



ECONOMIC SURVEY OF **SINGAPORE**

FIRST QUARTER 2025

May 2025

Ministry of Trade and Industry
Republic of Singapore

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

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

CONTENTS

03 Main Indicators of the
Singapore Economy

06 **CHAPTER 1**
The Singapore Economy

18 **BOX ARTICLE 1.1**
Trends in Singapore's Services Trade

26 **CHAPTER 2**
Sectoral Performance

38 **CHAPTER 3**
Economic Outlook

42 **FEATURE ARTICLE**
Long-Run Impact of Vocational Secondary
Education





MAIN INDICATORS OF THE SINGAPORE ECONOMY

OVERALL ECONOMY

Real Gross Domestic Product
(YoY Growth)



4Q24
+5.0%
1Q25
+3.9%

Gross Domestic Product
at Current Market Prices



4Q24
\$187.9
billion
1Q25
\$186.9
billion

PRICES

Consumer Price Index — All Items
(YoY Growth)



4Q24
+1.4%
1Q25
+1.0%

Domestic Supply Price Index
(YoY Growth)



4Q24
-2.5%
1Q25
+5.0%

LABOUR MARKET

Change in Employment
(QoQ Change)



4Q24
+11.9
thousand
1Q25
+6.9
thousand

Overall Unemployment Rate



Dec24
1.9%
Mar25
2.1%

Value-Added per Actual Hour Worked
(YoY Growth)



4Q24
+3.3%
1Q25
+3.7%

COSTS

Unit Labour Cost of Overall Economy
(YoY Growth)



4Q24
+1.0%
1Q25
+0.8%

Unit Business Cost of Manufacturing
(YoY Growth)



4Q24
-2.4%
1Q25
+0.7%

Unit Labour Cost of Manufacturing
(YoY Growth)



4Q24
-1.9%
1Q25
-0.2%

MERCHANDISE TRADE

Merchandise Exports



4Q24
\$174,583
million
+5.1%
YoY Growth
1Q25
\$171,807
million
+3.6%
YoY Growth

Merchandise Imports



4Q24
\$159,354
million
+8.7%
YoY Growth
1Q25
\$154,919
million
+6.4%
YoY Growth

SERVICES TRADE

Services Exports



4Q24
\$136,389
million
+8.4%
YoY Growth
1Q25
\$132,197
million
+4.0%
YoY Growth

Services Imports



4Q24
\$121,243
million
+6.4%
YoY Growth
1Q25
\$116,719
million
+3.7%
YoY Growth

CHAPTER

1

THE SINGAPORE ECONOMY





Chapter 1

THE SINGAPORE ECONOMY

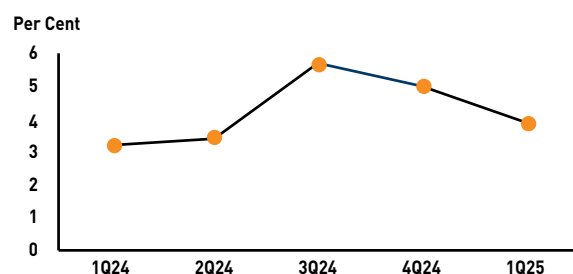
ECONOMIC PERFORMANCE

Real GDP grew by

3.9% in 1Q25



Quarterly Growth (YoY)



Main Drivers of Growth in 1Q25

Wholesale Trade



0.8%-point
contribution

Manufacturing



0.7%-point
contribution

LABOUR MARKET

Resident
Unemployment Rate



2.9%
in March 25

Employment
(QoQ Change)



+6,900
employed in 1Q25

PRODUCTIVITY

(YoY Growth)

Value-Added per Actual Hour
Worked increased by

3.7% in 1Q25



Sectors with the Highest Employment Growth in 1Q25

+7,500
employed



Other Services
Industries

+2,100
employed



Administrative &
Support Services

+2,100
employed



Finance &
Insurance

Sectors with the Highest Growth in Value-Added per Actual Hour Worked in 1Q25

8.5%



Wholesale
Trade

5.7%



Transportation
& Storage

5.4%



Information &
Communications

COSTS (YoY Growth)

Overall Unit Labour
Cost increased by

0.8% in 1Q25



Within the Manufacturing Sector

0.7%



Unit Business
Cost

-0.2%



Unit Labour
Cost

PRICES (YoY Growth)

The Consumer Price
Index (CPI) rose by

1.0% in 1Q25



Categories with Largest Price Increases

2.3%



Transport

1.7%



Health

1.3%



Housing &
Utilities

INTERNATIONAL TRADE (YoY Growth)

Total Merchandise
Exports increased by

3.6% in 1Q25



Total Services
Exports increased by

4.0% in 1Q25



7.8%



Re-Exports

3.3%



Non-Oil
Domestic
Exports

-9.2%



Oil
Domestic
Exports

Services Exports increase was led by...

1.1%-pt



Financial
Services

1.0%-pt



Other Business
Services

0.7%-pt



Transport

OVERVIEW

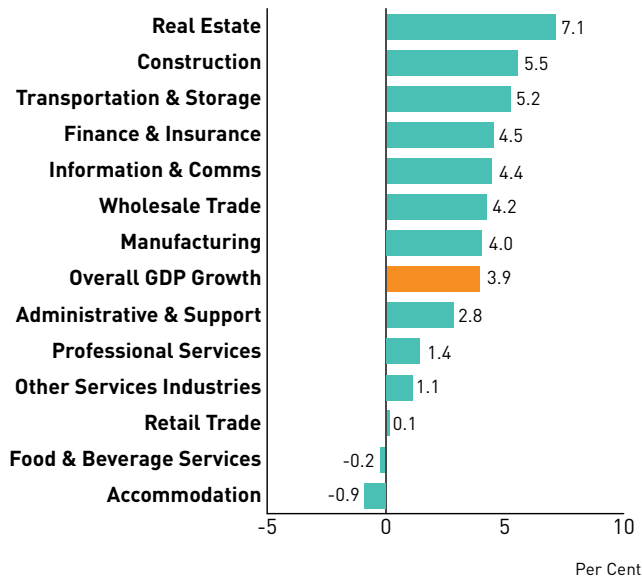
In the first quarter of 2025,

- The Singapore economy grew by 3.9 per cent on a year-on-year basis. The sectors that contributed the most to GDP growth during the quarter were the wholesale trade, manufacturing and finance & insurance sectors.
- The seasonally-adjusted unemployment rates edged up slightly at the overall level, for residents and for citizens, despite a moderation in the number of retrenchments over the same period.
- Total employment rose by 6,900 on a quarter-on-quarter basis, albeit at a slower pace as compared to the gains in the preceding quarter. Excluding Migrant Domestic Workers (MDWs), total employment increased by 2,300 on the back of employment gains for both residents and non-residents.
- The Consumer Price Index-All Items (CPI-All Items) rose by 1.0 per cent year-on-year, moderating from the 1.4 per cent increase in the preceding quarter.

OVERALL PERFORMANCE

The Singapore economy grew by 3.9 per cent on a year-on-year basis in the first quarter of 2025, moderating from the 5.0 per cent growth in the previous quarter (Exhibit 1.1). On a quarter-on-quarter seasonally-adjusted basis, the economy contracted by 0.6 per cent, a reversal from the 0.5 per cent growth in the preceding quarter.

Exhibit 1.1: GDP and Sectoral Growth Rates in 1Q 2025

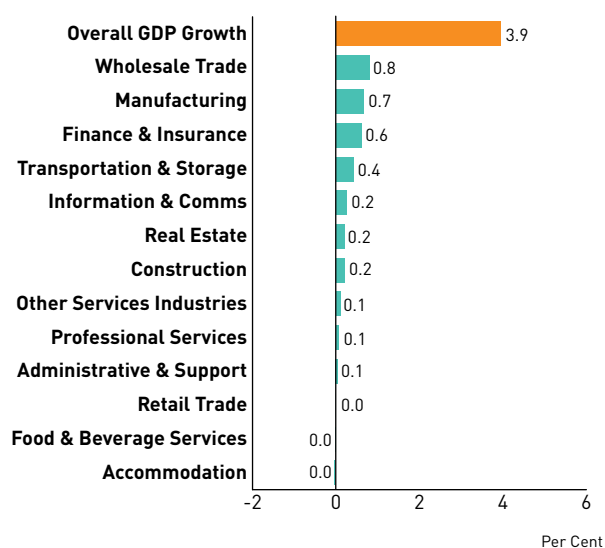


The manufacturing sector expanded by 4.0 per cent year-on-year, slower than the 7.4 per cent growth in the previous quarter. Growth in the sector was driven by the output expansions in the transport engineering (13.7 per cent), electronics (8.1 per cent) and precision engineering (0.4 per cent) clusters.

The services producing industries grew by 3.6 per cent year-on-year, easing from the 4.6 per cent growth registered in the previous quarter. Growth was supported by expansions in all the services sectors except for the accommodation and food & beverage services sectors. Among the services sectors that expanded, the real estate (7.1 per cent), transportation & storage (5.2 per cent) and finance & insurance (4.5 per cent) sectors posted the strongest growth.

The construction sector grew by 5.5 per cent year-on-year, faster than the 4.4 per cent growth in the previous quarter. Both public and private sector construction output increased during the quarter.

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

Exhibit 1.2: Percentage-Point Contribution to Growth in Real GDP in 1Q 2025 (By Sectors)

SOURCES OF GROWTH

Total demand increased by 5.2 per cent year-on-year in the first quarter of 2025, faster than the 4.4 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 5.5 per cent year-on-year, picking up from the 3.2 per cent increase in the previous quarter. Meanwhile, domestic demand rose by 4.4 per cent year-on-year, moderating from the 8.9 per cent expansion in the preceding quarter.

Within domestic demand, consumption expenditure rose marginally by 0.1 per cent year-on-year, slower than the 5.3 per cent increase in the preceding quarter. The increase in consumption expenditure can be attributed to an increase in private consumption expenditure (3.4 per cent), even as public consumption expenditure declined (-8.3 per cent).

Meanwhile, gross fixed capital formation (GFCF) rose by 6.3 per cent year-on-year, extending the 4.9 per cent increase in the previous quarter. The increase in GFCF during the quarter was due to increases in both public sector GFCF (5.1 per cent) and private sector GFCF (6.6 per cent). Public sector GFCF rose due to higher investments in public transport equipment, construction & works, intellectual property products and machinery & equipment. Meanwhile, private sector GFCF increased on the back of higher investments in private construction & works, machinery & equipment and intellectual property products, which more than offset lower investments in private transport equipment.

Exhibit 1.3: Changes in Total Demand*

Per Cent

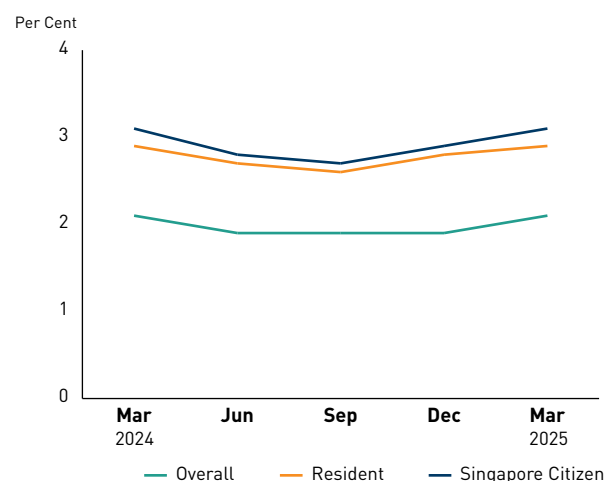
	2024				2025
	I	II	III	IV	I
Total Demand	7.9	6.4	5.1	4.4	5.2
External Demand	9.1	5.6	4.4	3.2	5.5
Total Domestic Demand	3.6	8.7	7.6	8.9	4.4
Consumption Expenditure	5.9	4.6	6.9	5.3	0.1
Public	6.6	2.5	8.3	16.2	-8.3
Private	5.6	5.2	6.4	2.2	3.4
Gross Fixed Capital Formation	-1.4	3.4	4.7	4.9	6.3
Changes in Inventories	0.1	2.7	0.9	2.2	1.4

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

LABOUR MARKET

Unemployment and Retrenchment¹

Compared to December 2024, the seasonally-adjusted unemployment rates in March 2025 increased slightly at the overall level (from 1.9 per cent to 2.1 per cent), for residents (from 2.8 per cent to 2.9 per cent) and for citizens (from 2.9 per cent to 3.1 per cent) (Exhibit 1.4).

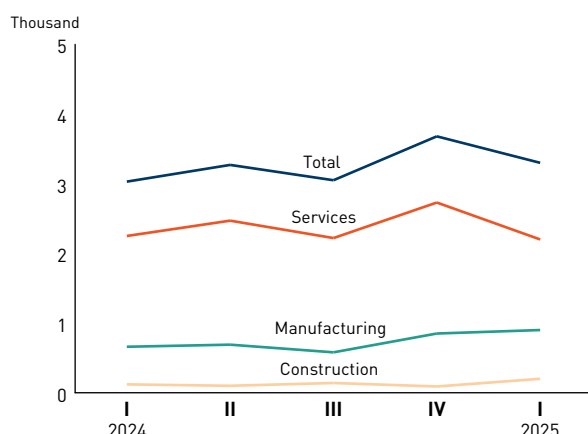
Exhibit 1.4: Unemployment Rate (Seasonally-Adjusted)

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

In March 2025, an estimated 71,300 residents, including 62,800 Singapore citizens, were unemployed. These were slightly higher than the number of unemployed residents (67,500) and citizens (59,900) in December 2024.²

Total retrenchments fell to 3,300 in the first quarter of 2025, from 3,680 in the preceding quarter (Exhibit 1.5). The decline was due to a fall in retrenchments in the services sector (from 2,730 to 2,200), while retrenchments rose in the manufacturing (from 850 to 900) and construction (90 to 200) sectors.

Exhibit 1.5: Retrenchments



Employment³

Total employment expanded by 6,900 on a quarter-on-quarter basis in the first quarter of 2025, slowing from the gains (+11,900) in the preceding quarter (Exhibit 1.6). Excluding MDWs, total employment rose by 2,300 and was supported by an increase in both resident and non-resident employment.

Total employment growth was driven by the services sector (+9,400; +4,800 excluding MDWs), supported by employment gains in the other services (+7,500; +2,900 excluding MDWs), administrative & support services (+2,100), finance & insurance (+2,100) and transportation & storage (+2,100) sectors (Exhibit 1.7). Over the same period, employment in the construction (-1,300) and manufacturing (-800) sectors declined.

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

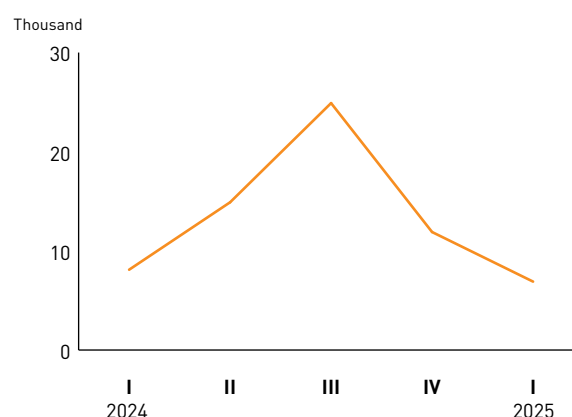
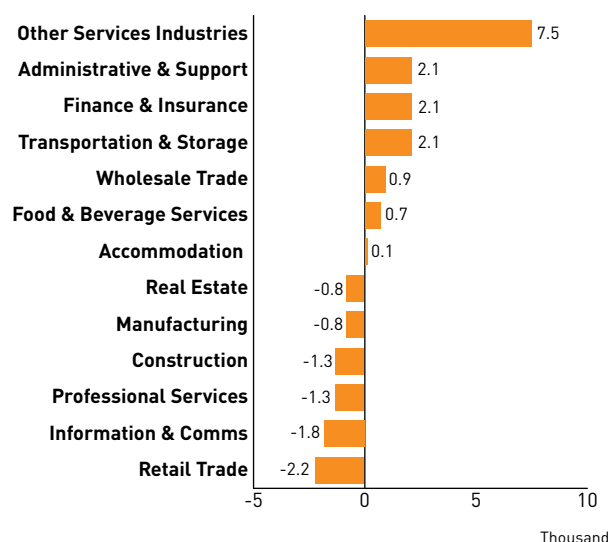


Exhibit 1.7: Changes in Employment by Sector in 1Q 2025



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 remained positive. Specifically, a net weighted balance of 2 per cent of manufacturers expected to hire more workers in the second quarter of 2025 as compared to the first quarter. Firms in the aerospace segment of the transport engineering cluster were the most optimistic, with a net weighted balance of 29 per cent of firms expecting to increase hiring in the second quarter. By contrast, firms in the medical technology segment of the biomedical manufacturing cluster were the most pessimistic, with a net weighted balance of 29 per cent of firms expecting to reduce hiring in the second quarter.

