AMRO Country Report
ACR/25-01

AMRO Annual Consultation Report

Singapore – 2024

ASEAN+3 Macroeconomic Research Office (AMRO)

January 2025

Acknowledgements

1. This Annual Consultation Report on Singapore has been prepared in accordance with the functions of AMRO to monitor and assess the macroeconomic status and financial soundness of its members; identify relevant risks and vulnerabilities; report these to member authorities; and if requested, assist them in mitigating these risks through the timely formulation of policy recommendations. This is being done in accordance with Article 3 (a) and (b) of the AMRO Agreement.
2. This Report is drafted on the basis of the Annual Consultation Visit (ACV) of AMRO to Singapore, which was conducted in Singapore from June 24-July 18, 2024 (Article 5 (b) of the AMRO Agreement). The AMRO ACV team was headed by Dr Kevin Cheng, Group Head and Lead Economist. The ACV members were Dr Yoki Okawa (desk economist), Ms. Catharine Kho (back-up economist), Mr Justin Lim (back-up economist), Mr Prashant Pande (back-up economist), and Dr Lu Leilei (back-up economist). AMRO Director Dr Kouqing Li and Chief Economist Dr Hoe Ee Khor participated in key policy meetings with the authorities. The AMRO Annual Consultation Report on Singapore for 2024 was peer-reviewed by a group of economists from AMRO's Country Surveillance, Financial Surveillance and Fiscal Surveillance teams; endorsed by the Policy and Review Group; and approved by Dr Khor.
3. The analysis in this Report is based on data and information available up to October 23, 2024.
4. By making any designation of or reference to a particular territory or geographical area, or by using the term “member” or “country” in this Report, AMRO does not intend to make any judgments as to the legal or other status of any territory or area.
5. On behalf of AMRO, the ACV team wishes to thank the Singaporean authorities for their comments on this Report, as well as their excellent meeting arrangements during our visit.

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Executive Summary

1. Singapore's economic growth moderated to 1.1 percent in 2023 from 3.8 percent in 2022, mainly due to weak external demand and slower growth in the manufacturing and services sectors. Growth is expected to strengthen in 2024 to 3.7 percent, driven by an upturn in exports and resilient domestic demand.

2. Inflation continues to moderate, albeit at a slower pace. Headline inflation has remained on a downward trend, slowing from a peak of 7.5 percent in September 2022 to 2.0 percent in September 2024. Headline inflation for the year is forecast to be 2.8 percent. Monetary Authority of Singapore (MAS) core inflation is projected to be about 3.3 percent this year, down from 4.2 percent in 2023. The tight labor market continues to provide support to nominal wage growth, albeit with tentative signs of moderation in wage pressures. Despite some signs of easing, the labor market is expected to remain tight with job mismatches persisting in some pockets of the economy.

3. Still elevated inflation amid firm domestic demand led the MAS to maintain the current tight monetary policy stance. The gradual appreciation of NEER and easing commodity prices are expected to support the moderation of headline and core inflation. However, a tight labor market will continue to put upward pressure on inflation.

4. Nominal non-oil domestic exports (NODX) contracted sharply in 2023 due to declines in both electronics and non-electronics NODX. NODX is expected to gradually recover for the rest of 2024, supported by the global semiconductor upturn and sustained regional demand for petrochemicals products. The current account surplus increased due to a higher goods trade surplus and a narrowing of the primary income deficit. The overall external position remains resilient, with higher FDI inflows and ample international reserves.

5. The banking sector remains sound with strong capital buffers, ample liquidity, and robust asset quality. Commercial bank lending started to recover in 2024 boosted by firmer economic growth. The banking system's overall non-performing loan (NPL) ratio declined slightly to 1.7 percent in Q4 2023 from 1.8 percent in Q4 2022.

6. The FY2023 fiscal position shifted into a deficit, reversing the small surplus in FY2022, mainly due to additional transfers to households. Operating revenue is projected to remain stable in FY2024. The overall fiscal position in the current fiscal year is projected to shift to a slight surplus of 0.1 percent of GDP on account of lower top-ups to endowment and trust funds.

7. Short-term risks mainly stem from external sources. General macro-financial stability risks to the overall economy eased in 2024 compared with the previous year, albeit with some remaining pockets of risks and vulnerabilities. Specifically:
    - Slower growth in major trading partners could dampen the export recovery. A growth slowdown in China due to protracted weakness in its property sector or in the US due to elevated interest rates could potentially impact Singapore's exports

and reverse the global electronics cycle upswing, thereby posing additional headwinds to exports.

- Adverse spillovers from the US presidential election could disrupt trade and investment flows. Protectionist rhetoric and policies amid escalating geopolitical tensions are hampering trade links and investment flows, posing significant policy challenges and uncertainties for a small and highly open economy like Singapore.

- In the long term, Singapore's aging population will have a significant impact on fiscal spending, mainly through the rising costs of healthcare and social protection.

8. The current tight monetary stance of MAS to contain and anchor inflation expectations is appropriate. However, the authorities need to be vigilant and data dependent, and prepared to finetune the policy stance if risks to the downside materialize.

9. MAS' strengthened regulatory oversight over non-bank financial institutions with enhanced liquidity stress tests of the financial sector should continue to help maintain financial stability. Moreover, MAS should continue with its efforts to strengthen the resilience of financial institutions' digital infrastructure given the proliferation and rapid transmission of cyber risks in a highly interconnected financial system. The strengthening of the Technology Risk Management (TRM) framework is a commendable step.

10. The neutral fiscal stance is appropriate given the near-zero output gap, and the continued focus on Singapore's longer-term priorities is appropriate. The authorities are encouraged to explore additional revenue sources to meet Singapore's future spending needs in areas such as socio-economic advancement, the green transition, and strengthening social safety nets.

11. In view of rapidly evolving nature of work driven by technology and global supply chain reconfiguration, AMRO welcomes the progress in enhancing labor market resilience. The upcoming financial support scheme for involuntarily unemployed workers, flexible work arrangements, and measures to support productive aging will provide crucial short-term support. But a steadily aging population would require a more comprehensive institutionalized program and a constant recalibration of policy measures to support labor productivity going forward.

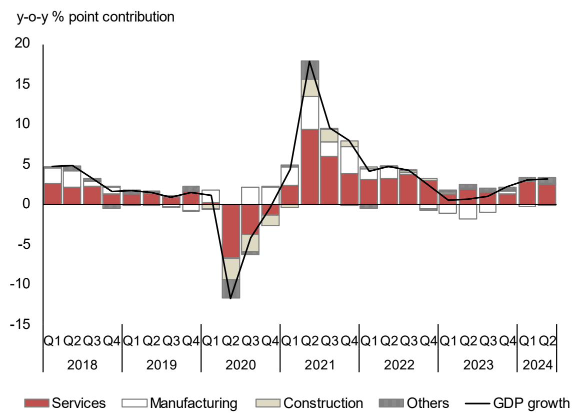
12. The upcoming Johor-Singapore Special Economic Zone could benefit both Malaysia and Singapore by enhancing cross-border connectivity, providing additional land development options and strengthening the shared talent ecosystem. The reskilling of the labor force through the SkillsFuture initiative could help in ensuring the competitive edge of Singapore's economy with changing workforce skill demand.

