CHAPTER 6
Sectoral Performance

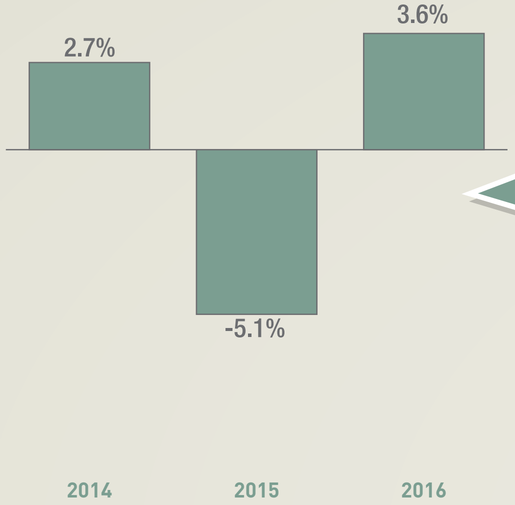
Image courtesy of Singapore Economic Development Board

CHAPTER 6

SECTORAL PERFORMANCE

Manufacturing Sector

REAL GROWTH

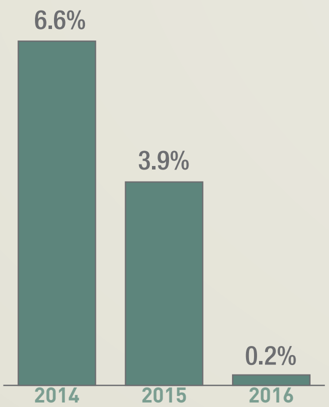


CLUSTERS IN MANUFACTURING SECTOR %-POINT CONTRIBUTION IN 2016

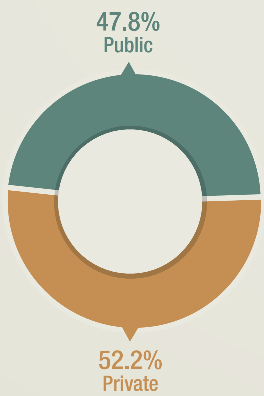
Cluster	Contribution
Electronics	4.4%
Biomedical Manufacturing	2.6%
Precision Engineering	0.1%
Chemicals	-0.1%
General Manufacturing	-0.3%
Transport Engineering	-3.1%

Construction Sector

REAL GROWTH



CERTIFIED PAYMENTS IN 2016

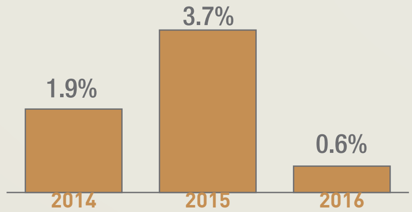


CONTRACTS AWARDED IN 2016 ($, billion)

Civil Engineering Work	Residential	Institutional & Others	Industrial	Commercial
9.4	6.4	4.4	3.3	2.6

Wholesale & Retail Trade Sector

REAL GROWTH



WHOLESALE TRADE

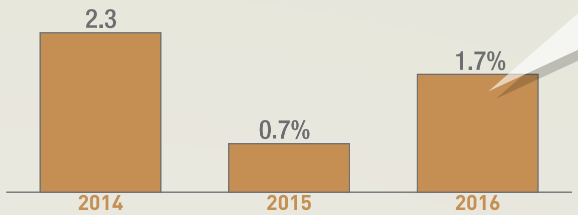
Domestic Wholesale Trade Index growth	Foreign Wholesale Trade Index growth
-2.8%	1.3%

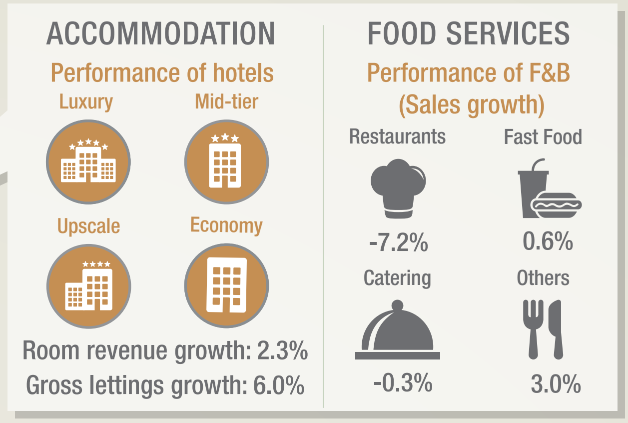
RETAIL TRADE

Retail Sales Index growth (Motor Vehicles)	Retail Sales Index growth (Non-motor Vehicles)
27.5%	-3.4%

Accommodation & Food Services Sector

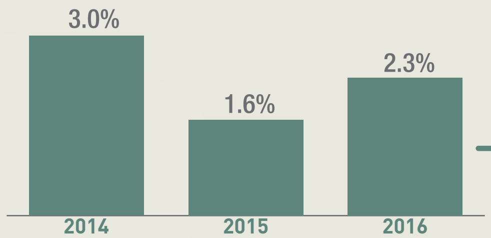
REAL GROWTH

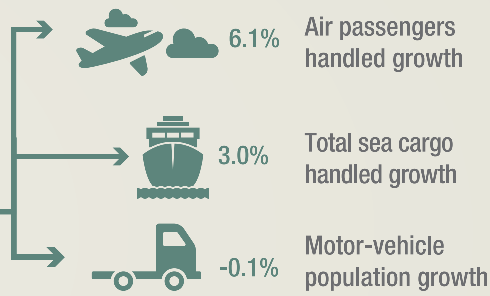




Transportation & Storage

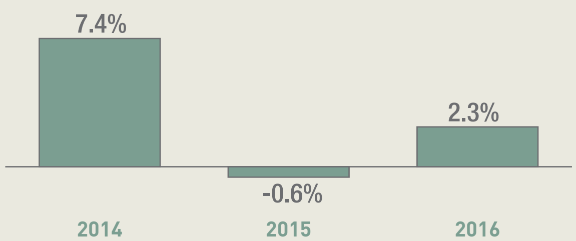
REAL GROWTH





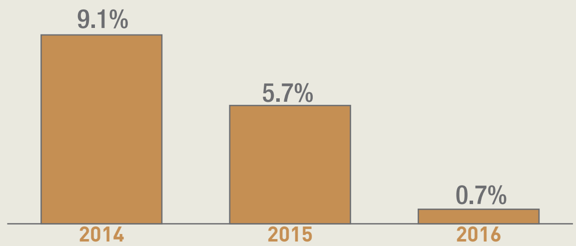
Information & Communications

REAL GROWTH

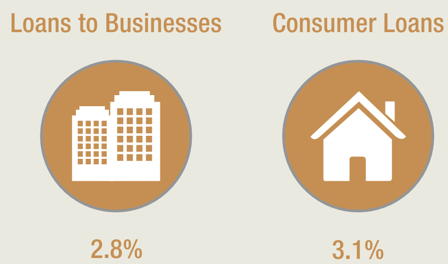


Finance & Insurance

REAL GROWTH

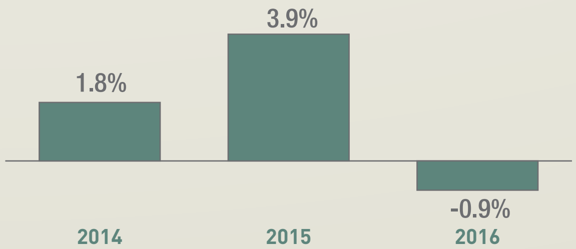


Growth of bank loans & advances to non-bank customers in 2016



Business Services

REAL GROWTH



6.1 Manufacturing

OVERVIEW

The manufacturing sector expanded by 11 per cent in the fourth quarter of 2016, underpinned by robust growth in the electronics and biomedical manufacturing clusters.

For the whole of 2016, the manufacturing sector grew by 3.6 per cent, a reversal from the 5.1 per cent contraction in the previous year. Growth was supported by a rebound in electronics and biomedical manufacturing output, even as a decline in the output of the transport engineering cluster weighed heavily on growth.

OVERALL MANUFACTURING PERFORMANCE

In the fourth quarter, manufacturing output rose by 11 per cent, supported largely by robust growth in the electronics and biomedical manufacturing clusters (Exhibit 6.1).

For the whole of 2016, manufacturing output increased by 3.6 per cent, reversing the contraction of 5.1 per cent in 2015. Growth was supported by higher levels of output in the electronics and biomedical manufacturing clusters, which accounted for 122 per cent and 74 per cent of the overall expansion. By contrast, a decline in the output of the transport engineering cluster placed the largest drag on growth (Exhibit 6.2).

Exhibit 6.1: Manufacturing Growth Rates

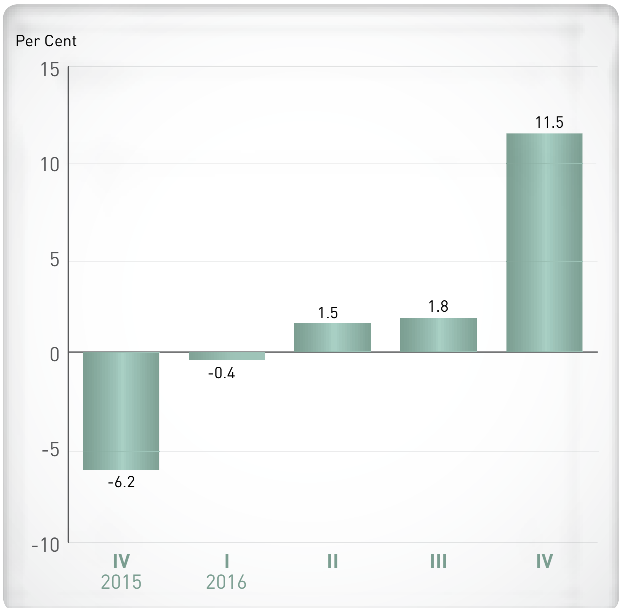
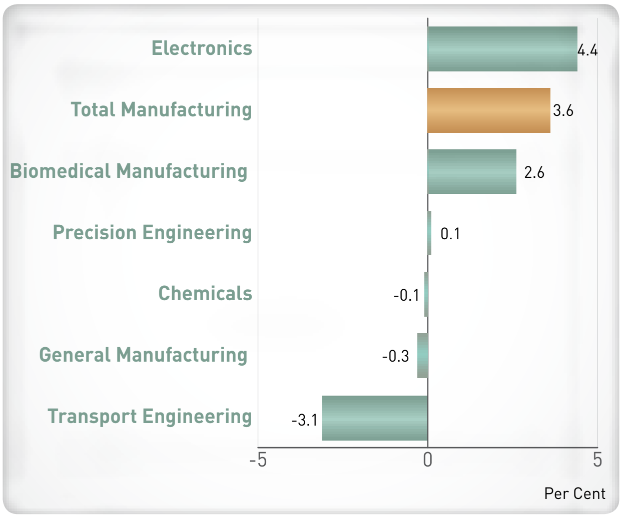


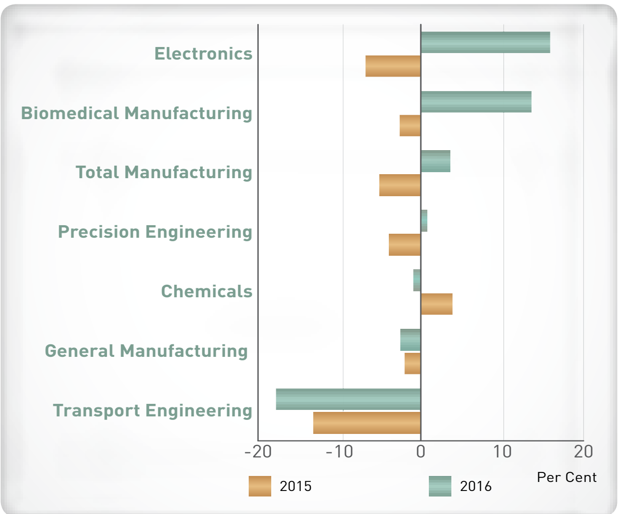
Exhibit 6.2: Percentage-Point Contribution to Manufacturing Sector's Growth in 2016



PERFORMANCE OF CLUSTERS

The electronics cluster grew by 33 per cent in the fourth quarter, supported primarily by the semiconductors segment, which expanded by 62 per cent. The robust performance of the semiconductors segment came on the back of a strong recovery in global semiconductors demand. On the other hand, output in the data storage and infocomms & consumer electronics segments declined by 12 per cent and 19 per cent respectively, amidst a continued softening of the PC devices market. For the full year, the electronics cluster expanded by 16 per cent, as the strong performance of the semiconductors segment more than offset the weakness seen in the data storage, computer peripherals and infocomms & consumer electronics segments (Exhibit 6.3).