Meanwhile, hiring expectations for services firms were negative. According to DOS' latest Business Expectations Survey for the Services Sector, a net weighted balance of 3 per cent of services firms expected to decrease hiring in the second quarter of 2025 as compared to the first quarter. Among the services sectors, firms in the recreation, community & personal services sector had the strongest hiring sentiments, with a net weighted balance of 9 per cent of firms expecting to increase hiring in the second quarter. On the other hand, firms in the retail trade sector were the most pessimistic, with a net weighted balance of 25 per cent of firms expecting to hire fewer workers in the second quarter.

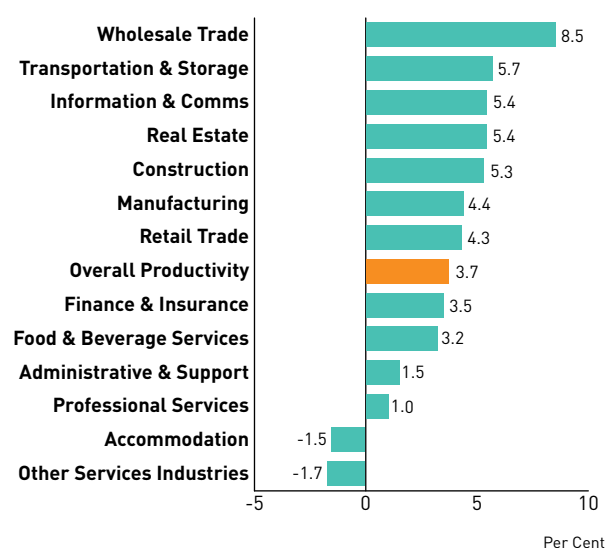
COMPETITIVENESS

Productivity

Overall labour productivity, as measured by real value-added per actual hour worked, rose by 3.7 per cent year-on-year in the first quarter of 2025, extending the 3.3 per cent increase in the previous quarter (Exhibit 1.8).⁴

Among the sectors, the wholesale trade sector (8.5 per cent) recorded the largest productivity gains in the first quarter. The transportation & storage (5.7 per cent), information & communications (5.4 per cent), real estate (5.4 per cent), construction (5.3 per cent), manufacturing (4.4 per cent), retail trade (4.3 per cent), finance & insurance (3.5 per cent), food & beverage services (3.2 per cent), administrative & support services (1.5 per cent) and professional services (1.0 per cent) sectors also saw productivity improvements. By contrast, productivity declines were observed in the other services (-1.7 per cent) and accommodation (-1.5 per cent) sectors.

Exhibit 1.8: Changes in Value-Added per Actual Hour Worked for the Overall Economy and Sectors in 1Q 2025



In the first quarter, the productivity of the outward-oriented sectors as a whole rose by 4.9 per cent year-on-year, similar to the 5.0 per cent increase in the previous quarter.⁵ Meanwhile, productivity for the domestically-oriented sectors as a whole rose by 1.7 per cent year-on-year, improving from the 0.3 per cent increase in the preceding quarter.

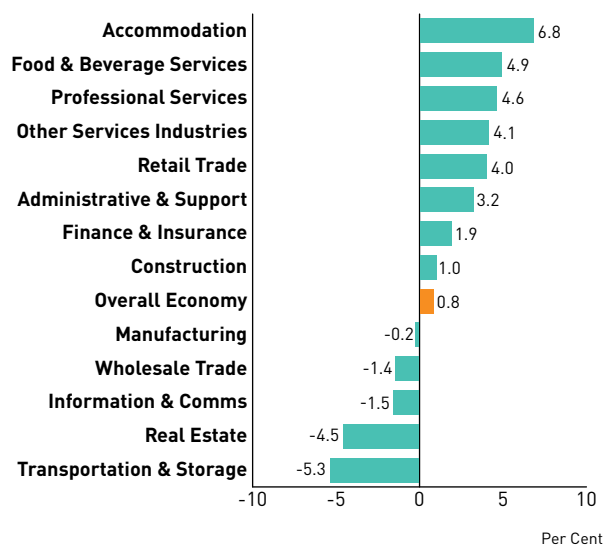
⁴ Overall labour productivity, as measured by real value-added per worker, grew by 2.5 per cent in the first quarter of 2025, easing from the 3.5 per cent increase in the preceding quarter. Real value-added per actual hour worked grew faster than real value-added per worker in the first quarter of 2025 because the average number of hours worked per worker fell by 1.2 per cent on a year-on-year basis.

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

Unit Labour Cost and Unit Business Cost

Overall unit labour cost (ULC) for the economy rose by 0.8 per cent on a year-on-year basis in the first quarter of 2025 (Exhibit 1.9), slightly slower than the increase of 1.0 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 outweighed the rise in labour productivity as measured by real value-added per worker.

Exhibit 1.9: Changes in Unit Labour Cost in 1Q 2025



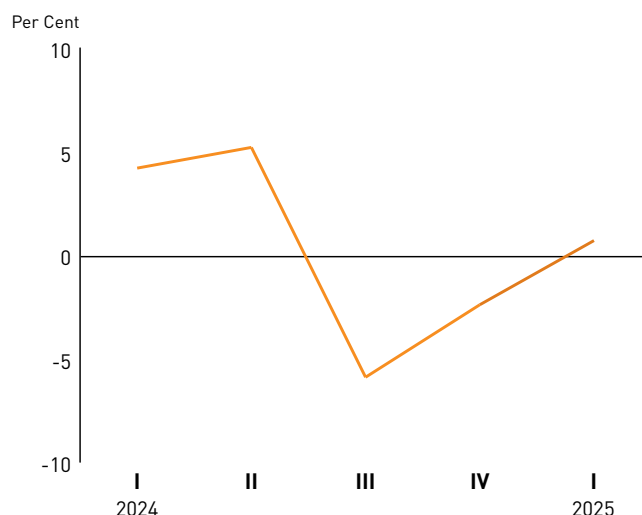
By sectors, the ULC for the construction sector was 1.0 per cent higher year-on-year in the first quarter as the pickup in total labour cost per worker outstripped the increase in labour productivity.

The ULC for the services sector as a whole rose by 0.8 per cent year-on-year. Among the services sectors, ULC increased the most in the accommodation sector (6.8 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 (-5.3 per cent) as productivity grew alongside a decline in total labour cost per worker.

Over the same period, the ULC for the manufacturing sector fell by 0.2 per cent year-on-year. The decline in the sector's ULC occurred on the back of an improvement in labour productivity which exceeded the growth in total labour cost per worker.

Manufacturing unit business cost (UBC) rose by 0.7 per cent year-on-year in the first quarter, reversing the decline of 2.4 per cent in the previous quarter (Exhibit 1.10). The increase in manufacturing UBC came on the back of an increase in unit services costs (1.2 per cent), which more than offset the decrease in both unit labour costs (-0.2 per cent) and unit non-labour production taxes (-2.1 per cent).

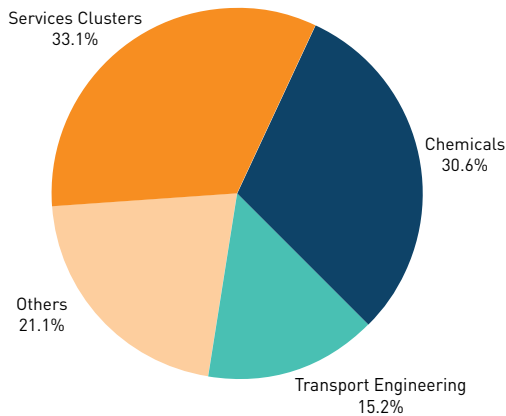
Exhibit 1.10: Changes in the Manufacturing Unit Business Cost



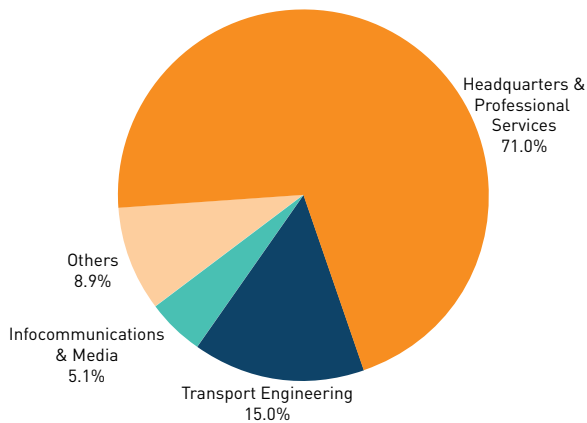
Investment Commitments

Investment commitments garnered by the Economic Development Board (EDB) in terms of Fixed Asset Investments (FAI) and Total Business Expenditure (TBE) amounted to \$1.7 billion and \$1.2 billion respectively in the first quarter of 2025 (Exhibit 1.11 and Exhibit 1.12).

For FAI, the largest contribution came from the manufacturing sector, which attracted \$1.2 billion worth of commitments. Within the manufacturing sector, the chemicals and transport engineering clusters garnered the largest amounts of commitments, at \$526 million and \$261 million respectively. Meanwhile, the infocommunications & media cluster attracted the most FAI commitments within the services sector, at \$319 million. Investors from the United States contributed the most to total FAI, at \$622 million (or 36.1 per cent).

Exhibit 1.11: Fixed Asset Investments by Industry Cluster in 1Q 2025

For TBE, the services sector attracted the highest amount of commitments, at \$911 million. Within the sector, the headquarters & professional services and infocommunications & media clusters garnered the most TBE commitments, at \$827 million and \$59.3 million respectively. Among the manufacturing clusters, the transport engineering cluster attracted the largest amounts of TBE commitments, at \$175 million. Domestic investors were the largest source of TBE commitments, with commitments of \$833 million (or 71.5 per cent).

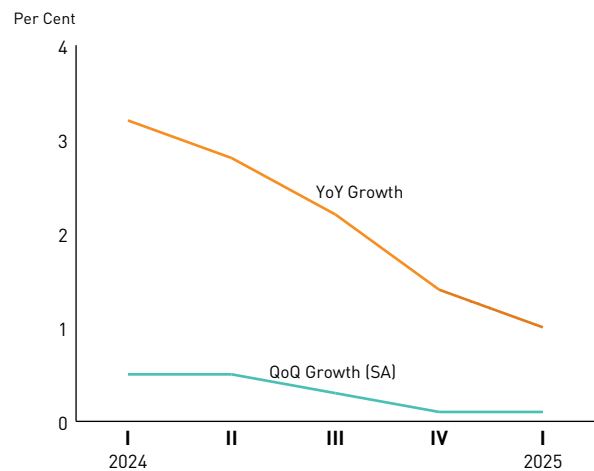
Exhibit 1.12: Total Business Expenditure by Industry Cluster in 1Q 2025

When these projects are fully implemented, they are expected to generate \$1.1 billion of value-added and create more than 1,700 jobs in the coming years.

PRICES

Consumer Price Index

The Consumer Price Index-All Items (CPI-All Items) rose by 1.0 per cent on a year-on-year basis in the first quarter of 2025, slowing from the 1.4 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 0.1 per cent, unchanged from that in the preceding quarter.

Exhibit 1.13: Changes in CPI

Some CPI categories saw price increases on a year-on-year basis in the first quarter of 2025, thus contributing positively to CPI-All Items inflation during the quarter (Exhibit 1.14). Food prices rose by 1.3 per cent on account of an increase in the costs of food & beverage serving services such as hawker food and restaurant meals, as well as non-cooked food items such as fruits & nuts and rice & cereal products. Housing & utilities costs increased by 1.3 per cent because of higher accommodation costs. Healthcare costs went up by 1.7 per cent on the back of more expensive health insurance. Transport prices rose by 2.3 per cent due to higher car prices and bus & train fares. Education costs picked up by 0.3 per cent as a result of higher fees for private tuition & other educational courses, as well as at overseas universities.

The price gains in the above CPI categories were partially offset by price declines on a year-on-year basis in the following categories. Clothing & footwear prices fell by 1.0 per cent, mainly due to cheaper ready-made garments and footwear. Prices of household durables & services declined by 0.4 per cent as the prices of furniture & furnishings and household appliances fell. Information & communication costs decreased by 0.9 per cent on account of cheaper information & communication services and equipment. Recreation, sport & culture prices dropped by 0.9 per cent because of the lower costs of holiday travel. Prices of miscellaneous goods & services edged down by 0.2 per cent due to a fall in the costs of personal effects items.

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

Per Cent

	2024				2025
	I	II	III	IV	I
All items	3.2	2.8	2.2	1.4	1.0
Food	3.6	2.8	2.6	2.4	1.3
Clothing & Footwear	0.2	-0.4	-0.5	-1.6	-1.0
Housing & Utilities	3.4	3.8	3.3	2.5	1.3
Housing Durables & Services	1.1	1.1	0.5	0.1	-0.4
Health	4.9	4.5	3.8	2.4	1.7
Transport	2.7	1.4	-0.2	-0.4	2.3
Information & Communication	1.4	0.8	0.7	0.0	-0.9
Recreation & Culture	5.5	5.1	4.2	0.9	-0.9
Education	3.6	3.4	3.2	2.6	0.3
Miscellaneous Goods & Services	2.3	1.3	0.9	0.9	-0.2

INTERNATIONAL TRADE

Merchandise Trade

Singapore's total merchandise trade increased by 4.9 per cent on a year-on-year basis in the first quarter, following the 6.8 per cent growth in the preceding quarter (Exhibit 1.15). Growth in total merchandise trade was supported by non-oil trade (+8.3 per cent) even as oil trade declined (-8.9 per cent).

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

Per Cent

	2024					2025
	I	II	III	IV	ANN	I
Merchandise Trade	4.6	9.9	5.3	6.8	6.6	4.9
Merchandise Exports	4.4	7.5	5.7	5.1	5.7	3.6
Domestic Exports	0.3	2.9	5.4	-6.0	0.5	-1.9
Oil	6.0	19.0	-0.2	-17.9	1.0	-9.2
Non-Oil	-3.4	-6.5	9.0	2.4	0.2	3.3
Re-Exports	7.8	11.5	5.9	13.9	9.8	7.8
Merchandise Imports	5.0	12.5	5.0	8.7	7.8	6.4
Oil	2.1	16.0	-7.7	-9.5	-0.3	-7.7
Non-Oil	5.7	11.7	8.3	13.7	9.9	10.1

Total merchandise exports increased by 3.6 per cent in the first quarter, easing from the 5.1 per cent growth in the preceding quarter. This was due to the increase in re-exports (+7.8 per cent) which outweighed the decline in domestic exports (-1.9 per cent).

The decline in domestic exports was driven by the decrease in oil domestic exports which outweighed the increase in non-oil domestic exports (NODX). In particular, oil domestic exports decreased by 9.2 per cent. In volume terms, oil domestic exports fell by 1.9 per cent.

Meanwhile, NODX grew by 3.3 per cent in the first quarter, extending the 2.4 per cent growth 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 6.4 per cent in the first quarter, moderating from the 8.7 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 10.1 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 3.8 per cent on a year-on-year basis in the first quarter, slowing from the 7.4 per cent growth 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 rose by 4.0 per cent in the first quarter, moderating from the 8.4 per cent growth in the preceding quarter. The increase in services exports was largely attributable to a pickup in the exports of financial services, other business services and transport services. Meanwhile, services imports expanded by 3.7 per cent, slower than the 6.4 per cent growth in the previous quarter. The rise in services imports was largely due to an increase in the imports of other business services, transport services and travel services.

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

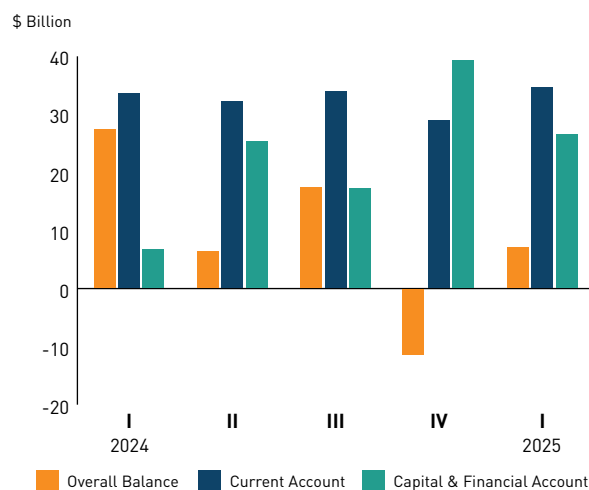
Per Cent

	2024					2025
	I	II	III	IV	ANN	I
Total Services Trade	8.1	7.9	10.8	7.4	8.6	3.8
Services Exports	10.1	9.2	12.0	8.4	9.9	4.0
Services Imports	5.9	6.5	9.5	6.4	7.1	3.7

BALANCE OF PAYMENTS

Singapore recorded an overall balance of payments surplus of \$7.0 billion in the first quarter of 2025, a reversal from the deficit of \$11.2 billion in the preceding quarter (Exhibit 1.17).

Exhibit 1.17: Balance of Payments



Current Account

The current account surplus increased to \$34.6 billion in the first quarter of 2025, from \$28.8 billion in the preceding quarter. The increase was driven by a narrowing of the primary income deficit and a widening of the services surplus, which more than offset a decrease in the goods surplus and a widening of the secondary income deficit.