13. AMRO supports the authorities' key priorities in fostering a more productivity-driven economy and equitable society through growth-enhancing fiscal spending. Furthermore, Singapore authorities should advance the economy's commendable progress in transitioning to net zero.

A. Recent Developments and Outlook

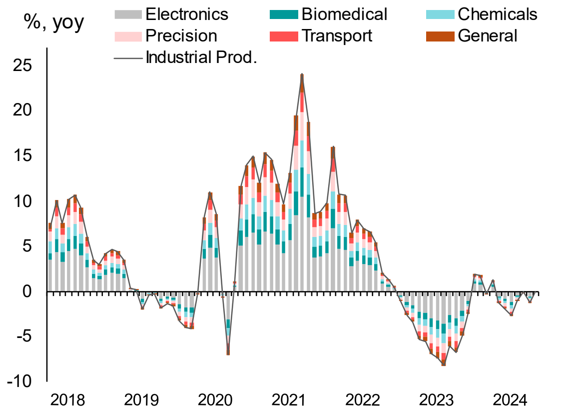
1. Singapore's economic growth slowed sharply in 2023 but is recovering strongly in 2024 driven by the manufacturing and services sector. Growth moderated to 1.1 percent in 2023 from 3.8 percent in 2022, on account of slower growth in the manufacturing and services sectors. The manufacturing sector, particularly electronic products, continued to weaken in 2023, contracting by 4.3 percent as external demand weakened. Growth of services sectors also slowed to 2.3 percent, amid fading tailwinds from domestic revenge spending. However, the construction sector picked up, growing by 5.2 percent, as the return of foreign labor following the reopening of the economy eased the labor supply constraints. In the first half of 2024, GDP growth improved to 3 percent from 1.6 percent in the second half of 2023**.**

Figure 1. GDP



Source: Singapore Department of Statisitics; CEIC; AMRO staff calculations

Figure 2. Industrial Production

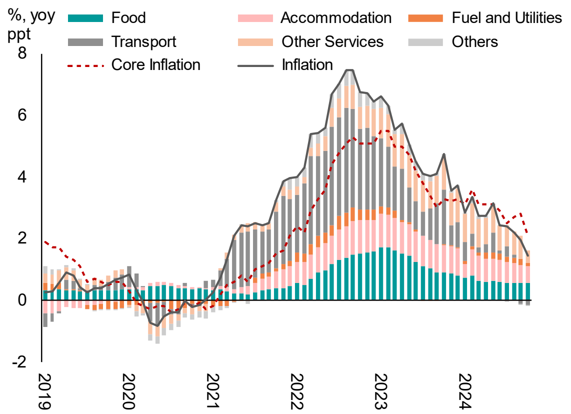


Source: Singapore Department of Statisitics; CEIC; AMRO staff calculations
Note: Three month moving averages

2. Growth is expected to strengthen in 2024 to 3.8 percent driven by a turnaround in exports and resilient domestic demand. The upturn in the global electronics cycle and improving goods demand from the US has boosted growth in the manufacturing and trade-related sectors. Service sector growth is expected to accelerate in 2024, owing to strong tourism sector activities with multiple mega events and the visa free agreement with China, and stronger household spending amid moderating inflation. The output gap is expected to remain at around zero. In 2025, the growth is forecasted to slow to 2 percent, as semiconductor exports peak out in line with global semiconductor cycle (Box A).

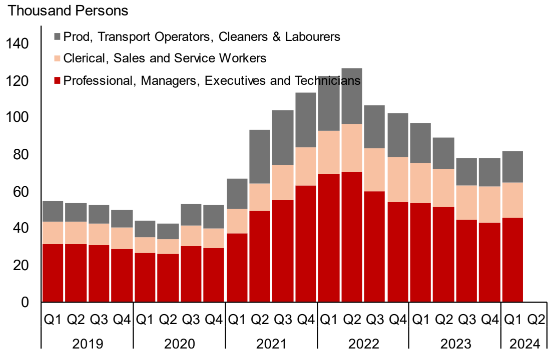
3. Inflation continues to moderate, albeit at a slower pace. Headline inflation has sustained a downward trend, slowing from a peak of 7.5 percent in September 2022 to 2.0 percent in September 2024. The continued moderation is attributable in part to lower car ownership cost reflecting a decline in Certificate of Entitlement (COE) prices due to an increase in the supply of COEs. Food inflation has also declined, in line with decreasing import costs due in part to an appreciating nominal effective exchange rate. For 2024, Headline inflation is forecast to moderate to 2.8 percent. MAS core inflation, which excludes private transport and accommodation costs, is projected to be at about 3.3 percent, largely on the back of higher labor costs.

Figure 3. Inflation



Source: Singapore Department of Statisitics, MAS; AMRO staff calculations
Note: Transport includes public and private transport.

Figure 4. Job Vacancies



Source: Ministry of Manpower; AMRO staff calculations

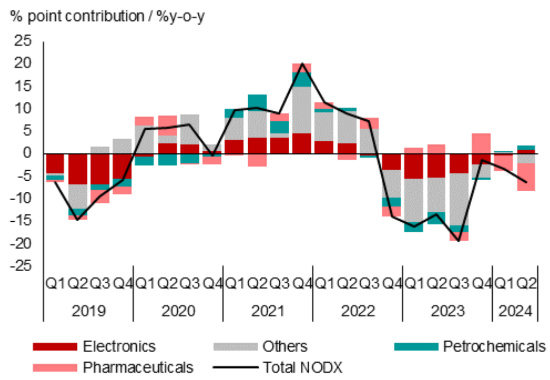
4. The tight labor market continues to keep wage growth robust, albeit with some signs of labor market easing. Nominal wage growth for the first half of 2024 remained similar to that registered in 2023 at 5.3%, outpacing inflation, while the unemployment rate edged down to 2.0 percent in June 2024 from the 2.1% registered in March 2024. The labor market remains tight with the ratio of job vacancies to unemployed persons remaining above 1, compared with the pre-pandemic average of 1.0, but the degree of tightness has been trending down since its peak in June 2022. The labor market is expected to remain tight going forward with job mismatches persisting as the hiring of foreign skilled and semi-skilled workers remains constrained by high minimum salary requirements, which are expected to increase further in 2025. In the transition period of reskilling and upskilling residents, SMEs are likely to be most affected by the shortage of skilled labors who are needed to support an expected upturn in economic activities.[1] On the other hand, employment growth experienced a broad-based moderation. Net employment gains in the modern services and trade-related sectors contracted for the first time since the pandemic-led recession, reflecting reduced hiring and increased layoffs. Despite the broad-based moderation in employment growth, labor market tightness persists, which will take some time to ease, given the lag between hiring trends and demand.