Exhibit 6.3: Manufacturing Clusters' Growth



The output of the biomedical manufacturing cluster increased by 30 per cent in the fourth quarter. Within the cluster, the pharmaceuticals segment expanded by 33 per cent on the back of a higher level of output in active pharmaceutical ingredients and biological products. At the same time, the medical technology segment recorded robust growth of 19 per cent as a result of higher export demand for medical devices. For 2016 as a whole, the biomedical manufacturing cluster expanded by 14 per cent, with both the pharmaceuticals and medical technology segments supporting growth.

The precision engineering cluster expanded by 5.6 per cent in the fourth quarter, supported mainly by the machinery & systems (M&S) segment. Output in the M&S segment grew by 8.7 per cent in tandem with healthy export demand for semiconductor manufacturing equipment. Output in the precision modules & components segment inched up by 0.7 per cent due to an increase in the production of dies, moulds, tools, jigs & fixtures and metal precision components. For the whole of 2016, the precision engineering cluster's output rose by 0.8 per cent. While the M&S segment contributed positively to growth in the cluster, output was weighed down by firms supporting the oil & gas industry, which had remained weak amidst the low oil price environment.

The output of the chemicals cluster grew by 2.2 per cent in the fourth quarter, supported by growth in all segments. The specialty chemicals segment, which expanded by 3.1 per cent on the back of a higher level of production of mineral oil additives, was the largest contributor to growth. For the full year, the chemicals cluster contracted by 0.9 per cent. This was due to a decline in the output of the petrochemicals segment arising from major plant maintenance shutdowns, even as the output of all other segments expanded.

The general manufacturing industries shrank by 7.6 per cent in the fourth quarter, with all segments within the cluster posting declines in output. In particular, the miscellaneous industries segment contracted by 9.6 per cent on account of a lower production of fibre glass products and construction-related products & materials. The printing segment shrank by 16 per cent, due to weak demand for commercial printing. In addition, output of the food, beverage & tobacco segment fell by 2.7 per cent. For the full year, the general manufacturing industries contracted by 2.5 per cent on the back of output declines in the printing and miscellaneous industries segments.

Output of the transport engineering cluster declined by 18 per cent in the last quarter of 2016, weighed down by continued weakness in the marine & offshore engineering (M&OE) segment. The M&OE segment contracted by 33 per cent, the ninth consecutive quarter of contraction as sluggish global capital expenditure for offshore production and exploration amidst the weak oil price environment continued to place a drag on rig-building activities and the demand for oilfield & gasfield equipment. On the other hand, the land transport and aerospace segments grew by 13 per cent and 6.9 per cent respectively, with the latter supported by higher demand for aircraft and engine maintenance work. For the whole of 2016, the transport engineering cluster contracted by 18 per cent, largely due to the M&OE segment.

6.2 Construction

OVERVIEW

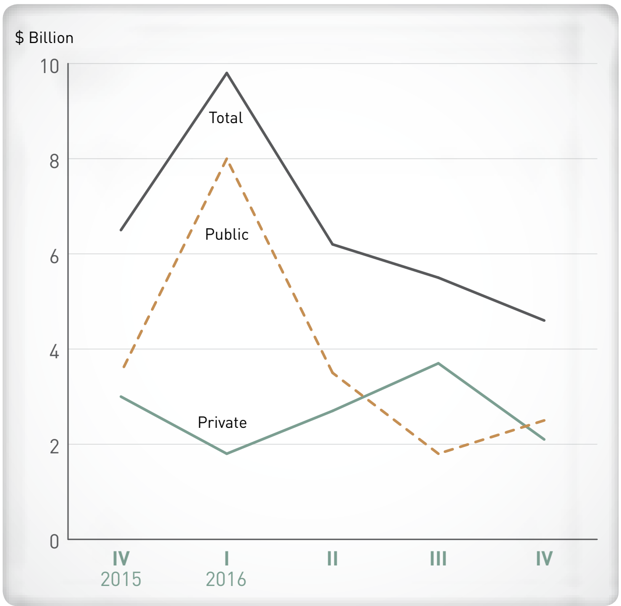
The construction sector shrank by 2.8 per cent in the fourth quarter of 2016, extending the 2.2 per cent contraction recorded in the previous quarter.

For the whole of 2016, the sector expanded marginally by 0.2 per cent, moderating from the 3.9 per cent growth in the previous year.

CONSTRUCTION DEMAND

Construction demand (or contracts awarded) fell by 29 per cent to $4.6 billion in the fourth quarter, on the back of a fall in both public and private sector construction demand. (Exhibit 6.4).

Exhibit 6.4: Contracts Awarded



For the full year, total construction demand fell by 3.6 per cent to $26 billion (Exhibit 6.5). This was due to weakness in private sector construction demand. Public sector construction demand, on the other hand, provided some support.

Exhibit 6.5: Contracts Awarded, 2016 ($ Billion)

	Total	Public	Private
Total	26.1	15.8	10.3
Residential	6.4	3.2	3.1
Commercial	2.6	0.2	2.5
Industrial	3.3	0.6	2.7
Institutional & Others	4.4	3.8	0.5
Civil Engineering Works	9.4	7.9	1.5

Public Sector

In the fourth quarter, public sector construction demand declined by 28 per cent, a further pullback from the 2.2 per cent contraction registered in the previous quarter. This was due to a decline in contracts awarded for all types of building works, notably residential, industrial, and institutional & other building works.

For the full year, public sector construction demand increased by 19 per cent to reach $16 billion. Growth was supported by a 108 per cent surge in demand for civil engineering works such as the construction of the Thomson-East Coast Line (TEL), among others. On the other hand, demand for public building works registered broad-based weakness, mainly led by declines in the residential, industrial, and institutional & others segments.

Private Sector

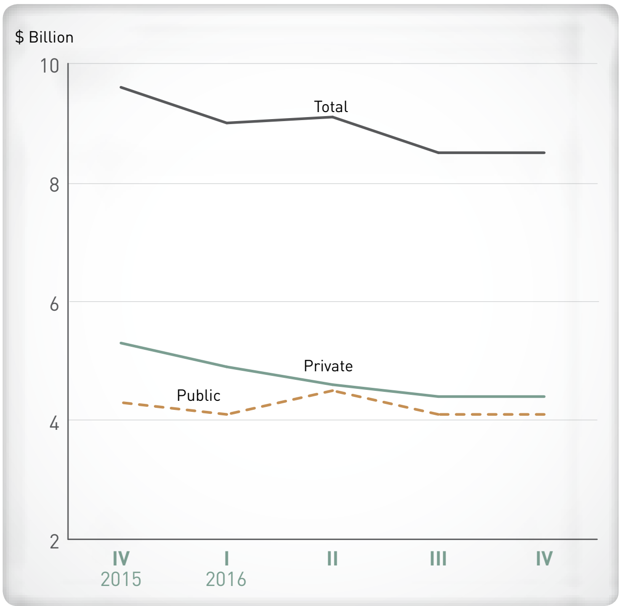
Private sector construction demand in the fourth quarter fell by 31 per cent to $2.1 billion. The decline was attributed to a contraction in construction demand for commercial developments and civil engineering works. In particular, the demand for civil engineering works fell significantly to $91 million, compared to the $1.2 billion in the same period a year ago.

For the full year, private sector construction demand shrank by 25 per cent from $14 billion in 2015 to $10 billion in 2016. This was largely due to a fall in the demand for residential, industrial, institutional and other building works. On the other hand, contracts awarded for commercial developments such as Woods Square, the first office development in Woodlands Regional Centre, provided some support to growth.

CONSTRUCTION ACTIVITIES

Construction output (or certified payments) declined by 11 per cent to $8.5 billion in the fourth quarter, due to a slowdown in both public and private sector construction activities (Exhibit 6.6).

Exhibit 6.6: Certified Payments



For the full year, construction output contracted by 3.7 per cent to $35 billion, dragged down primarily by a decline in overall residential building works. However, strong overall on-site construction activities for institutional developments as well as civil engineering works helped to alleviate the contraction in construction output.

Public Sector

Public sector construction output fell by 3.9 per cent in the fourth quarter, mainly due to a reduction in on-site construction activities for residential developments (-22 per cent) and civil engineering projects (-16 per cent).

For the full year, public sector construction output rose by 7.3 per cent, largely supported by robust on-site construction activities for industrial developments (68 per cent), institutional developments (19 per cent) and civil engineering projects (13 per cent). Some of the major projects under construction included the expansion of the Liquefied Natural Gas (LNG) Terminal (Phase 3), Sengkang General and Community Hospital, TEL, and land preparation works for Changi Airport.

Private Sector

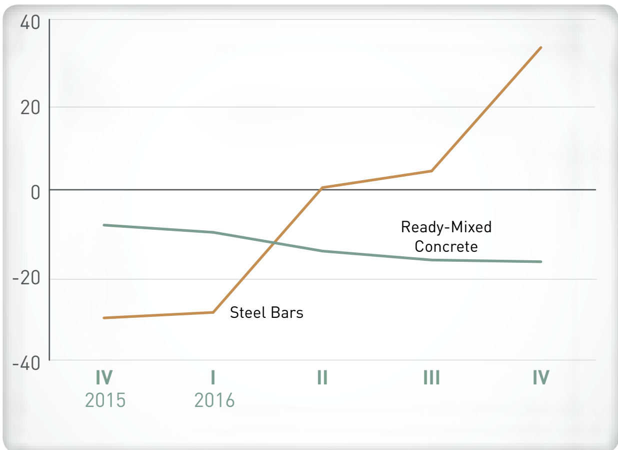
Private sector construction output shrank by 17 per cent in the fourth quarter, largely due to weakness in residential and industrial building works. Likewise, private sector construction output for 2016 as a whole fell by 12 per cent, in part due to lower output from residential (-22 per cent) and industrial building (-6.7 per cent) works.

CONSTRUCTION MATERIALS

In 2016, the total consumption of ready-mixed concrete reached $14 million m³, 13 per cent lower as compared to a year ago. Similarly, the total consumption of steel rebars[1] declined to 1.7 million tonnes in 2016, from 2.0 million tonnes in 2015.

The average market price of Grade 40 pump ready-mixed concrete[2] decreased by 16 per cent year-on-year to $80.8 per m³ in December 2016 (Exhibit 6.7). On the other hand, the average market price of steel rebar[3] increased by 64 per cent year-on-year to $649.6 per tonne in December 2016.

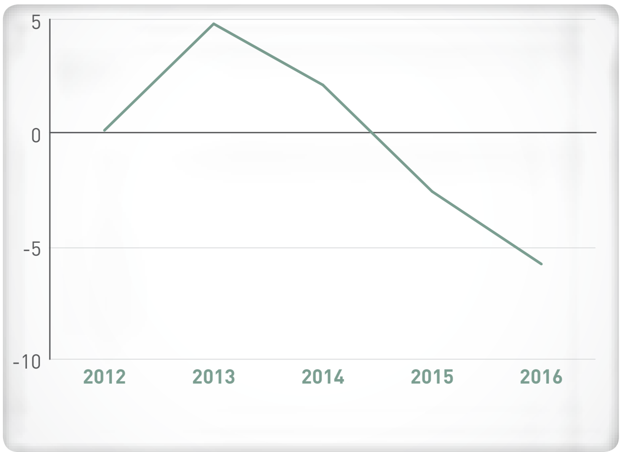
Exhibit 6.7: Changes in Market Prices of Construction Materials



CONSTRUCTION COSTS

Based on BCA's Building Works Tender Price Index (TPI), tender prices in the construction sector recorded its ninth consecutive quarter of year-on-year decline in the fourth quarter, dropping by 2.6 per cent. This came on the back of a reduction in private sector building demand and a softening in the costs of some key construction materials and plant and equipment. For the full year, the TPI declined by 5.8 per cent (Exhibit 6.8).