In terms of the components of the current account, the surplus in the goods account fell to \$44.8 billion in the first quarter, from \$48.6 billion in the preceding quarter, as goods exports declined by more than the fall in goods imports.

Meanwhile, the surplus in the services account increased to \$15.5 billion in the first quarter, from \$15.1 billion in the preceding quarter. This was mainly due to a decline in net payments for travel services as well as telecommunications, computer and information services, as well as a rise in net receipts for transport services and maintenance and repair services. Collectively, these more than offset a reversal in the position for other businesses services from net receipts to net payments, and a fall in net receipts for financial services and insurance services.

The primary income deficit narrowed by \$9.3 billion to \$23.1 billion in the first quarter, as primary income receipts rose by more than primary income payments.

The secondary income deficit widened by \$0.1 billion to \$2.6 billion in the first quarter, as secondary income payments rose by more than secondary income receipts.

Capital and Financial Account⁶

The capital and financial account registered a smaller net outflow of \$26.5 billion in the first quarter, compared to \$39.1 billion in the preceding quarter. This was mainly due to smaller net outflows of “other investment” and larger net inflows of direct investment, which more than offset larger net outflows of portfolio investment and financial derivatives.

Net outflows of “other investment” fell to \$41.7 billion in the first quarter, from \$62.9 billion in the preceding quarter, mainly due to reduced net outflows from both the non-bank private sector and resident deposit-taking corporations.

Meanwhile, net inflows of foreign direct investment rose to \$39.8 billion in the first quarter, from \$38.9 billion in the preceding quarter, as foreign direct investments into Singapore fell by less than the decline in residents’ direct investment abroad.

Net outflows of portfolio investments rose to \$20.9 billion in the first quarter, from \$13.4 billion in the preceding quarter, on account of the switch from net inflows to net outflows in the non-bank private sector, as well as slightly larger net outflows from resident deposit-taking corporations.

At the same time, net outflows of financial derivatives rose to \$3.7 billion in the first quarter, from \$1.7 billion in the preceding quarter.

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

TRENDS IN SINGAPORE'S SERVICES TRADE

This article examines recent trends in Singapore's services trade, including a focus on the trends in Singapore's services exports by types of exports and markets.

Services trade has risen in importance to Singapore's economy

Between 2014 and 2024, Singapore's services trade (i.e., the sum of services exports and imports) increased at a robust pace of 9.4 per cent per annum, outpacing the growth in nominal gross domestic product (GDP) of 6.2 per cent per annum over the same period. Consequently, services trade as a share of Singapore's nominal GDP rose from 101.8 per cent in 2014 to 136.4 per cent in 2024, reflecting its increasing importance to the economy.

The US remains Singapore's largest trading partner for services trade

Singapore's ten largest services trade partners in 2023 (latest data available) were the same as that in 2014, even though there were shifts in the ranking of some trading partners [Exhibit 1].¹

The United States (US) remained Singapore's largest services trade partner in 2023, with bilateral services trade increasing by nearly three-fold from S\$58.1 billion in 2014 to S\$159.1 billion in 2023. Similarly, the EU-27 remained Singapore's second largest services trade partner, as bilateral services trade expanded by over two-fold from S\$53.1 billion to S\$115.7 billion over the same period. Meanwhile, Singapore's services trade with Mainland China grew from S\$21.3 billion in 2014 to S\$64.9 billion in 2023, resulting in it surpassing ASEAN to become Singapore's third largest services trade partner in 2023. Over the same period, Japan rose from being Singapore's sixth largest services trade partner to our fourth largest partner, as bilateral services trade increased from S\$18.1 billion to S\$62.2 billion.

Exhibit 1: Singapore's Top 10 Services Trading Partners, 2014 and 2023

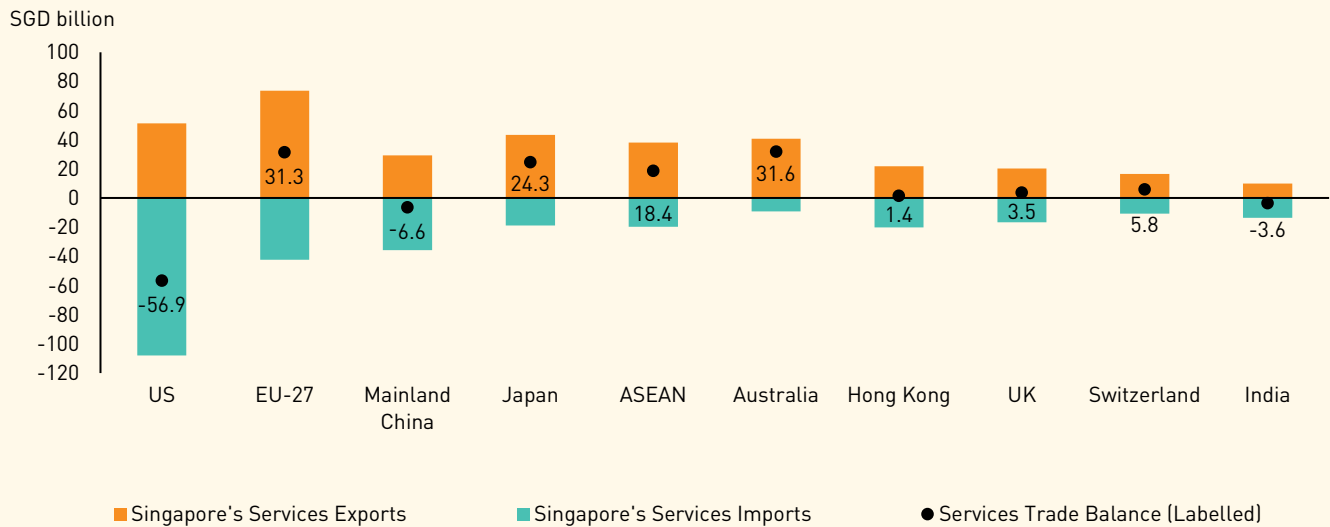
	2014		2023	
	Trading Partner	Value of Services Trade (SGD billion)	Trading Partner	Value of Services Trade (SGD billion)
1	United States	58.1	United States	159.1
2	EU-27	53.1	EU-27	115.7
3	ASEAN	26.9	Mainland China	64.9
4	Mainland China	21.3	Japan	62.2
5	Australia	18.6	ASEAN	57.8
6	Japan	18.1	Australia	49.8
7	United Kingdom	17.8	Hong Kong	41.9
8	Hong Kong	13.5	United Kingdom	36.9
9	Switzerland	12.0	Switzerland	27.3
10	India	8.1	India	23.4

Source: Department of Statistics

In terms of trade balance (i.e., exports less imports), Singapore recorded a services trade surplus with most of these key trading partners in 2023, except for the US, Mainland China and India [Exhibit 2]. Singapore's largest services trade deficit over this period was with the US.²

¹ Data on services trade by markets is only available up to 2023.

² Based on data from the Department of Statistics, Singapore consistently ran a services trade deficit with the US, with the deficit widening from S\$13.7 billion in 2014 to S\$56.9 billion in 2023.

Exhibit 2: Singapore's Services Trade and Trade Balance with Key Trading Partners in 2023

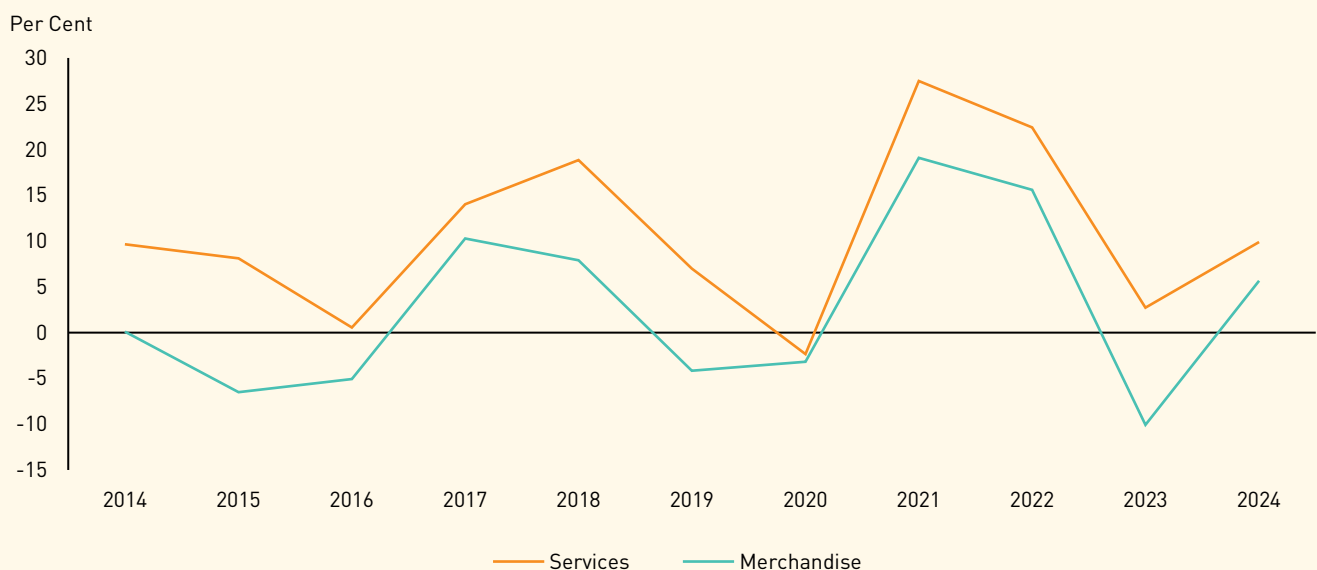
Source: Department of Statistics

The rest of this article examines Singapore's services exports in terms of its growth, composition and markets.

Over the past decade, services exports growth and its value-added (VA) contribution to Singapore's economy exceeded that of merchandise exports

While merchandise exports remain a key driver of Singapore's economic growth, the role of services exports has become more important over time in tandem with the growth in services-oriented economic activities in Singapore. This is reflected both in terms of its pace of growth, as well as its VA contribution to Singapore's economy.

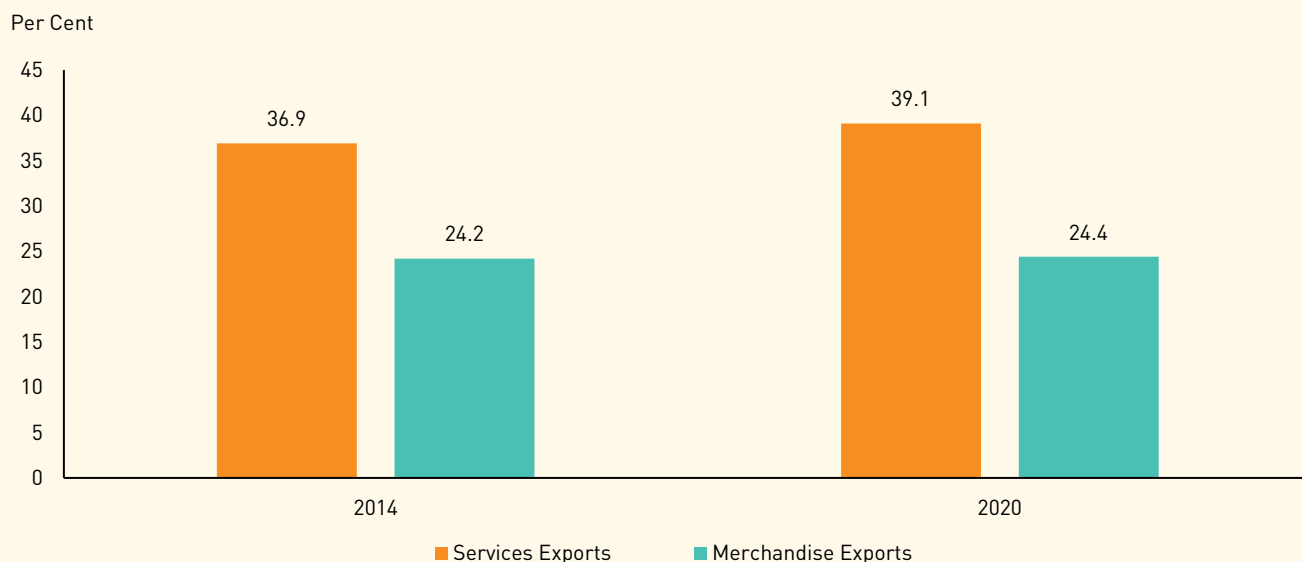
Between 2014 and 2024, Singapore's total services exports grew by 10.5 per cent per annum on average, outpacing merchandise exports growth of 2.5 per cent per annum over the same period [Exhibit 3]. Cumulatively, Singapore's total services exports rose by 171.3 per cent over this period, compared to 28.2 per cent for our merchandise exports. Consequently, the share of services exports in total exports climbed from 27.0 per cent in 2014 to 43.9 per cent in 2024.

Exhibit 3: Services and Merchandise Exports Growth, 2014-2024

Source: Department of Statistics, EnterpriseSG

In terms of VA contribution, OECD-WTO's Trade in Value-Added (TiVA) data shows that the contribution of services exports to Singapore's economy exceeded that of merchandise exports [Exhibit 4].³ In particular, the VA contribution of services exports rose from 36.9 per cent of Singapore's nominal GDP in 2014 to 39.1 per cent of nominal GDP in 2020, even as the VA contribution of merchandise exports remained relatively unchanged at around 24 per cent over the same period.⁴ The increase in the VA contribution of services exports over this period was due to (i) the faster pace of growth in services exports compared to that of merchandise exports, and (ii) the higher VA per dollar of services exports⁵.

Exhibit 4: VA Contribution of Singapore's Services and Merchandise Exports (Share of GDP)



Source: OECD-WTO TiVA Database, Author's calculations

Most of Singapore's services exports growth over the decade was driven by transport, business-related and financial services exports

Transport services contributed the most to total services exports growth of 171.3 per cent between 2014 and 2024, accounting for 56.0 percentage-points (pp) of this growth, notwithstanding a sharp contraction in 2023⁶ [Exhibit 5]. The second largest contributor was other business services⁷ (54.2pp), mostly driven by advertising & market research services and business management services. Financial services was the third largest contributor (23.1pp), reflecting Singapore's role as a global financial hub.

³ The TiVA database is compiled by OECD and WTO using a global input-output table that describes interactions between industries and consumers for 76 economies (including all OECD, EU, G20 and ASEAN economies). It provides data on the VA generated by a country in the production of goods and services that are exported. 2020 is the latest year of data available.

⁴ The VA contributions of services exports in Exhibit 4 were calculated based on the exports of services sectors, as the OECD-WTO's TiVA data classifies exports by sectors. This differs from the data presented in the rest of the article, which are based on the services export categories.

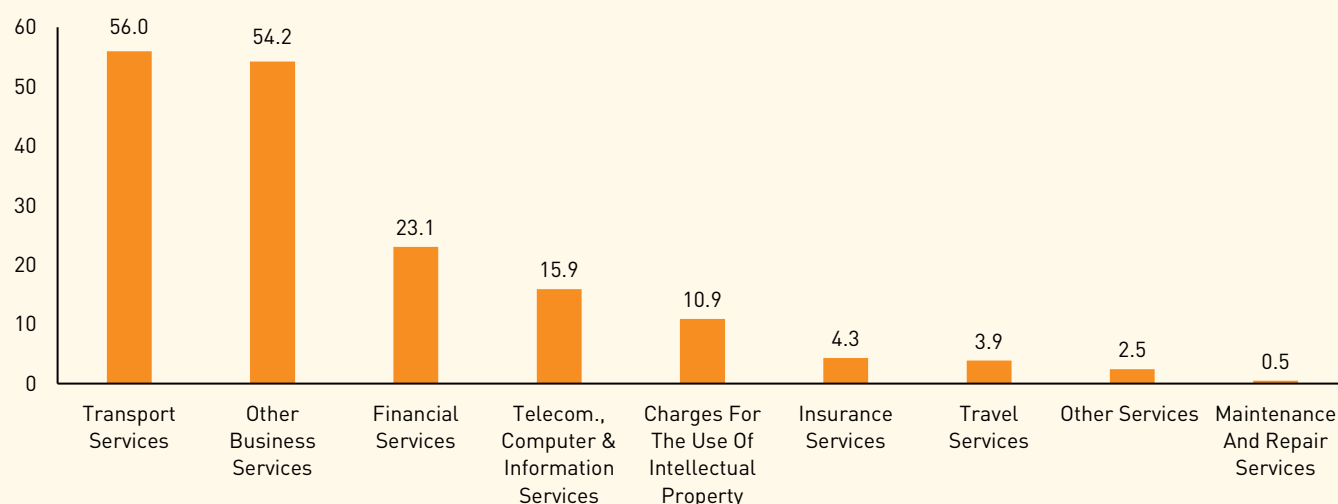
⁵ For instance, an earlier MTI study found that the VA per dollar of services exports (51 cents) was higher than the VA per dollar of merchandise domestic exports (34 cents). For more details, please see Chan, Y. J. and Lim, Y. (2012).

