MINISTRY OF TRADE AND INDUSTRY SINGAPORE

ECONOMIC SURVEY OF SINGAPORE

THIRD QUARTER 2024

November 2024

Ministry of Trade and Industry
Republic of Singapore

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MAIN INDICATORS OF THE SINGAPORE ECONOMY

OVERALL ECONOMY

	2Q24	3Q24
Real Gross Domestic Product (YoY Growth)	+3.0%	+5.4%
Gross Domestic Product at Current Market Prices	$181.5 billion	$182.8 billion

PRICES

	2Q24	3Q24
Consumer Price Index — All Items (YoY Growth)	+2.8%	+2.2%
Domestic Supply Price Index (YoY Growth)	+3.0%	-2.9%

LABOUR MARKET

	2Q24	3Q24
Change in Employment (QoQ Change)	+15.0 thousand	+26.7 thousand

	Jun24	Sep24
Overall Unemployment Rate	2.0%	1.8%

	2Q24	3Q24
Value-Added per Actual Hour Worked (YoY Growth)	+3.7%	+4.1%

COSTS

	2Q24	3Q24
Unit Labour Cost of Overall Economy (YoY Growth)	+2.8%	+0.9%
Unit Business Cost of Manufacturing (YoY Growth)	+6.3%	-4.3%
Unit Labour Cost of Manufacturing (YoY Growth)	+4.4%	-6.9%

MERCHANDISE TRADE

	2Q24	3Q24
Merchandise Exports	$164,667 million +7.5% YoY Growth	$169,579 million +5.8% YoY Growth
Merchandise Imports	$154,657 million +12.7% YoY Growth	$152,361 million +5.2% YoY Growth

SERVICES TRADE

	2Q24	3Q24
Services Exports	$120,564 million +13.7% YoY Growth	$124,634 million +14.6% YoY Growth
Services Imports	$106,866 million +9.0% YoY Growth	$110,690 million +13.2% YoY Growth

CHAPTER 1

THE SINGAPORE ECONOMY

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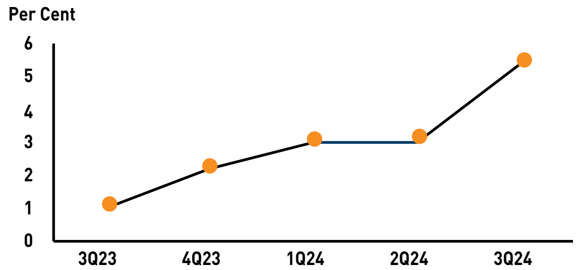
THE SINGAPORE ECONOMY

ECONOMIC PERFORMANCE

Real GDP grew by

5.4% in 3Q24

Quarterly Growth (YoY)



Main Drivers of Growth in 3Q24

Manufacturing

1.9%-point contribution

Wholesale Trade

1.0%-point contribution

LABOUR MARKET

Resident Unemployment Rate

2.6% in September 24

Employment (QoQ Change)

+26,700 employed in 3Q24

Sectors with the Highest Employment Growth in 3Q24

Sector	Employment change
Other Services Industries	+8,200 employed
Construction	+5,800 employed
Administrative & Support Services	+4,300 employed

PRODUCTIVITY

(YoY Growth)

Value-Added per Actual Hour Worked increased by

4.1% in 3Q24

Sectors with the Highest Growth in Value-Added per Actual Hour Worked in 3Q24

Sector	Growth
Manufacturing	12.5%
Information & Communications	8.9%
Transportation & Storage	7.0%

COSTS
(YoY Growth)

Overall Unit Labour Cost increased by

0.9% in 3Q24

Within the Manufacturing Sector

- -4.3% Unit Business Cost
- -6.9% Unit Labour Cost

PRICES
(YoY Growth)

The Consumer Price Index (CPI) rose by

2.2% in 3Q24

Categories with Price Increases

- 3.9% Recreation & Culture
- 3.9% Health Care
- 3.4% Housing & Utilities

INTERNATIONAL TRADE
(YoY Growth)

Total Merchandise Exports increased by

5.8% in 3Q24

EXPORTS

- 9.2% Non-Oil Domestic Exports
- 6.0% Re-Exports
- -0.2% Oil Domestic Exports

Total Services Exports increased by

14.6% in 3Q24

Services Exports increase was led by...

- 10.6%-pt Transport
- 1.7%-pt Other Business Services
- 0.9%-pt Financial Services

OVERVIEW

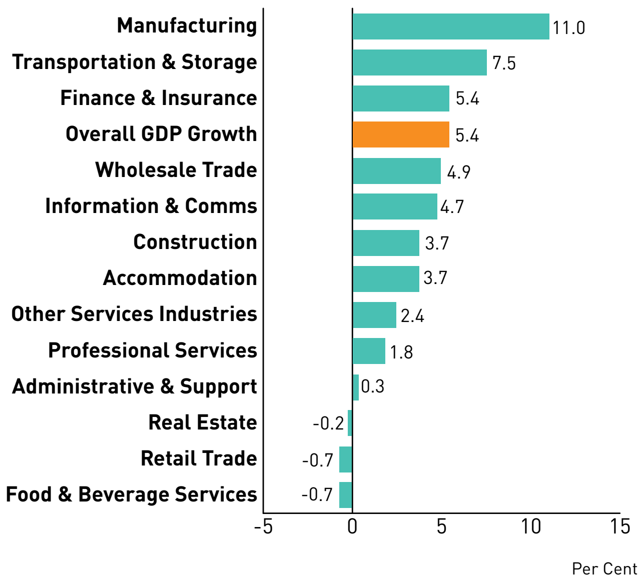
In the third quarter of 2024,

- The Singapore economy grew by 5.4 per cent on a year-on-year basis. The sectors that contributed the most to GDP growth during the quarter were the manufacturing, wholesale trade and finance & insurance sectors.
- The seasonally-adjusted unemployment rates declined at the overall level, for residents and for citizens, alongside a decline in the number of retrenchments over the same period.
- Total employment rose by 26,700 on a quarter-on-quarter basis, extending the gains in the preceding quarter. Excluding Migrant Domestic Workers (MDWs), total employment increased by 24,100 on the back of both resident and non-resident employment gains.
- The Consumer Price Index-All Items (CPI-All Items) rose by 2.2 per cent year-on-year in the third quarter of 2024, moderating from the 2.8 per cent increase in the preceding quarter.

OVERALL PERFORMANCE

The Singapore economy grew by 5.4 per cent on a year-on-year basis in the third quarter of 2024, faster than the 3.0 per cent growth in the previous quarter (Exhibit 1.1). On a quarter-on-quarter seasonally-adjusted basis, the economy grew by 3.2 per cent, accelerating from the 0.5 per cent expansion in the preceding quarter.

Exhibit 1.1: GDP and Sectoral Growth Rates in 3Q 2024



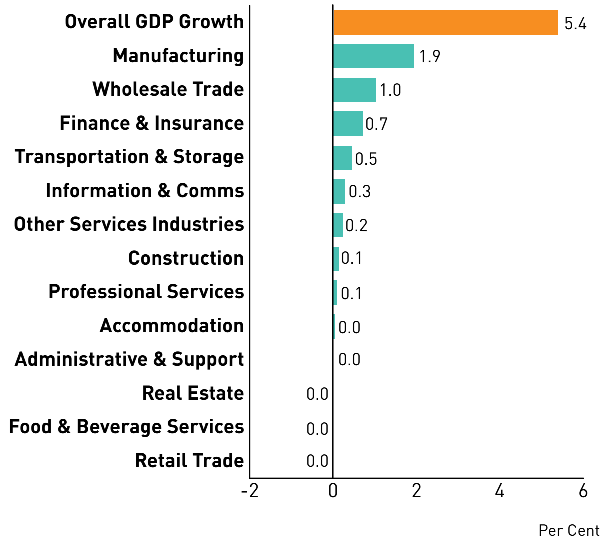
The manufacturing sector expanded by 11.0 per cent year-on-year, a reversal from the 1.1 per cent contraction in the previous quarter. The strong performance of the sector was driven by output expansions in all clusters.

The services producing industries grew by 4.0 per cent year-on-year, extending the 3.7 per cent growth registered in the previous quarter. Growth was supported by expansions in all the services sectors except for the real estate, retail trade and food & beverage services sectors. Among the services sectors that expanded, the transportation & storage (7.5 per cent), finance & insurance (5.4 per cent) and wholesale trade (4.9 per cent) sectors posted the strongest growth.

The construction sector grew by 3.7 per cent year-on-year, following the 4.8 per cent growth in the previous quarter. The sector's growth came on the back of an increase in public sector construction output, which outweighed the decline in private sector construction output.

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

Exhibit 1.2: Percentage-Point Contribution to Growth in Real GDP in 3Q 2024 (By Sector)



SOURCES OF GROWTH

Total demand increased by 8.0 per cent year-on-year in the third quarter of 2024, following the 8.1 per cent increase in the previous quarter (Exhibit 1.3). The growth in total demand was supported by increases in both external and domestic demand during the quarter.

External demand rose by 8.3 per cent year-on-year, picking up from the 7.9 per cent increase in the previous quarter. Meanwhile, domestic demand rose by 7.1 per cent year-on-year, moderating from the 8.8 per cent increase in the preceding quarter.

Within domestic demand, consumption expenditure rose by 6.3 per cent year-on-year, faster than the 5.5 per cent growth in the preceding quarter. The increase in consumption expenditure was supported by both higher private consumption (6.9 per cent) and public consumption (4.5 per cent).

Meanwhile, gross fixed capital formation (GFCF) increased by 2.5 per cent year-on-year, extending the 2.7 per cent expansion in the previous quarter. The increase in GFCF during the quarter was due to increases in both public sector GFCF (8.9 per cent) and private sector GFCF (1.1 per cent). Public sector GFCF rose due to higher investments in public construction & works, transport equipment, machinery & equipment and intellectual property products. Meanwhile, private sector GFCF increased on the back of higher investments in private transport equipment, machinery & equipment and intellectual property products, which more than offset lower investments in private construction & works.

Exhibit 1.3: Changes in Total Demand*

Per Cent

	2023		2024		
	III	IV	I	II	III
Total Demand	-1.4	7.4	5.3	8.1	**8.0**
External Demand	-1.8	11.0	5.6	7.9	**8.3**
Total Domestic Demand	-0.5	-2.9	4.0	8.8	**7.1**
Consumption Expenditure	2.5	2.5	6.3	5.5	**6.3**
Public	4.2	1.1	6.6	2.8	**4.5**
Private	2.0	3.0	6.2	6.2	**6.9**
Gross Fixed Capital Formation	-1.9	3.0	-2.4	2.7	**2.5**
Changes in Inventories	-0.8	-3.4	0.4	2.5	**1.3**

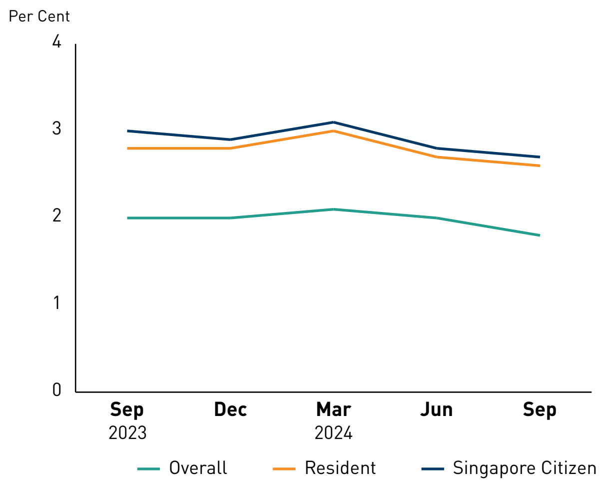
** For inventories, this refers to the contribution to GDP growth.*

LABOUR MARKET

Unemployment and Retrenchment[1]

Compared to June 2024, the seasonally-adjusted unemployment rates in September 2024 declined at the overall level (from 2.0 per cent to 1.8 per cent), for residents (from 2.7 per cent to 2.6 per cent) and for citizens (2.8 per cent to 2.7 per cent) (Exhibit 1.4).

Exhibit 1.4: Unemployment Rate (Seasonally-Adjusted)

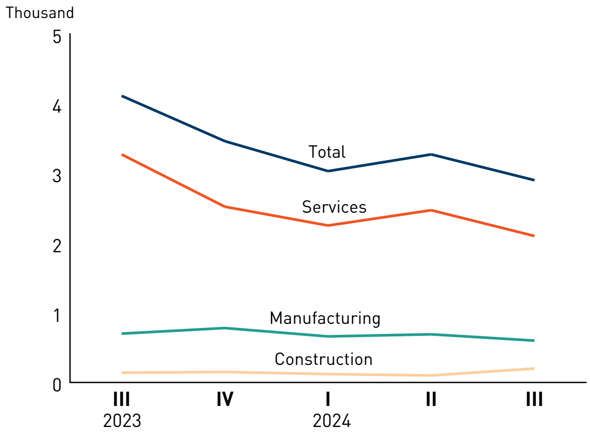


1 *Retrenchment figures pertain to private sector establishments with at least 25 employees and the public sector.*

In September 2024, an estimated 62,500 residents, including 54,900 Singapore citizens, were unemployed. These were lower than the number of unemployed residents (65,700) and citizens (57,100) in June 2024.[2]

Total retrenchments declined to 2,900 in the third quarter of 2024, from 3,270 in the preceding quarter (Exhibit 1.5). Retrenchments rose in the construction sector (from 100 to 200), while retrenchments fell in the services (from 2,470 to 2,100) and manufacturing (from 690 to 600) sectors.

Exhibit 1.5: Retrenchments



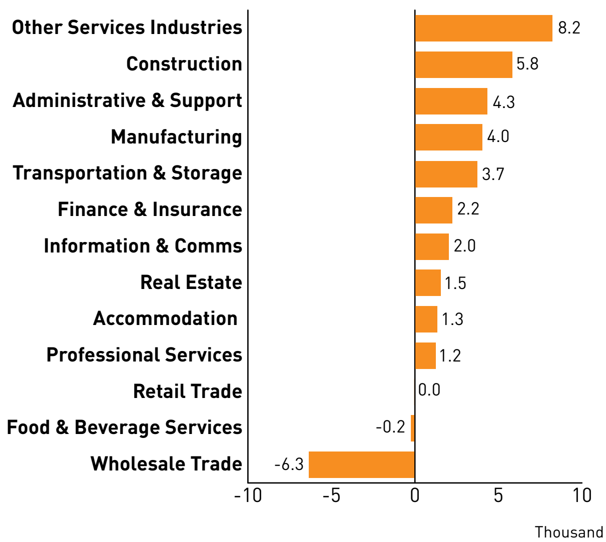
Employment[3]

Total employment expanded by 26,700 on a quarter-on-quarter basis in the third quarter of 2024, extending the gains (+15,000) in the preceding quarter (Exhibit 1.6). Excluding MDWs, total employment rose by 24,100. Employment growth during the quarter was supported by an increase in both resident and non-resident employment.