Exhibit 6.8: Changes in Tender Price Index



[1] *Rebar consumption is estimated from net imports plus local production (without factoring in stock levels).*

[2] *The market prices are based on contracts with non-fixed price, fixed price and market retail price.*

[3] *The market prices refer to 16mm to 32mm High Tensile rebar and are based on fixed price supply contracts with a contract period 12 months or below.*

CONSTRUCTION OUTLOOK IN 2017

According to BCA, total construction demand in 2017 is projected to be between $28 billion and $35 billion (Exhibit 6.9). Demand from the public sector is expected to strengthen to between $20 billion and $24 billion, contributing about 70 per cent to total construction demand. The boost to the overall public sector demand is likely to come from an anticipated increase in demand for most building construction works and civil engineering works. On the other hand, private sector demand is projected to remain subdued at between $8.0 billion and $11 billion amidst weakness in the property market and continued economic uncertainties.

Total construction output in 2017 is projected to moderate to between $30 billion and $32 billion, due to the slowdown in construction demand since 2015.

Exhibit 6.9: Projected Construction Demand in 2017

	$ Billion
Public Sector	20.0 – 24.0
Building Construction Sub-total	9.4 – 10.5
Residential	3.6 – 3.9
Commercial	0.1 – 0.2
Industrial	2.3 – 2.7
Institutional & Others	3.4 – 3.7
Civil Engineering Works Sub-total	10.6 – 13.5
Private Sector	8.0 - 11.0
Building Construction Sub-total	7.3 – 9.9
Residential	2.1 – 2.9
Commercial	2.3 – 3.0
Industrial	1.9 – 2.9
Institutional & Others	1.0 – 1.2
Civil Engineering Works Sub-total	0.7 – 1.1
TOTAL CONSTRUCTION DEMAND	28.0 – 35.0

6.3 Wholesale & Retail Trade

OVERVIEW

The wholesale & retail trade sector grew by 0.4 per cent in the fourth quarter of 2016, slightly better than the 0.1 per cent expansion in the previous quarter.

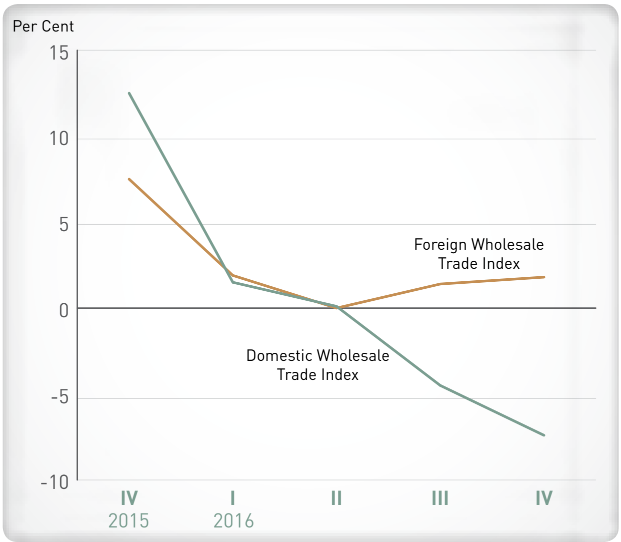
For the whole of 2016, the sector expanded by 0.6 per cent, moderating from the 3.7 per cent growth in 2015. The slowdown in growth could be attributed to both the wholesale trade and retail trade segments.

WHOLESALE TRADE

While foreign wholesale sales volume registered modest growth, domestic wholesale sales volume continued to decline in the fourth quarter. Specifically, domestic wholesale trade fell by 7.4 per cent, worsening from the 4.5 per cent contraction in the preceding quarter (Exhibit 6.10). Domestic wholesale trade in the quarter was mainly weighed down by a decline in the sales volume of petroleum & petroleum products (-9.8 per cent). For the whole of 2016, the domestic wholesale trade index declined by 2.8 per cent, reversing the 8.8 per cent growth in 2015.

On the other hand, foreign wholesale trade grew modestly by 1.8 per cent in the fourth quarter, following the 1.4 per cent rise in the preceding quarter. Growth was supported by the healthy sales of telecommunications & computers (37 per cent), as well as metals, timber & construction materials (17 per cent). However, growth was weighed down by a 5.9 per cent decline in the sales volume of petroleum & petroleum products. For the full year, the growth of the foreign wholesale trade index moderated to 1.3 per cent, from 9.0 per cent in 2015.

Exhibit 6.10: Changes in Wholesale Trade Index at Constant Prices



RETAIL SALES

In the fourth quarter, retail sales volume rose marginally by 0.4 per cent, moderating from the 1.0 per cent growth recorded in the third quarter (Exhibit 6.11). Growth was weighed down by non-motor vehicle sales. Notably, the sales of discretionary goods such as telecommunication equipment & computers and watches & jewellery declined by 8.2 per cent and 5.9 per cent respectively. On the other hand, the sales of motor vehicles expanded by 11 per cent in the fourth quarter, and provided support to the retail trade segment.

Exhibit 6.11: Changes in Retail Sales Index at Constant Prices

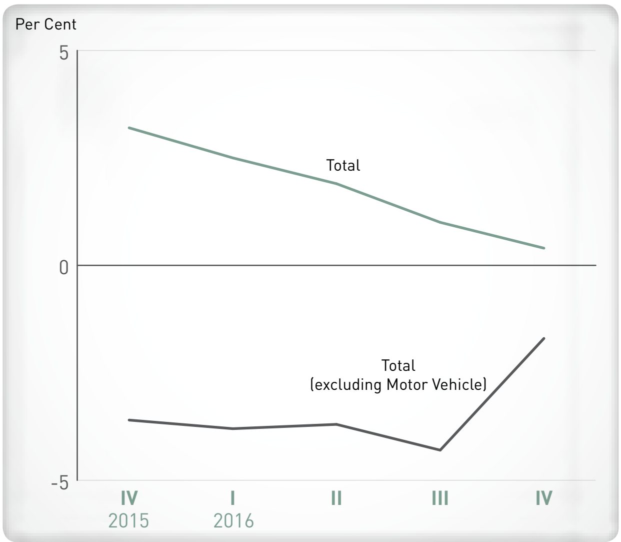
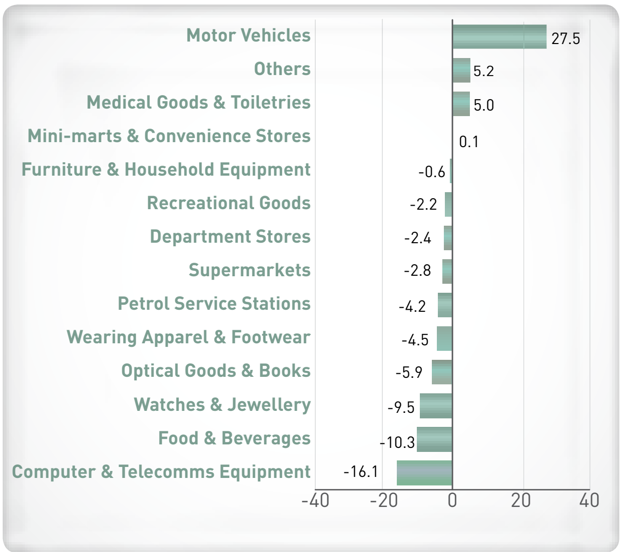


Exhibit 6.12: Changes in Retail Sales Index at Constant Prices for Major Segments in 2016



For the full year, retail sales volume grew by 1.5 per cent, following the 4.6 per cent growth recorded in 2015. Growth was driven by motor vehicle sales, which surged by 28 per cent. Excluding motor vehicle sales, retail sales volume contracted by 3.4 per cent, extending the 1.0 per cent decline in the previous year.

The weakness in non-motor vehicle sales was underpinned by a decline in discretionary goods sales. The contraction was broad-based, with declines recorded in the sales volume of telecommunication equipment & computers (-16 per cent), watches & jewellery (-9.5 per cent), optical goods & books (-5.9 per cent), and wearing apparel & footwear (-4.5 per cent) (Exhibit 6.12).

6.4 Accommodation & Food Services

OVERVIEW

The accommodation & food services sector contracted by 0.2 per cent in the fourth quarter of 2016, reversing the 2.5 per cent growth recorded in the previous quarter.

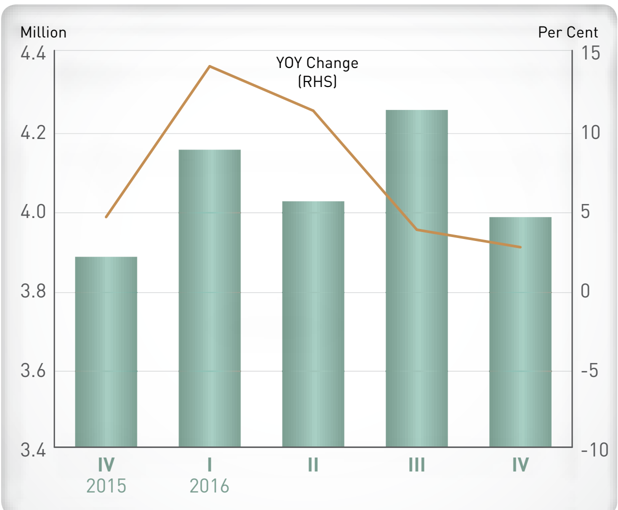
For the whole of 2016, the sector expanded by 1.7 per cent, accelerating from the 0.7 per cent growth in 2015.

VISITOR ARRIVALS

Led by a 20 per cent surge in Chinese visitor arrivals, Singapore received a total of 4.0 million visitors in the fourth quarter, 2.6 per cent higher compared to the same period a year ago (Exhibit 6.13).

For the full year, visitor arrivals increased by a robust 7.7 per cent, improving from the 0.9 per cent growth registered in 2015. In total, visitor arrivals reached 16.4 million in 2016.

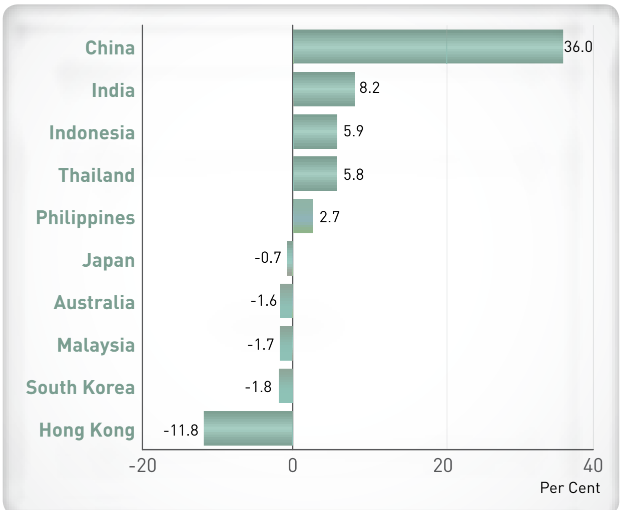
Exhibit 6.13: Visitor Arrivals



In terms of source markets, Singapore's top five visitor-generating markets in 2016 were Indonesia (2.9 million visitors), China (2.9 million), Malaysia (1.2 million), India (1.1 million) and Australia (1.0 million). Together, they accounted for 55 per cent of total visitor arrivals.

Among the key visitor markets, China (36 per cent), India (8.2 per cent) and Indonesia (5.9 per cent) posted the highest growth rates in visitor arrivals in 2016 (Exhibit 6.14).