⁶ Exports of transport services declined by 8.6 per cent in 2023. This was driven entirely by a fall in sea freight transport services exports, which was in turn partly due to shipping disruptions caused by droughts in the Panama Canal region.

⁷ Other business services include accounting services, advertising & market research services, architectural services, business management services, engineering & technical services, legal services, research & development services, operating leasing services, trade-related services, and others.

Exhibit 5: Contribution to Cumulative Growth of Total Services Exports from 2014 to 2024

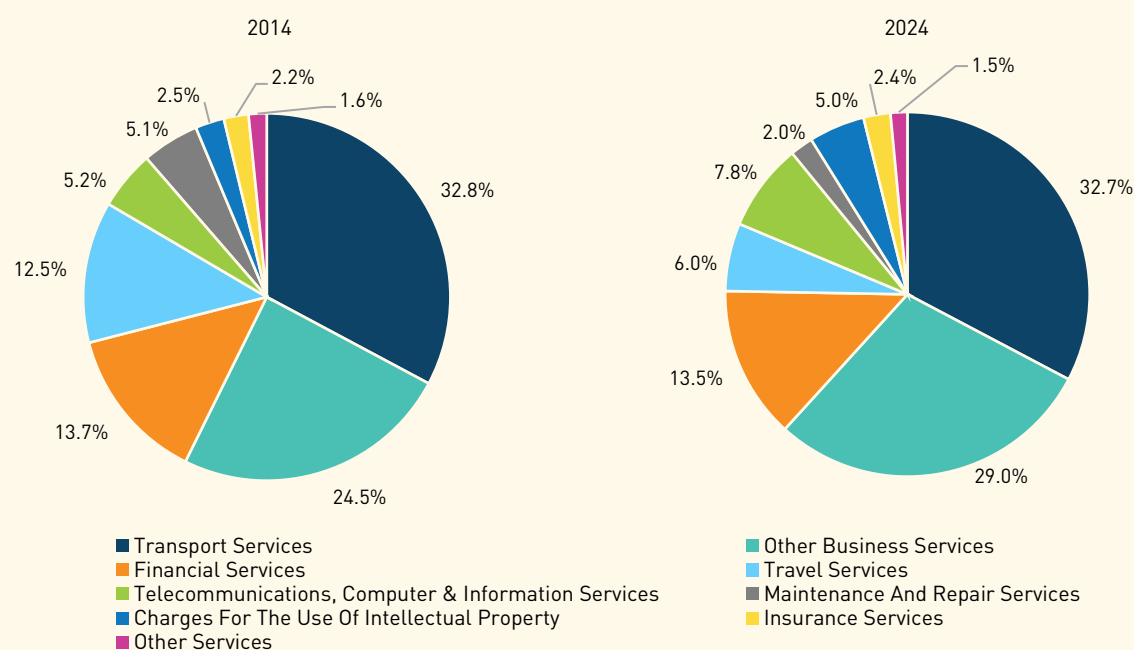
Percentage-point contribution



Source: Department of Statistics

Note: Other services consist of construction services, personal, cultural & recreational services, government goods & services and manufacturing services on physical inputs owned by others. Bars sum to 171.3 per cent, which is the cumulative growth in total services exports between 2014 and 2024.

Similarly, transport services, other business services and financial services were the top three services export categories in both 2014 and 2024 [Exhibit 6]. Meanwhile, telecommunications, computer & information services saw its share of total services exports increase from 5.2 per cent in 2014 to 7.8 per cent in 2024. This led to it overtaking travel services as the fourth largest services export category in 2024, as the latter's share had fallen from 12.5 per cent to 6.0 per cent over the same period, in part due to the COVID-19 pandemic.⁸

Exhibit 6: Share of Services Exports by Categories, 2014 and 2024

Source: Department of Statistics

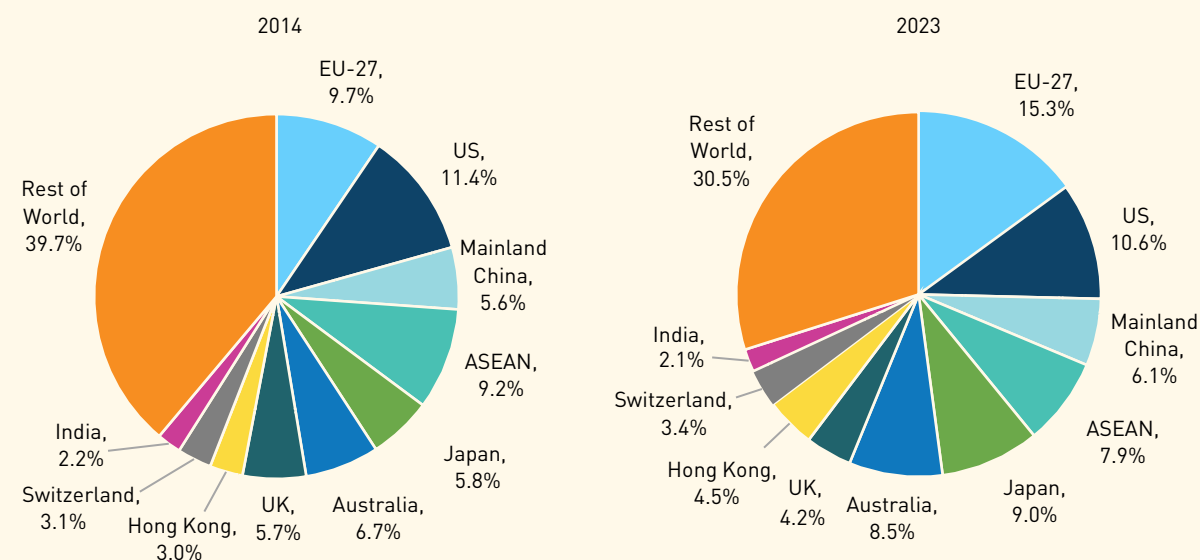
Note: Other services consist of construction services, personal, cultural & recreational services, government goods & services and manufacturing services on physical inputs owned by others.

⁸ Singapore's exports of travel services declined by 72.9 per cent and 28.3 per cent in 2020 and 2021 respectively due to border restrictions imposed during the COVID-19 pandemic. Nonetheless, travel services exports have since recovered, returning to pre-pandemic levels in 2023.

Singapore's services exports cater to diverse markets

In terms of markets, EU-27 remained Singapore's largest services export market in 2023 [Exhibit 7], with its share of Singapore's total services exports rising from 9.7 per cent in 2014 to 15.3 per cent in 2023. On the other hand, the US' share of Singapore's total services exports dipped slightly from 11.4 per cent in 2014 to 10.6 per cent in 2023.

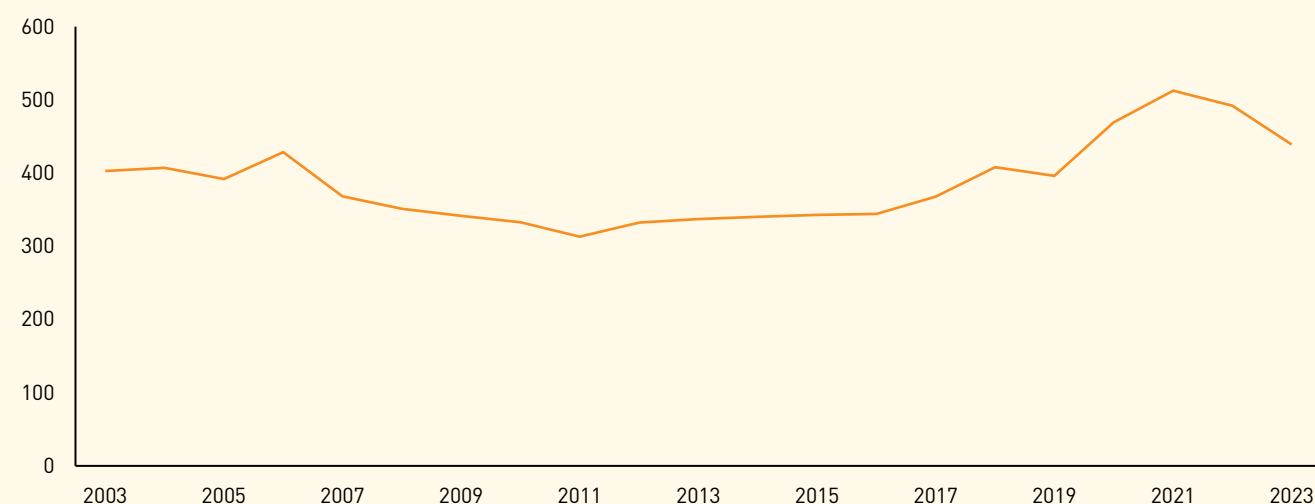
Exhibit 7: Share of Services Exports by Markets, 2014 and 2023



Source: Department of Statistics

Notwithstanding shifts in the shares of various markets over time, Singapore's services export markets are generally well diversified at the overall level. Specifically, over the period of 2003 to 2023, the Herfindahl-Hirshman Index (HHI), a measure of market concentration, was consistently lower than 1,000 for our services exports, suggesting that Singapore maintains a diversified portfolio of markets for our services exports [Exhibit 8].⁹ Having diversified markets is important as it will enable us to better withstand external headwinds and volatility in global markets, thereby providing some resilience to our services exports performance.

Exhibit 8: HHI for Markets of Singapore's Services Exports, 2003 to 2023



Source: Department of Statistics, Author's calculations

Note: A larger (smaller) number means more concentrated (diversified) markets

⁹ 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.

Conclusion

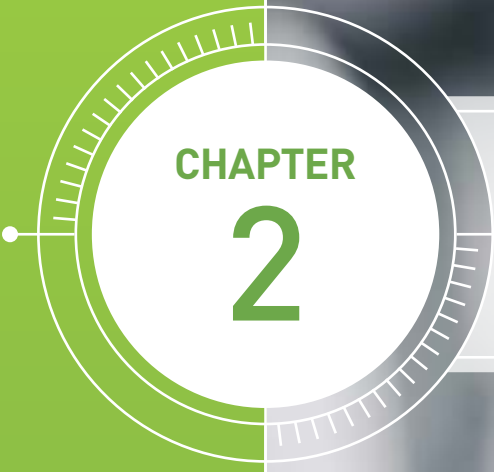
Singapore's services trade has seen healthy growth over the years, alongside our development as a global business, logistics and financial hub. At the same time, our services export markets have remained well diversified. Looking ahead, demand for services is expected to continue to increase, supported by trends such as the rising middle class in regional economies. By enhancing the competitiveness of Singapore's export-oriented services industries, broadening their access to more overseas markets and strengthening our trade links with global partners, Singapore will be well-positioned to tap on these opportunities and further grow our services exports over the longer term.

Contributed by:

Mr Lim Rei Hrn
Economist
Economics Division
Ministry of Trade and Industry

References

- Ang, Y. S. (2022). "Impact of the COVID-19 Pandemic on Singapore's Services Exports". *Economic Survey of Singapore, First Quarter 2022*.
- Chan, Y. J. and Lim, Y. (2012). "Update on Value-added from Singapore's Exports". *Economic Survey of Singapore, Third Quarter 2012*.
- Feng, A. and Teo, J. (2014). "Rising Contribution of Services Exports to the Singapore Economy". *Economic Survey of Singapore, Second Quarter 2014*.
- Kharas, H. (2010). "The Emerging Middle Class in Developing Countries". *OECD Development Centre Working Paper No. 285*.
- Murray, C. and Telling, O. (2023). "Severe drought in Panama hits global shipping industry". *Financial Times*.
- Ng, D. Y. (2019). "Estimating Singapore's Dependency on Exports Using the Singapore Supply, Use and Input-Output Tables". *Statistics Singapore Newsletter*, no. 2 (2019).



CHAPTER

2

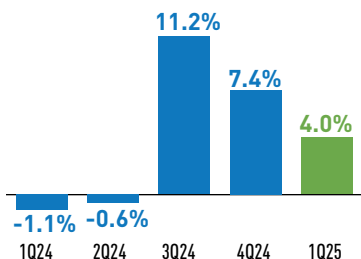
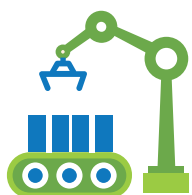
SECTORAL PERFORMANCE



Chapter 2

SECTORAL PERFORMANCE

MANUFACTURING (YoY Growth)



CLUSTERS IN MANUFACTURING SECTOR



13.7%

Transport Engineering



8.1%

Electronics



0.4%

Precision Engineering



-0.4%

Biomedical Manufacturing



-3.1%

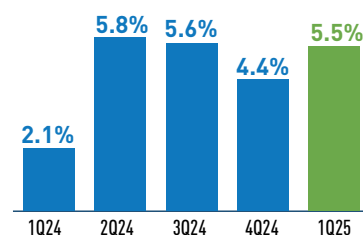
Chemicals



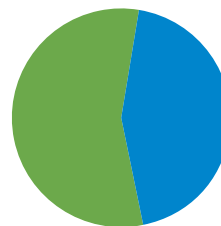
-6.0%

General Manufacturing Industries

CONSTRUCTION (YoY Growth)



CERTIFIED PAYMENTS (% Share)

55.7%
Public44.3%
Private

CONTRACTS AWARDED (YoY Growth)

578.3%



Industrial

55.6%



Institutional & Others

21.1%



Residential

-6.2%



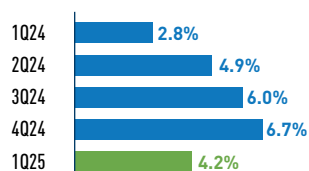
Civil Engineering

-52.0%



Commercial

WHOLESALE TRADE (YoY Growth)



Foreign Wholesale Trade Index Growth

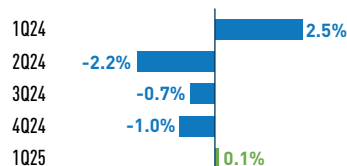
4.9%



Domestic Wholesale Trade Index Growth

-2.3%

RETAIL TRADE (YoY Growth)



Retail Sales Index Growth (Motor Vehicles)

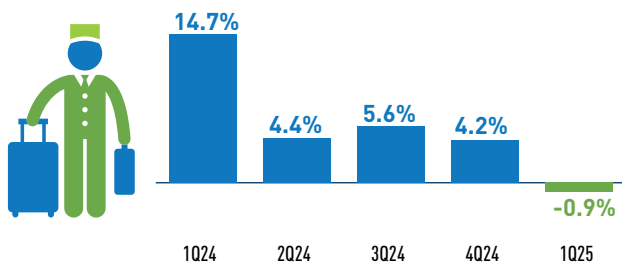
13.2%



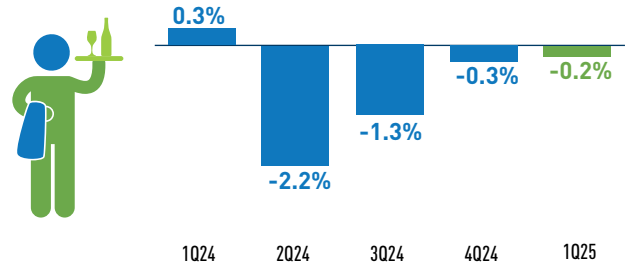
Retail Sales Index Growth (Non-Motor Vehicles)

-1.7%

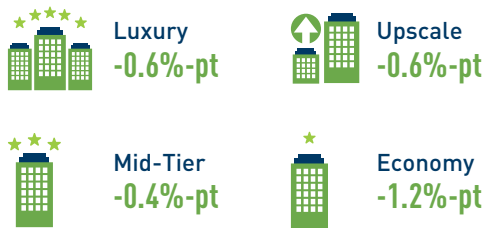
ACCOMMODATION (YoY Growth)



FOOD & BEVERAGE SERVICES (YoY Growth)



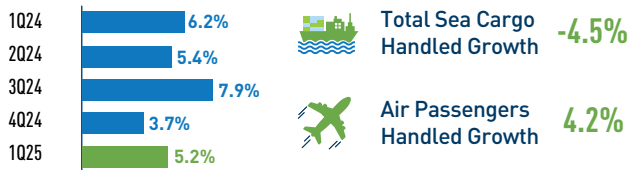
OCCUPANCY RATES OF HOTELS (YoY Change)



FOOD & BEVERAGE SALES INDEX GROWTH (YoY Growth)



TRANSPORTATION & STORAGE (YoY Growth)

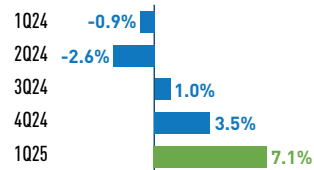


Total Sea Cargo
Handled Growth -4.5%

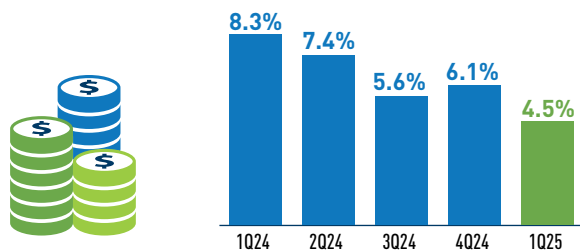


Air Passengers
Handled Growth 4.2%

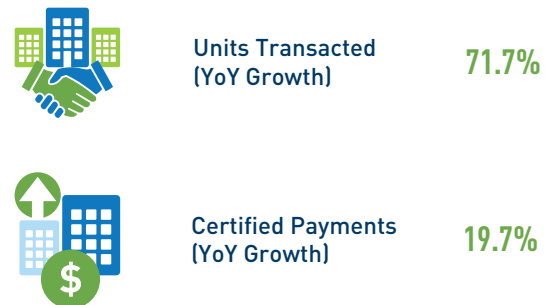
REAL ESTATE (YoY Growth)



FINANCE & INSURANCE (YoY Growth)



PRIVATE RESIDENTIAL REAL ESTATE



OVERVIEW

In the first quarter of 2025,

- The manufacturing sector expanded by 4.0 per cent year-on-year, moderating from the 7.4 per cent growth in the preceding quarter. Growth was largely led by the transport engineering and electronics clusters.
- The construction sector grew by 5.5 per cent year-on-year, extending the 4.4 per cent expansion in the previous quarter.
- The wholesale trade sector expanded by 4.2 per cent year-on-year, slowing from the 6.7 per cent expansion posted in the preceding quarter.
- The retail trade sector expanded by 0.1 per cent year-on-year, reversing the 1.0 per cent decline recorded in the previous quarter.
- The transportation & storage sector posted growth of 5.2 per cent year-on-year, picking up from the 3.7 per cent growth recorded in the previous quarter.
- The accommodation sector contracted by 0.9 per cent year-on-year, a reversal from the 4.2 per cent growth in the previous quarter.
- The food & beverage services sector contracted by 0.2 per cent year-on-year, extending the 0.3 per cent decline in the previous quarter.
- The finance & insurance sector expanded by 4.5 per cent year-on-year, moderating from the 6.1 per cent gain in the preceding quarter.
- The real estate sector expanded by 7.1 per cent year-on-year, a reversal from the 3.5 per cent contraction in the preceding quarter.
- The professional services sector grew by 1.4 per cent year-on-year, extending the 0.6 per cent expansion in the previous quarter.