Total employment growth was led by the services sector (+17,900; or +15,300 excluding MDWs), supported by employment gains in the other services industries (+8,200), administrative & support services (+4,300) and transportation & storage (+3,700) sectors (Exhibit 1.7). Similarly, employment in the construction (+5,800) and manufacturing (+4,000) sectors increased over the same period.

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

Exhibit 1.7: Changes in Employment by Sector in 3Q 2024



2 *Based on seasonally-adjusted data on the number of unemployed persons.*
3 *Based on preliminary estimates.*

Hiring Expectations

According to EDB's latest Business Expectations Survey for the Manufacturing Sector, hiring expectations in the sector were neutral. A majority of manufacturers (a net weighted balance of 82 per cent) expected employment levels in the fourth quarter of 2024 to remain similar to the third quarter. Firms in the computer peripherals & data storage segment of the electronics cluster were the most optimistic, with a net weighted balance of 49 per cent of firms expecting to increase hiring in the fourth quarter. By contrast, firms in the pharmaceuticals segment of the biomedical manufacturing cluster were the most pessimistic, with a net weighted balance of 25 per cent of firms expecting to reduce hiring in the fourth quarter.

Meanwhile, hiring expectations for services firms remained positive, with all industries expecting to boost their hiring activities. According to DOS' latest Business Expectations Survey for the Services Sector, a net weighted balance of 10 per cent of services firms expected to increase hiring in the fourth quarter of 2024 as compared to the third quarter. Among the services sectors, firms in the information & communications and administrative & support services sectors had the strongest hiring sentiments, with a net weighted balance of 20 per cent of firms expecting to increase hiring in the fourth quarter. On the other hand, firms in the transportation & storage and finance & insurance sectors registered the weakest hiring sentiments, with a net weighted balance of 1 per cent of firms expecting to increase hiring in the same time period.

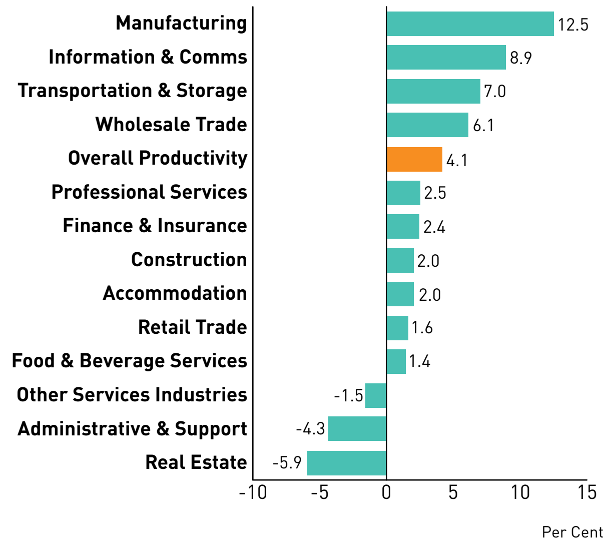
COMPETITIVENESS

Productivity

Overall labour productivity, as measured by real value-added per actual hour worked, rose by 4.1 per cent year-on-year in the third quarter of 2024, faster than the 3.7 per cent increase in the previous quarter (Exhibit 1.8).[4]

Among the sectors, the manufacturing (12.5 per cent), information & communications (8.9 per cent), transportation & storage (7.0 per cent) and wholesale trade (6.1 per cent) sectors saw strong productivity gains. Meanwhile, the professional services (2.5 per cent), finance & insurance (2.4 per cent), construction (2.0 per cent), accommodation (2.0 per cent), retail trade (1.6 per cent) and food & beverage services (1.4 per cent) sectors also saw productivity improvements. By contrast, productivity declines were observed in the real estate (-5.9 per cent), administrative & support services (-4.3 per cent) and other services (-1.5 per cent) sectors.

Exhibit 1.8: Changes in Value-Added per Actual Hour Worked for the Overall Economy and Sectors in 3Q 2024



In the third quarter, the productivity in the outward-oriented sectors as a whole rose by 7.1 per cent year-on-year, faster than the 6.5 per cent increase in the previous quarter.[5] Meanwhile, productivity in the domestically-oriented sectors as a whole declined by 1.0 per cent, a pullback from the 0.2 per cent growth in the preceding quarter.

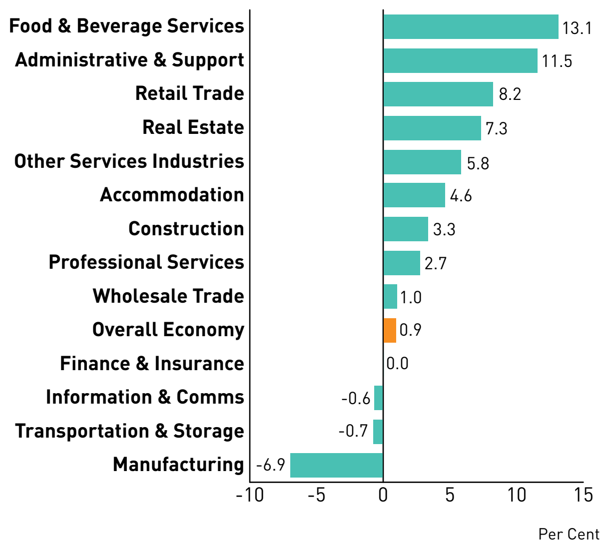
4 *Similarly, overall labour productivity as measured by real value-added per worker, grew by 4.1 per cent in the third quarter of 2024, faster than the 1.6 per cent growth in the preceding quarter.*

5 *Outward-oriented sectors refer to manufacturing, wholesale trade, transportation & storage, accommodation, information & communications, finance & insurance and professional services. Domestically-oriented sectors refer to construction, retail trade, food & beverage services, real estate, administrative & support services and other services industries.*

Unit Labour Cost and Unit Business Cost

Overall unit labour cost (ULC) for the economy rose by 0.9 per cent on a year-on-year basis in the third quarter of 2024 (Exhibit 1.9), moderating from the increase of 2.8 per cent in the preceding quarter. The rise in overall ULC during the quarter was due to an increase in total labour cost per worker which outpaced the rise in labour productivity as measured by real value-added per worker.

Exhibit 1.9: Changes in Unit Labour Cost in 3Q 2024



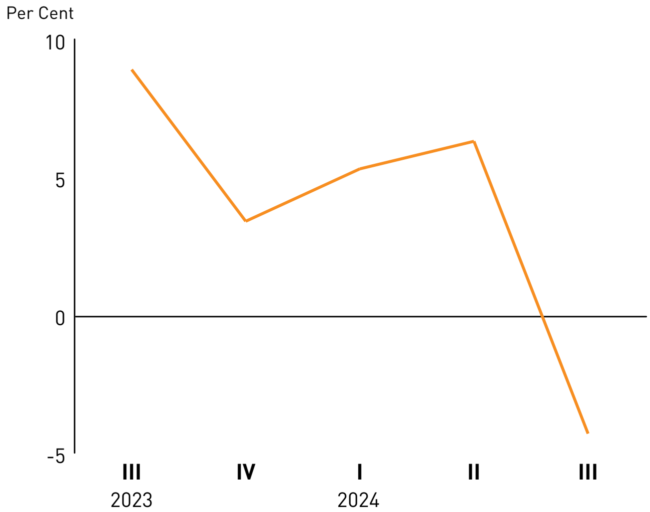
By sectors, the ULC for the construction sector was 3.3 per cent higher year-on-year in the third quarter as the pickup in total labour cost per worker outpaced the rise in labour productivity.

The ULC for services producing industries rose by 2.5 per cent year-on-year. Among the services sectors, ULC increased the most in the food & beverage services sector (13.1 per cent) as the increase in total labour cost per worker was accompanied by a fall in labour productivity. Meanwhile, ULC fell in the transportation & storage sector (-0.7 per cent) as productivity gains more than offset the increase in total labour cost per worker.

Over the same period, the ULC for the manufacturing sector fell by 6.9 per cent year-on-year. The fall in the sector's ULC occurred on the back of labour productivity gains which outpaced the increase in total labour cost per worker.

Unit business cost (UBC) for the manufacturing sector declined by 4.3 per cent on a year-on-year basis in the third quarter of 2024, a reversal from the 6.3 per cent increase in the previous quarter (Exhibit 1.10). The fall in UBC during the quarter was due to the decline in unit services costs (-3.8 per cent) and manufacturing ULC (-6.9 per cent), even as unit non-labour production taxes rose (38.8 per cent).

Exhibit 1.10: Changes in the Manufacturing Unit Business Cost

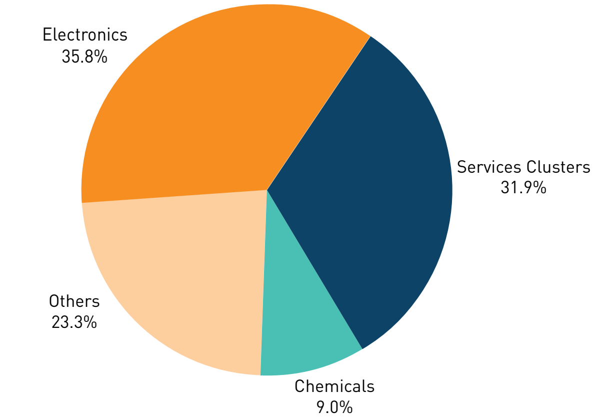


Investment Commitments

Investment commitments garnered by the Economic Development Board (EDB) in terms of Fixed Asset Investments (FAI) and Total Business Expenditure (TBE) amounted to $994 million and $846 million respectively in the third quarter of 2024 (Exhibit 1.11 and Exhibit 1.12).

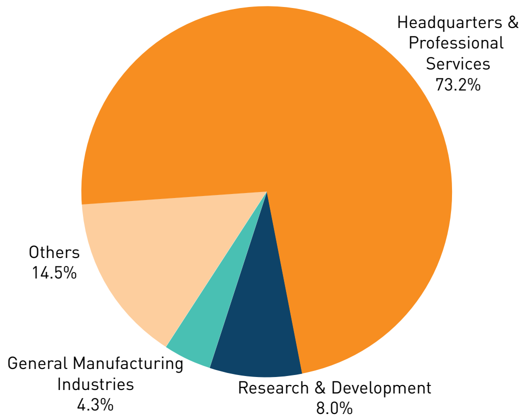
For FAI, the largest contribution came from the manufacturing sector, which attracted $678 million worth of commitments. Within the manufacturing sector, the electronics and chemicals clusters garnered the largest amounts of commitments, at $356 million and $89.8 million respectively. Meanwhile, the headquarters & professional services cluster attracted the most FAI commitments within the services sector, at $219 million. Local investors contributed the most to total FAI, at $599 million (or 60.3 per cent).

Exhibit 1.11: Fixed Asset Investments by Industry Cluster in 3Q 2024



For TBE, the services sector attracted the highest amount of commitments, at $715 million. Within the sector, the headquarters & professional services and research & development clusters garnered the most TBE commitments, at $619 million and $67.9 million respectively. Among the manufacturing clusters, the general manufacturing and chemicals clusters attracted the largest amounts of TBE commitments, at $36.5 million and $27.6 million respectively. Investors from the United States were the largest source of TBE commitments, with commitments of $327 million (or 38.7 per cent).

Exhibit 1.12: Total Business Expenditure by Industry Cluster in 3Q 2024



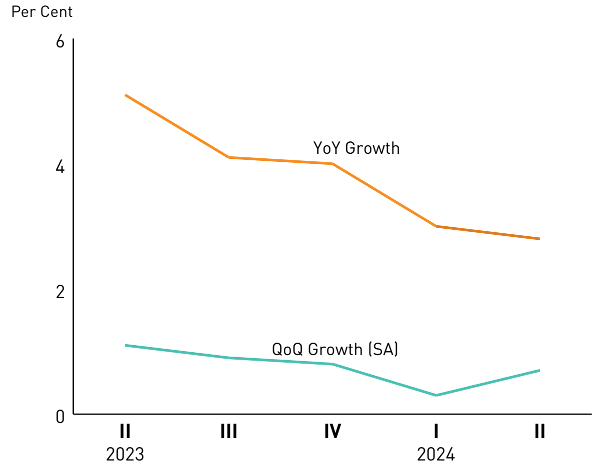
When these projects are fully implemented, they are expected to generate $5.8 billion of value-added and create more than 2,600 jobs in the coming years.

PRICES

Consumer Price Index

The Consumer Price Index-All Items (CPI-All Items) rose by 2.2 per cent on a year-on-year basis in the third quarter of 2024, moderating from the 2.8 per cent increase in the preceding quarter (Exhibit 1.13). On a quarter-on-quarter seasonally-adjusted basis, CPI-All Items inflation came in at 0.3 per cent, slowing from the 0.7 per cent recorded in the previous quarter.

Exhibit 1.13: Changes in CPI



Most CPI categories saw price increases on a year-on-year basis in the third quarter of 2024, thus contributing positively to CPI-All Items inflation during the quarter (Exhibit 1.14). Food prices rose by 2.7 per cent on account of the higher costs of food serving services such as hawker food and restaurant meals, as well as non-cooked food items such as bread & cereals and vegetables. Housing & utilities costs increased by 3.4 per cent as accommodation and electricity costs picked up. Prices of household durables & services went up by 0.5 per cent due to an increase in the prices of domestic & household services. Healthcare costs climbed by 3.9 per cent on the back of an increase in the costs of outpatient and hospital services, as well as health insurance. Transport costs edged up by 0.2 per cent as higher bus & train fares and more expensive point-to-point transport services outweighed lower car prices and airfares. Recreation & culture prices rose by 3.9 per cent because of the higher costs of holiday travel, as well as recreational & cultural services. Education costs picked up by 3.2 per cent due to higher fees at commercial institutions. Prices of miscellaneous goods & services increased by 0.9 per cent as the costs of personal care items rose. By contrast, clothing & footwear prices fell by 1.5 per cent, mainly due to cheaper ready-made garments.

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

Per Cent

	2023		2024		
	III	IV	I	II	III
All items	4.1	4.0	3.0	2.8	**2.2**
Food	4.8	4.0	3.4	2.8	**2.7**
Clothing & Footwear	-0.5	-0.6	-0.2	-1.0	**-1.5**
Housing & Utilities	3.8	3.8	3.3	3.8	**3.4**
Housing Durables & Services	1.8	1.3	1.0	1.2	**0.5**
Healthcare	4.3	5.1	4.7	4.5	**3.9**
Transport	4.9	5.0	1.8	1.4	**0.2**
Communication	3.0	3.8	2.3	0.7	**0.0**
Recreation & Culture	5.3	5.9	4.9	4.7	**3.9**
Education	2.5	2.7	3.3	3.3	**3.2**
Miscellaneous Goods & Services	3.6	2.8	2.4	1.5	**0.9**

INTERNATIONAL TRADE

Merchandise Trade

Singapore's total merchandise trade increased by 5.5 per cent on a year-on-year basis in the third quarter, moderating from the 10.0 per cent expansion in the preceding quarter (Exhibit 1.15). Growth in total merchandise trade was supported by non-oil trade (+8.0 per cent) even as oil trade declined (-4.9 per cent).