5. Nominal non-oil domestic exports (NODX) are expected to recover after having contracted sharply in 2023. After a 3 percent expansion in 2022, NODX contracted by 13.1 percent in 2023, its worst performance in over two decades (Figure 5). Electronics NODX declined in tandem with the global electronics downcycle. Non-electronics NODX, particularly petrochemicals, were also sluggish, weighed down by weak external demand and excess global supply. NODX began to show nascent signs of a recovery in the first half of 2024. Buoyed in part by the semiconductor cycle upturn, electronics NODX led the recovery with a mild growth of 1.3 percent (yoy) in 1H 2024 after declining by 19.7 percent in 2023. Non-electronics NODX also registered a smaller contraction of 6.5 percent, mainly reflecting the turnaround in petrochemicals with pharmaceutical exports remaining weak. The recovery in NODX is a reflection of higher exports to regional economies, such as China, Malaysia, Thailand and Indonesia, while exports to the US declined. NODX is expected to gradually

[1] SMEs account for 99 percent of enterprises in Singapore and 71 percent of total employment in 2023.

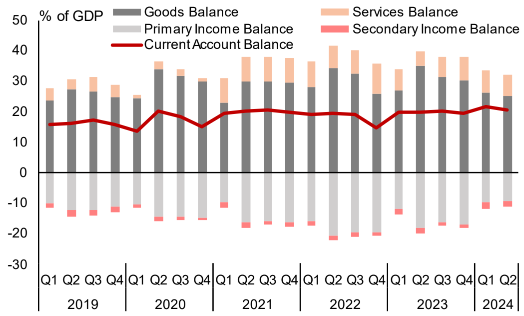
recover for the remainder of 2024, supported by the global semiconductor upturn and sustained regional demand for petrochemicals and biomedical products.

Figure 5. Non-oil Domestic Exports



Source: Enterprise Singapore; CEIC; AMRO staff calculations

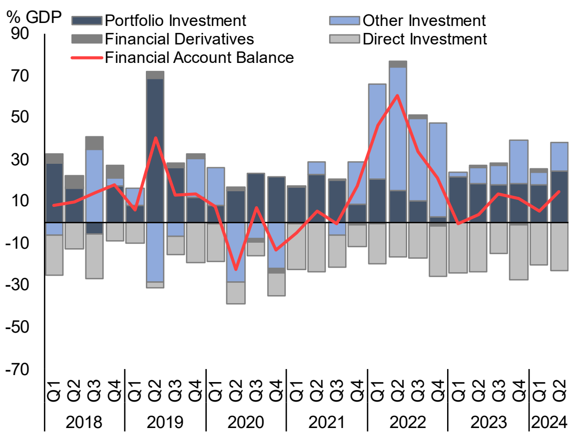
Figure 6. Current Account Balance



Source: Singapore Department of Statistics; AMRO staff calculations

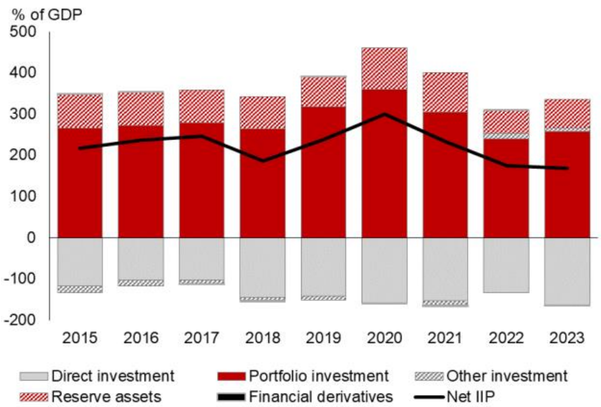
6. Nonetheless, the current account surplus increased due to a higher goods trade surplus and smaller outflows in the primary income account. The current account surplus rose from 18.0 percent of GDP in 2022 to 19.8 percent in 2023 and 19.2 percent in Q2 2024 (Figure 6). The increase in 2023 was attributable to a higher goods trade surplus as imports of goods contracted at a sharper pace than exports. At the same time, the primary income deficit narrowed—reflecting both an increase in investment income accruing to Singapore corporates overseas and lower profits of foreign firms in Singapore. However, services exports declined as transportation services were weighed down mainly by weaker trade activity. This decline was partially mitigated by robust recovery in travel activity, which was boosted in part by the return of Chinese tourists and the hosting of international mega concerts and events. Since the announcement of the visa-free arrangement with China in February 2024, tourist arrivals from China have steadily recovered following the pandemic, with about 1.9 million visitors from China visiting during the first seven months of 2024, or about 85% of visitors during the same period in 2019.

Figure 7. Financial Account Balance



Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

Figure 8. Net International Investment Position



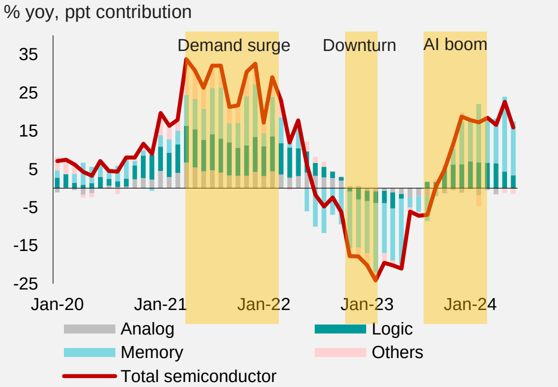
Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

7. **The overall external position remains resilient, with higher FDI inflows and ample international reserves.** Foreign direct investment (FDI) inflows increased from 28.3 percent of GDP in 2022 to a historic high of 31.8 percent of GDP in 2023 reflecting the expansion of existing investments and new investments in the finance and insurance sector from the US and Europe. Meanwhile, portfolio investment outflows increased as resident financial institutions invested more abroad in search of yields. Other investments registered lower net outflows due to the normalization of flows from the official sector—which was substantially higher in 2022 due to the one-off transfer of excess official foreign reserves (OFR) from MAS to the Government of Singapore Investment Corporation (GIC) for investment[2]. Lower net outflows from the financial account and the higher current account surplus contributed to an increase in international reserves. Nonetheless, the net international investment position (IIP) registered a lower net asset position in 2023, mainly due to the increased FDI inflows during the year.

