} is a random error associated with stall i in hawker centre j .

RESULTS AND DISCUSSION

The Pass-through of Costs to Food Prices

Our fixed effects regression analysis using the panel dataset corroborates the hypothesis that changes in hawker food prices are driven by a range of factors. Among the various factors, we find that the largest contributor to changes in food prices is raw material costs, with a 1 per cent increase in raw material costs associated with a 0.56 per cent increase in food prices [Column (1), Exhibit 5]. By contrast, a 1 per cent increase in rental costs only results in a 0.03 per cent increase in food prices. In other words, a \$500 increase in monthly raw material costs leads hawker stalls to raise prices by \$0.20 on average, while the same increase in monthly rental costs leads stalls to raise prices by only \$0.05 on average. The finding that rental costs only have a small impact on food prices is also robust to the more stringent specification controlling for time fixed effects [Column (2), Exhibit 5].

⁷ Including the set of time fixed effects precludes the use of the macro indicators in specification (1).

⁸ This assumes that the number of stalls selling the same type of food is a proxy for competition and is randomly distributed across hawker centres. If factors influencing the demand for certain food types lead some hawker centres to have a larger number of stalls selling those food types, there would be an upward bias in the $stall_{ij}$ coefficients. As our coefficient estimates are negative, the presence of such demand factors would bias our results towards not finding any effects. The fact that our estimates remain negative and statistically significant despite the potential upward bias provides strong evidence that competition has a dampening effect on food prices.

Exhibit 5: Effect of Cost Components on Hawker Food Prices

Specification	(1)	(2)
$rent_{ijt}$	0.0302*	0.0291**
$SNCC_{ijt}$	-0.00730	-0.0298
<i>Macro Indicators</i>		
Table cleaning charges	0.0249**	-
Import price index of raw materials	0.559**	-
Price of gas	0.0486*	-
Average monthly earnings of F&B industry ⁹	-0.00895	-
Stall-level Fixed Effects	Yes	Yes
Time Fixed Effects	No	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1

Source: Sample based on NEA's rental data and DOS' price data

Cost pass-through within and outside the CBD

We next divide the sample into stalls in hawker centres located in the CBD and those in hawker centres located outside the CBD, and then run separate regressions on the two samples. Our hypothesis is that the demand for hawker food is more inelastic in the CBD because of two factors. First, the clientele mix in the CBD is likely to consist of a higher proportion of office workers, who tend to have higher purchasing power. Second, there may be fewer affordable alternatives in the CBD, which may reduce the competition for hawkers in the CBD. The more inelastic demand may then result in hawkers in the CBD having a greater pricing power than those outside the CBD.

Our regression results show that hawker stalls located in the CBD pass on more of their rental cost increases to consumers by increasing prices, as compared to hawker stalls located outside the CBD, although the magnitude of the pass-through remains relatively small [Exhibit 6]. This suggests that the extent of cost pass-through to food prices may depend on demand-side factors. Specifically, the willingness to pay for food and the availability (or lack thereof) of nearby food establishments may affect prices.

Exhibit 6: Differences in Rental Costs Pass-through between CBD and non-CBD Stalls

Specification	(3)	(4)
$rent_{ijt}$	0.0259	0.0346**
$SNCC_{ijt}$	-0.0487	-0.0319
Stall-level Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes
Sample	Outside CBD	Inside CBD

Note: *** p<0.01, ** p<0.05, * p<0.1

Source: Sample based on NEA's rental data and DOS' price data

⁹ Due to the lack of more granular data at monthly frequency, the average monthly earnings of the F&B industry was used to proxy for general trends in manpower costs in hawker centres. The estimated coefficient should be interpreted with caution as these earnings capture wages across various occupation types such as chefs, waitresses, restaurant supervisors, and a wide variety of food places apart from hawker centres.

Estimating the Effect of Competition on Hawker Food Prices

Finally, we examine the effect of competition on hawker food prices by running regression specification (3) on the repeated cross-section dataset. We find that having a larger number of hawker stalls selling the same type of food within a hawker centre is associated with lower food prices. For instance, if there is one other stall selling the same type of food in the hawker centre, prices are 8.4 per cent lower, compared to the case where there is no other stall selling the same type of food [Exhibit 7]. The dampening effect of competition on food prices becomes larger as the number of stalls selling the same type of food in the hawker centre increases. With three other stalls selling the same type of food, prices are 29 per cent lower than if no other stall sold the same type of food. These results suggest that increased competition has a moderating effect on food prices.