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

Per Cent

	2023			2024		
	III	IV	ANN	I	II	III
Merchandise Trade	-16.5	-2.1	-11.7	4.7	10.0	**5.5**
Merchandise Exports	-15.6	0.2	-10.1	4.4	7.5	**5.8**
Domestic Exports	-22.6	-1.7	-13.5	0.3	2.9	**5.5**
Oil	-26.9	-2.1	-14.2	6.0	19.0	**-0.2**
Non-Oil	-19.5	-1.4	-13.1	-3.4	-6.5	**9.2**
Re-Exports	-9.5	1.8	-7.1	7.8	11.5	**6.0**
Merchandise Imports	-17.4	-4.7	-13.4	5.0	12.7	**5.2**
Oil	-25.0	-4.1	-19.0	2.1	16.0	**-7.7**
Non-Oil	-15.2	-4.8	-11.9	5.8	11.9	**8.6**

Total merchandise exports increased by 5.8 per cent in the third quarter, following the 7.5 per cent growth in the preceding quarter. This was due to the increase in both domestic exports (+5.5 per cent) and re-exports (+6.0 per cent).

The growth in domestic exports was due to the increase in non-oil domestic exports (NODX) which outweighed the decline in oil domestic exports. In particular, oil domestic exports decreased by 0.2 per cent. In volume terms, oil domestic exports increased by 15.9 per cent.

Meanwhile, NODX grew by 9.2 per cent in the third quarter, rebounding from the 6.5 per cent decline in the previous quarter. The growth in NODX was due to the increase in both electronics and non-electronics domestic exports.

Total merchandise imports expanded by 5.2 per cent in the third quarter, following the 12.7 per cent growth in the previous quarter. The growth in imports was due to the increase in non-oil imports which outweighed the decline in oil imports. Specifically, non-oil imports increased by 8.6 per cent due to higher electronics and non-electronics imports, while oil imports declined by 7.7 per cent.

Services Trade

Total services trade expanded by 13.9 per cent on a year-on-year basis in the third quarter, picking up from the 11.4 per cent expansion in the previous quarter (Exhibit 1.16). Both the exports and imports of services saw positive year-on-year growth during the quarter.

Services exports climbed by 14.6 per cent in the third quarter, faster than the 13.7 per cent growth in the preceding quarter. The increase in services exports was largely attributable to a pickup in the exports of transport services, other business services and financial services. Meanwhile, services imports rose by 13.2 per cent, up from the 9.0 per cent expansion in the previous quarter. The rise in services imports was largely due to increases in the imports of transport services, travel services and other business services.

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

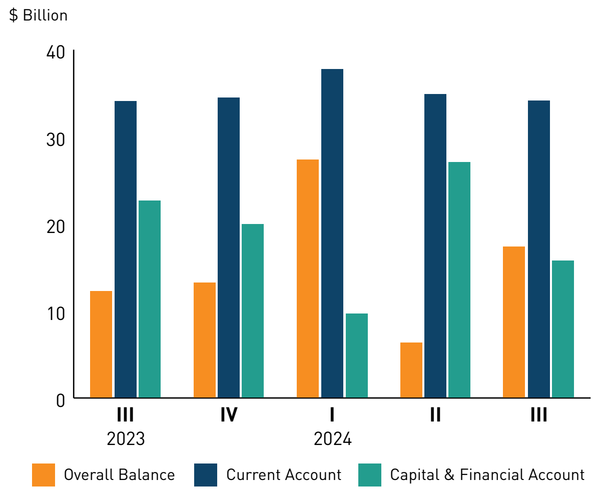
Per Cent

	2023			2024		
	III	IV	ANN	I	II	III
Total Services Trade	-6.9	-2.8	-3.8	5.7	11.4	**13.9**
Services Exports	-7.4	-3.9	-5.1	6.3	13.7	**14.6**
Services Imports	-6.3	-1.5	-2.4	5.0	9.0	**13.2**

BALANCE OF PAYMENTS

Singapore recorded an overall balance of payments surplus of $17.3 billion in the third quarter of 2024, higher than the surplus of $6.3 billion in the preceding quarter (Exhibit 1.17).

Exhibit 1.17: Balance of Payments



Current Account

The current account surplus narrowed to $34.1 billion in the third quarter of 2024, from $34.8 billion in the previous quarter. This was due to a widening of the deficits of the primary and secondary income accounts, which more than offset the increase in the surpluses of the goods and services accounts.

The surplus in the goods account rose by $1.0 billion to $52.5 billion in the third quarter, as goods exports grew while goods imports declined.

Meanwhile, the surplus in the services account increased by $0.2 billion to $13.9 billion in the third quarter. This was mainly due to a decline in net payments for travel services and other business services, as well as an increase in net receipts for maintenance and repair services. Collectively, these more than outweighed the decline in net receipts for transport services and the increase in net payments for the use of intellectual property.

The primary income deficit widened by $1.9 billion to $30.5 billion in the third quarter, as primary income receipts fell while primary income payments rose.

The secondary income deficit widened by $0.1 billion to $1.9 billion in the third quarter, as the decline in secondary income receipts exceeded the fall in secondary income payments.

Capital and Financial Account[6]

The capital and financial account registered a smaller net outflow of $15.7 billion in the third quarter of 2024, compared to $27.0 billion in the preceding quarter. The fall in net outflows was mainly due to smaller net outflows of portfolio investment and "other investment", alongside larger net inflows of financial derivatives. These more than offset the decrease in net inflows of direct investment.

Net outflows of portfolio investment fell to $32.8 billion in the third quarter, from $44.3 billion in the preceding quarter, largely due to reduced net outflows from resident deposit-taking corporations as well as the non-bank private sector.

At the same time, net outflows of "other investment" also declined to $18.9 billion in the third quarter, from $25.4 billion in the previous quarter. The decrease was driven by reduced net outflows from resident deposit-taking corporations and the non-bank private sector.

Meanwhile, net inflows of financial derivatives rose to $6.1 billion in the third quarter, from $0.8 billion in the preceding quarter.

In comparison, net inflows of direct investment edged down to $30.0 billion in the third quarter, from $41.9 billion in the preceding quarter, as foreign direct investments into Singapore fell alongside the increase in residents' direct investments abroad.

6 Net inflows in net balances are indicated by a minus (-) sign. For more details regarding the change in sign convention to the financial account, please refer to DOS's information paper on "Singapore's International Accounts: Methodological Updates and Recent Developments".

Box Article 1.1

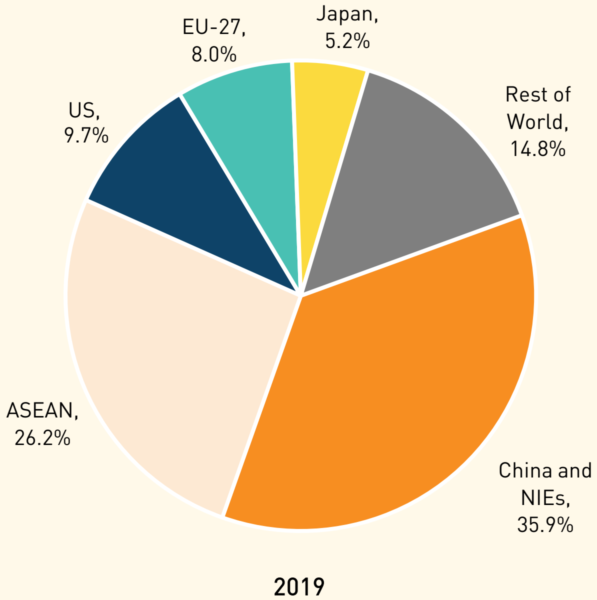
SINGAPORE'S GOODS EXPORTS - DIVERSIFIED FOR A SMALL AND OPEN ECONOMY

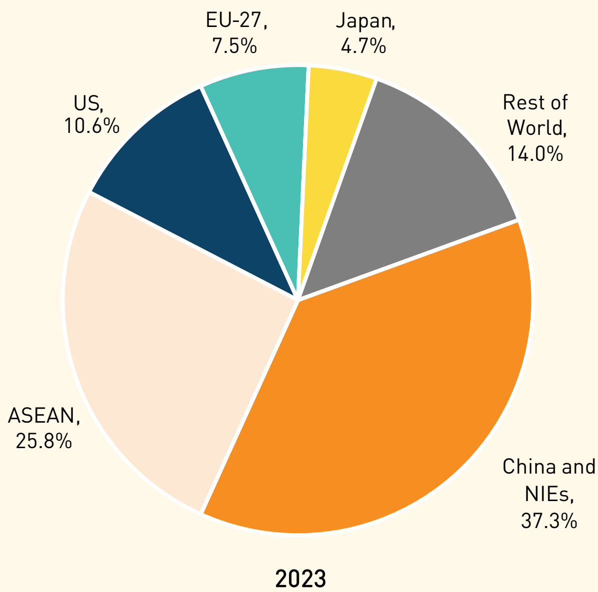
This article examines Singapore's performance in our goods exports, particularly non-oil domestic exports (NODX) and non-oil re-exports (NORX), since 2019. It also deep-dives into the market diversification of our non-oil goods exports in the last two decades.

Singapore's non-oil exports are diversified across markets

Singapore's non-oil exports (comprising both NODX and NORX) rose from S$444.0 billion in 2019 to S$522.5 billion in 2023, representing an annual average growth rate of 4.2 per cent. In 2023, China, Hong Kong, South Korea and Taiwan collectively accounted for slightly more than one-third of Singapore's exports, while ASEAN accounted for about one-quarter. Meanwhile, US' share of Singapore's non-oil exports came in at over 10 per cent, while that for EU-27 and Japan were around 8 per cent and 5 per cent respectively in 2023 (Exhibit 1).[1]

Exhibit 1: Share of Singapore's Non-Oil Exports by Markets, 2019 and 2023





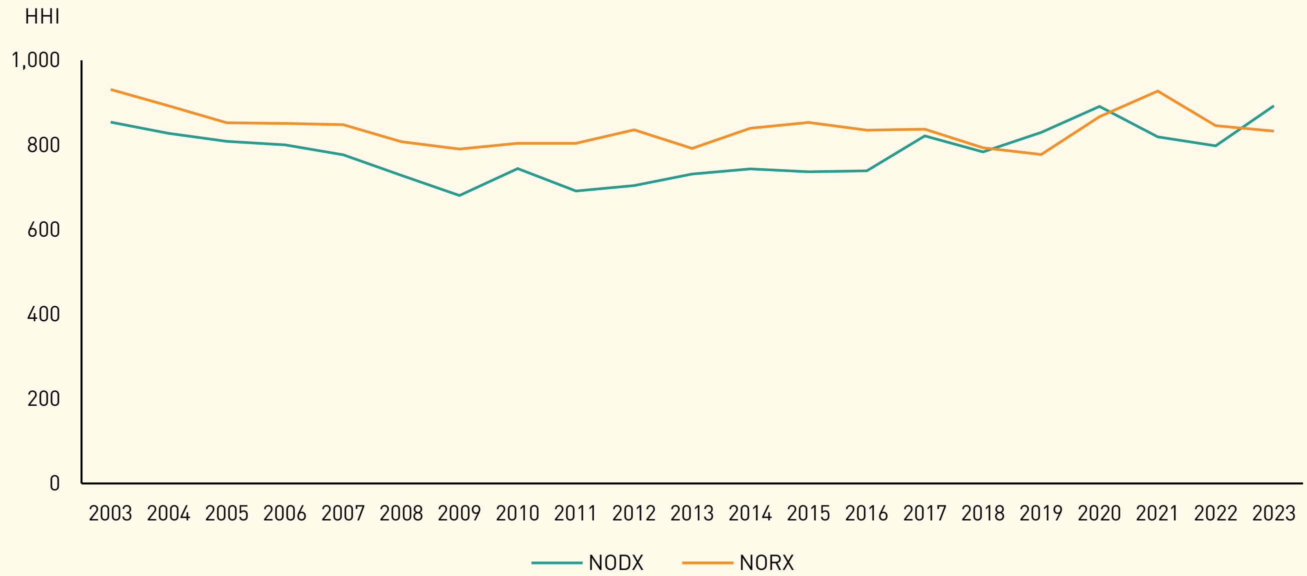
Source: EnterpriseSG

The level of diversification across markets has been relatively stable over the longer term

Singapore's markets for our non-oil exports are well diversified at the overall level. In particular, over the past two decades, the Herfindahl-Hirshman Index (HHI), a measure of market concentration, was consistently below 1,000 for both NODX and NORX (Exhibit 2).[2]

1 Newly-Industrialised Economies (NIEs) refer to Hong Kong, South Korea and Taiwan.
2 The HHI is a measure of market concentration. A HHI of less than 1,500 is considered geographically diversified, 1,500 to 2,500 is moderately diversified, and 2,500 and above is highly concentrated.

Exhibit 2: HHI for Markets of NODX and NORX, 2003 to 2023

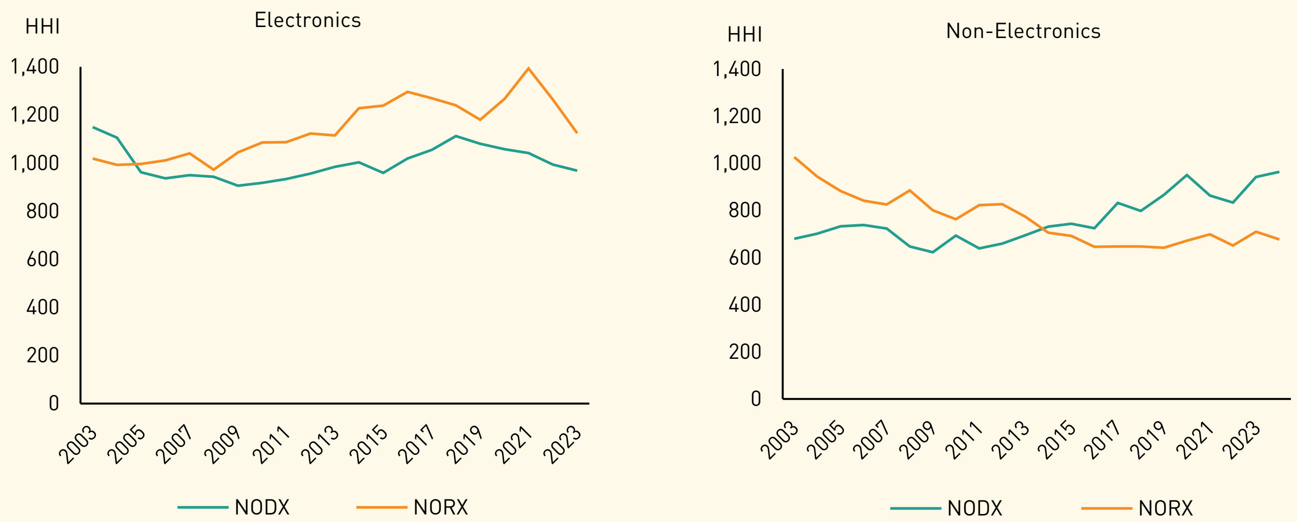


Source: Author's calculations

Singapore serves diverse markets as part of the global production network and as a supply chain hub

The markets for Singapore's non-oil exports are also well diversified at the broad product level. Specifically, the markets for Singapore's electronics exports are generally well diversified, with the HHI consistently below 1,500 for both electronics NODX and electronics NORX (Exhibit 3). For electronics NODX, this reflects the demand from diverse markets for intermediate electronics products manufactured in Singapore[3] as part of the intra-regional production network. As for electronics NORX, this reflects Singapore's capabilities as a global and regional supply chain management hub. Similarly, the markets for our non-oil non-electronics exports are well diversified, with the HHI averaging 760 over the past twenty years (Exhibit 3).