MANUFACTURING

The manufacturing sector expanded by 4.0 per cent on a year-on-year basis in the first quarter of 2025, moderating from the 7.4 per cent growth in the previous quarter (Exhibit 2.1). Growth was largely led by the transport engineering and electronics clusters. (Exhibit 2.2).

Exhibit 2.1: Manufacturing Sector's Growth Rate

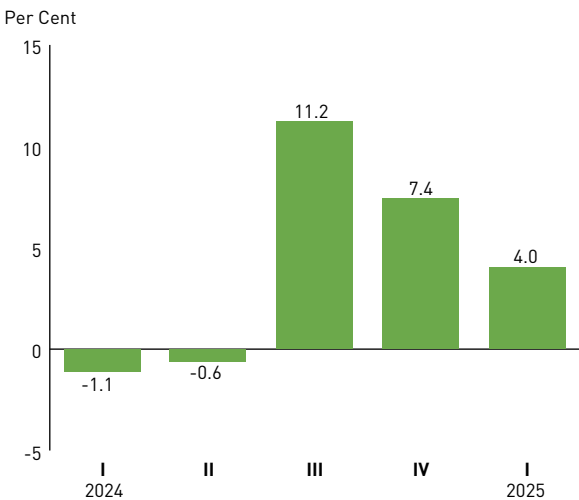
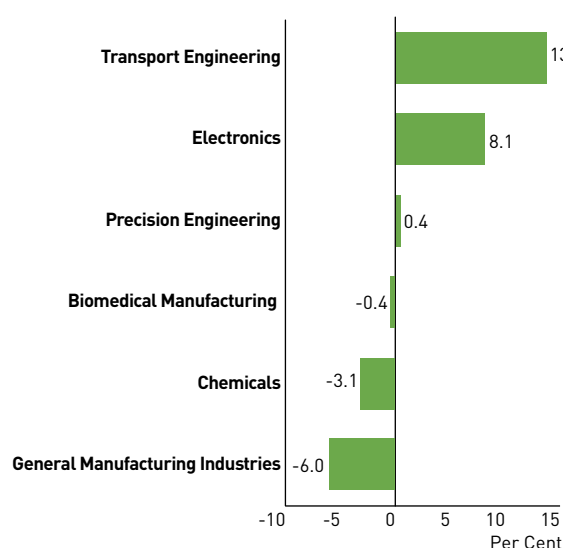


Exhibit 2.2: Manufacturing Clusters' Growth Rates in 1Q 2025

The transport engineering cluster expanded by 13.7 per cent year-on-year in the first quarter, supported by output expansions in all segments. The aerospace segment grew by 18.0 per cent, bolstered by a higher level of production of aircraft parts, and more maintenance, repair and overhaul (MRO) jobs from commercial airlines. The marine & offshore engineering and land segments grew by 9.1 per cent and 1.6 per cent respectively, with the former recording higher level of activity in the shipyards.

The electronics cluster grew by 8.1 per cent year-on-year in the first quarter, driven by output expansions in all segments except the other electronic modules and components segment. Output of the infocomms & consumer electronics, semiconductors and computer peripherals & data storage segments grew by 28.5 per cent, 6.7 per cent and 3.6 per cent respectively, on the back of improved electronics demand. By contrast, output for the other electronic modules & components segment declined by 6.0 per cent.

Output in the precision engineering cluster grew by 0.4 per cent year-on-year in the first quarter. The precision modules & components segment expanded by 3.8 per cent, supported by a higher level of production of optical instruments, plastic precision components and electronic connectors. Conversely, the machinery & systems segment fell by 0.3 per cent due to a lower level of production of process control equipment and mechanical engineering works.

The biomedical manufacturing cluster contracted by 0.4 per cent year-on-year in the first quarter, driven by an output contraction in the pharmaceuticals segment. The pharmaceuticals segment declined by 2.4 per cent on account of a different mix of active pharmaceutical ingredients (APIs) being produced. On the other hand, output in the medical technology segment rose by 2.7 per cent, supported by continued export demand for medical devices.

Output in the chemicals cluster declined by 3.1 per cent year-on-year in the first quarter, driven by a fall in output of the specialty chemicals (-11.1 per cent), petrochemicals (-5.5 per cent) and other chemicals (-3.6 per cent) segments. The specialty chemicals segment recorded a lower level of production of mineral oil additives, industrial gases and biofuels, while the other chemicals segment recorded a smaller output of fragrances. By contrast, the petroleum segment grew by 1.6 per cent.

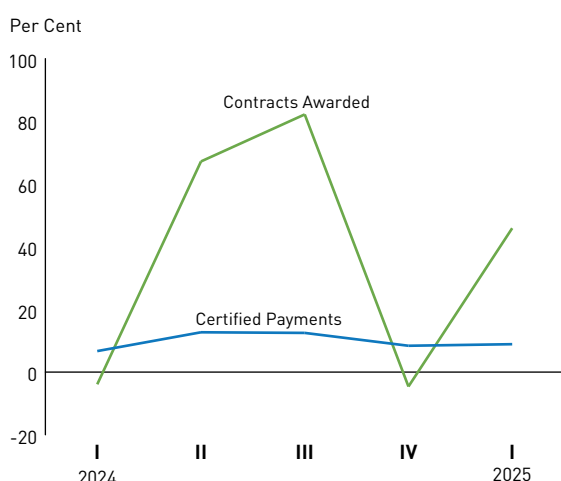
The general manufacturing cluster contracted by 6.0 per cent year-on-year in the first quarter. The miscellaneous industries segment declined by 11.7 per cent, led by a lower level of output of structural metal components & products and paper & paperboard containers & boxes. The printing and food, beverage & tobacco segments declined by 2.7 and 2.5 per cent respectively with the latter recording lower production of milk powder and bakery products.

CONSTRUCTION

The construction sector grew by 5.5 per cent year-on-year in the first quarter of 2025, extending the 4.4 per cent expansion in the previous quarter.

In the first quarter, nominal certified progress payments, a proxy for construction output, rose by 8.9 per cent year-on-year, extending the 8.4 per cent increase recorded in the previous quarter (Exhibit 2.3). The increase in certified progress payments was supported by expansions in both the public (9.1 per cent) as well as the private (8.7 per cent) sector construction works. The growth in public certified progress payments was largely driven by higher outturns in public civil engineering (15.7 per cent) and institutional & others building (9.8 per cent) works. Meanwhile, the expansion in private certified progress payments was led by growth in private residential (19.7 per cent) and commercial (11.2 per cent) building works.

Exhibit 2.3: Changes in Contracts Awarded and Certified Payments



Construction demand in terms of contracts awarded rose by 45.9 per cent year-on-year in the first quarter, reversing the 4.6 per cent contraction in the previous quarter (Exhibit 2.3). The growth in contracts awarded during the quarter was on account of higher public (5.6 per cent) and private (124 per cent) sector construction demand. The former was led by an increase in contracts awarded for public residential (116 per cent) and industrial (422 per cent) building works, while the latter was led by an expansion in contracts awarded for private industrial (599 per cent) and institutional & others (1,245 per cent) building works.

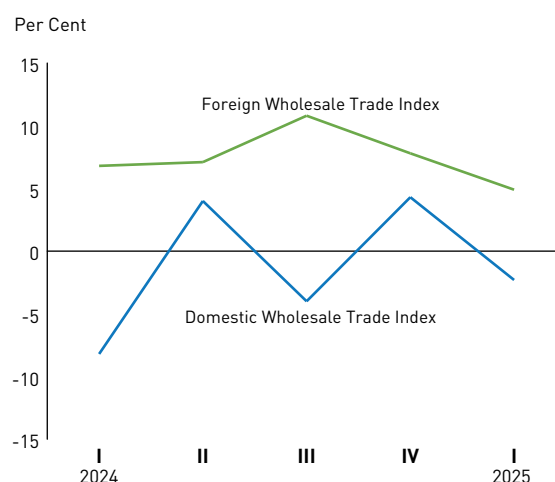
WHOLESALE TRADE

The wholesale trade sector grew by 4.2 per cent year-on-year in the first quarter of 2025, slowing from the 6.7 per cent expansion in the previous quarter.

The expansion of the sector was led by a 4.9 per cent year-on-year growth in foreign wholesale trade sales volume over the same period (Exhibit 2.4), easing from the 7.8 per cent expansion recorded in the previous quarter. The growth in the quarter was led by expansions in the sales volumes of electronic components (46.7 per cent), other wholesale trade¹ (10.6 per cent), food, beverages & tobacco (16.2 per cent), petroleum & petroleum products (1.8 per cent) and telecommunications & computers (6.3 per cent), which more than offset the declines in the sales volumes within the general wholesale trade (-11.6 per cent), metals, timber & construction materials (-3.9 per cent) and industrial & construction machinery (-16.9 per cent) segments.

On the other hand, the domestic wholesale trade sales volume contracted by 2.3 per cent year-on-year, reversing the 4.3 per cent growth in the previous quarter. The decline was led by the decrease in sales volume of electronic components (-27.6 per cent), telecommunications & computers (-16.1 per cent) and chemicals & chemical products (-32.8 per cent), which outweighed the expansions in wholesale sales of the other wholesale trade (10.9 per cent) and general wholesale trade (25.5 per cent) segments.

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



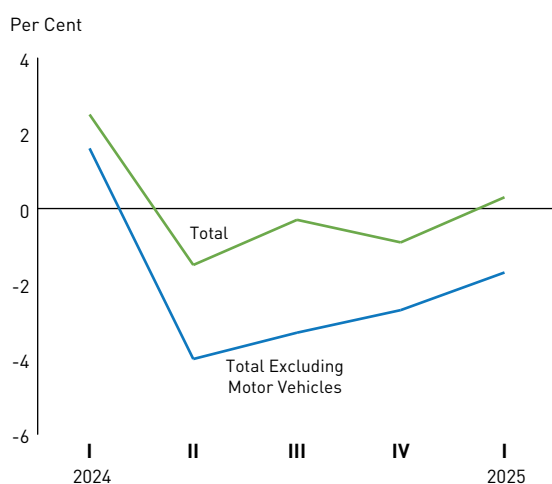
¹ The "other wholesale trade" segment consists of a diverse range of products that include agricultural raw materials and live animals, tropical produce, personal effects and medicinal and pharmaceutical products, among others.

RETAIL TRADE

The retail trade sector expanded by 0.1 per cent year-on-year in the first quarter of 2025, reversing the 1.0 per cent contraction recorded in the previous quarter.

In the first quarter, overall retail sales volume grew by 0.3 per cent year-on-year, a reversal from the 0.9 per cent decline in the preceding quarter (Exhibit 2.5). The expansion in overall retail sales volume in the first quarter of 2025 was driven by growth in motor vehicular sales (13.2 per cent) which outweighed a decline in non-motor vehicular sales volume (-1.7 per cent). The fall in non-motor vehicle sales in the first quarter was driven by declines in the watches & jewellery (-4.2 per cent) and wearing apparel & footwear (-4.1 per cent) segments. By contrast, the cosmetics, toiletries & medical goods (6.4 per cent) and computer & telecommunications equipment (1.7 per cent) grew.

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

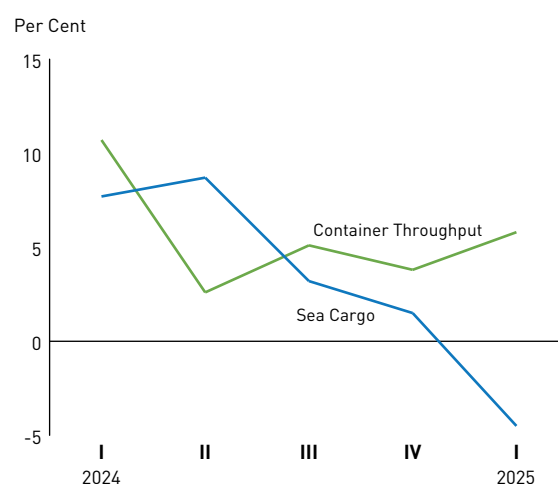


TRANSPORTATION & STORAGE

The transportation & storage sector expanded by 5.2 per cent year-on-year in the first quarter of 2025, picking up from the 3.7 per cent growth posted in the previous quarter, as expansions of the water transport and air transport segments more than offset the decline in the land transport segment.

In the water transport segment, container throughput increased by 5.8 per cent year-on-year in the first quarter, accelerating from the 3.8 per cent growth posted in the previous quarter (Exhibit 2.6). This increase more than offset the decline in total sea cargo volume handled at our ports over the same period (-4.5 per cent), which came on the back of contractions in general cargo (-0.3 per cent), bulk cargo (-11.2 per cent) and oil-in-bulk cargo volumes (-15.2 per cent).

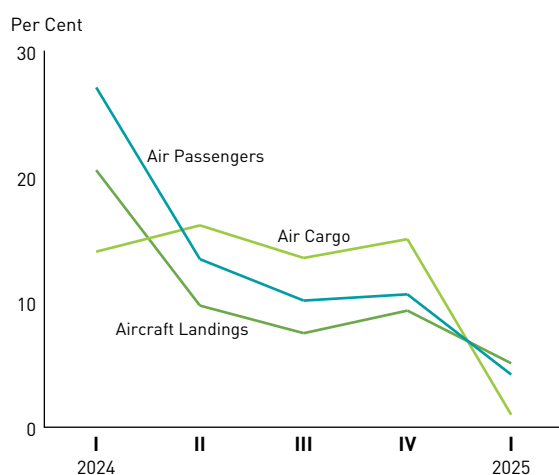
Exhibit 2.6: Changes in Container Throughput and Sea Cargo Handled



Within the air transport segment, the volume of air passenger traffic (less transit) handled at Changi Airport rose by 4.2 per cent year-on-year in the first quarter, easing from the 10.6 per cent growth posted in the previous quarter (Exhibit 2.7).

Reflecting the continued expansion in air travel, the number of aircraft landings increased by 5.1 per cent year-on-year to reach 46,970 in the first quarter of 2025, moderating from the 9.3 per cent increase in the preceding quarter. Meanwhile, total air cargo shipments handled at Changi Airport rose by 1.0 per cent in the first quarter, easing sharply from the 15.0 per cent expansion in the previous quarter.