Box A. Singapore's Semiconductor Industry and the Global Cycle[3]

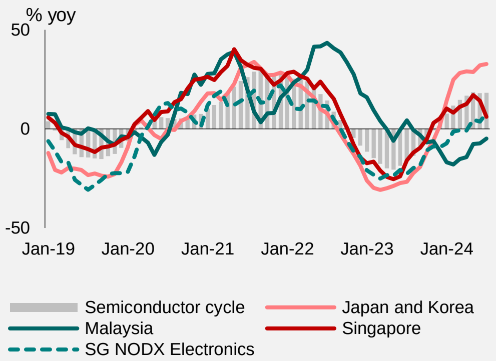
After a protracted downturn, the expected rebound in global semiconductor demand in 2024-2025 is expected to provide a significant boost to Singapore's exports. This turnaround follows a complex global semiconductor cycle that began with pandemic-induced production cuts in early 2020, followed by a surge in demand driven by remote work and cryptocurrency mining in 2021 (Figure A1). The semiconductor industry ramped up production amid supply chain disruptions, maintaining strong momentum through mid-2022. However, weakening global demand and shifting end-use patterns[4] led to inventory accumulation and a downturn in the latter half of 2022, which persisted until late-2023 when an upturn in the semi-conductor cycle led by an AI-driven boom began to revitalize the market.

Figure A1. Global Semiconductor Sales



Source: WSTS; GTA; AMRO staff calculations
Note: Total semiconductor encompasses total discretes, sensors & actuators, total optoelectronics, and total monolithic integrated circuits. Total monolithic integrated circuits can be further classified into analog, MOS micro, logic and memory.

Figure A2. Singapore Semiconductor Exports and Global Semiconductor Sales



Source: WSTS; GTA; AMRO staff calculations

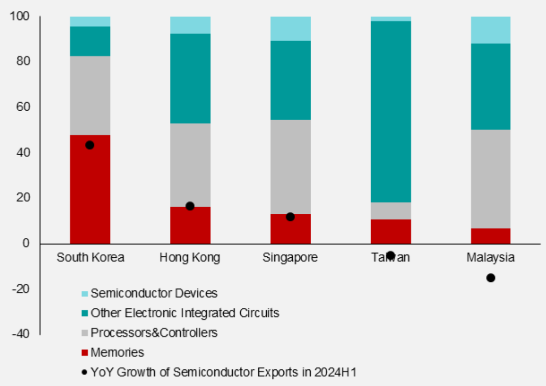
[2] The transfer was implemented as a result of the accumulation of foreign reserves, which reached about 96 percent of GDP as of end-2021, well above the MAS' estimated needs (for the conduct of monetary policy and financial stability) of 65-75 percent of GDP. The sizable quantum transferred was reflected as a large outflow from other investment, which contributed to the overall balance of payments turning into a deficit in 2022.
[3] Prepared by Leilei Lu and Catharine Kho.
[4] Amid the weakening global semiconductor demand, the demand by end-use category – Computer reversed from an annual growth of 23.1 percent in 2021 to a contraction of 13.9 percent in 2022, and the demand by end-use category – Communication decelerated from an annual growth of 24 percent in 2021 to 1 percent in 2022 (2022 State of The U.S. Semiconductor Industry, 2023 State of The U.S. Semiconductor Industry).

As a key player in the highly integrated global semiconductor value chain, Singapore's semiconductor sector is highly affected by the global semiconductor cycle. Singapore's semiconductor exports closely mirror the global semiconductor cycle, with a correlation of 0.83 (Figure A2). In 2023, Singapore's non-oil domestic exports declined in tandem with the global semiconductor cycle downturn, registering a 13.1 percent contraction, the lowest since the burst of the dot-com bubble in 2001.

In the recent global semiconductor upcycle, the improvement in Singapore's semiconductor exports was weaker than that in other regional economies, due to its product mix. Global semiconductor sales increased by 18.1 percent (yoy) in the first half of 2024, led by memory and logic chips, which contributed 13.9 and 5.7 percent respectively. Economies specializing in memory chips, such as Korea, benefitted more from the global semiconductor upturn (Figure A3). In contrast, Singapore's semiconductor exports are predominantly of electronic integrated circuits and the share of memory chips is lower than that of Korea. Singapore also does not produce advanced chips, such as AI-related chips, focusing instead on manufacturing auxiliary items for printed circuit boards and mature-node chips ([EDB 2024]). These chips—which are used in appliances, cars and industrial equipment—are mainly exported to Hong Kong, ASEAN-5[5] and China for further processing and assembly (Figure A4).

Figure A3. Total Semiconductor Exports: Share of Different Products in 2023 and YoY Growth in 2024H1[6]

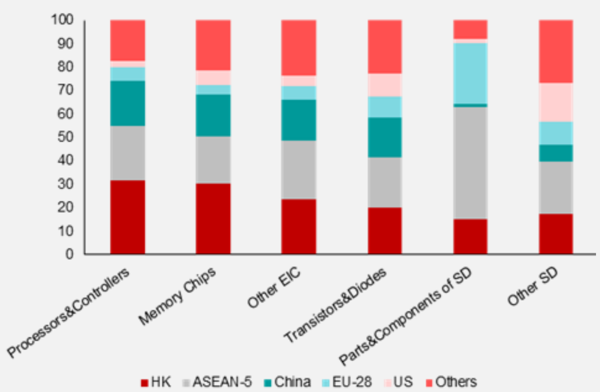
% share; yoy growth



Source: GTA; AMRO staff calculations
Note: The bar chart shows the share of different product subcategories in total semiconductor exports in 2023. The marker refers to the year-on-year growth of total semiconductor exports in the first half of 2024.

Figure A4. Breakdown of Major Markets in Singapore's Semiconductor Exports in 2023

%



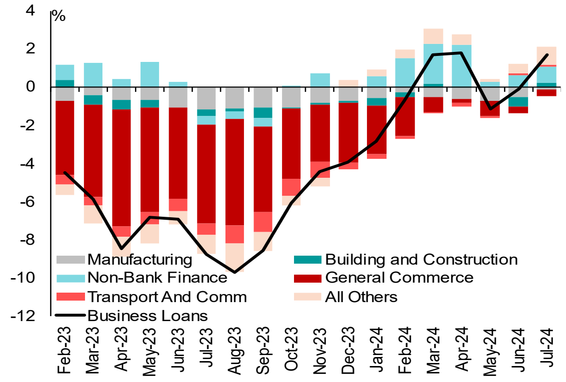
Source: GTA; AMRO staff calculations
Note: Semiconductors refer to the sum of Harmonized System (HS) Code 8541 and 8542. ASEAN-5 refers to Indonesia, Malaysia, Philippines, Thailand and Vietnam.

Going forward, the broadening of the global semiconductor upcycle to include mature chips will benefit Singapore's exports and economy. Semiconductors accounted for nearly 40 percent of Singapore's manufacturing output in 2023, contributing 7 percent to GDP and almost one-quarter of total merchandise exports. Even excluding re-exports, semiconductors represented over 12 percent of Non-oil Domestic Exports (NODX). This significant share underscores the critical link between the global semiconductor cycle and Singapore's economic performance. As the industry upturn continues to widen, it promises to boost Singapore's manufacturing and trade, reflecting the country's deep integration into the global semiconductor value chain.

[5] ASEAN-5 here refers to Indonesia, Malaysia, Philippines, Thailand and Vietnam.
[6] Processors & Controllers belong to the category of logic chips.