Exhibit 3: HHI for Markets of Singapore's Non-Oil Electronics and Non-Electronics Exports, 2003 to 2023



Source: Author's calculations

3 *Nearly 70% of Singapore's electronics NODX are intermediate products.*

Exports of capital, intermediate and consumption goods are well diversified across markets

We further examine the market diversification of Singapore's non-oil exports by the end-use of the exported products (i.e., as capital goods, intermediate goods or consumption goods)[4]. We find that the markets for our exports of capital goods, intermediate goods and consumption goods are well diversified, with their respective HHIs coming in below 1,000 in 2023 (Exhibit 4). The HHIs of the markets for our electronics exports by end-use types were similarly below 1,500 across the board. However, for pharmaceuticals exports, the HHIs indicate moderate market concentration, reflecting the highly specialised nature of pharmaceutical products.

Exhibit 4: HHI for Markets of Singapore's Non-Oil Exports, 2023

	Capital Goods	Intermediate Goods	Consumption Goods
All Goods	853	885	717
Electronics	756	1,280	1,422
Pharmaceuticals	-	2,143	2,049

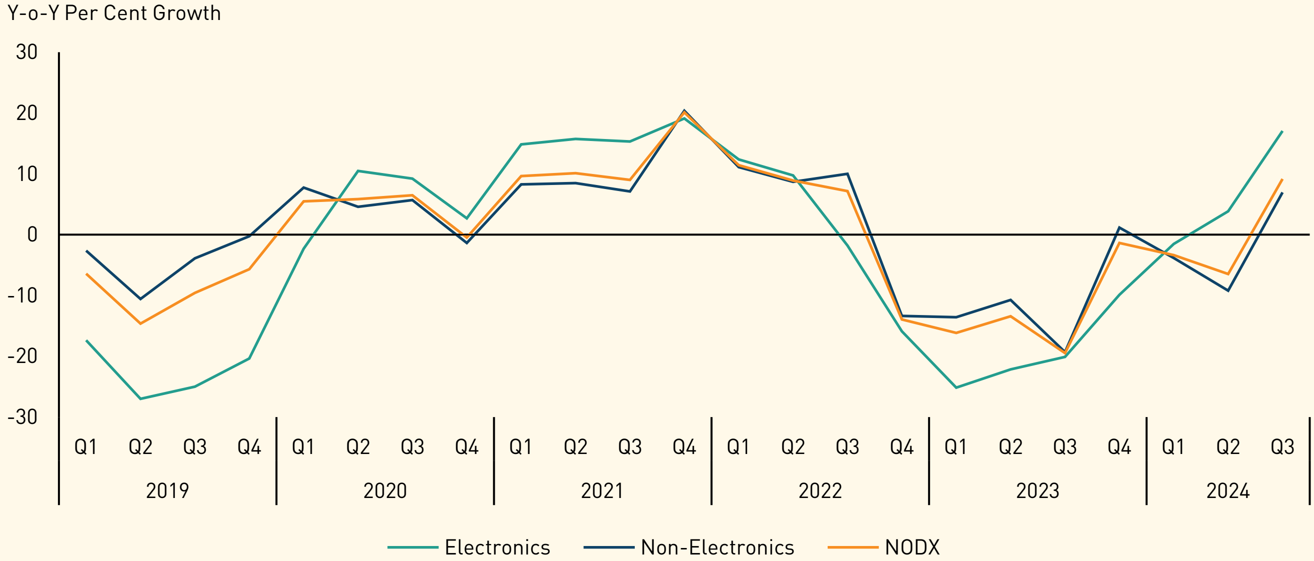
Source: Author's calculations

Having diversified markets for our exports provides buffer amidst global headwinds and sectoral downcycles

Given volatility in global markets, having a diversified portfolio of markets and products for our exports helps to provide some resilience to our exports performance. For example, amidst weakness in manufacturing activity due in part to the global electronics downcycle and global oversupply in chemicals, NODX fell for seven consecutive quarters in year-on-year (y-o-y) terms from 4Q 2022 to 2Q 2024, before posting growth in 3Q 2024 in tandem with the global electronics recovery (Exhibit 5A). Over this period, NODX to key markets such as Taiwan and South Korea declined, even as NODX to markets like China and Hong Kong provided some support. At the same time, NORX helped to mitigate the decline in our non-oil exports by posting growth since 4Q 2023[5] (Exhibit 5B). NORX growth over this period was led by NORX to key markets such as China, Hong Kong, Thailand and Vietnam.

In terms of specific products in electronics NODX, disk media products was the first to pick up in 4Q 2023, driven by exports to Thailand, US and the EU-27 (Exhibit 6). By 1Q 2024, electronics NODX growth had broadened to other electronics products – consisting of ICs, disk media products and PCs – and continued to grow in y-o-y terms in the subsequent quarters to 3Q 2024.

Exhibit 5A: Electronics and Non-Electronics NODX Growth, 1Q 2019 to 3Q 2024

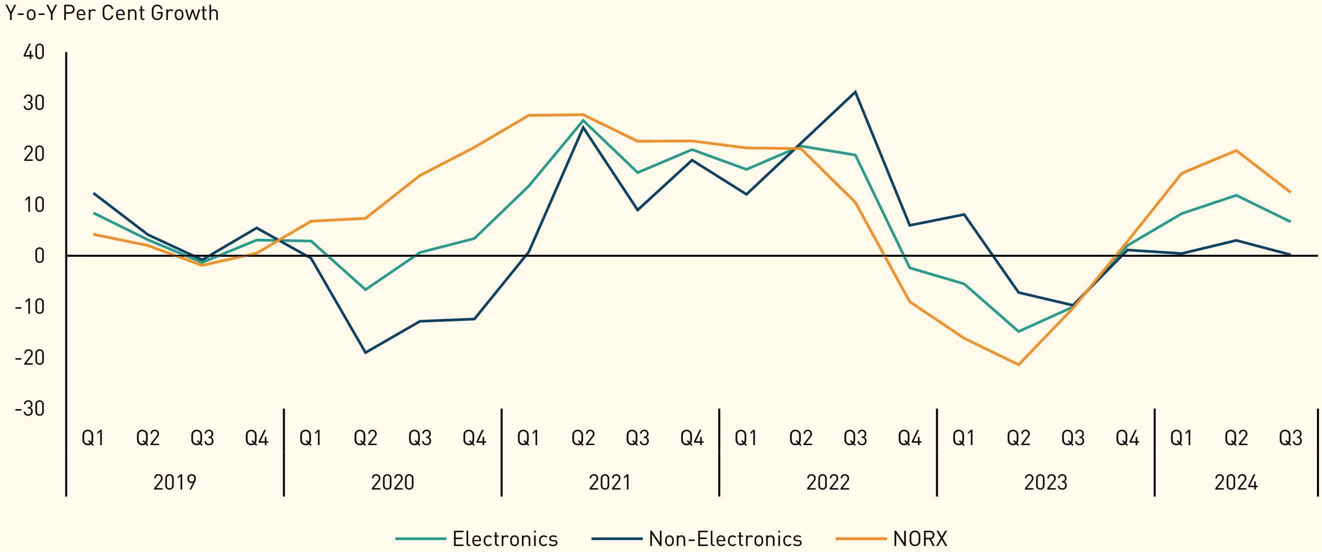


Source: EnterpriseSG

4 *Based on the Broad Economic Categories (BEC) classification developed by the United Nations Statistics Division, the BEC classifies products by three broad end-use categories. Capital goods include fixed assets such as machinery used in production, while intermediate goods are semi-finished goods used to produce the final product. Consumption goods are the end products of the manufacturing process.*

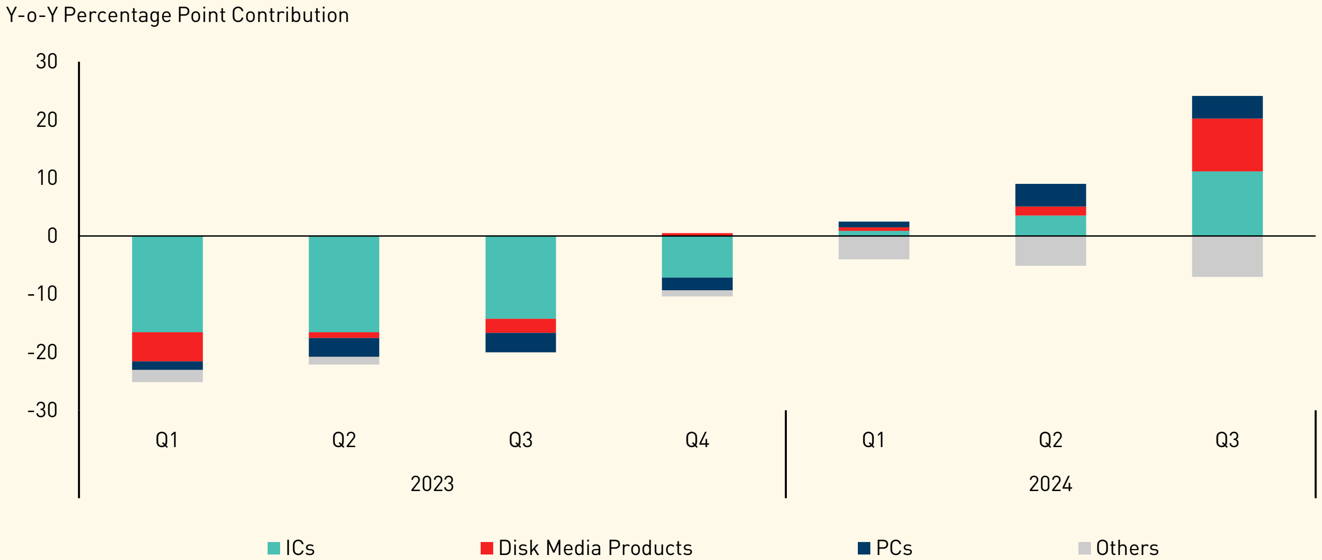
5 *NORX grew by 6.6% y-o-y for the period 4Q 2023 to 3Q 2024.*

Exhibit 5B: Electronics and Non-Electronics NORX Growth, 1Q 2019 to 3Q 2024



Source: EnterpriseSG

Exhibit 6: Electronics NODX Growth by Products, 1Q 2023 to 3Q 2024



Source: EnterpriseSG

Enterprise Singapore will continue to help Singapore companies expand their markets both regionally and globally

As a small and open economy, Singapore's export markets have remained well diversified over the years at both the overall and broad product levels. Enterprise Singapore will continue to support local companies with access to overseas markets and expand their trade regionally as well as globally, further strengthen Singapore's trade connectivity, and explore new ways to deepen economic collaboration with global partners.

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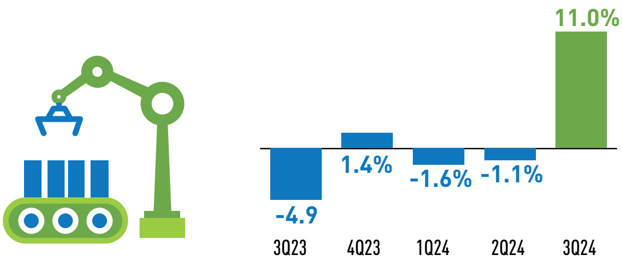
CHAPTER
2

SECTORAL PERFORMANCE

Chapter 2

SECTORAL PERFORMANCE

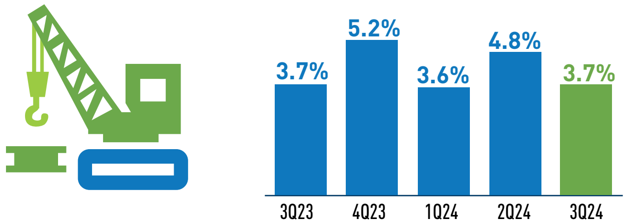
MANUFACTURING
(YoY Growth)



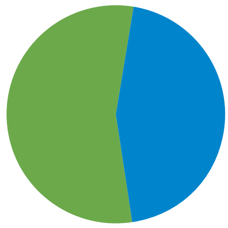
CLUSTERS IN MANUFACTURING SECTOR

Electronics	15.4%
Biomedical Manufacturing	8.8%
Precision Engineering	8.6%
General Manufacturing Industries	6.3%
Chemicals	5.4%
Transport Engineering	5.2%

CONSTRUCTION
(YoY Growth)



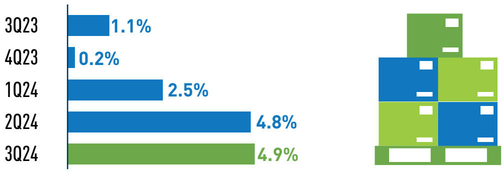
CERTIFIED PAYMENTS
(% Share)



CONTRACTS AWARDED
(YoY Growth)

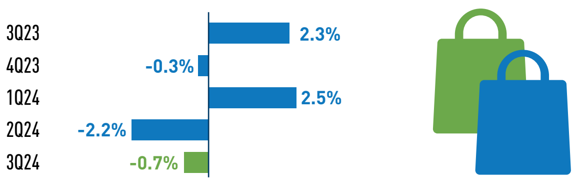
Commercial	Residential	Institutional & Others	Civil Engineering	Industrial
167.1%	78.0%	71.7%	54.8%	-7.3%

WHOLESALE TRADE
(YoY Growth)



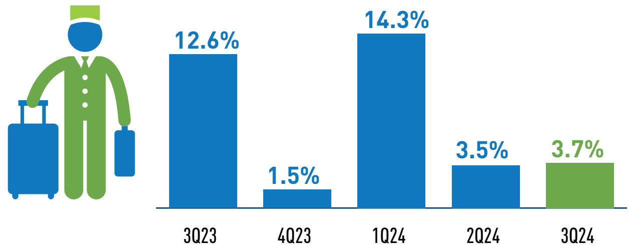
Foreign WTI	Foreign Wholesale Trade Index Growth	10.3%
Domestic WTI	Domestic Wholesale Trade Index Growth	0.5%