Exhibit 6.14: Growth Rates of Top Ten Visitor Generating Markets in 2016

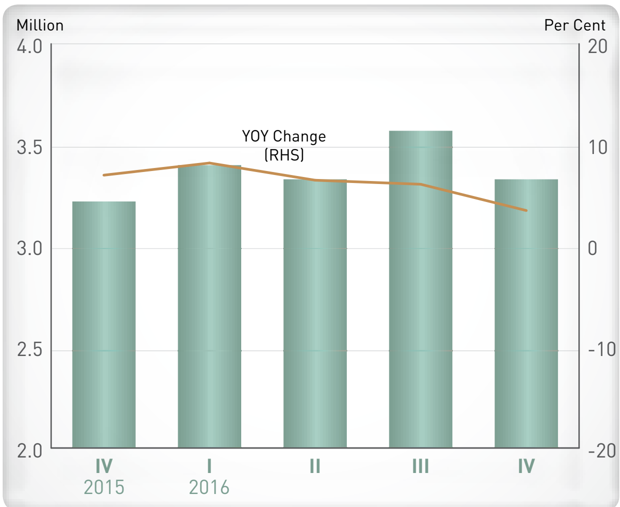


ACCOMMODATION

In tandem with the growth in visitor arrivals, the gross lettings of gazetted hotel rooms rose by 3.5 per cent in the fourth quarter, although this was a moderation from the 6.1 per cent increase in the previous quarter (Exhibit 6.15). Nevertheless, room revenue dipped marginally by 0.8 per cent, on the back of a decline in the average daily room rate of gazetted hotel rooms. Specifically, the average daily room rate fell by 4.3 per cent to reach $235 in the fourth quarter on the back of a decline in average occupancy rate as the supply of hotel rooms rose.

For the full year, the performance of the accommodation segment was resilient. The overall room revenue of gazetted hotels rose by 2.3 per cent to reach $3.2 billion, on the back a 6.0 per cent increase in gross lettings.

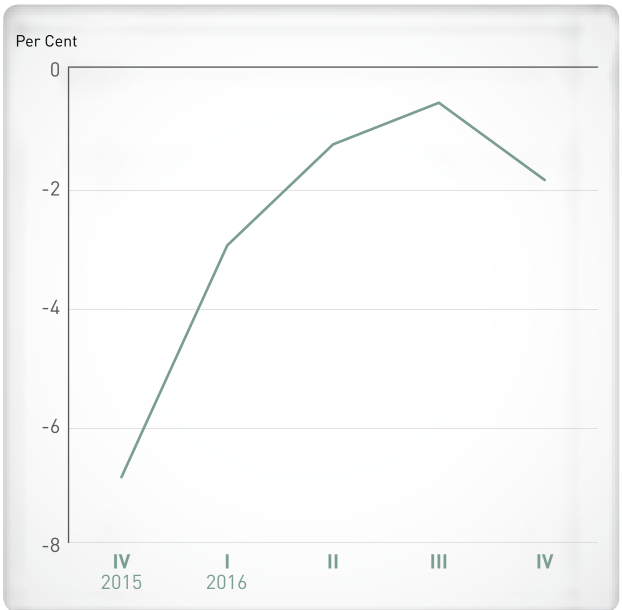
Exhibit 6.15: Gross Lettings



FOOD & BEVERAGE SERVICES

Overall food & beverage sales volume decreased by 1.9 per cent in the fourth quarter, extending the 0.6 per cent decline recorded in the preceding quarter (Exhibit 6.16). The weak fourth quarter performance was due to the poor showing of restaurants, which recorded a 9.7 per cent contraction in sales volume. By contrast, fast food outlets, food caterers and other eating places registered growth of 1.9 per cent, 4.6 per cent and 3.1 per cent respectively.

Exhibit 6.16: Changes in Food and Beverage Services Index at Constant Prices



For the full year, the food & beverage services index fell by 1.7 per cent, which was more modest than the 5.0 per cent decline in the previous year. The contraction was led by a 7.2 per cent decline in the sales of restaurants, an extension of the 7.8 per cent fall recorded in the previous year. On the other hand, the sales of fast food outlets and other eating places recorded improvements of 0.6 per cent and 3.0 per cent respectively in 2016.

6.5 Transportation & Storage

OVERVIEW

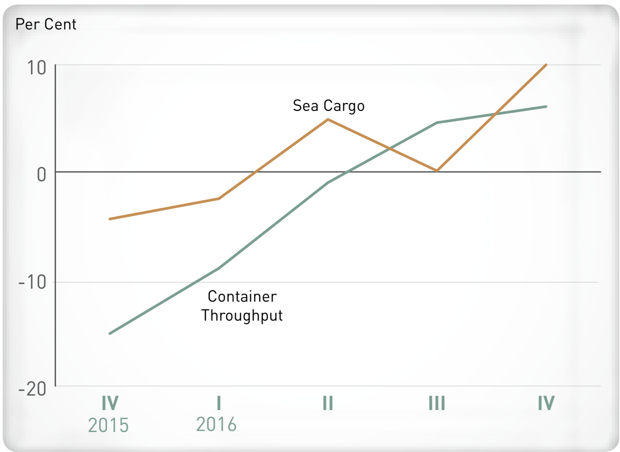
The transportation & storage sector grew by 5.4 per cent in the fourth quarter, an improvement from the 0.7 per cent growth in the previous quarter.

For the whole of 2016, the sector expanded by 2.3 per cent, faster than the 1.6 per cent expansion in 2015. Growth of the sector was mainly supported by the water transport segment.

WATER TRANSPORT

Container throughput rose by 6.1 per cent in the fourth quarter, following the 4.6 per cent expansion in the previous quarter, in tandem with an improvement in global container trade (Exhibit 6.17).

Exhibit 6.17: Changes in Container Throughput and Sea Cargo Handled



Overall sea cargo volumes rose by 10 per cent in the fourth quarter, picking up strongly from the 0.1 per cent expansion in the preceding quarter. The growth in sea cargo volumes was bolstered by a 26 per cent surge in oil-in-bulk cargo shipments.

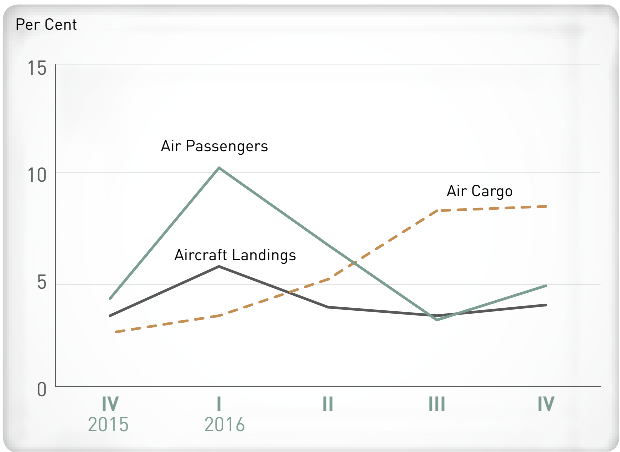
For the whole of 2016, container throughput fell marginally by 0.1 per cent, easing from the 8.7 per cent decline in the previous year. The number of Twenty-Foot Equivalent Units handled by Singapore's ports in 2016 came in at 31 million.

Meanwhile, sea cargo volumes rose by 3.0 per cent in 2016, reversing the 0.9 per cent contraction in the previous year. The improved performance was supported by oil-in-bulk cargo shipments, which grew by 13 per cent in 2016, faster than the 7.8 per cent growth in 2015.

AIR TRANSPORT

Air passenger traffic handled by Changi Airport rose by 4.7 per cent in the fourth quarter, faster than the 3.1 per cent increase in the previous quarter (Exhibit 6.18). Growth was supported by improvements in air passenger movements on several key routes, including China, Malaysia and Indonesia.

Exhibit 6.18: Changes in Air Transport



Similarly, air cargo registered an 8.4 per cent growth in the fourth quarter, extending the 8.2 per cent increase in the previous quarter. Growth was in part supported by a pick-up in the volume of non-oil domestic exports in the fourth quarter.

Likewise, aircraft landings rose by 3.8 per cent to reach 46,160 in the fourth quarter, following the 3.3 per cent growth in the preceding quarter.

For the full year, air passenger traffic handled by Changi Airport posted growth of 6.1 per cent, faster than the 2.9 per cent increase in 2015. Growth was mainly supported by the recovery in air passenger volume on the Singapore-Indonesia route, as well as healthy growth on the Singapore-China and Singapore-Malaysia routes.

Air cargo shipments rose by 6.3 per cent in 2016, faster than the 0.5 per cent increase in 2015.

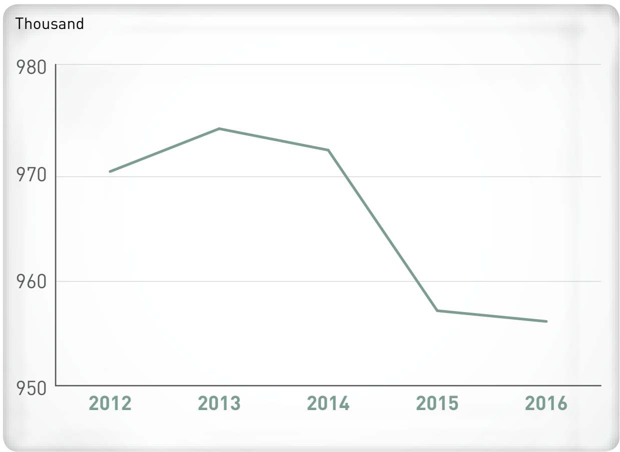
Finally, the number of aircraft landings in 2016 increased by 4.1 per cent to reach 180,251, extending the 1.4 per cent increase in the previous year.

LAND TRANSPORT

As of December 2016, the total number of vehicles registered with the Land Transport Authority (LTA) was 956,430, 0.1 per cent lower than the number of vehicles registered in December 2015 (Exhibit 6.19). This marked the third year of decline in the number of vehicles registered, following the 1.5 per cent and 0.2 per cent decrease recorded in 2015 and 2014 respectively.

The vehicles registered as at December 2016 comprised 552,427 private and company cars, 51,336 rental cars, 27,534 taxis, 18,804 buses, 143,052 motorcycles and scooters, and 163,227 goods vehicles and other vehicle types.

Exhibit 6.19: Motor Vehicles Registered



6.6 Information & Communications

OVERVIEW

Supported by growth in the IT & information services segment, the information & communications sector expanded by 1.4 per cent in the fourth quarter of 2016, continuing the 1.3 per cent growth in the previous quarter.

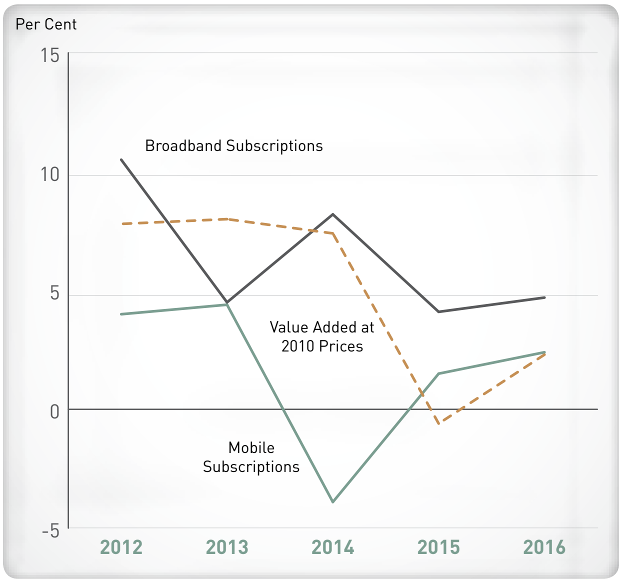
For the whole of 2016, the sector posted growth of 2.3 per cent, reversing the 0.6 per cent contraction recorded in 2015.

TELECOMMUNICATIONS

In 2016, an increase in the number of consumers who upgraded to the more profitable 4G tiered data plans boosted the telecommunications segment. As at the end of November 2016[1], overall 4G subscriptions had risen by 18 per cent as compared to the same period a year ago. Conversely, 2G and 3G subscriptions declined by 40 per cent and 11 per cent respectively. Nevertheless, the switch to the 4G subscription plans has shown signs of slowing down as the market becomes more saturated.

At the same time, the number of broadband subscribers has continued to rise. In particular, by November 2016, total broadband subscriptions had risen by 4.7 per cent, on the back of healthy growth in both wireless broadband (5.6 per cent) and optical fibre broadband (23 per cent) subscriptions (Exhibit 6.20).