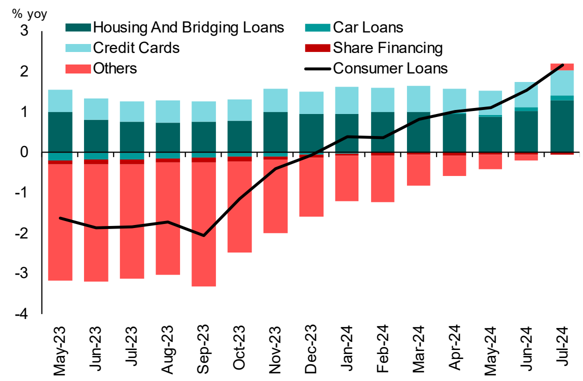
8. Commercial bank lending started to recover in 2024 boosted by firmer economic growth. Total loan outstanding declined by 2.9 percent in 2023, driven by weak lending to business, especially in the service sector. However, total lending to domestic businesses and individuals recorded the first year-on-year expansion in early 2024 since December 2022. The recovery was driven by lending to businesses, where improving business sentiment may have played a role in a pickup in lending to three major sectors, namely, building and construction, NBFI, and general commerce. Lending to households has also expanded with rising demand for credit cards and housing and bridging loans.

Figure 11. Loans to Businesses



Source: MAS; CEIC; AMRO staff calculations

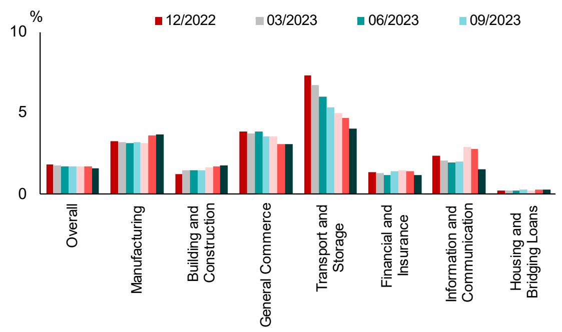
Figure 12. Loans to Domestic Households



Source: MAS; CEIC; AMRO staff calculations

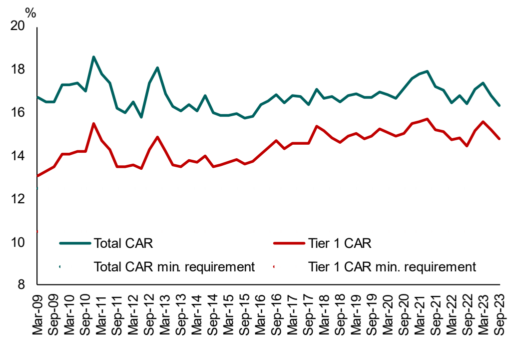
9. The increased completion of residential properties and the property market cooling measures taken by the authorities have slowed housing price increase. Housing supply increased in 2023, partially due to the completion of housing units, that were delayed by pandemic. The government introduced new measures to cool property demand, including a hike in the Additional Buyer's Stamp Duty for foreigners from 30 to 60 percent of purchase price in April 2023. The quarterly average growth in private residential property prices slowed from 2.1 percent in 2022 to 0.5 percent for the first three quarters of 2024, comparable to the pre-pandemic levels.

Figure 13. NPL Ratios



Source: MAS; CEIC; AMRO staff calculations

Figure 14. Capital Adequacy Ratios

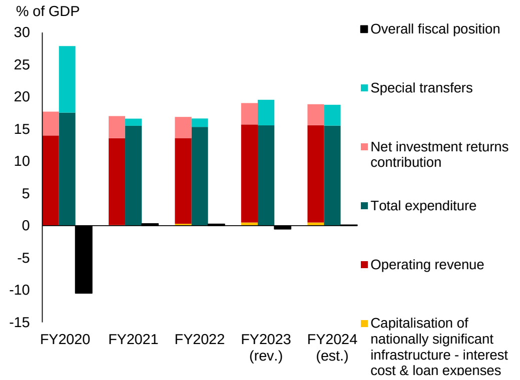


Source: MAS; CEIC; AMRO staff calculations

10. The banking sector remains sound with strong capital buffers, ample liquidity, and robust asset quality. Despite slower economic growth, the banking system's overall non-performing loan (NPL) ratio declined slightly to 1.7 percent in Q4 2023 from 1.8 percent in Q4 2022. The NPL across sectors are either at low levels or have seen a significant reduction in 2023, with the exception of construction (which increased from 6.5 to 6.8 percent) and information and communication sector (which rose from 2.4 to 2.9 percent). Nonetheless, banks remain well-capitalized and highly liquid, with capital and liquidity buffers well in excess of regulatory requirements.

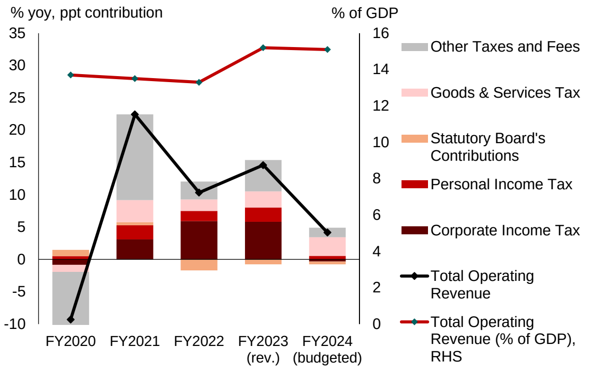
11. The FY2023 fiscal position shifted into a deficit, reversing the small surplus in FY2022, mainly due to additional transfers to households. Despite the strong revenue growth, the overall FY2023 fiscal deficit[7] was revised higher to 0.5 percent of GDP from the budgeted 0.1 percent, contrasting with the fiscal surplus of 0.3 percent recorded in FY2022. This is due to higher-than-expected total expenditure and special transfers (including top-ups to endowment and trust funds) in FY2023 - reflecting the additional transfers to households[8]. Operating revenue increased primarily due to higher receipts from corporate income tax and personal income tax due to the stronger-than-expected economic growth in 2022. Meanwhile, top-ups to endowment and trust funds rose sharply to S$24.3 billion in FY2023 from S$6.25 billion in FY2022, mainly due to the introduction of the Majulah Package Fund[9] and the expanded mandate of the National Productivity Fund[10]. In addition, the Cost-of-Living was provided in Budget 2024 and in September 2023, to provide support for Singaporean households, especially the lower- to middle-income segments. A total of S$3.5 billion was allocated under SINGA (Significant Infrastructure Government Loan Act), which mandates that borrowed funds be used exclusively to finance major national infrastructure projects.

Figure 15. Fiscal Position



Source: MOF; CEIC; AMRO staff calculations

Figure 16. Operating Revenue



Source: MOF; CEIC; AMRO staff calculations
Note: Other Taxes refer to Withholding Tax, Statutory Board's Contributions, Asset Taxes, Customs and Excise Taxes, Betting Taxes, Stamp Duty, Other Taxes, and Other Fees and Charges and Others.