RETAIL TRADE
(YoY Growth)



Retail Sales Index Growth (Motor Vehicles)	21.1%
Retail Sales Index Growth (Non-Motor Vehicles)	-3.2%

ACCOMMODATION
(YoY Growth)



OCCUPANCY RATES OF HOTELS
(YoY Change)

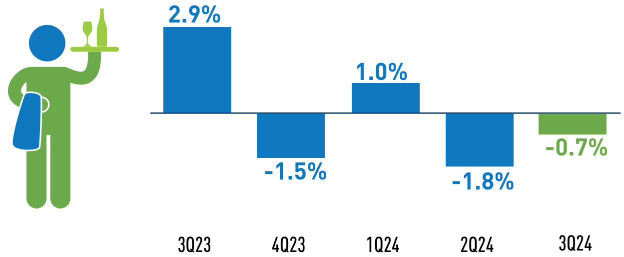
Luxury
-1.9%-pt

Upscale
1.8%-pt

Mid-Tier
1.5%-pt

Economy
-1.1%-pt

FOOD & BEVERAGE SERVICES
(YoY Growth)



FOOD & BEVERAGE SALES INDEX GROWTH
(YoY Growth)

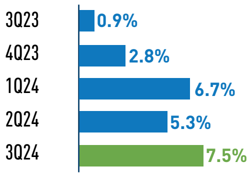
Food Caterers
17.8%

Others
-0.7%

Restaurants
-4.9%

Fast Food Outlets
-6.4%

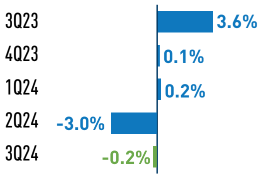
TRANSPORTATION & STORAGE
(YoY Growth)



Total Sea Cargo Handled Growth 3.2%

Air Passengers Handled Growth 10.1%

REAL ESTATE
(YoY Growth)

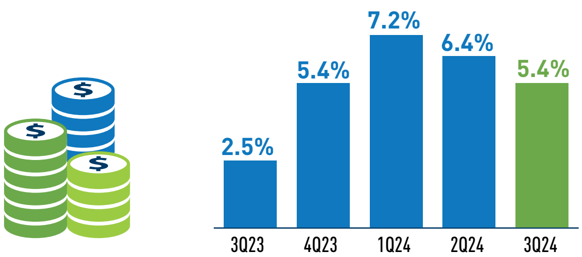


PRIVATE RESIDENTIAL REAL ESTATE

Certified Payments (YoY Growth) 4.7%

Units Transacted (YoY Growth) 3.3%

FINANCE & INSURANCE
(YoY Growth)



OVERVIEW

In the third quarter of 2024,

- The manufacturing sector expanded by 11.0 per cent year-on-year, reversing the 1.1 per cent decline in the preceding quarter. Growth in the sector was supported by output expansions across all clusters.
- The construction sector grew by 3.7 per cent year-on-year, moderating from the 4.8 per cent expansion in the previous quarter.
- The wholesale trade sector expanded by 4.9 per cent year-on-year, extending the 4.8 per cent expansion posted in the preceding quarter.
- The retail trade sector contracted by 0.7 per cent year-on-year, extending the 2.2 per cent decline recorded in the previous quarter.
- The transportation & storage sector posted growth of 7.5 per cent year-on-year, picking up from the 5.3 per cent growth recorded in the previous quarter.
- The accommodation sector expanded by 3.7 per cent year-on-year, extending the 3.5 per cent growth in the previous quarter.
- The food & beverage services sector contracted by 0.7 per cent year-on-year, moderating from the 1.8 per cent decline in the previous quarter.
- The finance & insurance sector expanded by 5.4 per cent year-on-year, extending the 6.4 per cent gain in the preceding quarter.
- The real estate sector contracted by 0.2 per cent year-on-year, extending the 3.0 per cent contraction in the preceding quarter.
- The professional services sector grew by 1.8 per cent year-on-year, extending the 1.9 per cent expansion in the previous quarter.

MANUFACTURING

The manufacturing sector expanded by 11.0 per cent on a year-on-year basis in the third quarter of 2024, reversing the 1.1 per cent decline in the previous quarter (Exhibit 2.1). All clusters in the manufacturing sector recorded output expansions during the quarter. (Exhibit 2.2).

Exhibit 2.1: Manufacturing Sector's Growth Rate

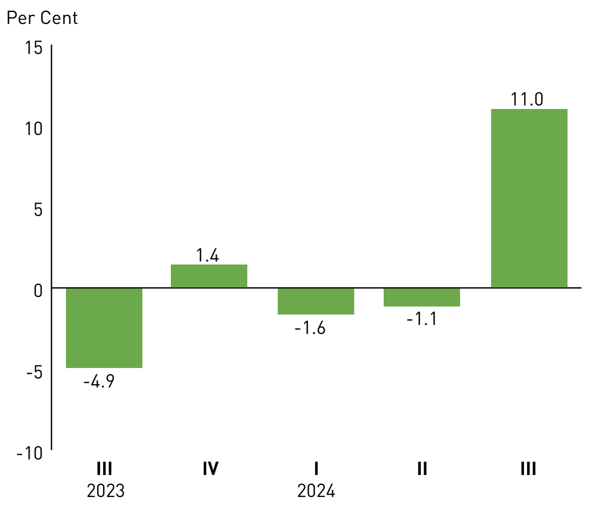
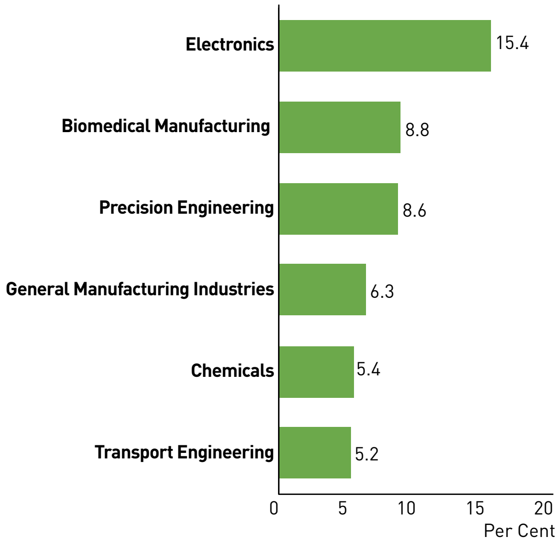


Exhibit 2.2: Manufacturing Clusters' Growth Rates in 3Q 2024



The electronics cluster grew by 15.4 per cent year-on-year in the third quarter, supported by output expansions in all segments except for the infocomms & consumer electronics segment. In particular, the computer peripherals & data storage, semiconductors and other electronic modules & components segments grew by 26.2 per cent, 16.6 per cent and 10.0 per cent respectively, on the back of improved electronics demand. By contrast, the output of the infocomms & consumer electronics segment declined by 4.6 per cent.

Output of the biomedical manufacturing cluster increased by 8.8 per cent year-on-year in the third quarter, supported by the pharmaceuticals segment. The pharmaceuticals segment expanded by 25.9 per cent on account of a higher level of production of biological products and a different mix of active pharmaceutical ingredients (APIs) being produced. Conversely, the output of the medical technology segment declined by 6.0 per cent on the back of lower export demand for medical devices.

The precision engineering cluster grew by 8.6 per cent year-on-year in the third quarter, driven by output expansions in both the machinery & systems (M&S) and precision modules & components (PMC) segments. The M&S segment grew by 10.1 per cent on account of higher output of front-end semiconductor equipment. The PMC segment expanded by 3.3 per cent, led by higher production of plastic precision components and electronic connectors.

Output of the general manufacturing cluster grew by 6.3 per cent year-on-year in the third quarter. Growth was largely supported by the food, beverages & tobacco segment, which expanded by 10.2 per cent on account of a higher production of beverage concentrates, milk powder and cocoa products. Meanwhile, the miscellaneous industries and printing segments grew by 1.3 per cent and 1.2 per cent respectively, with the former recording a higher production of batteries and construction-related materials.

The chemicals cluster grew 5.4 per cent year-on-year in the third quarter, supported by output expansions in all segments except the petroleum segment. The specialties segment expanded 17.8 per cent on account of a higher level of production of food additives and biofuels. The petrochemicals segment increased by 7.0 per cent, due in part to the low base a year ago when production was weighed down by plant maintenance shutdowns. The other chemicals segment grew by 5.3 per cent with a higher level of production of fragrances. Conversely, the output of the petroleum segment declined by 1.8 per cent.

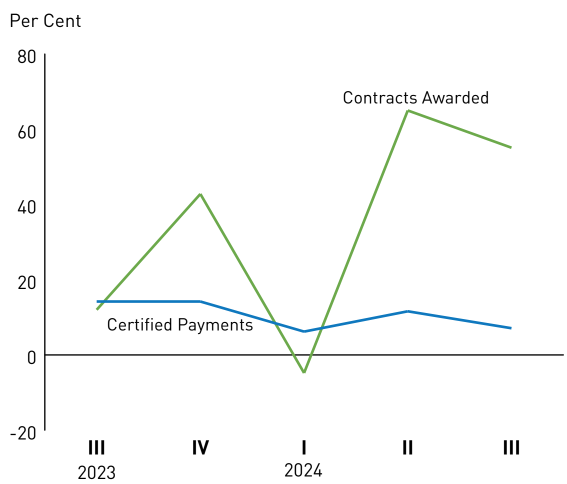
The transport engineering cluster grew by 5.2 per cent year-on-year in the third quarter, supported by expansions in the land (18.9 per cent) and aerospace (10.0 per cent) segments. Growth in the aerospace segment was bolstered by strong demand for aircraft parts and more maintenance, repair and overhaul (MRO) jobs from commercial airlines. By contrast, the marine & offshore engineering (M&OE) segment declined by 6.1 per cent on the back of fewer project milestones met.

CONSTRUCTION

The construction sector grew by 3.7 per cent year-on-year in the third quarter of 2024, moderating from the 4.8 per cent expansion in the previous quarter.

In the third quarter, nominal certified progress payments, a proxy for construction output, rose by 7.1 per cent year-on-year, easing from the 11.6 per cent increase recorded in the previous quarter (Exhibit 2.3). The increase in certified progress payments in the public sector (19.9 per cent) outweighed its decline in the private sector (-5.2 per cent). The growth in public certified progress payments was largely driven by higher outturns in public civil engineering (18.9 per cent) and residential (17.9 per cent) building works. Meanwhile, the contraction in private certified progress payments was led by the decline in private industrial (-16.4 per cent) and commercial (-4.1 per cent) building works, which more than offset the growth in private residential building (4.7 per cent) and civil engineering (10.5 per cent) works.

Exhibit 2.3: Changes in Contracts Awarded and Certified Payments



Construction demand in terms of contracts awarded rose by 55.1 per cent year-on-year in the third quarter, extending the 65.0 per cent expansion in the previous quarter (Exhibit 2.3). The growth in contracts awarded during the quarter was on account of higher public (65.1 per cent) and private (42.7 per cent) sector construction demand. The former was led by an increase in contracts awarded for public institutional & others building (70.4 per cent) and civil engineering (58.3 per cent) works, while the latter was led by an expansion in contracts awarded for private commercial (168 per cent) and residential (91.7 per cent) building works.

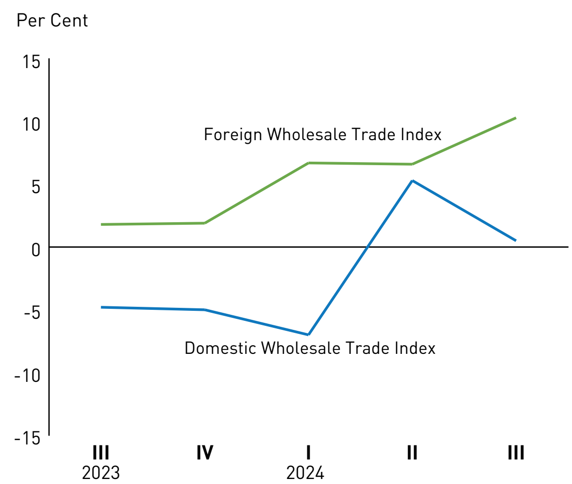
WHOLESALE TRADE

The wholesale trade sector grew by 4.9 per cent year-on-year in the third quarter of 2024, extending the 4.8 per cent expansion in the previous quarter.

The expansion in the sector was led by a 10.3 per cent year-on-year growth in foreign wholesale trade sales volume over the same period (Exhibit 2.4), accelerating from the 6.6 per cent expansion recorded in the previous quarter. The increase was led by expansions in the sales volumes of petroleum & petroleum products (9.6 per cent), metals, timber & construction materials (13.7 per cent) and telecommunications & computers (17.8 per cent), which more than offset declines in the sales volumes of ship chandlers & bunkering (-15.0 per cent) and industrial & construction machinery (-7.6 per cent).

On the other hand, the domestic wholesale trade sales volume expanded by 0.5 per cent year-on-year, easing from the 5.3 per cent growth in the previous quarter. The expansion was led by the increase in sales volume of metals, timber & construction materials (74.7 per cent), ship chandlers & bunkering (17.8 per cent) and telecommunications & computers (11.2 per cent), which outweighed the decline in wholesale sales of petroleum & petroleum products (-11.2 per cent) and electronic components (-16.7 per cent).

Exhibit 2.4: Changes in Wholesale Trade Index in Chained Volume Terms

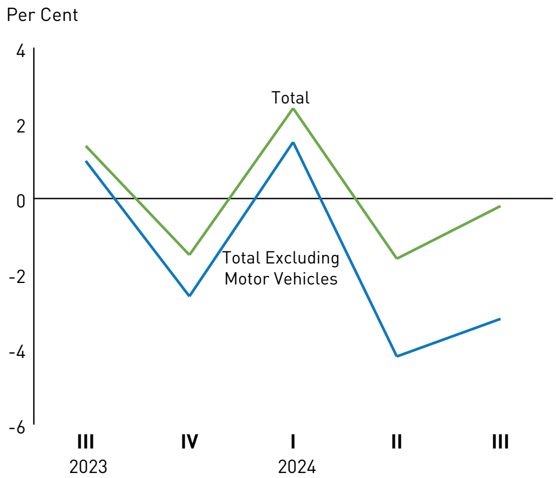


RETAIL TRADE

The retail trade sector contracted by 0.7 per cent year-on-year in the third quarter of 2024, extending the 2.2 per cent decline recorded in the previous quarter.

In the third quarter, overall retail sales volume contracted by 0.2 per cent year-on-year, extending the 1.6 per cent decline in the preceding quarter (Exhibit 2.5). The decline in overall retail sales volume in the third quarter of 2024 was driven by a drop in non-motor vehicular sales (-3.2 per cent), led by wearing apparel & footwear (-6.9 per cent) and watches & jewellery (-10.7 per cent) segments even as the food & alcohol (3.9 per cent), cosmetics, toiletries & medical goods (1.6 per cent) and supermarkets & hypermarkets (1.5 per cent) segments grew. Meanwhile, motor vehicle sales volumes grew (21.1 per cent).