Exhibit 6.20: Information & Communications Growth



[1] *Full year data are not available at the time of publication.*

6.7 Finance & Insurance

OVERVIEW

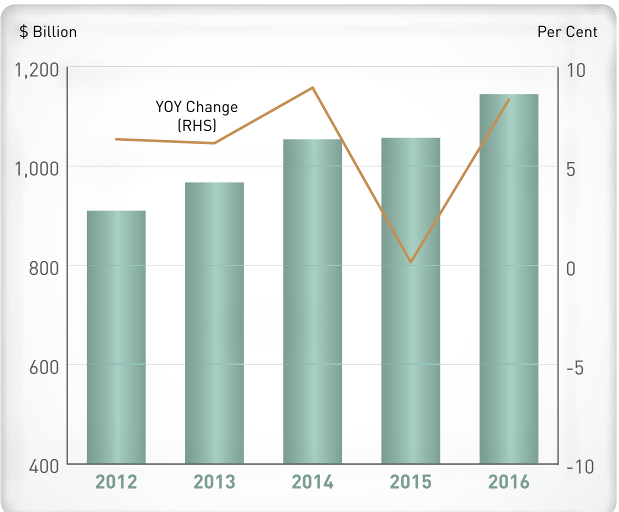
The finance & insurance sector grew by 0.6 per cent in the fourth quarter of 2016, an improvement from the 0.1 per cent growth registered in the preceding quarter.

For the whole of 2016, the sector expanded by 0.7 per cent, slower than the 5.7 per cent growth in 2015.

COMMERCIAL BANKS

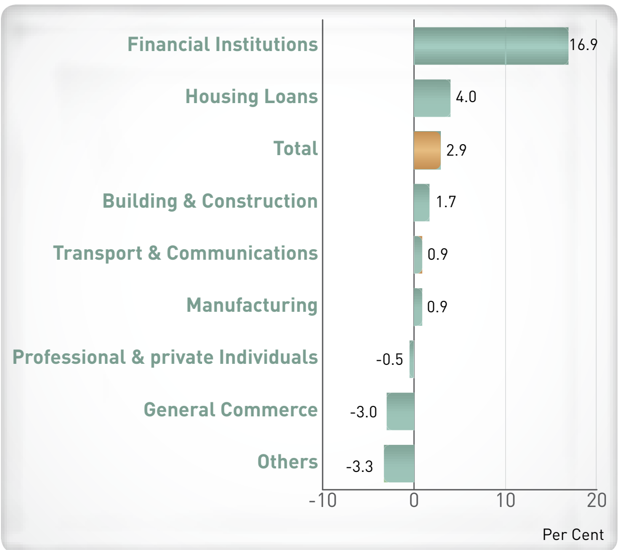
In 2016, the total assets/liabilities of commercial banks increased by 8.4 per cent to $1.1 trillion, compared with the muted 0.2 per cent expansion the year before (Exhibit 6.21). The stronger outcome came on the back of an improvement in both interbank and non-bank lending. Credit extended to non-bank customers rose by $18 billion (2.9 per cent), alongside an increase in both business and consumer loans.

Exhibit 6.21: Total Assets and Liabilities of Commercial Banks



Business lending expanded by 2.8 per cent in 2016, a reversal from the 3.7 per cent contraction in the preceding year, with most sectors registering growth in outstanding loan volumes. In particular, there was a 17 per cent step-up in lending to non-bank financial institutions. Meanwhile, consumer lending rose by 3.1 per cent, underpinned by sustained demand for housing loans (Exhibit 6.22).

Exhibit 6.22: Growth of Bank Loans and Advances to Non-Bank Customers by Industry in 2016



On the liabilities front, the total deposits of non-bank customers expanded by 6.5 per cent in 2016, extending the 1.8 per cent increase in the previous year. As at end-2016, total non-bank deposits stood at $597 billion, up from $560 billion the year before. The faster pace of growth could be attributed to a broad-based increase in demand, fixed and savings deposits.

FINANCE COMPANIES

Total assets/liabilities of finance companies declined by 5.8 per cent in 2016, a reversal from the 9.0 per cent expansion in 2015 (Exhibit 6.23). Notably, the bulk of the decline was due to the non-bank segment, which saw a 5.3 per cent pullback in contrast to the 7.0 per cent growth recorded the year before. Despite a step-up in the hire-purchase financing of motor vehicles, finance companies suffered from weak credit demand in the housing and building & construction segments (Exhibit 6.24).

On the liabilities front, deposits of non-bank customers declined by 7.2 per cent, largely due to a fall in fixed deposits.

Exhibit 6.23: Total Assets and Liabilities of Finance Companies

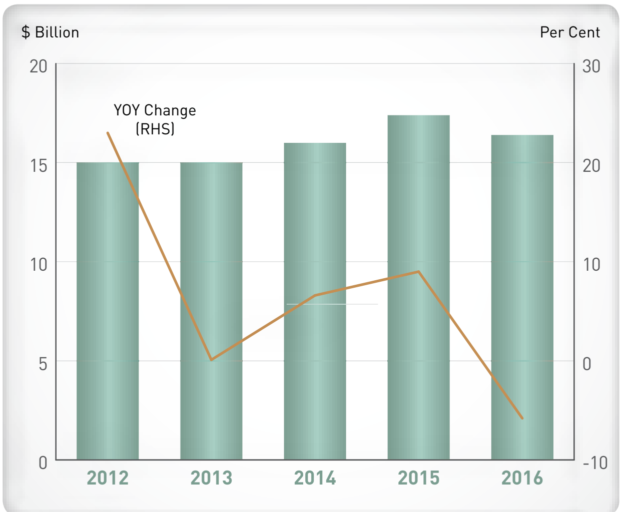
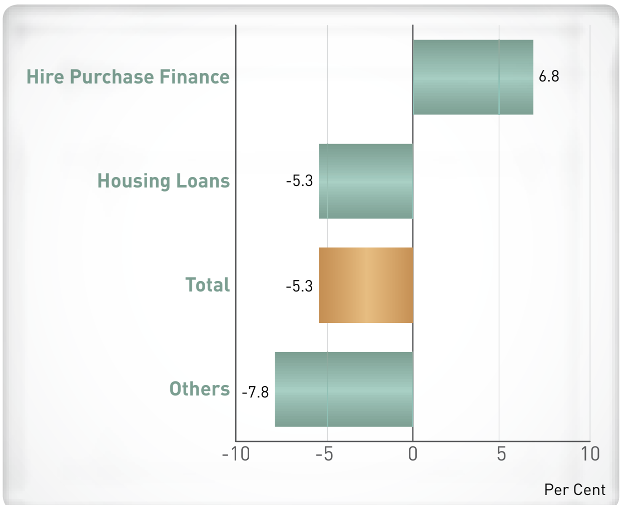


Exhibit 6.24: Growth of Loans and Advances of Finance Companies in 2016

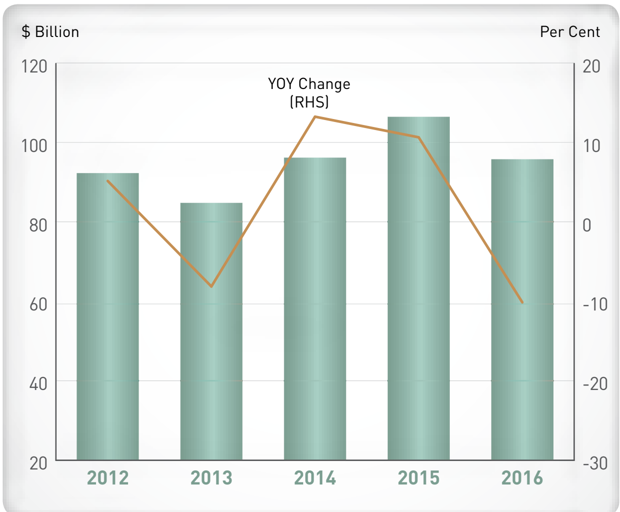


MERCHANT BANKS

Total asset/liabilities of merchant banks stood at $96 billion as at end-2016, a contraction of 10 per cent from the $107 billion recorded in the previous year (Exhibit 6.25). The decline stemmed in part from the offshore segment which saw weakness in non-bank lending extended to entities outside Singapore.

In comparison, the domestic operations of merchant banks grew by 4.6 per cent, reversing the 1.5 per cent decline posted in 2015. Activity was partly bolstered by an increase in the merchant banks' holdings of securities and equities.

Exhibit 6.25: Total Assets and Liabilities of Merchant Banks



ASIAN DOLLAR MARKET

Total assets/liabilities of the Asian Dollar Market fell by 1.8 per cent in 2016, extending the 2.9 per cent decline in the previous year (Exhibit 6.26). Notably, non-bank loan volume decreased by 4.7 per cent, as lending to non-residents recorded a pullback. Loans to East Asia saw the largest decline of 18 per cent. Meanwhile, interbank loans grew modestly by 0.8 per cent, after two consecutive years of contraction.

On the liabilities front, non-bank deposits declined marginally by 0.5 per cent, as a fall in foreign currency deposits by non-residents outweighed the increase in resident deposits. Concomitantly, interbank deposits also contracted by 2.8 per cent, due to reductions in deposits from banks outside Singapore.

Exhibit 6.26: Total Assets and Liabilities of the Asian Dollar Market

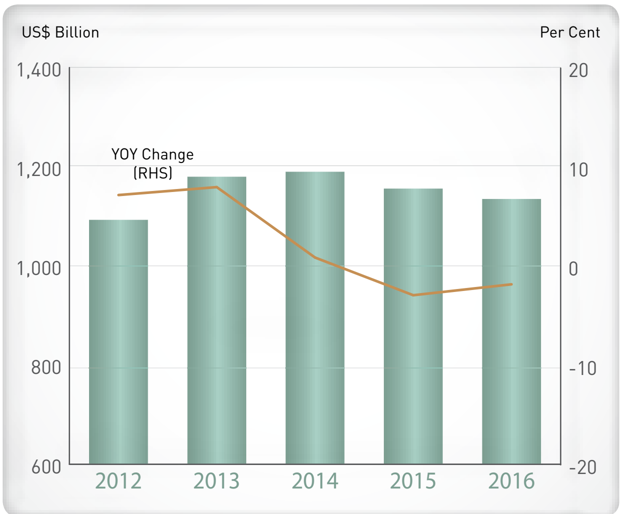
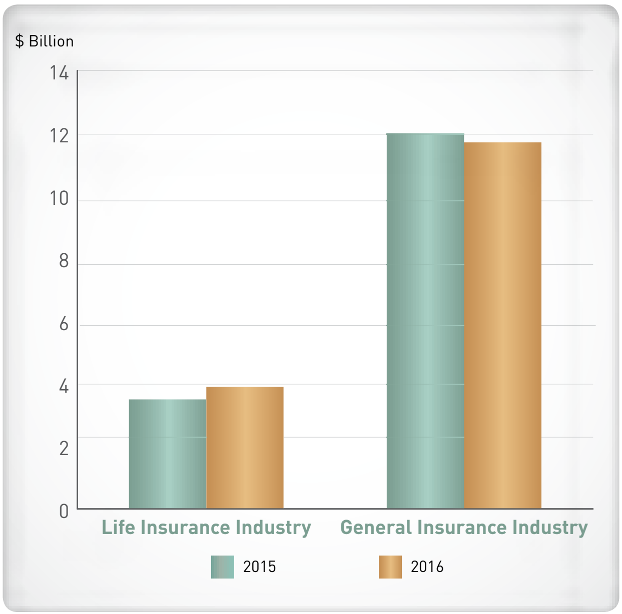


Exhibit 6.27: Premiums in the Insurance Industry



INSURANCE INDUSTRY

Total weighted new business premiums in the direct life insurance industry increased by 11 per cent to $3.9 billion in 2016, with robust growth achieved in both single and regular premium business (Exhibit 6.27). Regular premium business increased by 13 per cent to $2.8 billion, while single premium business grew by 6.5 per cent to $1.1 billion. The overall net income of the direct life insurance industry was $1.4 billion in 2016, broadly similar to 2015.