Exhibit 2.7: Changes in Air Transport

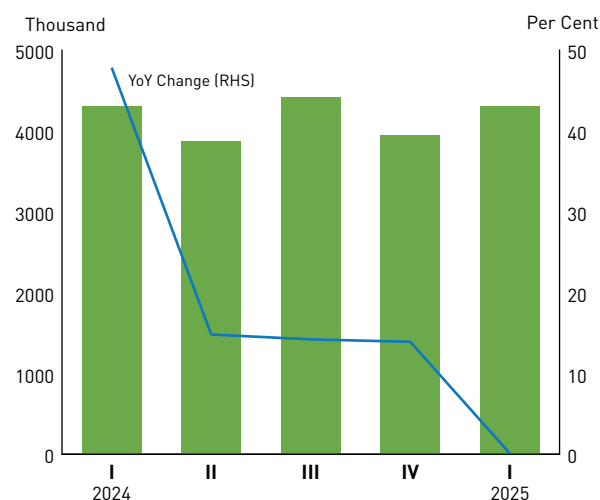


ACCOMMODATION

The accommodation sector contracted by 0.9 per cent year-on-year in the first quarter of 2025, reversing the 4.2 per cent growth in the previous quarter.

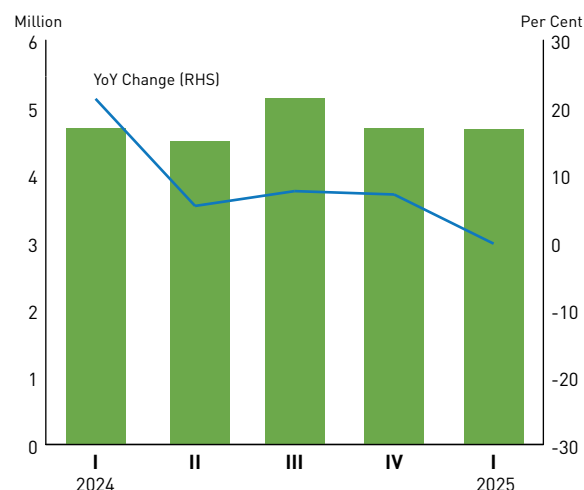
In the first quarter, total visitor arrivals grew by 0.1 per cent year-on-year, a pullback from the 13.9 per cent growth in the previous quarter (Exhibit 2.8). In level terms, the number of visitor arrivals in the first quarter of 2025 was around 4.3 million, reaching 91.9 per cent of the 4.7 million visitor arrivals recorded in the first quarter of 2019 (i.e., pre-COVID level).

Exhibit 2.8: Visitor Arrivals



Despite the marginal increase in visitor arrivals, gross lettings at gazetted hotels declined by 0.2 per cent year-on-year in the first quarter, reversing the 7.1 per cent increase in the previous quarter (Exhibit 2.9). Meanwhile, the average occupancy rate of gazetted hotels declined by 0.7 percentage-points year-on-year to 81.0 per cent in the first quarter of 2025. However, this was an improvement over the 79.8 per cent recorded in the previous quarter.

Exhibit 2.9: Gross Lettings at Gazetted Hotels

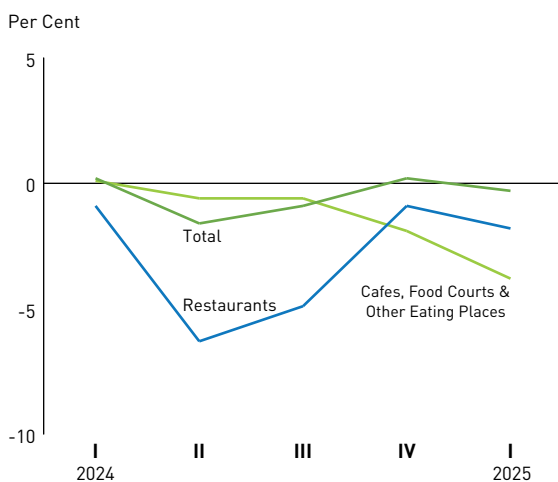


FOOD & BEVERAGE SERVICES

The food & beverage services sector contracted by 0.2 per cent year-on-year in the first quarter of 2025, extending the 0.3 per cent contraction in the previous quarter.

Overall food & beverage sales volume contracted by 0.3 per cent year-on-year in the first quarter, reversing the 0.2 per cent expansion in the previous quarter (Exhibit 2.10). The decline in food & beverage sales volume was led by the cafes, food courts & other eating places (-3.8 per cent), restaurants (-1.8 per cent) and fast food (-1.3 per cent) segments. On the other hand, sales of the food caterers segment continued to grow (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 4.5 per cent year-on-year, moderating from the 6.1 per cent gain in the preceding quarter.

The weaker performance in the first quarter was primarily driven by slower growth in the banking and fund management segments. In particular, portfolio management fees were hit by heightened financial market volatility and steep valuation losses. Meanwhile, credit intermediation activity slowed, with growth in loans to residents moderating to 4.8 per cent year-on-year in the first quarter of 2025 from 5.2 per cent in the previous quarter, dragged down by lacklustre lending to non-bank financial institutions (Exhibit 2.11). Over the same period, growth in loans to non-residents also eased from 4.1 to 3.5 per cent year-on-year owing to a contraction in lending to the Americas (Exhibit 2.12).

Exhibit 2.11: Growth of Bank Loans & Advances to Non-Bank Residents by Industry in 1Q 2025

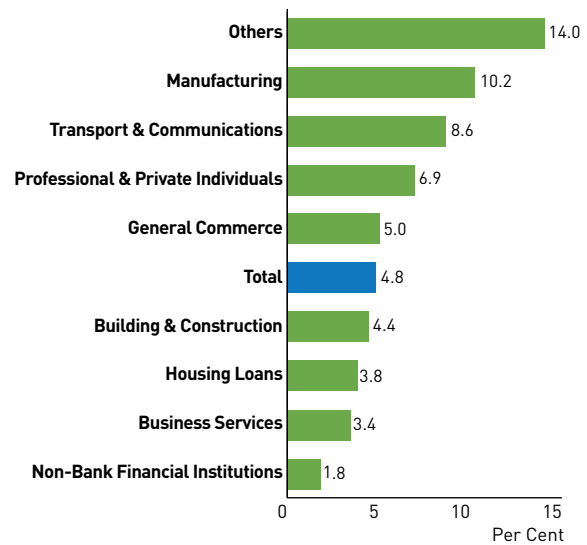
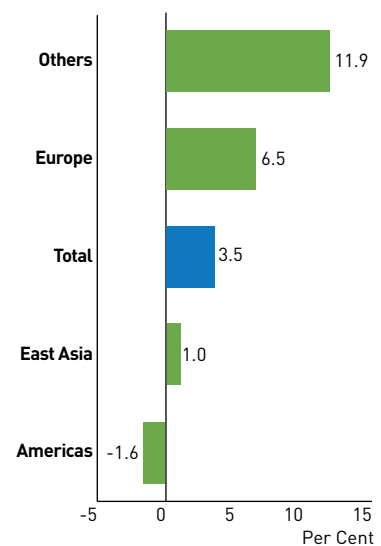


Exhibit 2.12: Growth of Bank Loans & Advances to Non-Bank Non-Residents by Region in 1Q 2025



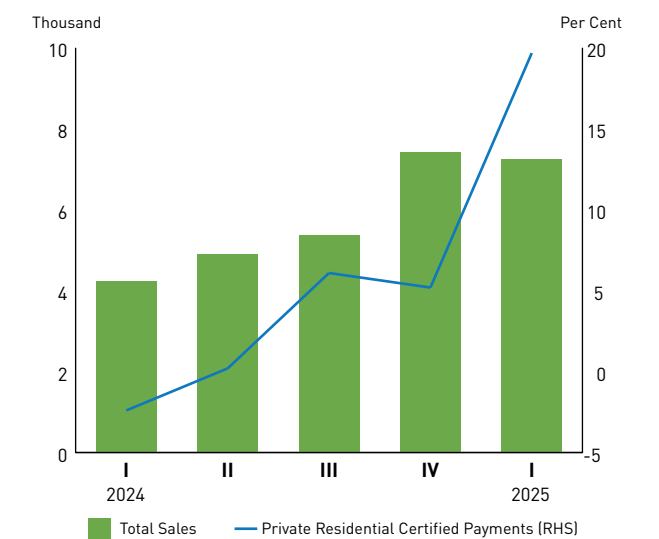
Additionally, the insurance segment extended the decline in the previous quarter, weighed down by lower net premiums for life insurance, even as net premiums for general insurance continued to grow.

REAL ESTATE

The real estate sector expanded by 7.1 per cent year-on-year in the first quarter of 2025, following the 3.5 per cent growth in the preceding quarter. Growth in the sector was due to expansions in the private residential property segment, as well as the private commercial and industrial property segments.

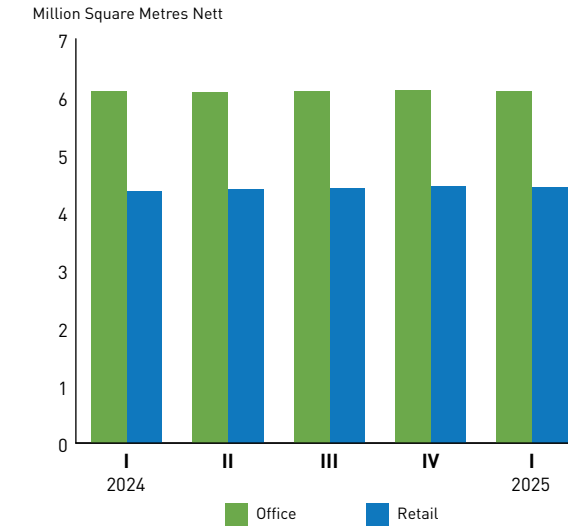
Within the sector, private residential certified payments² grew by 19.7 per cent year-on-year in the first quarter, accelerating from the 5.2 per cent expansion in the previous quarter. Similarly, total private residential property sales rose by 71.7 per cent in the first quarter, extending the 71.5 per cent increase in the previous quarter. (Exhibit 2.13).

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



Meanwhile, demand for private commercial office space was flat in the first quarter, following the 0.3 per cent increase in the preceding quarter. On the other hand, in the private commercial retail space market, demand rose by 1.7 per cent on a year-on-year basis in the first quarter, continuing the 2.1 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 0.9 per cent on a year-on-year basis in the first quarter, following the 0.7 per cent increase in the preceding quarter (Exhibit 2.15).

Exhibit 2.15: Total Occupied Space for Private Sector Industrial Space



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

PROFESSIONAL SERVICES

In the first quarter of 2025, the professional services sector grew by 1.4 per cent year-on-year, extending the 0.6 per cent expansion in the previous quarter. Growth was led by expansions in the head offices & business representative offices and the business & management consultancy segments.³

³ The professional services sector is made up of the following segments: (i) legal, (ii) accounting, (iii) head offices & business representative offices, (iv) business & management consultancy, (v) architectural & engineering, technical testing & analysis, and (vi) other professional, scientific & technical services.

CHAPTER

3

ECONOMIC OUTLOOK





Chapter 3

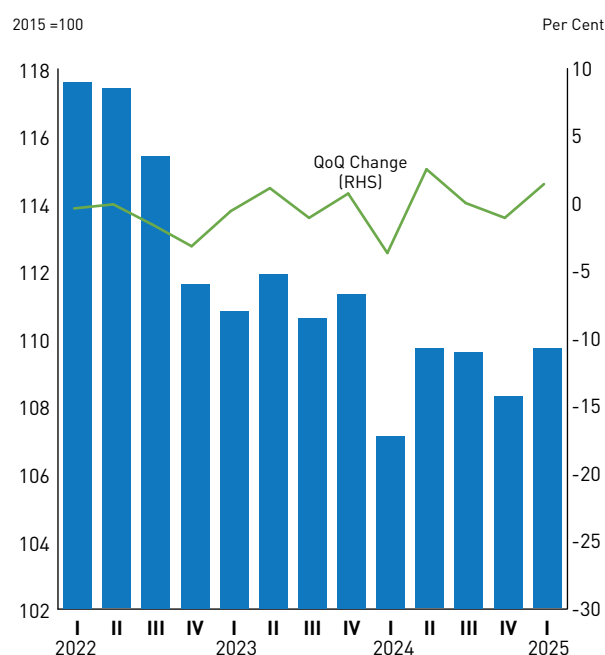
ECONOMIC OUTLOOK

LEADING INDICATORS

On a quarter-on-quarter basis, the composite leading index (CLI) rose by 1.3 per cent in the first quarter of 2025, a turnaround from the 1.2 per cent contraction in the previous quarter (Exhibit 3.1).

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

Exhibit 3.1: Composite Leading Index Levels and Growth Rate



OUTLOOK FOR 2025

In April, MTI downgraded Singapore's GDP growth forecast for 2025 to "0.0 to 2.0 per cent", from "1.0 to 3.0 per cent". This was on account of the significant deterioration in Singapore's external demand outlook following the announcement of sweeping tariffs¹ by the US and the ensuing cycle of tit-for-tat tariffs with China, which were expected to weigh heavily on global trade and global economic growth. Since then, the US and several economies affected by the US' tariffs have embarked on trade negotiations, with the UK and China reaching agreements with the US recently. Notably, the US and China have agreed to reduce the tariffs imposed on each other for 90 days while they negotiate a trade deal.² Given the steps taken by major economies to de-escalate global trade tensions, MTI's assessment is that Singapore's external demand outlook for the rest of the year has improved slightly compared to April.

In the US, GDP growth is likely to come in slightly better than projected in April given the 90-day truce in the trade war with China, although growth is still expected to slow for the rest of 2025 as tariff-induced inflation and heightened uncertainty weigh on consumption and investment growth. Meanwhile, GDP growth in the Eurozone is expected to be subdued given the deterioration in business sentiments and early signs of weakening business activity, although easing inflation and accommodative monetary policy could provide some support.

In Asia, China's GDP growth is likely to be stronger than earlier projected in April due to the substantial package of policy support measures that was recently announced and the temporary truce in the trade war with the US. At the same time, the GDP growth of key Southeast Asian economies should continue to be supported by an expansion in domestic demand, although the expected slowdown in global trade amidst the US tariff hikes is likely to weigh on their exports growth.

¹ These included a baseline tariff of 10 per cent on all countries and higher reciprocal tariffs targeted at countries that run large trade surpluses with the US, although the reciprocal tariffs have been suspended for 90 days starting from 9 April.

² On 12 May, the US and China announced that US' tariffs on China would be reduced from 145 per cent to 30 per cent, while China's tariffs on the US would be lowered from 125 per cent to 10 per cent, for 90 days starting from 14 May.

Notwithstanding the positive developments in recent weeks, the global economic outlook remains clouded by significant uncertainty, with the risks tilted to the downside. First, elevated economic uncertainty may lead to a larger-than-expected pullback in economic activity as businesses and households adopt a “wait-and-see” approach before making spending decisions. Second, a re-escalation in tariff actions, including retaliatory tariffs, could lead to a full-blown global trade war, which will upend global supply chains, raise costs and cause a sharper global economic slowdown. Third, disruptions to the global disinflation process and recession risks in both advanced and emerging markets could lead to destabilising capital flows that could trigger latent vulnerabilities in banking and financial systems.

Against this backdrop, the growth of outward-oriented sectors in Singapore is expected to slow over the course of the year. In particular, the US’ tariff measures are likely to adversely affect the manufacturing sector given its export exposure to the US market, as well as slowing growth in global end-markets. Nonetheless, the transport engineering cluster within the sector remains a bright spot, especially given the shift towards aircraft maintenance, repair & overhaul works that are higher value-added in Singapore.

The slowdown in the manufacturing sector, alongside weaker global trade, is in turn expected to weigh on the trade-related services sectors in Singapore. In the wholesale trade sector, sales volumes are expected to weaken as the boost from front-loading activities dissipates and global trade softens, especially in the second half of 2025. The projected decline in global trade will similarly negatively affect the transportation & storage sector through its drag on demand for shipping and air cargo services.

Meanwhile, growth in the finance & insurance sector could be weighed down by episodes of weaker trading activity, as well as a moderation in growth in the payments segment in tandem with more tepid business activity and lower consumer spending. At the same time, the deterioration in the business expectations of manufacturing and services firms in Singapore will likely result in them cutting back on discretionary spending (e.g., on IT and marketing), which will dampen the growth of the information & communications and professional services sectors.

Finally, growth in consumer-facing sectors such as retail trade and food & beverage services is likely to remain lacklustre, weighed down by locals’ continued spending abroad and the expected weakening of domestic labour market conditions.