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

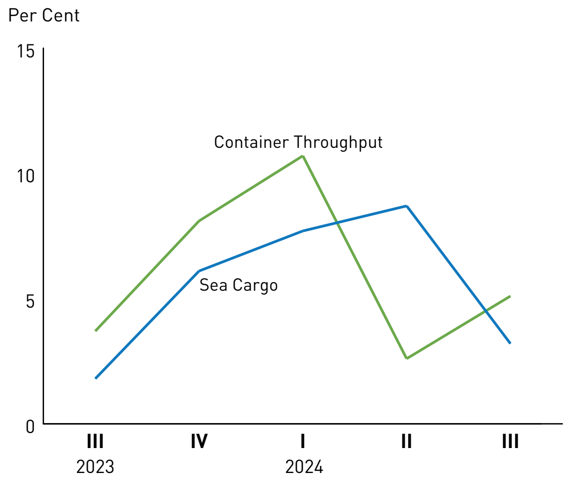


TRANSPORTATION & STORAGE

The transportation & storage sector expanded by 7.5 per cent year-on-year in the third quarter of 2024, picking up from the 5.3 per cent growth posted in the previous quarter. The water transport, air transport and land transport segments expanded during the quarter.

In the water transport segment, the volume of sea cargo handled grew by 3.2 per cent year-on-year in the third quarter, moderating from the 8.7 per cent expansion in the previous quarter (Exhibit 2.6). The expansion in sea cargo volume handled was due to the increase in general cargo (5.8 per cent), which more than offset the declines in bulk cargo (-1.7 per cent) and oil-in-bulk cargo volumes (-8.2 per cent). At the same time, container throughput grew by 5.1 per cent during the quarter.

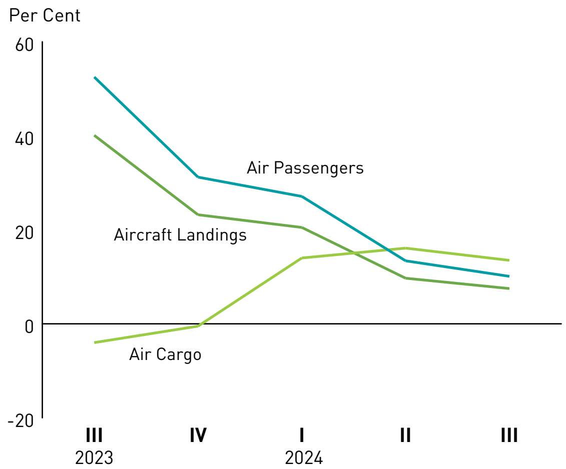
Exhibit 2.6: Changes in Container Throughput and Sea Cargo Handled



Meanwhile, the air transport segment posted strong growth in the third quarter. In particular, the volume of air passenger traffic (less transit) handled at Changi Airport rose by 10.1 per cent year-on-year in the third quarter, easing slightly from the 13.4 per cent growth posted in the previous quarter (Exhibit 2.7). Air passenger traffic volume was slightly below its pre-COVID level (i.e., third quarter of 2019) by 2.5 per cent in the third quarter.

Reflecting the growth in air travel, the number of aircraft landings increased by 7.5 per cent year-on-year to reach 46,026 in the third quarter of 2024, moderating from the 9.7 per cent increase in the preceding quarter. Meanwhile, total air cargo shipments handled at Changi Airport rose by 13.5 per cent in the third quarter, extending the 16.1 per cent expansion in the previous quarter.

Exhibit 2.7: Changes in Air Transport



ACCOMMODATION

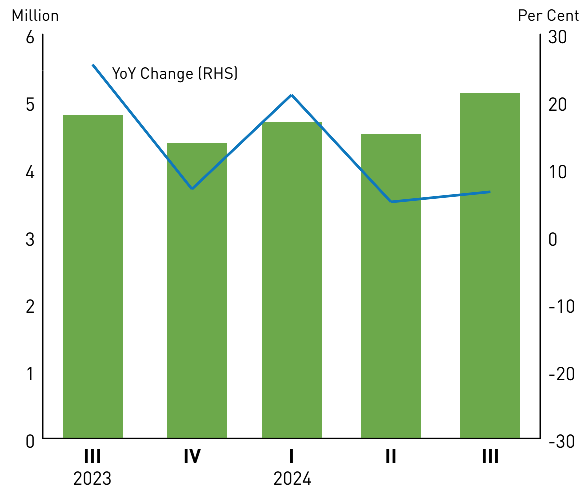
The accommodation sector expanded by 3.7 per cent year-on-year in the third quarter of 2024, extending the 3.5 per cent growth in the previous quarter.

In the third quarter, total visitor arrivals grew by 14.2 per cent year-on-year, extending the 14.8 per cent growth in the previous quarter (Exhibit 2.8). In level terms, the number of visitor arrivals in the third quarter of 2024 was around 4.4 million, reaching 88.2 per cent of the 5.0 million visitor arrivals recorded in the third quarter of 2019 (i.e., pre-COVID level).

Exhibit 2.8: Visitor Arrivals

Reflecting the recovery in visitor arrivals, gross lettings at gazetted hotels grew by 6.6 per cent year-on-year in the third quarter, picking up from the 5.1 per cent increase in the previous quarter (Exhibit 2.9). Meanwhile, the average occupancy rate of gazetted hotels increased marginally by 0.4 percentage-points year-on-year to 87.1 per cent in the third quarter of 2024. This was an improvement over the 78.4 per cent recorded in the previous quarter.

Exhibit 2.9: Gross Lettings at Gazetted Hotels

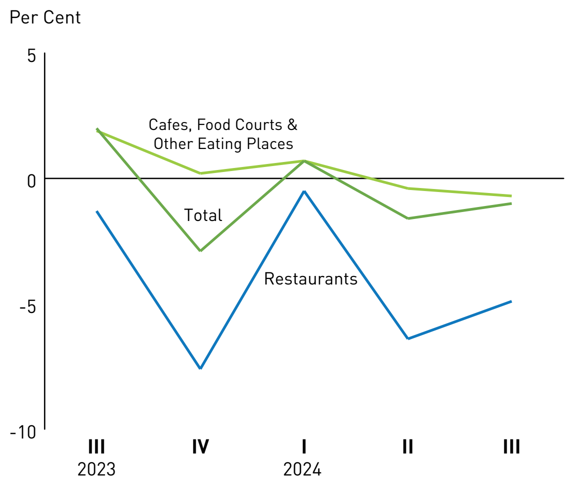


FOOD & BEVERAGE SERVICES

The food & beverage services sector contracted by 0.7 per cent year-on-year in the third quarter of 2024, moderating from the 1.8 per cent decline in the previous quarter.

Overall food & beverage sales volume contracted by 1.0 per cent year-on-year in the third quarter, extending the 1.6 per cent decline in the previous quarter (Exhibit 2.10). The decline in food & beverage sales volume was led by restaurants (-4.9 per cent) and fast food outlets (-6.4 per cent) segments. On the other hand, the sales volume of food caterers segment grew (17.8 per cent).

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



FINANCE & INSURANCE

The finance & insurance sector expanded by 5.4 per cent year-on-year, extending the 6.4 per cent gain in the preceding quarter.

The strong outturn was underpinned by robust growth in net fee and commission incomes of the banks, fund management, forex and security dealing activities segments. This was in turn driven by stronger trading activity amid heightened financial market volatility. In particular, net fees and commissions supported growth for the banks segment, even as overall credit intermediation remained sluggish. While loans to residents grew by 2.7 per cent year-on-year in the third quarter on the back of stronger corporate lending, loans to non-residents contracted by 2.0 per cent, weighed down by lending to East Asia and the Americas (Exhibit 2.12).

Exhibit 2.11: Growth of Bank Loans & Advances to Non-Bank Residents by Industry in 3Q 2024

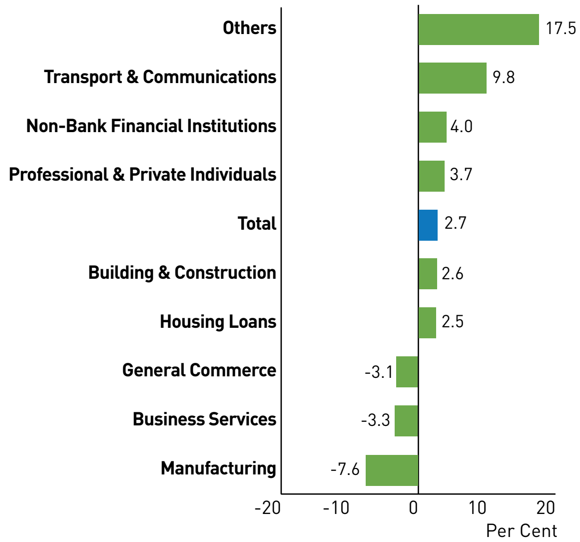
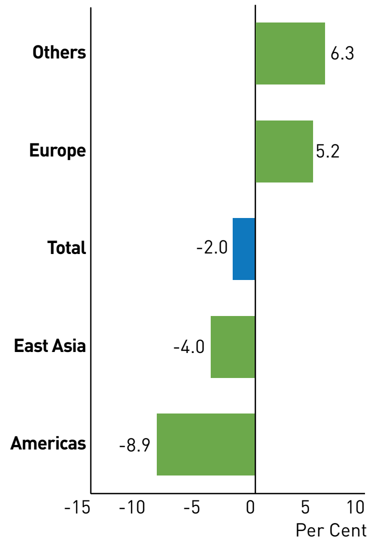


Exhibit 2.12: Growth of Bank Loans & Advances to Non-Bank Non-Residents by Region in 3Q 2024



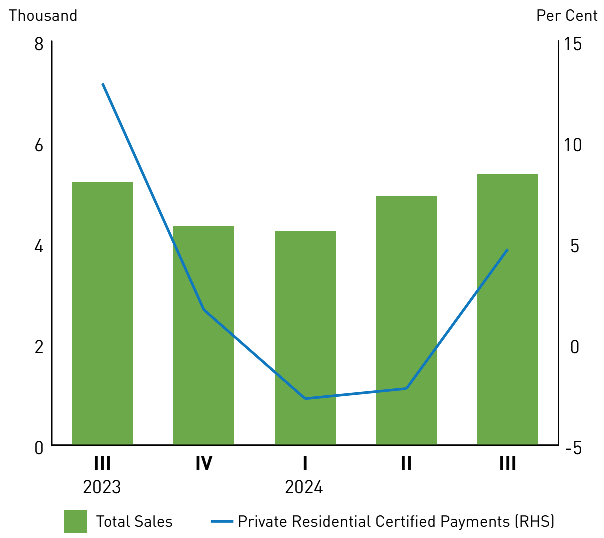
Meanwhile, the insurance segment benefited from a surge in net premiums earned by life insurers. The other auxiliary activities segment, comprising mainly the payments players, also grew as cross-border transactions increased alongside firm travel spending and recovery in trade activity.

REAL ESTATE

The real estate sector contracted by 0.2 per cent year-on-year in the third quarter of 2024, extending the 3.0 per cent contraction in the preceding quarter. The weakness of the sector was due to contractions in the public commercial office property segment.

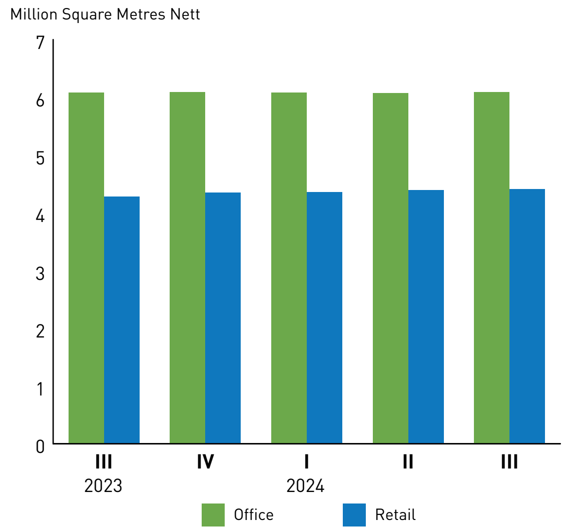
Within the sector, private residential certified payments[1] grew by 4.7 per cent year-on-year in the third quarter, reversing the 2.2 per cent contraction in the previous quarter. Similarly, total private residential property sales rose by 3.3 per cent in the third quarter, reversing the 8.8 per cent fall in the previous quarter. (Exhibit 2.13).

Exhibit 2.13: Total Sales for Private Residential Units and Private Residential Certified Payments



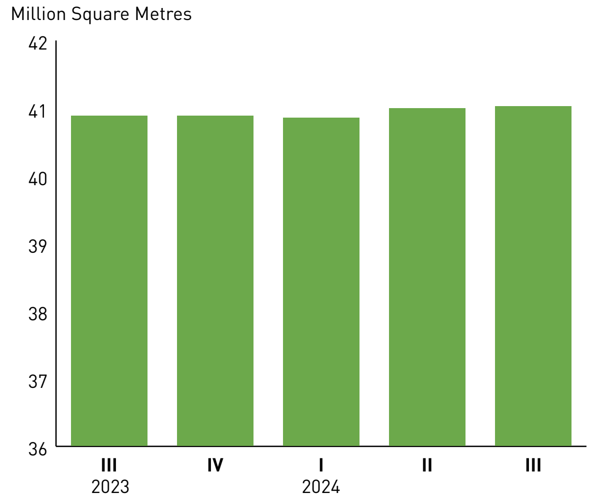
In the public commercial office space market, demand, as measured by total occupied space, fell by 1.2 per cent on a year-on-year basis in the third quarter of 2024, extending the 0.7 per cent decline in the previous quarter. Meanwhile, demand for private commercial office space was tepid, rising by 0.2 per cent in the third quarter, unchanged from the 0.2 per cent increase in the preceding quarter. On the other hand, in the private commercial retail space market, demand rose by 2.8 per cent on a year-on-year basis in the third quarter, continuing the 2.4 per cent expansion in the previous quarter (Exhibit 2.14).

Exhibit 2.14: Total Occupied Space for Private Sector Commercial Office and Retail Spaces



Within the private industrial space market, demand rose by 0.3 per cent on a year-on-year basis in the third quarter, following the 0.6 per cent increase in the preceding quarter (Exhibit 2.15).

Exhibit 2.15: Total Occupied Space for Private Sector Industrial Space



1 *Private residential certified payments is a proxy for the growth of the private residential property segment.*

PROFESSIONAL SERVICES

In the third quarter of 2024, the professional services sector grew by 1.8 per cent year-on-year, extending the 1.9 per cent expansion in the previous quarter. Growth was led by expansions in the head offices & business representative offices and the management consultancy segments.[2]

2 The professional services sector is made up of the following segments: (i) legal, (ii) accounting, (iii) head offices & business representative offices, (iv) management consultancy activities, (v) architectural & engineering, technical testing & analysis, and (vi) other professional, scientific & technical services.