In the general insurance industry, gross premiums dropped slightly by 2.2 per cent to $12 billion in 2016, with offshore and domestic businesses accounting for $7.7 billion and $4.0 billion respectively. The general insurance industry recorded an operating profit of $770 million in 2016, a 6.0 per cent decline from the $819 million reported in 2015. This was due to weaker underwriting profits in 2016.

CENTRAL PROVIDENT FUND

Total CPF balances grew by 10 per cent to $330 billion in 2016.

Members' contributions for the year amounted to $36 billion, while total withdrawals reached $19 billion. This resulted in a net contribution of $17 billion, an increase of 30 per cent from the level recorded in 2015.

Total net withdrawals under the Public Housing Scheme and Private Property Scheme rose by 5.9 per cent to reach $198 billion as at 31 December 2016.

As at 31 December 2016, more than 173,000 CPF members have been included in the CPF Lifelong Income for the Elderly (CPF LIFE) Scheme which provides lifelong payouts during retirement. The CPF LIFE fund stood at $9.8 billion.

STOCK MARKET

At the start of 2016, a rout in the Chinese stock market and downward revisions to global growth projections had led to a sharp turn in investor sentiments, with the benchmark Straits Times Index (STI) plunging to a multi-year low of around 2,533 points in late January (Exhibit 6.28). Nonetheless, a subsequent wave of optimism on the back of improving US economic data, increased stimulus in China, as well as expectations of higher oil prices, had resulted in a swift recovery in the index over the later part of the first quarter.

The domestic bourse was range-bound in the second and third quarters, as global developments such as the Brexit referendum in UK led to heightened volatility in financial markets. Towards the end of the year, the STI benefited from the global equity rally, amidst expectations that President Trump's administration will help spur US economic activity via tax reductions, regulation streamlining and infrastructure spending. All in, the STI closed the year at around the same level as 2015.

Exhibit 6.28: Straits Times Index

SECURITIES MARKET

In 2016, the total turnover value of the securities market decreased by 2.9 per cent to $272 billion, while total turnover volume increased by 6.4 per cent to 423 billion shares, compared with 2015. This translated to a 4.4 per cent decrease in the average daily traded value to $1.1 billion, while the average daily traded volume increased by 4.7 per cent to 1.7 billion shares.

At the end of 2016, the total number of listed companies in Singapore was 757, with a combined market capitalisation of $926 billion, a 2.3 per cent increase from 2015. In 2016, there were 572 companies listed on SGX's Mainboard, while another 185 companies were listed on SGX's Catalist.

DERIVATIVES MARKET

In 2016, SGX's derivatives market activity decreased by 6.3 per cent to 173 million contracts. Compared to 2015, total futures trading volume declined by 7.7 per cent to 163 million, while options on futures trading volume grew by 34 per cent to 9.5 million contracts. The most actively-traded contracts were the FTSE China A50 Index Futures, the Nikkei 225 Stock Index and the SGX CNX Nifty Index futures, which formed 67 per cent of the total volume traded on SGX's derivatives trading platform.

FOREIGN EXCHANGE MARKET

Singapore's foreign exchange market posted an average daily turnover of US$442 billion in 2016, an increase of 27 per cent from the previous year. Trading in the major currencies such as the United States Dollar, Euro and Japanese Yen continued to dominate the market, with the US Dollar/Yen currency pair registering the highest trading volume. Trading in the US Dollar/Singapore Dollar currency pair contributed less than 10 per cent to the total turnover.

In 2016, the Euro and British Pound fell by 3.2 per cent and 16 per cent against the US Dollar respectively, while the Japanese Yen was up 2.8 per cent. The US Dollar was range-bound for most of the year but rallied towards year-end on the back of expectations that President Trump's administration would embark on a programme of fiscal easing and comprehensive tax reforms, potentially including a border tax adjustment. The British Pound depreciated as the June referendum vote to leave the EU was seen as detrimental to the UK economy, and prompted further accommodative policy from the Bank of England, which also weakened the Pound. The Yen rallied over the first half of the year on safe haven flows, as events such as the UK referendum vote caused risk aversion to rise. However, the Yen weakened towards year-end as global growth and sentiments improved. The Euro depreciated slightly over the year as the European Central Bank's monetary policy remained accommodative, extending its Asset Purchase Programme till December 2017.

6.8 Business Services

OVERVIEW

The business services sector contracted by 1.9 per cent in the fourth quarter of 2016, similar to the 1.8 per cent contraction registered in the previous quarter.

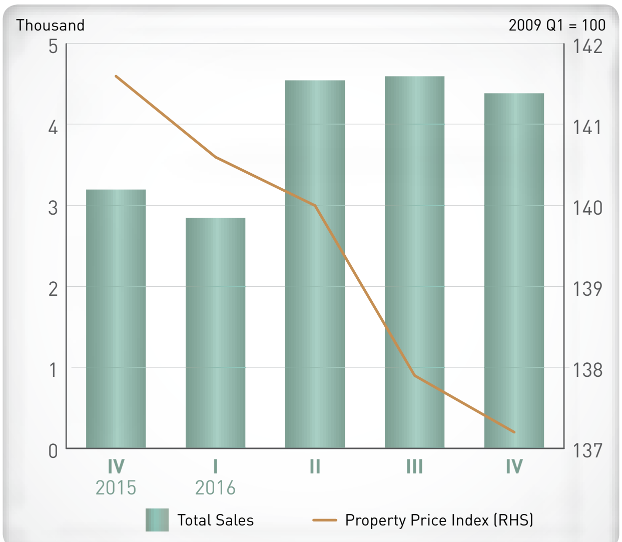
For the whole of 2016, the sector shrank by 0.9 per cent, reversing the 3.9 per cent growth in 2015.

REAL ESTATE

In 2016, the growth of the business services sector was dampened by the slowdown in the real estate market. Notably, the real estate segment shrank by 4.2 per cent, a reversal from the 2.2 per cent growth seen in the previous year.

Against the backdrop of a sluggish real estate market following the implementation of property cooling measures such as the Total Debt Servicing Ratio and Additional Buyer's Stamp Duty, prices in the private residential property market registered its thirteen consecutive quarter of decline in the fourth quarter. On a quarter-on-quarter basis, prices fell by 0.5 per cent during the quarter, extending the 1.5 per cent decline seen in the previous quarter. For the whole of 2016, prices fell by 3.1 per cent, following the decline of 3.7 per cent recorded in 2015.

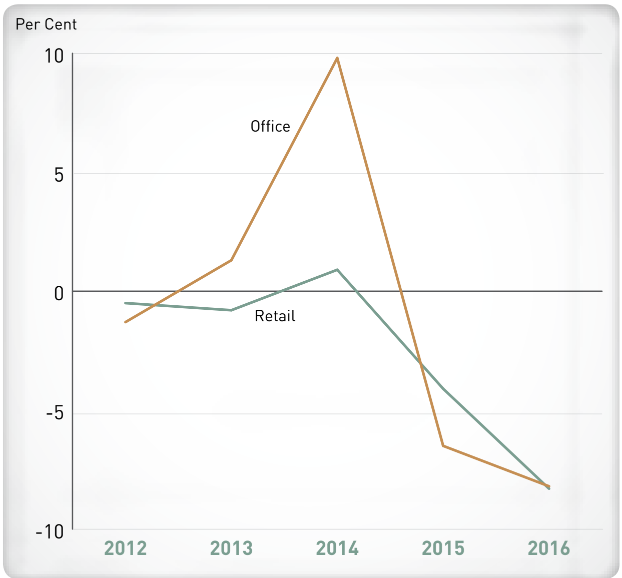
Exhibit 6.29: Total Sales of Private Residential Units and Private Residential Property Price Index



In comparison, sales volumes have started to stabilise as the private residential property market adjusts to lower prices. Total private residential property sales surged by 37 per cent year-on-year in the fourth quarter of 2016, extending the 11 per cent growth in the previous quarter, in part due to the higher transactions of newly launched units. For the full year, total sales picked up by 16 per cent to reach 16,378 units, compared to the 14,117 units sold in 2015 (Exhibit 6.29). However, the uptick was modest compared to the average of 28,997 units sold between 2010 and 2014.

In the commercial space segment, the retail and office space markets faced increased headwinds in 2016 given falling prices and rentals. In particular, the prices of private retail space declined by 5.4 per cent in 2016, accelerating from the 0.8 per cent contraction recorded in the previous year. Likewise, office space prices weakened by 2.8 per cent, moderating further from the 0.1 per cent contraction in 2015.

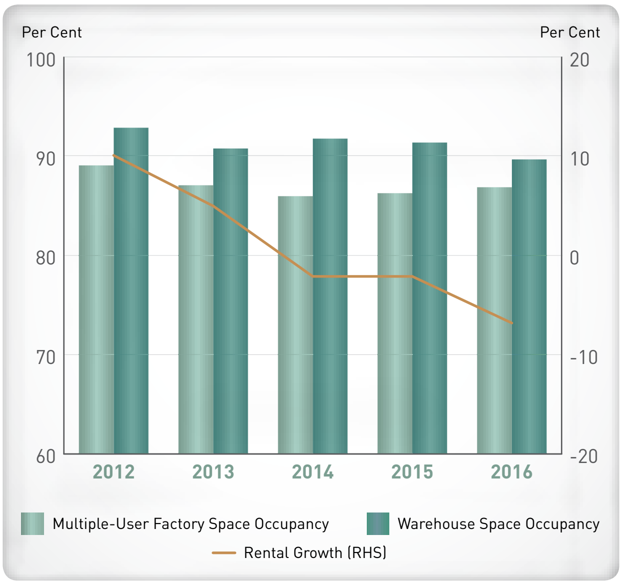
Exhibit 6.30: Changes in Rentals of Private Sector Office and Retail Spaces



For the rental market, private retail space rentals declined by 8.3 per cent in 2016, sliding further from the 4.1 per cent decline in the previous year. The deterioration was driven by lower rentals in the Central Area (-8.8 per cent) as well as the Fringe Area (-6.6 per cent). Similarly, rentals in the office market saw a contraction of 8.2 per cent, extending the 6.5 per cent decline seen in 2015 (Exhibit 6.30).

In the industrial space market, overall prices weakened by 9.1 per cent in 2016, following the 1.7 per cent fall in 2015. Overall rentals also declined by 6.8 per cent, a steeper pullback compared to the 2.1 per cent decline in 2015. Notably, rentals of private multiple-user factory space fell by 7.7 per cent in 2016, worsening from the 3.3 per cent decline in the previous year (Exhibit 6.31).

Exhibit 6.31: Occupancy Rate and Rental Growth of Industrial Space



PROFESSIONAL SERVICES

The professional services segment grew marginally in 2016, weighed down primarily by weakness in the business & management consultancy sub-segment (-10 per cent). However, the segment was supported by the legal (4.9 per cent) and architectural & engineering services (2.3 per cent) sub-segments.