12. Operating revenue is projected to remain stable in FY2024. It is projected to remain stable at 15.1 percent of GDP in FY2024, compared with the revised FY2023 figure of 15.2 percent in FY2023 (Figure 16). Although the second step of the GST rate hike to 9 percent and an improving economic outlook is expected to further bolster GST collections, corporate income tax collection, which is based on previous year's income, is expected to moderate due

[7] Excluding SINGA-related capitalization, depreciation, and expenses, the overall budget position recorded a higher revised deficit of -1.0 percent of GDP in FY2023, up from -0.1 percent of GDP in FY2022.
[8] This mainly refers to the additional cash handouts under the Assurance Package to address the high cost of living.
[9] The Majulah Package Fund seeks to strengthen retirement and healthcare adequacy for Singaporeans born in 1973 or earlier.
[10] The National Productivity Fund, initially established in 2010 to provide productivity-enhancement support for businesses and upskilling and training for workers, expanded its role in 2023 to include investment promotion purposes.

to the sluggish GDP growth in 2023. Net Investment Returns Contribution is also expected to remain unchanged (in % GDP terms) in FY2024.

13. The overall fiscal position in FY2024 is projected to shift to a slight surplus of 0.1 percent of GDP on account of lower top-ups to endowment and trust funds (Figure 15). Total expenditure and AMRO's estimated spending from endowment and trust fund is expected to remain stable at 15.5 and 1.3 percent of GDP in FY2024, respectively, while top-ups to endowment and trust funds are projected to decrease from 3.5 percent in FY2023 to 2.8 percent in FY2024. Notwithstanding this decline, special transfers continue to support households and small businesses which is expected to remain at 0.4 percent in FY2024, while also bolstering future economic resilience. Specifically:

- To mitigate the cost of living pressures for households, the Assurance Package was enhanced by $1.9 billion[11]. A total of $1.3 billion has also been allocated to help offset the rising business costs through the newly announced Enterprise Support Package in Budget FY2024.
- To enhance the country's competitiveness as an international financial center, S$2.0 billion was allocated to the existing Financial Sector Development Fund.
- To invest in critical energy infrastructure for the energy transition, S$5.0 billion is allocated to the Future Energy Fund.

As such, AMRO assesses that the fiscal stance[12] will remain broadly neutral in FY2024, as indicated by the estimated small negative fiscal impulse.

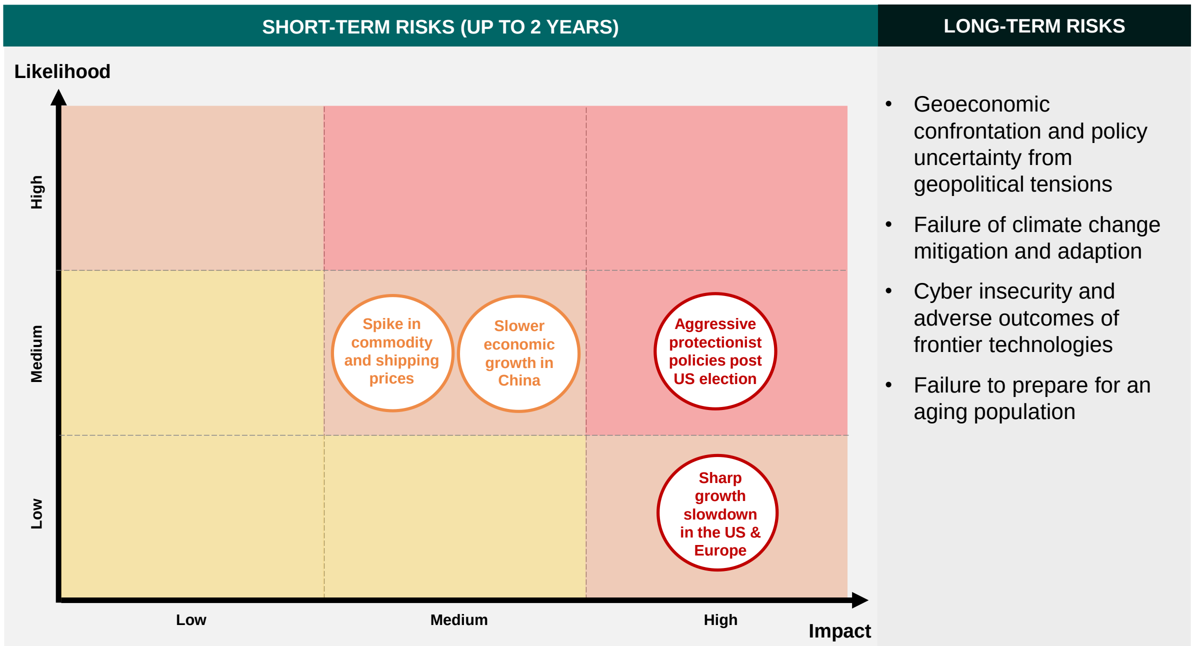
14. The authorities affirmed plans to implement the global minimum tax starting in 2025. The government announced that the Income Inclusion Rule (IIR) and Qualified Domestic Minimum Top-up Tax (QDMTT) will take effect for businesses from January 2025, with the Undertaxed Payments Rule (UTPR) being considered at a later stage. Additional revenues, if any, from BEPS 2.0 Pillar Two are expected to be reinvested in factors that make Singapore a competitive place to do business, such as a skilled workforce, vibrant innovation ecosystem, and quality infrastructure and connectivity. One example would be the announcement in FY2024 Budget to upgrade the Nationwide Broadband Network. Additionally, the Refundable Investment Credit (RIC) scheme introduced in FY2024 Budget supports economic activities that are substantive and is expected to enhance Singapore's attractiveness for investments in high-value economic activities.

[11] Announced at Budget 2020, the Assurance Package is a support package aimed at cushioning the impact of the GST rate increase on household living costs. Comprising various types of assistance in the form of cash, vouchers, grants, among others, the package's original size was S$6.0 billion. It was enhanced to S$6.6 billion in at Budget 2022 and S$9.6 billion at Budget 2023. As of Budget 2024, the total size of the Assurance Package is over S$10 billion.

[12] The fiscal stance is based on AMRO's estimates, the calculation of which includes AMRO's estimated disbursement from endowment and trust funds and excludes top-ups to endowment and trust funds, Net Investment Returns Contribution, and capitalization/depreciation of SINGA infrastructure investment.

B. Risks, Vulnerabilities, and Challenges

Figure 17. Risk Map: Singapore



15. A spike in commodity prices could lead to a resurgence of inflation. Global energy prices could surge due to intensifying geopolitical tensions and production cuts by major energy producers. Meanwhile, food prices could be impacted by adverse weather conditions and export restrictions. An increase in imported inflation could compound domestic inflationary pressures that stem from wage pressures, strong demand for housing and private transportation and GST increase.