CHAPTER

3

ECONOMIC OUTLOOK

Chapter 3

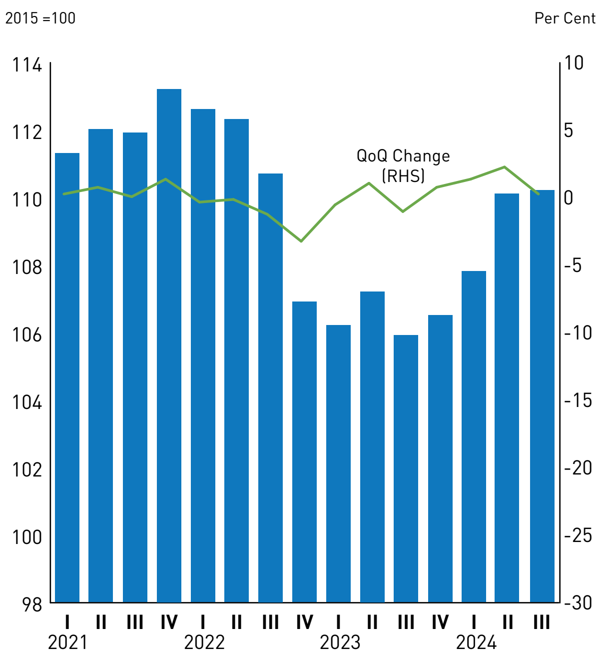
ECONOMIC OUTLOOK

LEADING INDICATORS

On a quarter-on-quarter basis, the composite leading index (CLI) rose marginally by 0.1 per cent in the third quarter of 2024, slower than the 2.1 per cent expansion in the previous quarter (Exhibit 3.1).

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

Exhibit 3.1: Composite Leading Index Levels and Growth Rate



OUTLOOK FOR 2024

Since the Economic Survey of Singapore in August, major economies such as the US and Eurozone, as well as some regional economies such as Malaysia, performed better than projected in the third quarter of 2024, mainly due to stronger-than-expected consumption growth in the respective economies. Meanwhile, China's GDP growth continued to slow in line with expectations over the same period.

For the rest of the year, US' GDP growth is expected to moderate as consumption growth weakens in tandem with gradually easing labour market conditions. GDP growth in the Eurozone is also projected to be modest, weighed down by subdued industrial activity and investments. By contrast, China's economy is projected to pick up slightly on the back of government support measures that were recently announced.

On balance, Singapore's overall external demand outlook is expected to remain resilient for the rest of 2024. This, coupled with the ongoing recovery in global electronics demand, should support growth in Singapore's manufacturing sector as well as outward-oriented services sectors such as the wholesale trade sector. On the other hand, the outlook for tourism-related and consumer-facing sectors such as the accommodation, retail trade and food & beverage services sectors has weakened given the slower-than-expected recovery in IVA and sluggish tourist spending.

Taking into account the better-than-expected performance of the Singapore economy in the first three quarters of the year (i.e., 3.8 per cent year-on-year), as well as the latest global and domestic situations, **MTI has upgraded the GDP growth forecast for 2024 to "around 3.5 per cent", from "2.0 to 3.0 per cent".**

OUTLOOK FOR 2025

Looking ahead to 2025, overall GDP growth in Singapore's key trading partners is expected to ease slightly from 2024's level. In particular, GDP growth in the US is likely to moderate due to an expected slowdown in consumption growth as labour market conditions continue to ease, although investment growth should provide some support. By contrast, GDP growth in the Eurozone is likely to pick up on the back of stronger consumption growth and a gradual recovery in investments as monetary policy becomes more accommodative.

In Asia, China's GDP growth is projected to moderate in line with weaker exports growth due to tariff hikes that have already been announced. However, the slowdown in economic growth is likely to be cushioned by a modest recovery in domestic consumption as consumer sentiments improve alongside a stabilisation of the property market. Meanwhile, key Southeast Asian economies should see steady growth, driven in part by the upswing in global electronics demand.

Nonetheless, global economic uncertainties have increased, including uncertainty over the policies of the incoming US administration, with the risks tilted to the downside. First, a further escalation of geopolitical conflicts, including in the Middle East, and trade tensions among major economies could lead to higher oil prices and production costs, as well as greater policy uncertainty. In turn, this could lead to a decline in global investment and trade, and weigh on global growth. Second, disruptions to the global disinflation process could lead to tighter financial conditions for longer and the desynchronisation of monetary policies across economies, potentially triggering latent vulnerabilities in financial systems.

Against this backdrop, the growth outlook of the manufacturing and trade-related services sectors in Singapore remains positive. In particular, the electronics cluster is projected to continue its expansion, supported by strong demand for semiconductor chips in end-markets such as PCs and smartphones amidst the PC refresh cycle and rollout of Artificial Intelligence (AI)-capable devices. This will have positive spillover effects on the precision engineering cluster and the machinery, equipment & supplies segment of the wholesale trade sector. At the same time, firm order books in the aerospace and marine & offshore engineering segments should drive growth in the transport engineering cluster.

Similarly, outward-oriented services sectors such as the information & communications and finance & insurance sectors are projected to register healthy growth on account of sustained enterprise demand for digital solutions and services and favourable financial conditions amidst global policy rate cuts, respectively. Meanwhile, tourism-related sectors like the accommodation sector will benefit from the continued recovery in IVA. On the other hand, growth in consumer-facing sectors such as the retail trade and food & beverage services sectors is likely to remain weighed down by increased local outbound travel.

Taking these factors into account, and barring the materialisation of downside risks, the Singapore economy is expected to grow by **"1.0 to 3.0 per cent"** in 2025.

FEATURE ARTICLE

IMPACT OF SKILLSFUTURE WORK-STUDY PROGRAMME ON WAGE OUTCOMES OF PARTICIPANTS


HSBC

Feature Article

IMPACT OF SKILLSFUTURE WORK-STUDY PROGRAMME ON WAGE OUTCOMES OF PARTICIPANTS

OVERVIEW

The SkillsFuture (SSG) Work-Study Programme (WSP) (previously called the Earn and Learn Programme) offers graduates from polytechnics and the Institute of Technical Education (ITE) the opportunity to upgrade to a higher qualification, while working in a job role that is related to their field of study. In this study, we examine the wage outcomes of participants in the Work-Study Post-Diploma (WSPostDip) and Work-Study Certificate (WSCert) programmes against that of polytechnic or ITE graduates who transited straight into employment.

FINDINGS

WSPostDip and WSCert graduates from the 2018 to 2021 WSP graduating cohorts enjoyed a wage premium over their polytechnic and ITE peers who transited straight into employment after graduation.

Finding 1:

Compared to polytechnic graduates with similar profiles who went straight into employment, WSPostDip graduates enjoyed a wage premium of around 9 per cent one to two years after programme completion, and continued to see a premium of around 6 per cent in the subsequent two years.

WSPostDip Graduates Wage Premium

1 to 2 years after	9%
2 to 4 years after	6%

Finding 2:

Compared to ITE graduates with similar profiles who went straight into employment, WSCert graduates enjoyed a wage premium of around 11 per cent one to two years after programme completion, with the premium sustained over the subsequent two years.

WSCert Graduates Wage Premium

1 to 2 years after	11%
2 to 4 years after	11%

POLICY TAKEAWAY

This study finds that the SkillsFuture WSP has been useful in improving the wage outcomes of polytechnic and ITE graduates. Going forward, the Ministry of Education will continue to work with sector agencies and the Institutes of Higher Learning to expand and enhance the work-study pathway, especially for in-demand job roles and skillsets.

EXECUTIVE SUMMARY

- The SkillsFuture (SSG) Work-Study Programme (WSP) offers graduates from polytechnics and the Institute of Technical Education (ITE) the opportunity to upgrade to a higher qualification, while working in a job role that is related to their field of study. This is done through a combination of classroom learning and on-the-job training with participating employers. In this study, we examine the wage outcomes of participants in the Work-Study Post-Diploma (WSPostDip) and Work-Study Certificate (WSCert) programmes against that of polytechnic or ITE graduates who transited straight into employment.

- Our findings suggest that WSPostDip and WSCert graduates from the 2018 to 2021 WSP graduating cohorts enjoyed a wage premium over their polytechnic and ITE peers who transited straight into employment after graduation. Specifically, compared to polytechnic graduates with similar profiles who went straight into employment, WSPostDip graduates enjoyed a wage premium of around 9 per cent one to two years after programme completion, and continued to see a premium of around 6 per cent in the subsequent two years. Meanwhile, compared to ITE graduates with similar profiles who went straight into employment, WSCert graduates enjoyed a wage premium of around 11 per cent one to two years after programme completion, with the premium sustained over the subsequent two years. Taken together, these findings suggest that the WSPostDip and WSCert programmes helped participants to deepen their skills and accumulate human capital that employers valued.

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), Ministry of Education (MOE), SkillsFuture Singapore (SSG), or the Government of Singapore.[1]

INTRODUCTION

The SkillsFuture (SSG) Work-Study Programme (WSP), previously called the Earn and Learn Programme, is an alternative upskilling pathway that aims to give graduates from polytechnics and the Institute of Technical Education (ITE) a head-start in their careers. A place-and-train programme, WSP provides its participants with opportunities to deepen their skillsets and gain work experience while attaining industry-recognised qualifications. Under the WSP, individuals are placed with employers where they work full-time and draw a competitive salary even as they undergo on-the-job training and classroom learning. At the end of the WSP, individuals obtain a diploma or industry-recognised certification, depending on the WSP pathway and course of study chosen.

A key programme under the WSP is the Work-Study Post-Diploma (WSPostDip), which is a 12- to 18-month long programme introduced in 2015 that allows polytechnic graduates to obtain an advanced or specialist diploma. Another key programme is the Work-Study Certificate (WSCert), a 12- to 18-month long programme introduced in 2016 that enables ITE graduates[2] to obtain an industry-recognised certificate, which can subsequently count towards a part-time diploma if the WSCert participants choose to complete additional modules after WSCert completion.

WSP participation is voluntary for both individuals and employers. Individuals successfully placed on the WSP receive a sign-on incentive of $5,000, while participating employers receive a grant of up to $15,000 per emplaced WSP participant to defray training and wage costs. The WSP is typically available to fresh graduates within the first three years of their graduation from polytechnic or ITE for females, and within three years of completing National Service for males. Individuals are only eligible to take up a WSP in an area relevant to their prior polytechnic or ITE field of study.

This study compares the wage outcomes of participants in the WSPostDip and WSCert programmes against those of polytechnic and ITE graduates who chose to transit straight into employment after graduation.

The rest of the article is organised as follows. We first review the literature on the returns to education and firm-based training. We then describe the data and methodology used in the study before reporting the results. The last section concludes.

1 *We would like to thank Ms Yong Yik Wei, Dr Andy Feng, Mr Lee Zen Wea, Dr Gwee Yi Jie, Dr Tan Yi Jin, and Dr Siddharth George for their useful suggestions and comments, as well as MOE and SSG for their inputs to this study. All remaining errors belong to the authors.*

2 *Although polytechnic graduates are eligible for the WSCert programme, this study was not able to examine the wage outcomes of polytechnic graduates who completed the WSCert programme due to the small sample size.*

LITERATURE REVIEW

Firm-based place-and-train programmes such as the WSP may affect wages through various channels. A key channel is human capital accumulation. Specifically, trainees' improved skills through education and training could translate to better on-the-job productivity and consequently, a sustained rise in wages. A second channel is signalling (Spence, 1973; Weiss, 1995; Altonji & Pierret, 1996), which posits that higher levels of education are associated with higher starting wages because employers use education as a signal of applicants' initially unobservable characteristics such as ability and motivation. In line with this theory, firms may be willing to pay a premium for education credentials when workers are first hired. However, over time, as employers learn more about a worker's true productivity from his job performance, the signalling effect should attenuate. As such, a wage premium that is sustained over the longer term is likely to be driven by human capital accumulation rather than signalling effects.

The empirical literature consistently shows positive wage returns to education and firm-based training. For example, studies overseas have found positive wage premia from pursuing an undergraduate degree (Brewer et al., 1999; O'Leary & Sloane, 2005) and firm-based apprenticeships/training programmes (Vignoles et al., 2004; Monk et al., 2008). Studies in Singapore have found similar evidence. For instance, an earlier study by MTI (Lam et al., 2024) found a positive wage premium for graduates from the Autonomous Universities. A separate MTI study (Suhaiemi & Ong, 2019) on WSP (known then as the Earn and Learn programme) found that WSPostDip participants earned higher wages both during and immediately after the programme compared to their polytechnic peers who transited directly into employment.

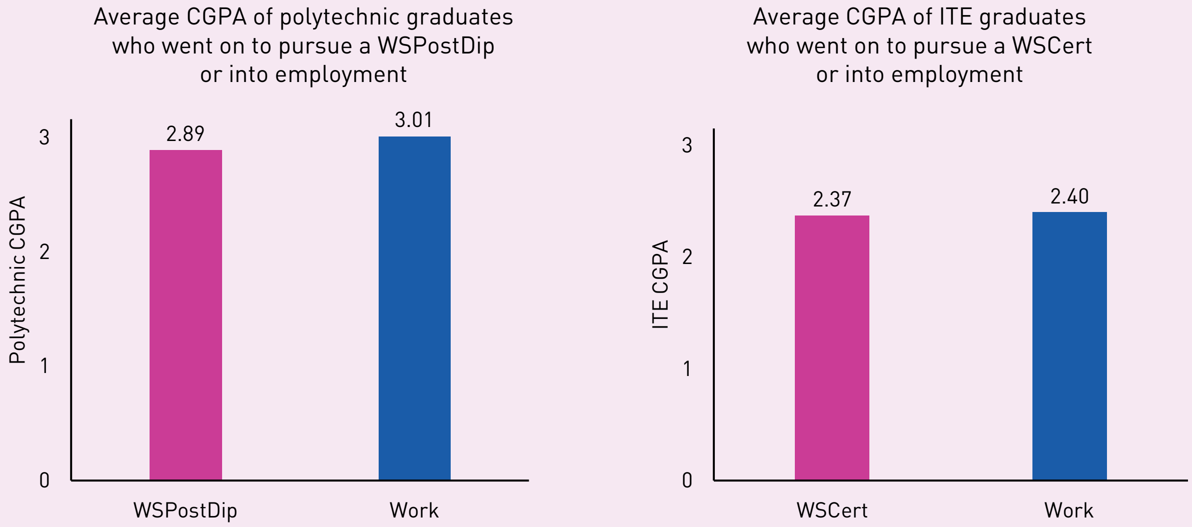
In this study, we extend the earlier MTI study on WSP in two ways. First, while the previous study examined WSPostDip cohorts from 2016 and 2017 when the programme was still nascent[3], this study focuses on the WSPostDip cohorts from 2018 to 2021 and examines their outcomes over a longer post-WSP period. Second, this study examines the wage outcomes of ITE graduates who participated in the WSCert programme, which was not covered in the earlier study.