6.9 Overview of Sectors in 2016

OVERALL ECONOMY

STRUCTURE OF ECONOMY	Nominal Value Added (% Share)	Real Growth (%)
TOTAL	100.0	2.0
Goods Producing Industries	26.2	2.8
Manufacturing	19.6	3.6
Construction	5.0	0.2
Utilities	1.5	1.7
Other Goods Industries	0.0	-1.4
Services Producing Industries	69.4	1.0
Wholesale & Retail Trade	14.2	0.6
Transportation & Storage	7.6	2.3
Accommodation & Food Services	2.2	1.7
Information & Communications	4.2	2.3
Finance & Insurance	13.1	0.7
Business Services	15.8	-0.9
Other Services Industries	12.2	3.1
Ownership of Dwellings	4.4	5.1

SECTORAL BREAKDOWN

MANUFACTURING	Nominal Value Added (% Share)	Real Growth (%)
Manufacturing	100.0	3.6
Electronics	22.6	15.9
Chemicals	19.7	-0.9
Biomedical Manufacturing	21.8	13.6
Precision Engineering	12.8	0.8
Transport Engineering	11.5	-17.8
General Manufacturing Industries	11.5	-2.5

WHOLESALE & RETAIL TRADE	Nominal Value Added (% Share)	Real Growth (%)
Wholesale & Retail Trade	100.0	0.6
Wholesale Trade	86.6	0.7
Retail Trade	13.4	0.4

ACCOMMODATION & FOOD SERVICES	Nominal Value Added (% Share)	Real Growth (%)
Accommodation & Food Services	100.0	1.7
Accommodation	44.5	4.9
Food & Beverage	55.5	-0.8

TRANSPORTATION & STORAGE	Nominal Value Added (% Share)	Real Growth (%)
Transportation & Storage	100.0	2.3
Land Transport*	18.6	1.7
Water Transport*	39.0	2.1
Air Transport*	22.7	1.4
Storage & Other Support Services	17.2	5.1
Post & Courier	2.5	3.0

**Including supporting services*

INFORMATION & COMMUNICATIONS	Nominal Value Added (% Share)	Real Growth (%)
Information & Communications	100.0	2.3
Telecommunications	32.6	3.7
IT & Information Services	50.2	2.8
Others	17.2	-1.6

FINANCE & INSURANCE	Nominal Value Added (% Share)	Real Growth (%)
Finance & Insurance	100.0	0.7
Banking	46.6	1.1
Security Dealing	2.6	-0.8
Fund Management	11.0	-6.1
Insurance	15.4	4.2
Others	24.4	0.8

OTHER SERVICES INDUSTRIES	Nominal Value Added (% Share)	Real Growth (%)
Other Services Industries	100.0	3.1
Public Administration & Defence	24.6	3.1
Education, Health & Social Work	52.0	4.7
Arts, Entertainment & Recreation	11.4	-2.0
Others	12.0	2.1

BUSINESS SERVICES	Nominal Value Added (% Share)	Real Growth (%)
Business Services	100.0	-0.9
Real Estate	29.4	-4.2
Rental & Leasing	16.3	1.1
Legal	3.7	4.9
Accounting	2.7	-1.8
Head Offices & Business Representative Offices	11.2	0.6
Business & Management Consultancy	3.5	-10.2
Architectural & Engineering	11.5	2.3
Other Professional, Scientific & Technical Services	8.8	1.8
Other Administrative & Support Services	12.9	0.6

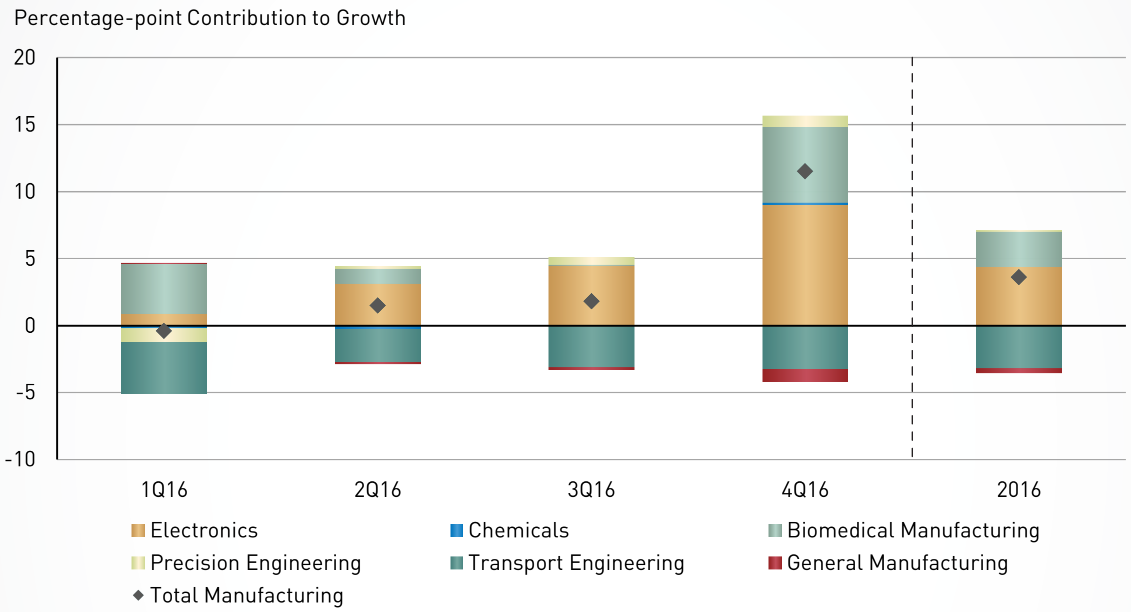
BOX ARTICLE 6.1

Drivers of Growth in the Manufacturing Sector

The manufacturing sector rebounded in 2016

The manufacturing sector grew by 3.6 per cent in 2016, a reversal from the 5.1 per cent decline in 2015. The recovery of the sector was underpinned by growth in the electronics, biomedical manufacturing (BMS) and precision engineering clusters (Exhibit 1). Specifically, these three clusters contributed 4.4 percentage-points (pp), 2.6pp and 0.1pp to overall manufacturing growth in 2016 respectively. On the other hand, the transport engineering (-3.1pp), general manufacturing (-0.3pp) and chemicals (-0.1pp) clusters contributed negatively to the sector's growth.

Exhibit 1: Overall manufacturing growth in 2016 was driven by the electronics, BMS and precision engineering clusters

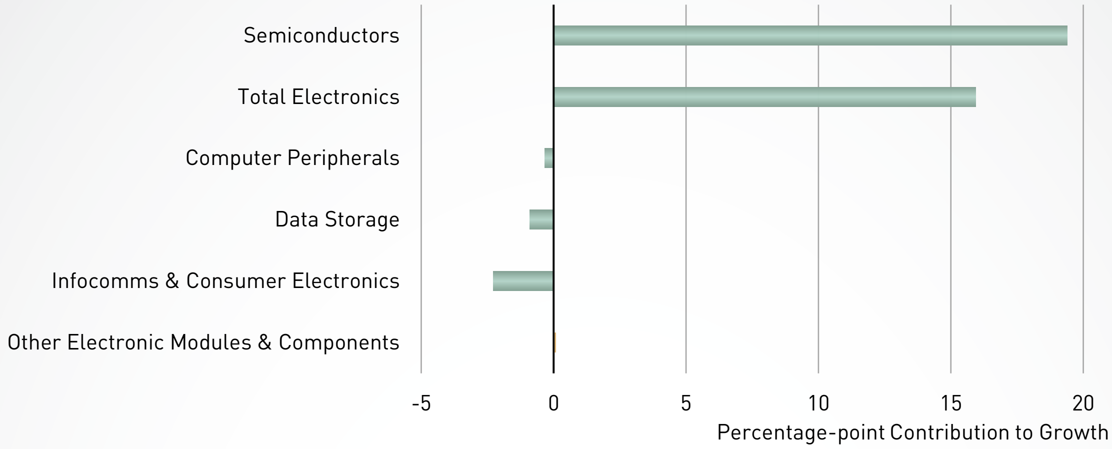


Source: Economic Development Board

The strong expansion in electronics production in 2016 was driven mainly by a recovery in global semiconductor demand

The electronics cluster expanded by 16 per cent in 2016, reversing the 6.8 per cent contraction in 2015. This strong outturn was driven by robust growth in the semiconductors segment (31 per cent). Indeed, the semiconductors segment contributed 19pp to the overall growth of the cluster, even as most of the other segments within the cluster weighed on growth (Exhibit 2).

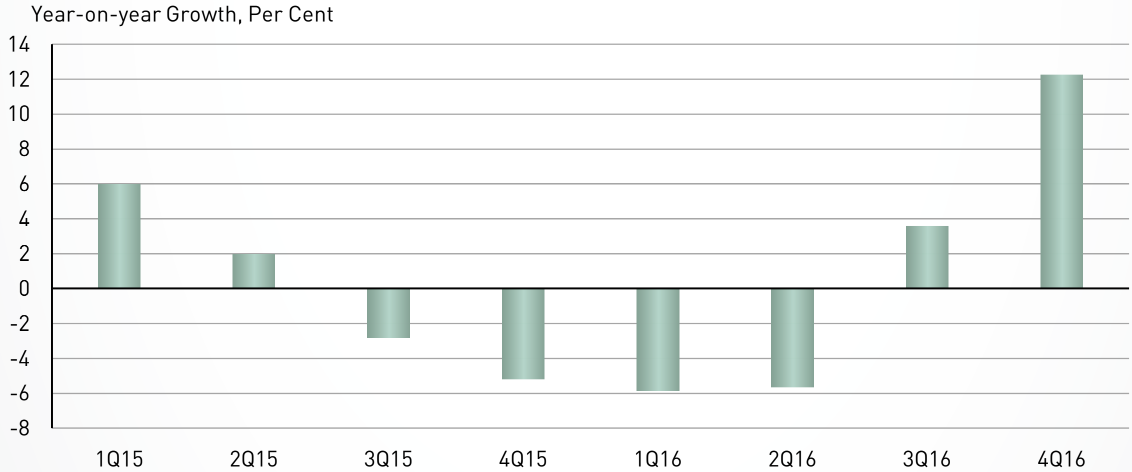
Exhibit 2: Semiconductors segment was the key driver of the electronics cluster's growth in 2016



Source: Economic Development Board

The strong performance of the semiconductors segment came on the back of a recovery in global semiconductor demand, especially in the later part of 2016.[1] According to the World Semiconductor Trade Statistics (WSTS), global semiconductor sales surged by around 12 per cent in 4Q16, a significant step-up from the 3.6 per cent increase in 3Q16, and surpassing many analysts' expectations (Exhibit 3).[2] For the whole of 2016, global semiconductor sales rose by 1.1 per cent, reversing the 0.2 per cent decline recorded in 2015. The recovery in global semiconductor sales was underpinned by healthy demand in major end markets such as the smartphone, automotive and solid state drive markets.[3] Closer to home, the success of Chinese smartphone manufacturers in China has benefitted semiconductor firms (including fabless firms) in Singapore that supply to these smartphone producers.

Exhibit 3: Global semiconductor sales rebounded in the second half of 2016



Source: World Semiconductor Trade Statistics

[1] *A firm-specific factor also led to higher output in the semiconductor segment since the start of 2016. Such firm-specific factors may arise from a company's decisions to adjust its operations in response to changes in their operating environment.*

[2] *In November 2016, the World Semiconductor Trade Statistics (WSTS) estimated that global semiconductor sales for the whole of 2016 would be flat, at around -0.1 per cent. In February 2017, WSTS announced that global semiconductor sales grew by 1.1 per cent in 2016, underscoring the strength of the recovery in 4Q16.*

[3] *The healthy demand for semiconductors was in part driven by the higher level of semiconductor content in electronic devices, such as increased memory capacity in smartphones.*

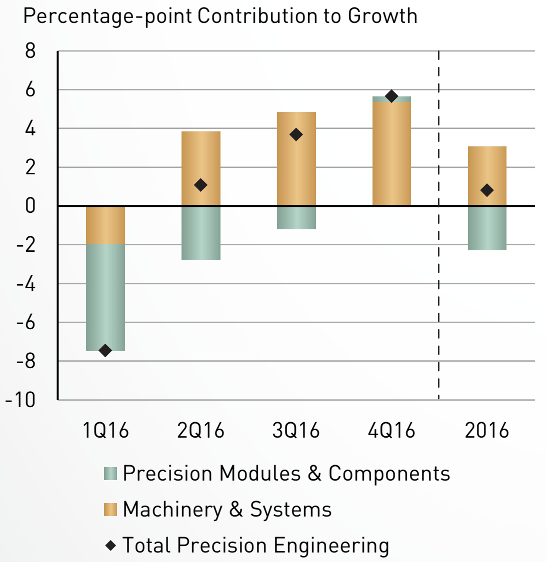
The strength of the semiconductors segment helped to offset the weakness stemming from the other segments of the electronics cluster, such as the computer peripherals, data storage and infocomms & consumer electronics segments. These segments were weighed down by sluggish demand in markets such as that for PCs and servers.

The BMS and precision engineering clusters were bolstered by healthy external demand for pharmaceuticals and semiconductor manufacturing equipment respectively

The BMS cluster grew by 14 per cent in 2016, a turnaround from the 2.6 per cent contraction in 2015. Growth was supported by output expansions in both the pharmaceuticals (14 per cent) and medical technology (13 per cent) segments. The former was boosted by the increase in production of existing and newly-introduced active pharmaceuticals ingredients, as well as biological products. The latter, on the other hand, continued to benefit from robust export demand for medical devices (e.g., analytical instruments for life science research), and new product launches.