16. Slower growth in major trading partners could dampen export recovery. Growth slowdown in China—Singapore's largest trading partner—due to protracted weakness in its property sector could weigh on investments, and consumption demand. At the same time, if inflation resurges and interest rates stay high for longer, the US could experience sharper growth moderation and new financial vulnerabilities, especially in the commercial property sector and the credit market. Slower demand from these economies could potentially impact about a third of Singapore's exports and reverse the global electronics cycle upswing—posing additional headwinds to exports.

17. Aggressive protectionist policies by the incoming US Administration could disrupt trade and investment flows. Protectionist rhetoric and policies amid escalating geopolitical tensions are reshaping trade links and investment flows, posing significant policy challenges and uncertainties for Singapore. An increasingly fragmented and unstable economic environment will raise production costs and undermine supply chain resilience, leading to weaker international trade activities and higher investment uncertainties for Singapore.

18. In the long term, Singapore's aging population will significantly impact fiscal spending, mainly through the rising costs of healthcare and social protection, amid rising climate related costs. The share of the old-age population (people aged 65 and above) to the total population in Singapore is projected to double from 16 percent in 2023 to 34 percent in 2050[13]—and will be among the highest in the ASEAN+3 region. It is estimated that the additional fiscal costs from social protection and health expenditures in 2050 will be higher by around 1.2 and 1.5 percent of GDP relative to 2019, respectively (AMRO, 2024)[14]. Furthermore, in the long run, the cost of climate mitigation and adaptation could weigh on Singapore's already-high costs of doing business.[15]

C. Policy Discussions and Recommendations

19. The neutral fiscal stance is appropriate given a near-zero output gap, and the continued focus on Singapore's longer-term priorities is appropriate. AMRO commends the authorities' multi-year budgetary approach, balancing near-term spending needs with longer-term priorities to ensure that the country is well prepared to address the structural challenges ahead. AMRO supports the continued provision of support to lower-income households and small businesses given the still high business and living costs environment, while also trying to contain inflationary pressures to maintain price stability. In this regard, the targeted and calibrated policies to help households and small businesses cope with the higher costs are welcomed. The measures aimed at enhancing Singapore's competitiveness and resilience, strengthening its social safety nets, and preparedness in the areas of green transition and critical energy infrastructure, are also commendable. Amid the heightened uncertain external environment, further support can be deployed in these areas if downside risks were to materialize.

20. Authorities are encouraged to explore additional revenue sources to meet Singapore's future spending needs. AMRO supports the implementation of Pillar 2 of the BEPS 2.0 rules, which should raise corporate income tax collections. However, these new global tax rules also raise uncertainties over the amount of corporate income tax that can be collected over the longer-term, given that governments and companies will adjust their strategies in response to these new rules. Meeting developmental goals such as socio-economic advancement, green transition, and strengthening social safety nets will demand greater fiscal spending over time. Revenue enhancement measures, including raising the Net Investment Returns Contribution (NIRC) rate, may be necessary to achieve a balanced budget.

[13] World Population Prospects: The 2024 Revision, United Nations
[14] This analysis is based on the status-quo assumptions, which do not account for potential changes in policies related to healthcare and social protection services in the future.
[15] Singapore authorities estimate that climate adaptation measures will cost more than SGD100 billion over 100 years (Parliamentary response by Deputy Prime Minister Lawrence Wong, 9 Nov 2022).

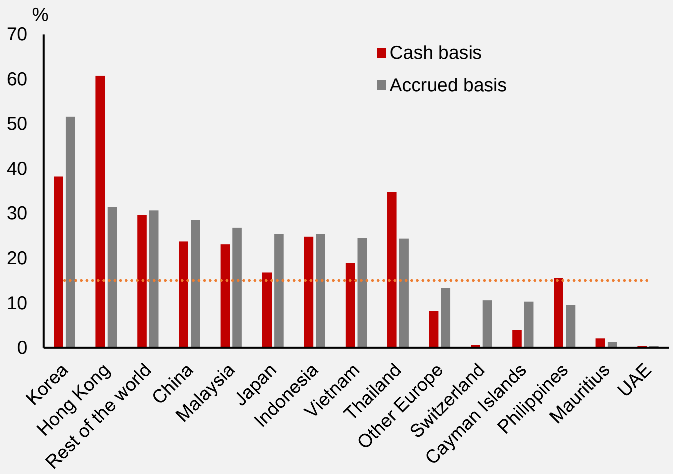
Authorities' View: The authorities do not prioritize any particular source of revenue enhancement to meet long term spending needs. All potential revenue enhancement measures are examined and reviewed on a regular basis.

Box B. Updates on the Implementation of BEPS 2.0 in Singapore[16]

The Singapore authorities are making significant changes to the tax system in compliance with the Base Erosion and Profit Shifting (BEPS 2.0) rules. As announced in the 2023 and 2024 Budgets, Singapore will implement the Income Inclusion Rule (IIR) and a domestic minimum top-up tax (DTT) under the Pillar 2 rules, which introduce a global minimum effective tax rate of 15 percent for large Multinational Enterprises (MNEs), starting from January 1, 2025. The Undertaxed Profits Rule, which allows Singapore to collect a share of MNE's top-up tax that are not subjected to the minimum tax, will also be considered at a later stage.

These new tax rules are expected to generate higher corporate tax revenues. Based on OECD's estimates, global tax revenues could increase by an additional USD 200 billion annually due to the domestic top-up tax and reduced profit shifting activities[17]. Investment hub countries like Singapore – where 73 percent[18] of corporate tax depends on multinational enterprises – are also projected to gain higher tax revenues starting from FY2027. Approximately 1,800 multinational enterprises (MNEs) in Singapore that exceed the EUR 750 million global revenue threshold are expected to be impacted by these new tax rules, as many of these firms have an estimated effective tax rate below 15 percent[19]. Based on AMRO's study[20], MNEs headquartered in developed economies with an effective tax rate below 15 percent, including Switzerland, Cayman Islands, Mauritius and the UAE, would need to pay the top-up tax (Figure B1).

Figure B1. Effective Corporate Income Tax Rates (ETRs) of Selected Ultimate Parent Entities Operating in Singapore, 2020



Source: OECD Statistics; AMRO (2024)
Note: (1) To calculate the effective tax rate, the income tax is divided by profit before income tax.
(2) The estimate of the ETR does not consider the substance-based income exclusion (SBIE).
(3) Cash basis ETR includes all taxes paid during the reporting fiscal year, including advance payments fulfilling the relevant fiscal year's tax obligation and payments fulfilling the previous year(s)'s tax obligation. Accrued basis ETR includes all taxes that have been assessed against a company's earned revenue or property value that has not been paid yet (Tsamparlis and Piligou, 2017). (4) The latest available CbCR in OECD Statistics is in 2020.