DATA

We merged WSP participant data from SSG with individual-level administrative data to conduct our analysis. The merged dataset contains demographic characteristics in addition to polytechnic and ITE graduation data for the WSP cohorts who graduated from 2018 to 2021.[4] In total, the dataset includes 1,795 WSPostDip and 749 WSCert participants.

Based on the data, WSP participants tended to take slightly over a year to complete the WSPostDip and WSCert programmes, with an average duration of 13 and 15 months respectively. The data also showed that WSP participants and their peers who went straight into employment had broadly similar cumulative grade point averages (CGPA) in polytechnic/ITE prior to them embarking on their respective pathways (Exhibit 1).[5]

Exhibit 1: Prior CGPAs of WSP Participants and their Peers



Source: Authors' estimates, based on data from MOE and SSG

3 As a result, the earlier study had a much smaller sample size of about 480 WSPostDip participants from the 2016 and 2017 cohorts.

4 This study excludes the WSPostDip participants who were examined in the previous study.

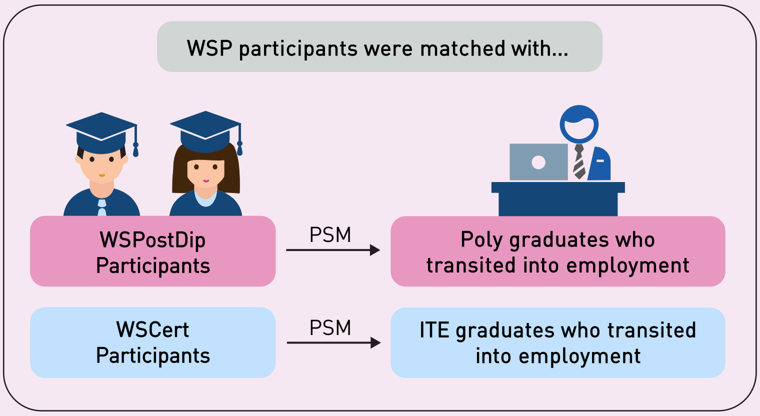
5 We did not compare WSP participants with polytechnic and ITE graduates who subsequently enrolled in an Autonomous University (AU) or polytechnic. This is because the average polytechnic CGPA of WSPostDip participants was lower than the polytechnic CGPA of polytechnic students admitted into the AUs in 2022 and 2023 at the 10th percentile level, which made them less comparable to the polytechnic graduates who went on to AUs. In the same vein, the average ITE CGPA of WSCert participants generally did not meet the CGPA standards required for admission into local polytechnics. Specifically, the minimum ITE CGPA required to apply for a placement in a local polytechnic was 3.5 for Nitec holders and 2.0 for Higher Nitec qualification holders.

EMPIRICAL METHODOLOGY

Even though WSP participants and their peers who went straight into employment were similar in their average grades in polytechnic/ITE, they may still differ in terms of other characteristics. A naïve post-programme comparison between the WSP participants and those who transited directly into employment may thus result in biased estimates of the impact of WSP on their wage outcomes.

To enable a more robust comparison of the wage outcomes, we employed one-to-one nearest neighbour propensity score matching (PSM) on the observable characteristics of the different groups of individuals to improve their comparability (Exhibit 2). These characteristics included individuals' prior CGPA, year of birth, polytechnic institution (if applicable), year of polytechnic/ITE enrolment and graduation, polytechnic/ITE course of study, and an indicator of whether they had worked when they were studying in polytechnic/ITE. PSM helped to reduce the observable differences between the WSP participants and those who went straight into employment.

Exhibit 2: Using PSM to Create Comparable Groups



For the WSPostDip programme, we estimated the wage returns of WSPostDip participants compared to the baseline group of PSM-matched polytechnic graduates who transited straight into employment using the following regression:

$$\ln(wage_{it}) = \beta_0 + \beta_1(duringWSP_{it} \times i.period_{it}) + \beta_2(postWSP_{it} \times i.period_{it}) + \alpha_i + \delta_{it} + \gamma_t + \varepsilon_{it}$$

Where:

- $\ln(wage_{it})$ is the log-transformed wage of individual i in time t;
- $duringWSP_{it}$ is a dummy variable that takes on a value of 1 in the year-months that individual i is participating in the WSPostDip programme, and 0 otherwise;
- $postWSP_{it}$ is a dummy variable that takes on a value of 1 in the year-months after individual i has graduated from the WSPostDip programme, and 0 otherwise;
- $i.period_{it}$ is a vector of indicator variables for the number of months during- (or post-) WSP for individual i in time t;
- α_i denotes a vector of time-invariant individual characteristics that affect the wages of individual i (i.e., gender, year of polytechnic graduation, polytechnic CGPA, and polytechnic course of study prior to WSP/work);
- δ_{it} denotes controls that affect the wages of individual i on a time-varying basis (i.e., age, year of polytechnic graduation dummies interacted with calendar time dummies, and separate indicators for private education institution (PEI) enrolment and graduation interacted with event time dummies[6]);
- γ_t denotes time-fixed effects which capture the changes in macroeconomic conditions that affect individuals' wages (i.e., calendar time dummies, and year dummies); and
- ε_{it} is the error term that captures the unobservable factors that affect individual wages.

6 *We included PEI enrolment and graduation dummies to ensure that the wage effect from obtaining a PEI degree or PEI diploma by non-WSP participants would not confound our estimate of the WSP wage premium.*

The coefficients of interest, β_1 and β_2, reflect the estimated average monthly wage premium of WSP participants during- and post-WSP, relative to polytechnic graduates who transited straight into employment.

For the WSCert programme, we used the same regression specification with an appropriate change in variables (i.e., polytechnic control variables were replaced by ITE control variables) to estimate the wage returns of WSCert participants against the baseline group of PSM-matched ITE graduates who transited directly into employment.

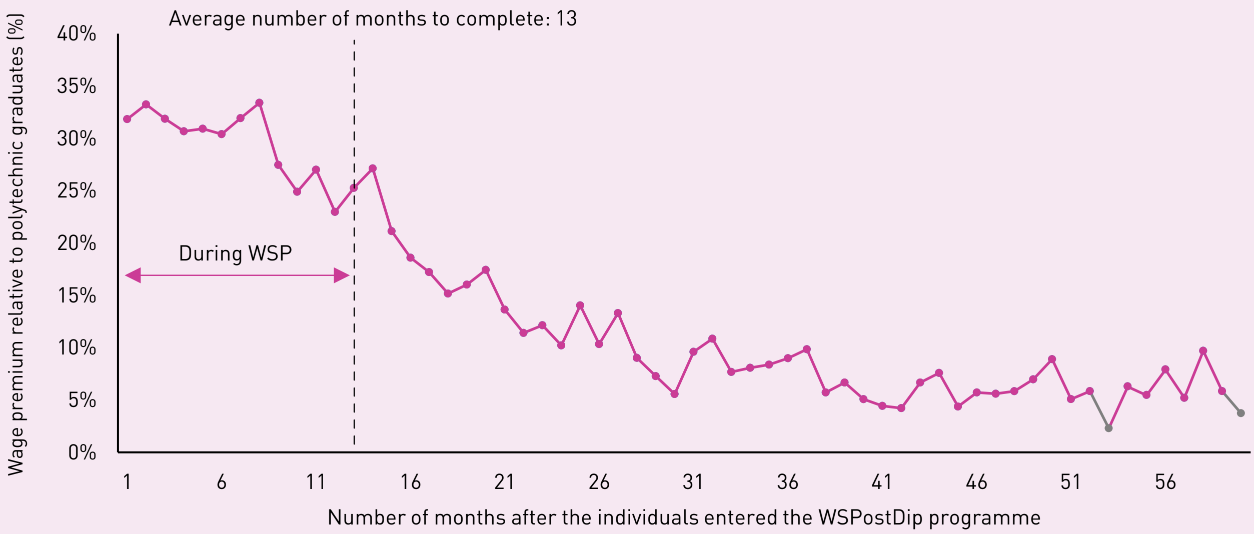
RESULTS AND DISCUSSION

Work-Study Post-Diploma Programme

The regression results show that WSPostDip participants enjoyed a wage premium relative to polytechnic graduates who went straight into employment after graduation (Exhibit 3). Over the course of the WSPostDip programme, WSPostDip participants earned 36 per cent more than their polytechnic graduate peers. The higher wages earned by WSPostDip participants during the programme could have been partly due to them being in full-time employment, whereas some of the polytechnic graduates who went straight into employment could have been engaged in temporary or part-time jobs that offered lower wages in the immediate months after graduation.

Upon completing the WSPostDip programme, WSPostDip graduates continued to earn higher wages compared to their polytechnic graduate peers. However, their wage premium decreased over time against a baseline of rising wages among the polytechnic graduate peers as more of the latter moved into full-time employment or found better job matches.[7] Nevertheless, WSPostDip graduates still earned around 9 per cent more one to two years after programme completion and around 6 per cent more in the subsequent two years. This suggests that structured on-the-job training and the attainment of higher qualifications under the WSPostDip programme led to the accumulation of human capital, which in turn raised the productivity of the WSPostDip graduates and allowed them to command higher wages compared to their polytechnic graduate peers who went straight into employment.[8]

Exhibit 3: Estimated Wage Premium of WSPostDip Graduates Relative to Polytechnic Graduates of the Same Polytechnic Graduation Cohort Over Time



Note: The lines and markers in grey indicate that the wage premium for that month was statistically insignificant at the five per cent level.

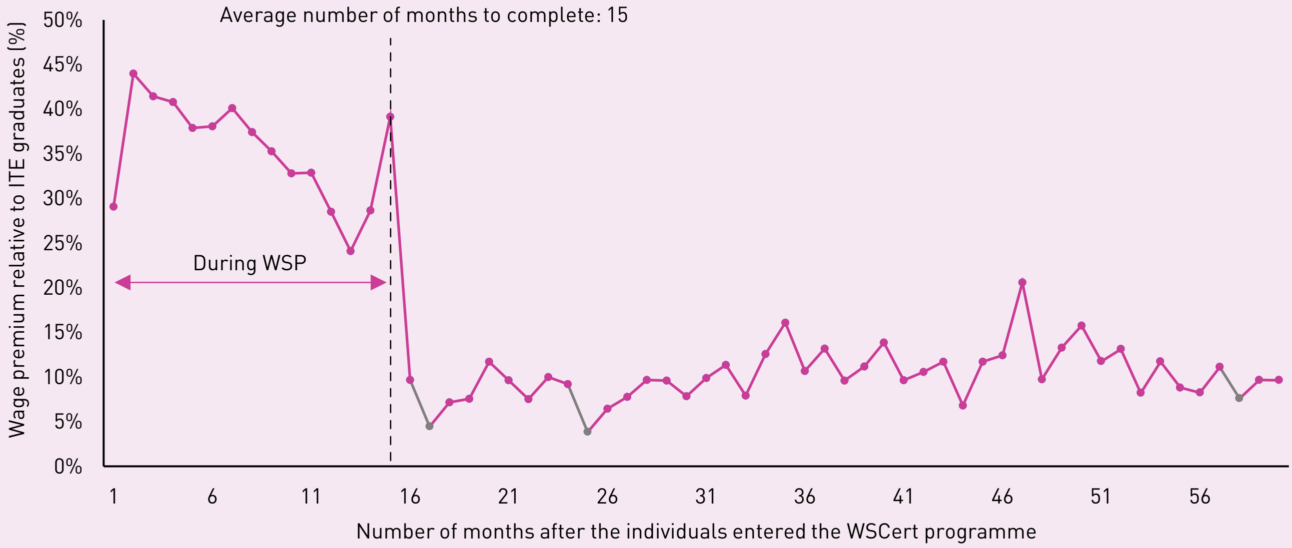
7 *In our sample, on average, polytechnic graduates who went straight into employment after graduation earned around $1,200 in the immediate month after graduation. This rose to $1,700 and $1,900 by the sixth and twelfth month after graduation respectively. All figures presented are in 2019 dollars.*
8 *The initial wage premium after WSPostDip programme completion could also be partly due to signalling effects from the higher qualifications attained, as some participants had switched to a new employer after programme completion. However, the sustained wage premium found provides evidence of human capital accumulation from the WSP.*

Work-Study Certificate Programme

For WSCert participants, the regression results also show that they earned a wage premium relative to ITE graduates who went straight into employment after graduation (Exhibit 4). Over the course of the WSCert programme, WSCert participants earned around 33 per cent more than their ITE graduate peers. Similar to the WSPostDip programme, this could be due to WSCert participants being in full-time employment, whereas some of the ITE graduates who entered employment shortly after graduation could have been engaged in temporary or part-time work in the initial months.[9]

After completing the WSCert programme, the wage premium for WSCert graduates dipped to around 8 per cent as most of them enrolled in additional modules to obtain a part-time diploma[10] and perhaps also took on part-time work. Over time, as these WSCert graduates completed their part-time diplomas and entered full-time employment, the wage premium stabilised at around 11 per cent one to two years after programme completion. In the subsequent two years, the WSCert wage premium remained stable at around 11 per cent. Overall, the finding of a wage premium lasting several years after programme completion suggests that the WSCert programme had enduring human capital effects.

Exhibit 4: Estimated Wage Premium of WSCert Graduates Relative to ITE Graduates of the Same ITE Graduation Cohort Over Time



Note: The lines and markers in grey indicate that the wage premium for that month was statistically insignificant at the five per cent level.

9 *In our sample, on average, ITE graduates who went straight into employment after graduation earned around $600 in the immediate month after graduation. This rose to $1,000 and $1,300 by the sixth and twelfth month after graduation respectively. All figures presented are in 2019 dollars.*

10 *Based on administrative records, about 69 per cent of WSCert participants enrolled in additional modules, averaging 14 months long, to obtain a part-time diploma from the local polytechnics.*

CONCLUSION

In summary, this study finds that the SkillsFuture WSP has been useful in improving the wage outcomes of polytechnic and ITE graduates. In particular, WSPostDip and WSCert participants from the 2018 to 2021 WSP graduating cohorts enjoyed a wage premium over their respective polytechnic and ITE graduate peers that was sustained over several years following programme emplacement. This suggests that the WSPostDip and WSCert programmes helped participants to deepen their skills and acquire human capital that were valued by employers.

Overall, our findings provide evidence that the WSPostDip and WSCert programmes are competitive pathways for polytechnic and ITE graduates to pursue after graduation. Going forward, the Ministry of Education will continue to work with sector agencies and the Institutes of Higher Learning to expand and enhance the work-study pathway, especially for in-demand job roles and skillsets.

As more data becomes available, future studies can evaluate the impact of other WSPs (e.g., the Work-Study Diploma and Work-Study Degree programmes) on individuals' wage outcomes. The wage returns associated with the WSPostDip and WSCert can also be updated regularly to help polytechnic and ITE graduates make more informed choices about the pathway to take.

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