Taking into account the performance of the Singapore economy in the first quarter, as well as the latest global and domestic economic situations, **Singapore’s GDP growth forecast for 2025 is maintained at “0.0 to 2.0 per cent”.**

FEATURE
ARTICLE

LONG-RUN IMPACT OF VOCATIONAL SECONDARY EDUCATION



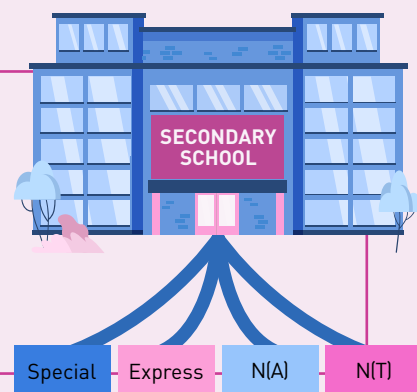


Feature Article

LONG-RUN IMPACT OF VOCATIONAL SECONDARY EDUCATION

OVERVIEW

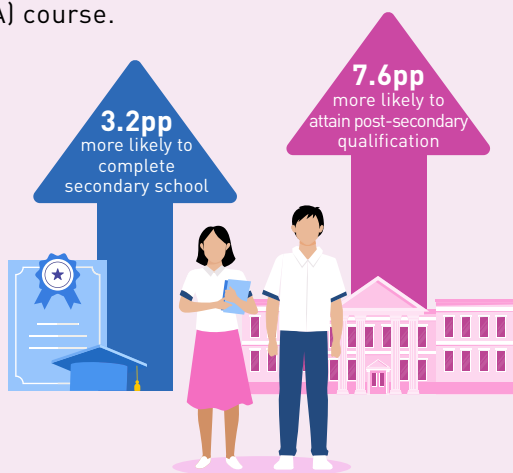
Singapore's education system has long offered students a range of educational pathways so that students can learn at a pace that suits them. In 1981, students were assigned to one of three courses — Normal, Express and Special — based on their Primary School Leaving Examination (PSLE) scores. In 1994, the Normal course was differentiated into the Normal (Academic) [N(A)] and Normal (Technical) [N(T)] courses, with the latter aimed at reducing dropout rates and supporting students who were inclined towards a vocational secondary education.



FINDINGS

Finding 1:

Among students with comparable PSLE scores, those who attended the N(T) course were 3.2 percentage-points (pp) more likely to complete secondary school, and 7.6 pp more likely to attain post-secondary qualification compared to those who attended the N(A) course.



Finding 2:

In terms of labour market outcomes (i.e., employment, earnings and wealth accumulation), those who attended the N(T) and N(A) courses had comparable outcomes.



POLICY TAKEAWAY

These findings suggest that the policy objectives of the N(T) course, in terms of reducing dropout rates and enhancing access to vocational quantifications, had been met. They also challenge common perceptions about disparities between educational courses and highlight the importance of providing multiple pathways to success in education given that they could create meaningful opportunities for all students, regardless of the specific course pursued.

Indeed, choosing a course based solely on its perceived benefits (on average) might lead to adverse individual outcomes in some instances; for example, our results implied that comparable students who attended the N(A) course were less likely to complete secondary education and obtain a post-secondary qualification compared to those who attended the N(T) course.



EXECUTIVE SUMMARY

- Singapore's education system has long offered students a range of educational pathways so that students can learn at a pace that suits them. In 1994, the Normal course was differentiated into the Normal (Academic) [N(A)] and Normal (Technical) [N(T)] courses, with the latter aimed at reducing dropout rates and supporting students who were inclined towards a vocational secondary education.
- In this study, we examined the long-run impact of vocational secondary education on students. Specifically, we compared the highest education attained and labour market outcomes of students who attended the N(T) course against those of students who attended the N(A) course, focusing on the first five cohorts of N(T) and N(A) students. To estimate the causal impact of attending the N(T) course, we used a regression discontinuity design, which compared the outcomes of students who scored just above versus those who scored just below the Primary School Leaving Examination (PSLE) cut-off score used to assign students to the N(A) or N(T) course.
- We found that students who attended the N(T) course were 3.2 percentage-points (pp) more likely to complete secondary school and 7.6 pp more likely to attain a post-secondary qualification, typically from the Institute of Technical Education (ITE), compared to those who attended the N(A) course. However, these students were also 3.1 pp less likely to obtain a degree from publicly-funded universities. In terms of labour market outcomes (i.e., employment, earnings and wealth accumulation), we found that the N(T) and N(A) students had comparable outcomes.
- Taken together, our findings indicate that attending the N(T) course resulted in a higher level of minimum education attained by its students by increasing their likelihood of completing secondary education and obtaining a post-secondary qualification, while also maintaining comparable labour market outcomes. This suggests that the policy of having an N(T) course effectively achieved its goals of reducing dropout rates and supporting students who were inclined towards vocational secondary education.

The views expressed in this paper are solely those of the authors and do not necessarily reflect those of the Ministry of Trade and Industry (MTI), the Ministry of Education (MOE), or the Government of Singapore.¹

INTRODUCTION

Streaming in Singapore's secondary schools began in 1981 with students assigned to one of three courses — Normal, Express and Special² — based on their Primary School Leaving Examination (PSLE) scores. Streaming then was a form of curriculum customisation to allow students of varying academic abilities to learn at a pace that suited them. This was intended to ease the difficulty in learning for students with weaker academic abilities and maintain their interest in schooling.

In 1994, the Normal course was differentiated into the Normal (Academic) [N(A)] and Normal (Technical) [N(T)] courses. This change was aimed at supporting students who were inclined towards vocational education to progress to secondary school, thus allowing them to benefit from 10 years of formal education (Ministry of Education, 2019). The N(T) course enabled students to engage in more vocational subjects, culminating in the Singapore-Cambridge General Certificate of Education Normal Level (GCE N-Level) after four years, which prepared them for post-secondary education at the Institute of Technical Education (ITE). Conversely, the N(A) course remained a five-year programme culminating in the GCE Ordinary Level (GCE O-Level).

The difference in the curriculum offered by the N(T) and N(A) courses could have led to differential impact on students' highest education attained and labour market outcomes. This study thus examined the causal impact of attending the N(T) course on N(T) students' longer-term education and labour market outcomes, compared to those who attended the N(A) course. Our study focused on the first five cohorts of students — i.e., those who took their PSLE between 1993 and 1997 — who were offered the N(T) and N(A) courses in secondary schools.

¹ We would like to thank Ms Yong Yik Wei, Dr Andy Feng and Mr Lee Zen Wea for their useful suggestions and comments, as well as the Ministry of Education for their inputs to this study. All errors, if any, belong to the authors.

² The Normal course was a five-year programme that culminated in the GCE O-Level. By contrast, the Express course was a four-year programme leading to the GCE O-Level. The Special course, on the other hand, allowed students to study English and their Mother Tongue at first-language levels while following the four-year curriculum leading to the GCE O-Level.

The rest of the article is organised as follows. We begin with a brief review of the academic literature related to streaming in schools, followed by a description of the data and methodology used in our study. We then present our findings, concluding with a summary of our results and their policy implications.

LITERATURE REVIEW

Streaming, which is synonymous with “tracking” in the academic literature, refers to the assignment of students to different types of learning environments such as schools, classes or courses, and has been a subject of extensive research and debate in the field of education. Proponents of streaming have argued that it accommodated the diverse abilities and interests of students, allowing them to thrive in environments tailored to their specific learning needs.

Terrin and Triventi’s (2023) meta-analysis of the research on streaming found that streaming could positively influence student learning and performance by enabling educators to align their pedagogical strategies with the varying needs of students. From a human capital perspective, streaming also allowed for greater gains from specialisation, as the accumulation of human capital (whether academic or vocational) was faster if students specialised early (Volker and Schütz, 2007).

On the other hand, concerns have also been raised regarding the potential negative implications of streaming, particularly in relation to educational inequality. In particular, critics have argued that streaming might exacerbate disparities in school achievement due to peer group effects and uneven resource allocation. For instance, low-performing students might miss out on the advantages of interacting with high-performing peers, while schools might disproportionately assign the most capable teachers to higher-ability classes (Terrin and Triventi, 2023).

Empirical studies around the world have yielded mixed findings on the effects of streaming. Duflo et al. (2011) investigated the impact of streaming within the context of the 2005 Extra Teacher Programme in Kenya. In their study, schools were divided into two groups: one where students were randomly assigned to sections and another where students were streamed based on their examination scores. The results indicated that students in schools that did streaming achieved significantly higher math and literacy scores compared to those in non-streaming schools, a trend that persisted across the entire spectrum of initial achievement levels.

Conversely, Betts and Shkolnik (2000) utilised data from the Longitudinal Study of American Youth to assess the effects of ability grouping on average math scores. Their findings showed that grouping students by ability had no significant overall impact on average scores and also had little to no differential effects across high-achieving, average and low-achieving students. Similarly, Figlio and Page (2002) drew upon data from the National Educational Longitudinal Study and the Schools and Staffing Survey in the US to compare achievement gains between similar students in schools with and without streaming. Their analysis found no evidence that streaming had an impact on low-ability students.

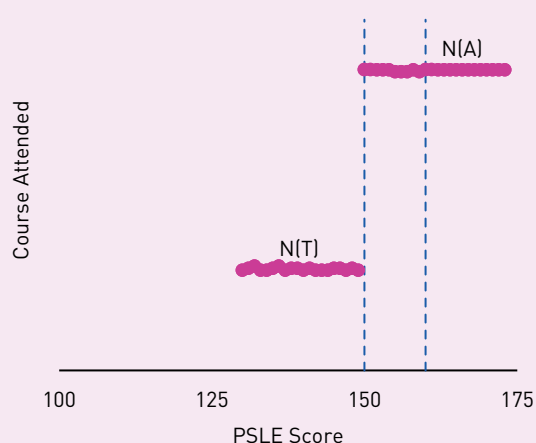
In sum, the existing empirical literature reveals a lack of consensus regarding the effects of streaming, with the outcomes found likely dependent on how streaming was operationalised as well as variations in school quality across the different contexts. Given Singapore’s smaller size and significant investment in education, our streaming policy was likely more uniformly implemented, resulting in less variations in the quality of schools offering N(T) and N(A) courses compared to other countries. We thus aimed to contribute to the discourse in the literature by studying the effects of attending the N(T) course relative to attending the N(A) course on students’ highest education attained and labour market outcomes.

DATA AND SUMMARY STATISTICS

Our study focused on students who took the PSLE between 1993 and 1997, and subsequently attended either the N(T) or N(A) course. We merged education data, including PSLE scores, stream eligibility and stream attendance, with an individual-level longitudinal administrative dataset that contained demographic, economic and other educational characteristics for selected years (i.e., 2006, 2009, 2012 and 2015).

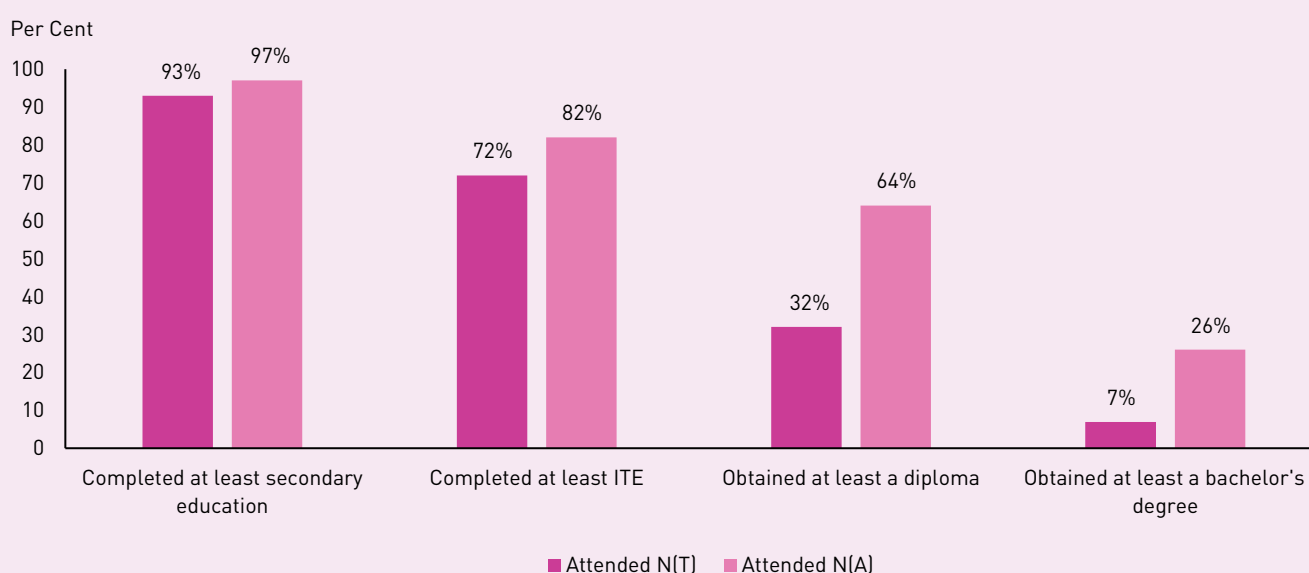
Based on the data, students who attended the N(T) course had lower PSLE scores than those who attended the N(A) course on average (Exhibit 1). For those who attended the N(T) course, their highest education attained and annual incomes were also lower compared to those who attended the N(A) course. Specifically, only 7 per cent of N(T) students obtained a bachelor's degree from publicly-funded universities, in contrast to 26 per cent of N(A) students (Exhibit 2). Additionally, in 2012 and 2015 (when the N(T) and N(A) cohorts covered in the study would likely have been in the workforce for a few years), those who attended N(T) earned, on average, 31 per cent less than their N(A) counterparts (Exhibit 3).³

Exhibit 1: PSLE Score and Course Attended for the 1994 Cohort



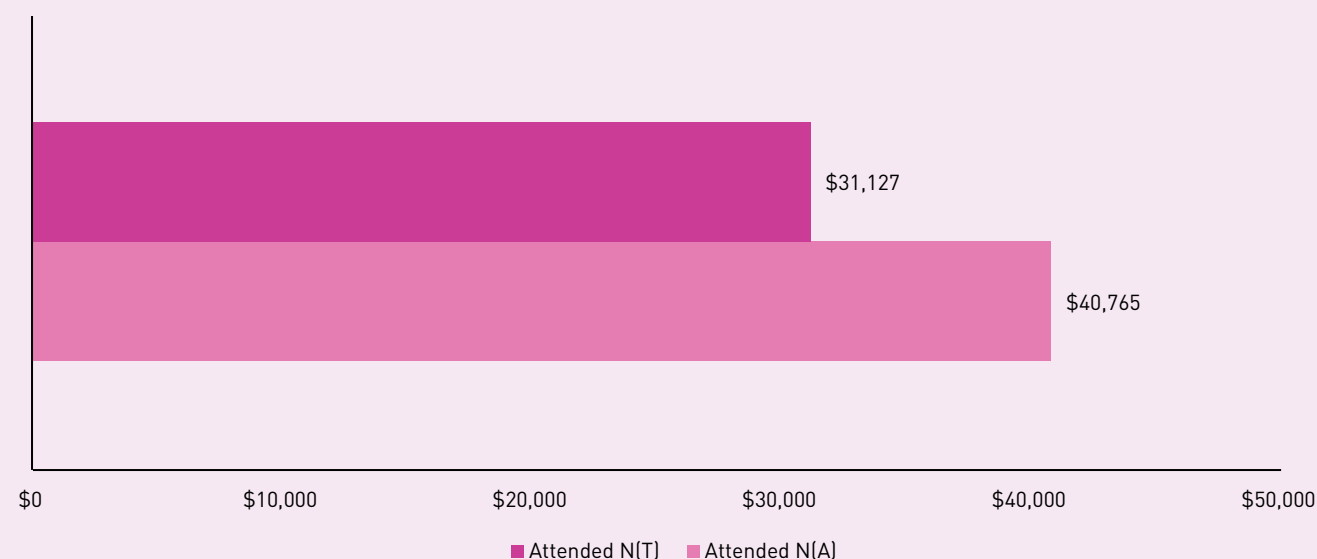
Source: Authors' calculations

Exhibit 2: Proportion of Students by Educational Qualifications as at 2015



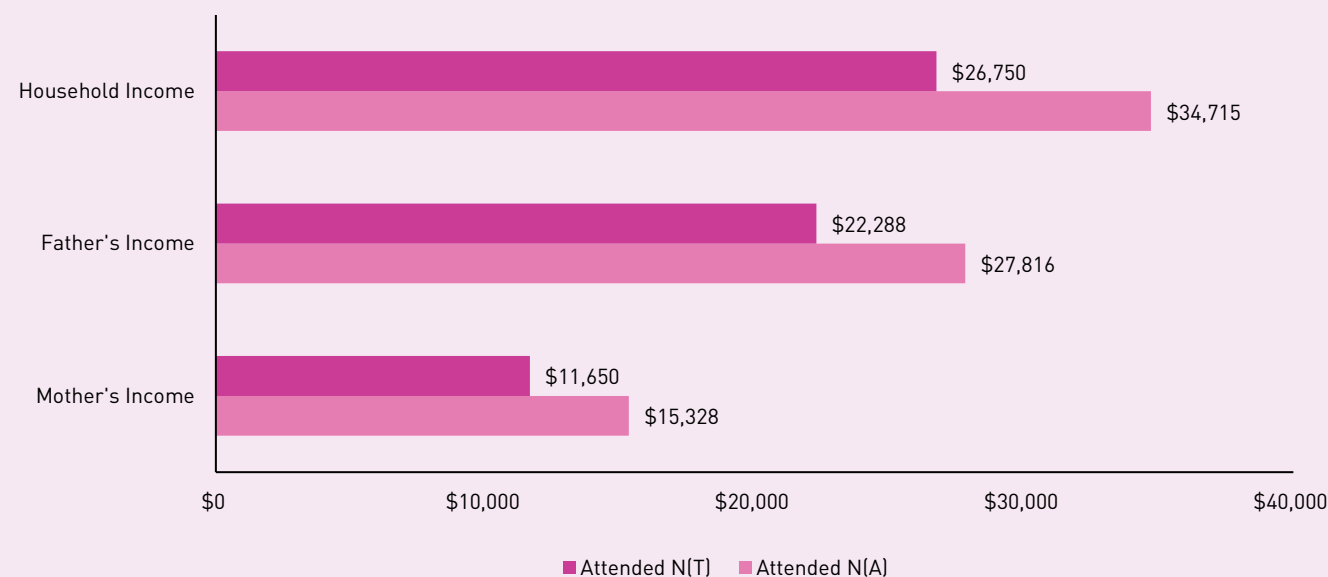
Source: Authors' calculations

³ The individuals covered in this study were aged 21 to 25 by 2006, and 30 to 34 by 2015. We focused on the average annual income from work for the years 2012 and 2015 as individuals from the N(T) and N(A) cohorts studied would likely have been in the workforce for a few years by then. Annual income data for the years 2006 and 2009 were excluded because some individuals might have still been pursuing further studies during those years. This delayed labour force participation effect was particularly noticeable among males, who typically had to complete National Service before formally entering the workforce.