Exhibit 7: Effects of Competition on Hawker Food Prices

Specification	(5)
One other similar stall	-0.0836**
Two other similar stalls	-0.196***
Three other similar stalls	-0.294***
Full set of controls	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1

Source: Sample based on NEA Cost Component Survey 2012 and 2013

CONCLUSION

This study finds that the largest cost component for hawkers is raw material costs which, on average, account for 59 per cent of their total costs. Manpower costs form the second-largest cost component (17 per cent), followed by rental costs (12 per cent). In terms of the pass-through of costs to hawker food prices, our analysis shows that food prices are more sensitive to raw material costs, compared to other cost components including rental costs. Furthermore, we find that demand factors are likely to influence cost pass-through, while competition by stalls selling the same type of food within a hawker centre may have a dampening effect on food prices.

While the findings show that stall rentals are not the main driver of hawker food prices, the Government has continued to strive to moderate rentals to encourage hawkers to provide affordable food. In this regard, about 50 per cent of hawker stalls are currently paying subsidised rentals and most of them have not experienced any rental increases in recent years.¹⁰

The Government has also taken various measures to moderate hawker stall rentals. First, the Government disallowed the practice of sub-letting or assignment of hawker stalls to prevent stallholders who have no intention of operating the stalls themselves from engaging in rent-seeking behaviour which could drive up food prices. This policy took effect on new stallholders from April 2012.¹¹ A three-year grace period was given to existing non-subsidised stallholders, which means that from April 2015 onwards, they too will have to personally operate their stalls.¹² Stallholders who do not abide by these requirements will have their tenancies terminated.

¹⁰ Rentals for subsidised hawker stalls are only revised if a hawker centre has been upgraded. The revision of subsidised rentals was from \$160 prior to upgrading to \$192 or \$384, depending on whether the hawker centre had undergone standard upgrading or was rebuilt. All hawker centre upgrading projects have been completed as of 2012, and the rentals for subsidised stalls have not changed since then.

¹¹ Since April 2012, there have been more than 1,900 new cooked food stallholders. NEA has taken action against 64 of them for non-personal operation of their stalls.

¹² Subsidised stallholders are already not permitted to sublet their stalls under existing hawker policy.

Second, the Government has removed the concept of reserve rent for tendered stalls since March 2012. This has benefited tenderers. The average tendered rental for new stalls has generally declined, with some cooked food stalls being awarded for just \$1 in rental per month, although stalls in more popular hawker centres continued to attract high bids. Lower tendered rentals will ultimately feed into lower assessed market rentals for existing stallholders. While there is a time lag of up to three years for the declining trend of tendered rentals to feed into the assessed market rental valuation, the rate of increase of the average market rental for cooked food stalls has already fallen to a third of that in 2013. As of 31 December 2014, about 87 per cent of cooked food stallholders are paying monthly rental of \$1,500 or lower.

In order to make affordable hawker fare accessible to more Singaporeans, the Government is also increasing the supply of hawker centres. MEWR has announced that as part of a new hawker centre building programme, 20 new hawker centres will be built by 2027. The first two will be opening in Bukit Panjang and Hougang later this year.

Lastly, MTI and NEA also plan to enhance the dissemination of information on low-cost hawker food options with the development of an online platform to publish the prices and locations of affordable hawker food. This will allow comparability of prices and play a part in further moderating food prices.

Contributed by:

Leong Chi Hoong, Assistant Director
Environmental Policy Division
Ministry of the Environment and Water Resources

Jamie Poh, Senior Economist
Manpower Planning and Policy Division
Ministry of Manpower

Regina Ng, Economist
Dr Andy Feng, Senior Economist
Tan Kok Kong, Principal Economist
Economics Division
Ministry of Trade and Industry

REFERENCES

Aaronson, D., and MacDonald, J. (2000), "How do retail prices react to minimum wage increases?", Federal Reserve Bank of Chicago, WP 2000-20.

Fabra, N., Reguant, M. (2014), "Pass-through of emissions costs in electricity markets", American Economic Review 104(9), pp 2872-2899.





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

ISSN 2382 6541