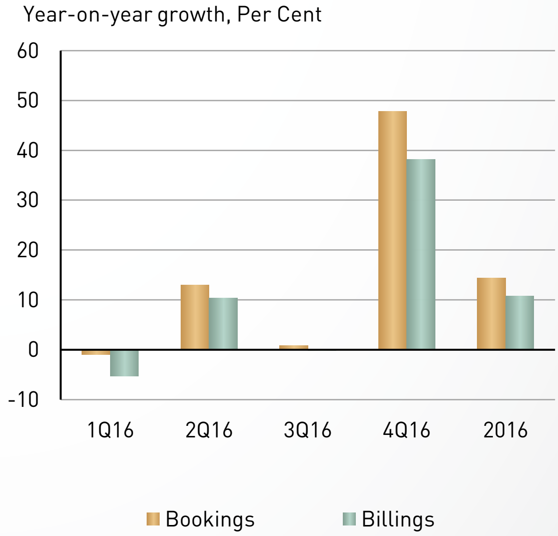
As for the precision engineering cluster, output expanded by 0.8 per cent in 2016, a reversal from the 3.9 per cent contraction in 2015. The cluster was mainly supported by the machinery & systems segment (Exhibit 4), which expanded by 5.1 per cent as a result of strong global demand for semiconductor manufacturing equipment. According to the Semiconductor Equipment and Materials International (SEMI), the bookings and billings of North America-based semiconductor equipment manufacturers – indicators commonly used to track global demand for such equipment – rose robustly by 14 per cent and 11 per cent respectively in 2016 (Exhibit 5). The recovery in global demand for semiconductor manufacturing equipment can be attributed to a few factors. First, there has been a ramp-up in wafer fab capacity investments by Chinese semiconductor manufacturers, supported in turn by the Chinese government's efforts to improve China's self-sufficiency in the production of semiconductors. Second, leading global semiconductor manufacturers have stepped up their investments in leading edge wafer manufacturing process technologies in order to maintain their technological lead. Third, an undersupply of capacity in the global flash memory market has spurred semiconductor capital investments.

Exhibit 4: Precision engineering cluster's growth in 2016 was supported by the machinery & systems segment



Source: Economic Development Board

Exhibit 5: Bookings and billings of North America-based semiconductor equipment manufacturers rose in 2016



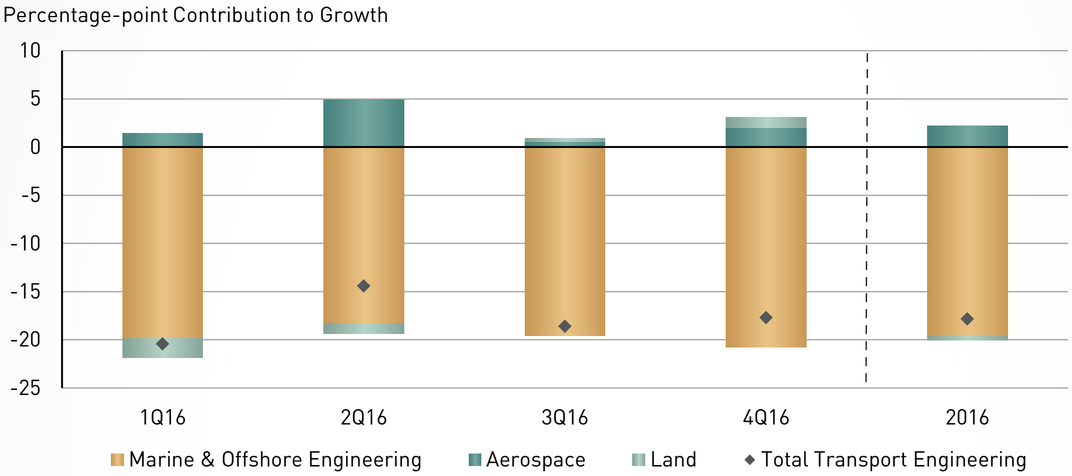
Source: Semiconductor Equipment and Materials International

In contrast to the machinery & systems segment, the precision modules & components segment of the precision engineering cluster contracted by 5.7 per cent in 2016. The segment's weak performance could be partly attributed to firms supporting the global oil and gas industry, which has been adversely affected by sustained low oil prices.[4]

On the other hand, the transport engineering cluster continued to pose a significant drag on overall manufacturing growth

The transport engineering cluster shrank by 18 per cent in 2016, extending the 13 per cent contraction in 2015. The performance of the cluster was adversely affected by the marine & offshore engineering (M&OE) segment, while the aerospace segment provided some support to the cluster (Exhibit 6).

Exhibit 6: The M&OE segment weighed heavily on the transport engineering cluster in 2016



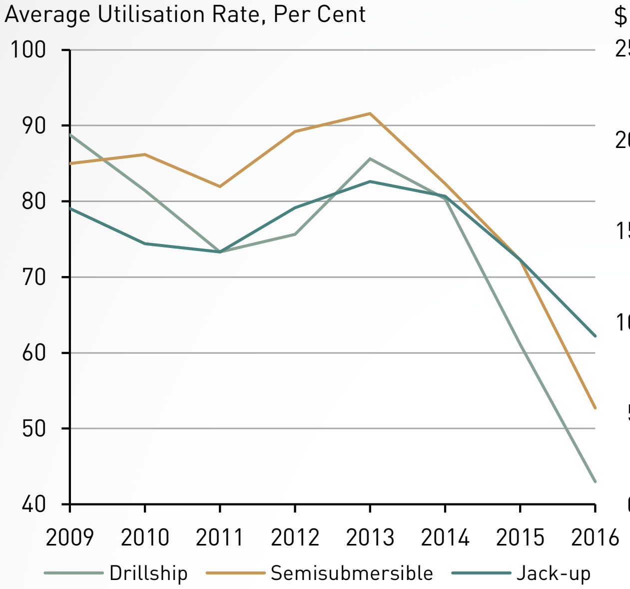
Source: Economic Development Board

Output in the M&OE segment fell by 30 per cent in 2016, a steeper contraction than the 18 per cent decline in 2015. Weak oil prices since the second half of 2014 have weighed on the utilisation of offshore rigs globally, with the overall utilisation rate of such rigs falling for three consecutive years (Exhibit 7). The oversupply situation has adversely affected capital spending on offshore rigs and oilfield & gasfield equipment, thus leading to a drying out of new orders for the local yards. For instance, new orders secured by two major local yards in the first three quarters of 2016 amounted to just $0.8 billion, 82 per cent lower than the amount of new orders secured over the same period in 2015, and also lower than the $1.5 billion secured in the first three quarters of 2009 during the height of the Global Financial Crisis (Exhibit 8). At the same time, several requests for deferments in the delivery of offshore rig projects over the past two years have had a further dampening effect on the output of the local yards.

On a brighter note, the aerospace segment lent support to the transport engineering cluster, expanding by a healthy 8.1 per cent in 2016. Production activity in this segment was lifted by higher volumes of aircraft and engine maintenance, repair and overhaul (MRO) works.[5] Besides MRO activities, some aerospace companies have also diversified into adjacent areas such as cabin services and aircraft refurbishment.

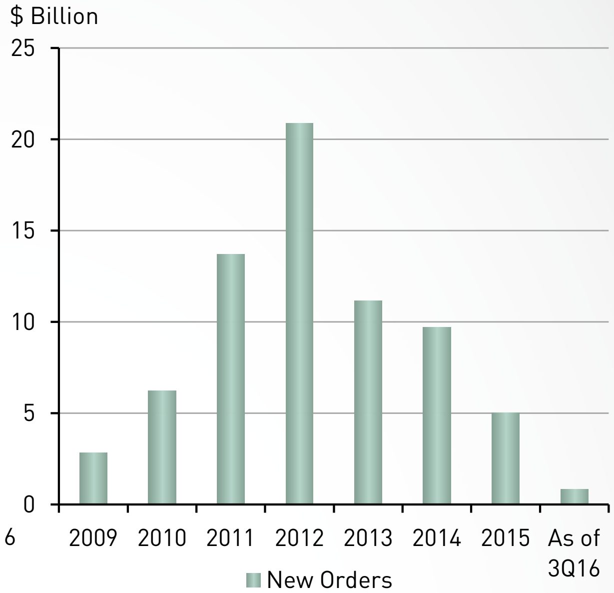
[4] Such firms may also be found in the machinery & systems segment (e.g., firms that manufacture hydraulic equipment).
[5] For instance, according to press reports, Singapore Technologies Aerospace – a leading, independent MRO player – secured $2.0 billion in new orders in 2015 and another $2.6 billion in 2016.

Exhibit 7: Utilisation rate across the different types of offshore rigs plunged further in 2016...



Source: Riglogix
Note: Drillships and semisubmersibles include rigs that can operate in water depth of 5,000 ft and more, while jack-up rigs include independent leg cantilevers of all types.

Exhibit 8:...weighing on new orders secured by two major local yards



Source: Keppel Offshore & Marine and Sembcorp Marine

Similarly, the general manufacturing and chemicals clusters weighed on overall manufacturing growth in 2016

The output of the general manufacturing cluster fell by 2.5 per cent in 2016, extending the 2.0 per cent decline in 2015, on the back of contractions in the printing (-15 per cent) and miscellaneous industries (-4.4 per cent) segments. The weakness in the printing segment stems from the structural decline in the demand for traditional print media as digital media continues to displace print products. As for the miscellaneous industries segment, its poor performance was due in part to the drop in demand for construction-related materials in tandem with the slowdown seen in construction activities. On the other hand, the food, beverage & tobacco segment expanded by 3.7 per cent, supported by healthy export demand.

The chemicals cluster contracted by 0.9 per cent in 2016, reversing the expansion of 3.9 per cent in 2015. This was due to the petrochemicals segment (-10 per cent), where output levels were dampened by major plant maintenance shutdowns. By contrast, the other segments of the cluster expanded. In particular, the other chemicals segment grew by 8.2 per cent on the back of healthy demand from the region for fragrances used in personal and household care products. Similarly, the specialty chemicals segment expanded by 1.7 per cent, with output growth underpinned by a higher production of mineral oil additives.

Despite the pick-up in output in the manufacturing sector, employment in the sector was weak in 2016

Although the manufacturing sector as a whole expanded in 2016, manufacturing employment fell by an estimated 15,700. This seeming divergence can largely be explained by the uneven performance of the different clusters within the sector. First, the bulk of the employment decline in the sector occurred in the M&OE segment – a segment which has seen prolonged weakness in production activities due to low oil prices. The weak performance of precision engineering firms that support the global oil & gas industry also had an adverse impact on employment in the precision engineering cluster. Second, manufacturing output growth in 2016 was concentrated in segments such as semiconductors and pharmaceuticals. In general, the firms in these segments are highly productive, relying heavily on automated manufacturing processes, which allow them to ramp up production significantly without a corresponding increase in manpower.

While the near-term outlook for the manufacturing sector has improved, growth will remain uneven across the manufacturing clusters and segments

The near-term outlook for the manufacturing sector has improved, given the strong momentum seen in the fourth quarter of 2016. However, growth will be uneven across clusters and segments within clusters. Segments such as semiconductors and machinery & systems are likely to continue to expand on the back of healthy global demand for semiconductors and semiconductor manufacturing equipment. Capacity expansions in the semiconductors segment will also provide a further boost to electronics output in 2017. On the other hand, the M&OE segment and to a lesser extent the precision modules & components segment are likely to continue to face headwinds as the oversupply in offshore oil rigs and lacklustre capital spending by major oil players will weigh on external demand. Similarly, continued weak demand for print products and construction-related materials is likely to adversely affect the printing and miscellaneous industries segments of the general manufacturing cluster.

Over the medium term, the manufacturing sector is expected to remain a key pillar of our economy, at around 20 per cent of nominal GDP, in line with the recommendation of the Committee on the Future Economy. In this regard, MTI and EDB will continue to work towards strengthening Singapore's manufacturing base and developing capabilities in areas such as industrial data analytics and advanced manufacturing technologies. These efforts will in turn help to open up new growth opportunities within the sector.

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