Exhibit 3: Average Annual Income from Work, 2012 and 2015

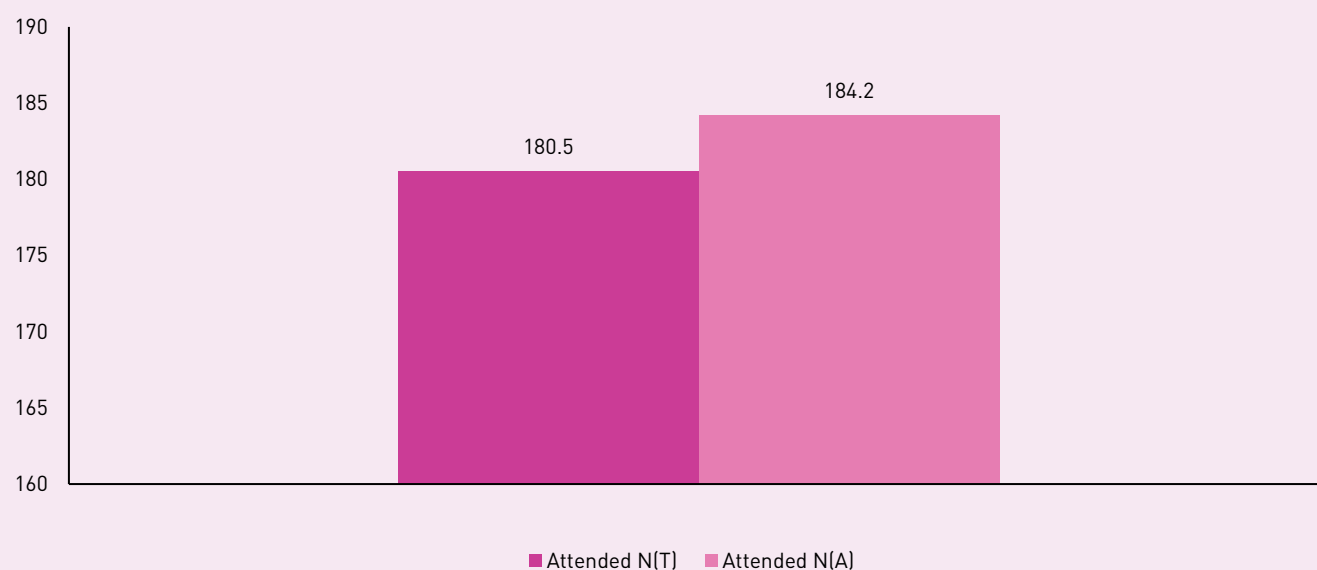
Source: Authors' calculations

However, the differences in the highest education attained and labour market outcomes presented thus far could be due to the underlying academic ability of the students, and not specifically because of the course that they attended (i.e., N(T) or N(A) course), as those who attended N(T) had lower PSLE scores. Beyond academic ability, various observable and unobservable factors (e.g., family resources, the quality of primary school peers, motivation and individual aptitudes) could have also affected the students' outcomes. For example, parents of N(T) students had lower annual incomes in 1996 (Exhibit 4), and N(T) students had peers with slightly lower average PSLE scores⁴ (Exhibit 5).

Exhibit 4: Parents' Annual Income in 1996

Source: Authors' calculations

4 This variable was constructed by calculating the average PSLE score of all other students in the school who took the PSLE, excluding the individual's own PSLE score.

Exhibit 5: Average PSLE Score of Primary School Peers, 1993 – 1997

Source: Authors' calculations

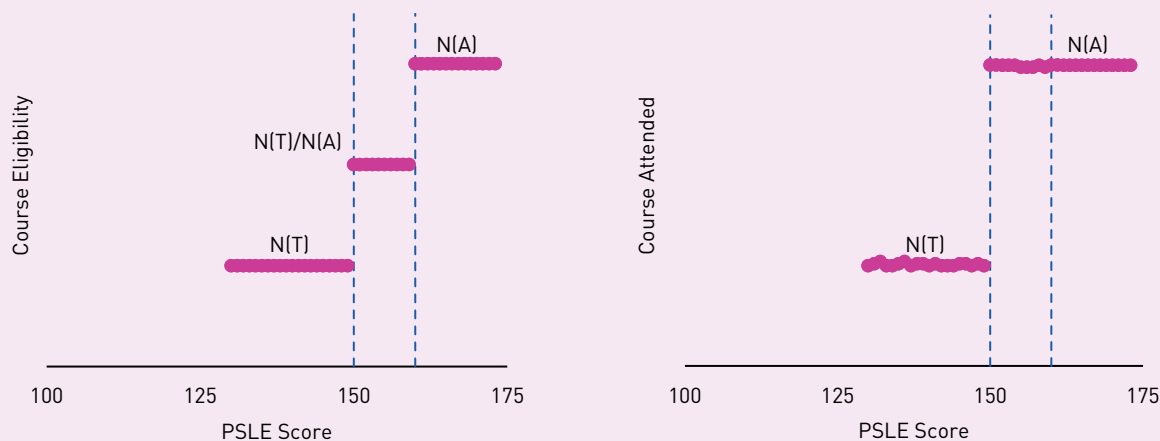
METHODOLOGY

To estimate the causal impact of attending the N(T) course relative to attending the N(A) course on highest education attained and labour market outcomes, the study must address the various confounding factors described above. To do so, the study exploited the quasi-random variation in stream attendance resulting from the stream eligibility criteria based on PSLE scores (i.e., students were eligible for different courses based on specific PSLE score cut-offs). Specifically, those eligible for the N(T) course scored below a designated PSLE score cut-off, identified by the highest score attained by students eligible for the N(T) course in each exam cohort. For instance, in 1993 and 1994, students scoring 149 and below were eligible for the N(T) course, while those scoring above 149 were allowed to choose between the N(T) and N(A) courses (Exhibit 6). Among those given a choice, approximately 96 per cent opted for the N(A) course (Exhibit 7).

Exhibit 6: PSLE Cut-Off Scores for Each Course, 1993 to 1997

Course Eligibility	PSLE Score Required				
	1993	1994	1995	1996	1997
N(T)	≤149	≤149	≤150	≤151	≤151
N(T)/N(A)	150 – 159	150 – 159	151 – 160	152 – 160	152 – 160
N(A)	≥160	≥160	≥161	≥161	≥161

Source: Authors' calculations

Exhibit 7: Comparison of Course Eligibility and Course Attended for the 1994 Cohort

Note: The graphs above show the PSLE score cut-offs for the exam year of 1994. Graphs for the other exam years show similar patterns. Course attended refers to the Secondary 1 course of study and course transfers within the school in later years were not captured. Each point represents the “average course eligibility” or “average course attended” for each PSLE score. The slight “bumps” in the graph for course attended indicate that there were exceptions for some individuals whose PSLE score fell below the cut-off score for the N(A) course. For instance, across the years studied, there were on average 12 successful appeal cases for the N(A) course even though their PSLE scores fell below the respective years’ PSLE cut-off score for the course.

Source: Author’s calculations

We then employed a regression discontinuity (RD) design methodology, which entailed comparing the outcomes of students who scored just below the cut-off score for the N(T) course with those who scored just above the score. The key assumption in this approach is that students who scored just below or above the cut-off are similar in terms of unobserved individual abilities and characteristics. By comparing the outcomes of students who scored below the cut-off and attended the N(T) course, with those of students who scored above the cut-off and attended the N(A) course, we would be able to isolate the impact of streaming. To further ensure comparability between students above and below the cut-off, we accounted for observable individual characteristics, including race, gender, exam cohort, age at the time of the PSLE, average PSLE scores of primary school peers, and parents’ socio-economic status as indicated by household income and the father’s annual income in 1996. We also included an indicator for dual-earner families.

Specifically, to examine the effect of attending the N(T) course on outcomes, we used the following RD specification:

$$Y_i = \alpha_0 + \beta_1 1[\text{score_NT}_i \geq 0] + \beta_2 \text{score_NT}_i + \beta_3 1[\text{score_NT}_i \geq 0] \times \text{score_NT}_i + \mathbf{X}_i \beta_4 + \varepsilon_i$$

Where:

- Y_i denotes the outcomes of interest for individual i . For highest education attained, we analysed four distinct indicators: (i) completed at least secondary education, (ii) completed at least ITE, (iii) obtained at least a diploma, and (iv) obtained at least a degree from publicly-funded universities. This approach was chosen to ensure that an increase in the likelihood of one outcome would not result in a decrease in another. Labour market outcomes studied included employment, earnings and Central Provident Fund (CPF) Special Account (SA) balances (as a proxy for wealth accumulation)⁵;
- score_NT_i corresponds to the recentred PSLE score, which is the difference between the PSLE cut-off score in a given year and the actual PSLE score. For example, in 1993 and 1994, the PSLE cut-off score of 149 would be recentred to 0, and a score of 150 would then be -1, while a score of 148 would be 1;
- $1[\text{score_NT}_i \geq 0]$ is an indicator variable that equals 1 if individual i met the cut-off score for the N(T) course;
- $\mathbf{X}_i$ is a vector of control variables that includes indicators for gender, race, whether the family was a dual-earner household in 1996, the exam year, and whether individual i was younger or older than 12 at the time of the PSLE. It also includes the average PSLE score of primary school peers and the annual incomes of the father and household in 1996;
- ε_i represents the error term.

The coefficient of interest, β_1 , represents the effect of attending the N(T) course on educational and labour market outcomes, relative to attending the N(A) course.

⁵ We used CPF SA balances as a proxy for wealth as the Ordinary and Medisave Accounts could be used to finance homes and offset expenditure on healthcare.

RESULTS AND DISCUSSION

In this section, we present and discuss the findings of our regression analysis on the educational and labour market outcomes of attending the N(T) course.

Educational Outcomes

First, we present findings on how attending the N(T) course affected highest education attained (Exhibit 8). Our results showed that students who fell below the PSLE score cut-off and attended the N(T) course were 3.2 percentage-points (pp) more likely to complete secondary school. In other words, vocational secondary education raised the secondary school completion rate by about 3.2 pp (relative to the baseline mean of 93 per cent), which meant that the dropout rate was nearly halved. This was a significant achievement consistent with the policy goals of the N(T) course. Furthermore, students who attended the N(T) course were 7.6 pp more likely to attain a post-secondary qualification, usually a National ITE Certificate (Nitec) or Higher Nitec qualification from the ITE. They were also found to be as likely as N(A) students to obtain a diploma, although their odds of attaining a bachelor's degree from publicly-funded universities were 3.1 pp lower. On balance, our findings suggest that attending the N(T) course significantly improved the minimum education attained of students, chiefly by reducing the odds of adverse outcomes (e.g., dropping out of secondary school or not achieving any post-secondary qualification).

Exhibit 8: Summary of Regression Estimates for Highest Education Attained

Effect of Attending N(T) Course on:	%-point	Bandwidth ^{1,2}	Number of Observations
Completing at least secondary education	3.2***	±13	17,200
Completing at least ITE	7.6***	±13	17,200
Obtaining at least a diploma	-1.7	±13	17,200
Obtaining at least a bachelor's degree	-3.1***	±14	18,500

Notes: [1] The bandwidth refers to the range of PSLE scores around the cut-off that were included in the analysis. For the 1993 and 1994 cohorts where the cut-off was 149 for example, a bandwidth of ±13 meant that students who scored between 136 and 162 were included in the analysis. The bandwidth choice represents a trade-off: a larger bandwidth provided more observations for statistical power, while a narrower bandwidth ensured comparison between more similar students. The optimal bandwidth was determined by minimising the mean squared error (MSE) of the estimated treatment effect, which balanced these competing considerations. [2] Results held up to falsification tests (i.e., replacing the true cut-off with a placebo cut-off) and were robust to variations in bandwidth choice, polynomial order, and kernel function.

*** denotes statistical significance at the 1 per cent level.

Source: Authors' calculations

Labour Market Outcomes

Second, we present findings on whether attending the N(T) course had an impact on labour market outcomes, focusing on the following measures — likelihood of being employed, number of months employed, annual income and CPF SA balances. On average, we found no significant differences in these outcomes between individuals who attended the N(T) course and those who attended the N(A) course (Exhibit 9).

Exhibit 9: Summary of Regression Estimates for Labour Market Outcomes

Effect of Attending N(T) Course on:		Bandwidth	Number of Observations
Employment			
Being Employed	1.0 %-pt	±15	20,300
Number of Months Employed	0.2 months	±16	21,600
Earnings			
Annual Income	0.9%	±15	19,000
Wealth			
CPF SA	4.9%	±15	20,000

Source: Authors' calculations

Taken together, our findings suggest that the course that individuals attended in secondary school – whether N(T) or N(A) – had a limited impact on their labour market outcomes. The average differences in outcomes observed in the data likely reflected underlying differences in the socioeconomic background and ability of individuals who attended N(T) or N(A) instead.

CONCLUSION

Our study on the causal impact of attending the N(T) course presents a more accurate view of the educational and labour market outcomes of N(T) students, compared to simple observations of the average differences in outcomes between N(T) and N(A) students. Notably, our study found that the N(T) course significantly improved the highest education attained of its students by increasing their likelihood of completing secondary education and obtaining post-secondary qualifications. These findings suggest that the policy objectives of the N(T) course, in terms of reducing dropout rates and enhancing access to vocational qualifications, had been met.

When examining longer-term labour market outcomes, our results showed that students who attended the N(T) course had similar employment rates, earnings and wealth accumulation as those who attended the N(A) course. This finding challenges common perceptions about disparities between educational courses and highlights the importance of providing multiple pathways to success in education given that they could create meaningful opportunities for all students, regardless of the specific course pursued. Indeed, choosing a course based solely on its perceived benefits (on average) might lead to adverse individual outcomes in some instances; for example, our results implied that students who attended the N(A) course were less likely to complete secondary education and obtain a post-secondary qualification compared to those who attended N(T).

It is also worth noting that the Ministry of Education has moved to full subject-based banding since 2024, which can better cater to the unique interests and strengths of each student. This inclusive approach enables students to study different subjects at varying levels, fostering a more flexible secondary education system that adapts to their learning needs while empowering students to make informed choices that align with their personal goals and aspirations.

Contributed by:

Ms Afiqah Suhaiemi
Lead Economist
Economics Division
Ministry of Trade and Industry (formerly)

Dr Siddharth George
Assistant Professor of Economics
National University of Singapore

REFERENCES

Betts, Julian R., and Jamie L. Shkolnik. "Key difficulties in identifying the effects of ability grouping on student achievement." *Economics of Education Review* 19, no. 1 (2000): 21-26.

Duflo, Esther, Pascaline Dupas, and Michael Kremer. "Peer effects, teacher incentives, and the impact of tracking: Evidence from a randomized evaluation in Kenya." *American economic review* 101, no. 5 (2011): 1739-1774.

Figlio, David N., and Marianne E. Page. "School choice and the distributional effects of ability tracking: does separation increase inequality?." *Journal of Urban Economics* 51, no. 3 (2002): 497-514.

Meier, Volker, and Gabriela Schütz. *The economics of tracking and non-tracking*. No. 50. Ifo working paper, 2007.

Ministry of Education. "Supporting Our Students Through the Years — Evolution of Streaming in Secondary Schools." Prepared for the Committee of Supply, 2019. <https://www.moe.gov.sg/microsites/psle-fsbb/assets/infographics/full-subject-based-banding/Evolution-of-Streaming.pdf>.

Terrin, Éder, and Moris Triventi. "The effect of school tracking on student achievement and inequality: A meta-analysis." *Review of Educational Research* 93, no. 2 (2023): 236-274.



MINISTRY OF TRADE AND INDUSTRY

100 High Street, #09-01 The Treasury
Singapore 179434

ISSN 2382-6541