[16] Prepared by Abigail and Justin Lim.
[17] OECD (2023). Economic Impact Assessment of the Two-Pillar Solution, Revenue Estimates for Pillar One and Pillar Two". OECD Webinar.
[18] OECD (2024). Corporate Tax Statistics 2024.
[19] Parliamentary reply: Implications on Singapore from G7 Agreement on Global Minimum Corporate Tax Rate, 5 July 2021.
[20] AMRO (2024). Global Tax Reform: What It Means for ASEAN+3 – Progress and Challenges. Analytical Note.

However, these gains can diminish over the longer-term should the affected MNEs relocate elsewhere. While most MNEs are likely to remain in Singapore, some that traditionally benefit from the country's tax competitiveness may restructure or relocate elsewhere in response to these changes. Nevertheless, the eventual impact on corporate tax revenue will also depend on how other countries respond to the new rulings and the attractiveness of their investment promotion strategies compared with Singapore's.

Singapore will also face tax revenue losses under Pillar 1[21]. Once implemented, Singapore will forego a portion of its taxing rights to market jurisdictions, resulting in an erosion of its tax base. An OECD study[22] suggests that investment hubs like Singapore could lose 2 to 12 percent of their corporate income tax collection due to this redistribution of tax rights.

To sustain its competitiveness, Singapore will need to continue enhancing its appeal in non-tax areas. Singapore's strengths—proximity to key markets, strong legal framework, sound financial system, quality infrastructure, and skilled talent pool, will continue to support its appeal as an important business hub for MNEs in the region. With reduced tax competition among countries, however, non-tax factors will play a bigger role in MNEs' investment decisions in the post-BEPS 2.0 environment. In this regard, continued investments on these fronts to strengthen Singapore's economic competitiveness are warranted, especially given that the overall impact of the Pillar 2 reforms is unclear. The refreshed investment promotion toolkit, including the newly introduced Refundable Investment Credit scheme and the expanded National Productivity Fund, will also be key in helping MNEs enhance their operations and maintain their presence in Singapore.

21. The current tight monetary stance of MAS to contain inflationary pressure and anchor inflation expectations is appropriate; however, the authorities need to be vigilant and ready to finetune the policy stance if downside risks materialize. Risks for higher inflation remain elevated in the near term, especially with the tight domestic labor market and strengthening economy. Hence, the monetary policy stance should remain tight, and MAS should be prepared for further tightening if and when needed.[23] On the other hand, given the progress in reducing inflation close to historical trend, there is scope for recalibrate and ease the monetary policy stance if growth were to weaken significantly, possibly due to an unexpected weakening in external demand or slowdown in the tourism sector.

22. MAS' strengthened regulatory oversight over non-bank financial institutions with enhanced liquidity stress tests of the financial sector should be continued to help maintain financial stability. The framework governing fund management companies (FMCs), including family offices, has been strengthened, bringing more FMCs under stricter capital requirements and reporting standards. The streamlining of regulations and reporting for FMCs should contribute to financial stability. Enhanced liquidity supervision and stress tests, launched in the aftermath of the pension fund crisis in UK and advanced economies' banking stresses in March 2023, to affirm the adequacy of the financial sector's liquidity buffers is welcome.

[21] The implementation of Pillar 1 is delayed, and the timeline remains unclear.
[22] OECD (2023). Economic Impact Assessment of the Two-Pillar Solution, Revenue Estimates for Pillar One and Pillar Two". OECD Webinar.
[23] The MAS does not have an explicit inflation target but historically, its policy has aimed at keeping core inflation rate at 2 percent or below in line with its objective of maintaining the economy's overall price stability.

23. AMRO supports the authorities' key priorities in fostering a more productivity-driven economy and equitable society through growth-enhancing fiscal spending. Furthermore, the authorities should continue to emphasize green transition and strive to strengthen Singapore's competitiveness. This is evident in the further investment made by the government in green loans under the Enterprise Financing Scheme, the Energy Efficiency Grant, National AI Strategy 2.0., and the Research, Innovation and Enterprise 2025 Plan.

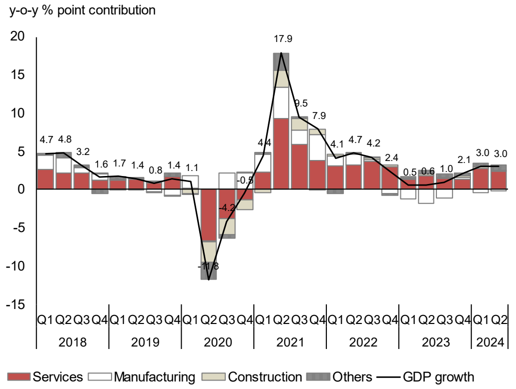
24. Singapore authorities have made commendable progress in transitioning to net zero and should continue to do so. In 2023, MAS launched the Finance for Net Zero Action Plan to strengthen data, definitions, and disclosures, addressing greenwashing concerns and supporting Asia's net-zero transition. Singapore also launched the world's first multi-sector transition taxonomy—the Singapore-Asia Taxonomy—which strengthened the identification of green transition activities across major economic sectors. Singapore is working closely with other ASEAN economies to align and enhance the interoperability of this taxonomy regionally and globally. AMRO supports the major efforts Singapore is undertaking as an international financial center to scale up blended financing through initiatives such as the Financing Asia's Transition Partnership which aims to mobilize up to USD 5 billion for green and transition projects across Asia. Singapore continued to make progress on importing 4GW of low-carbon electricity by 2035 and gave conditional approvals to import 1.2GW of electricity from Vietnam and 2GW of electricity from Indonesia in H2 2023.

Appendices

Appendix 1. Selected Figures for Major Economic Indicators

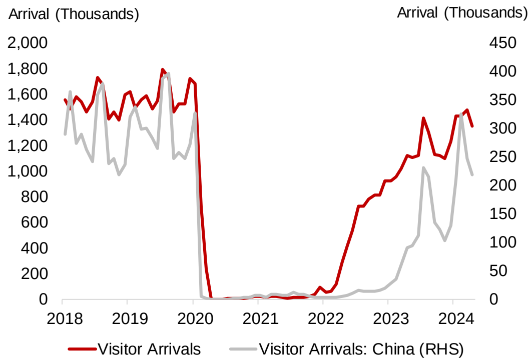
Figure 1.1. Real Sector

Singapore's growth is picking up with the stronger external demand…



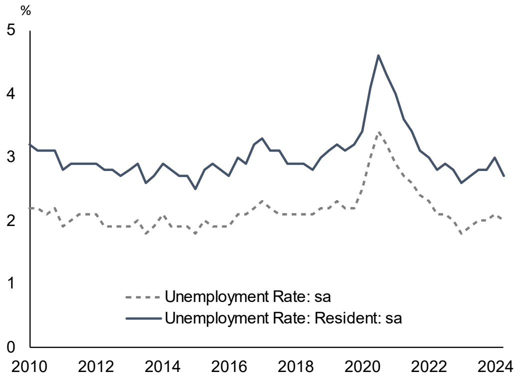
Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

with recovery of tourism, supported by visa-free agreement with China in 2024.



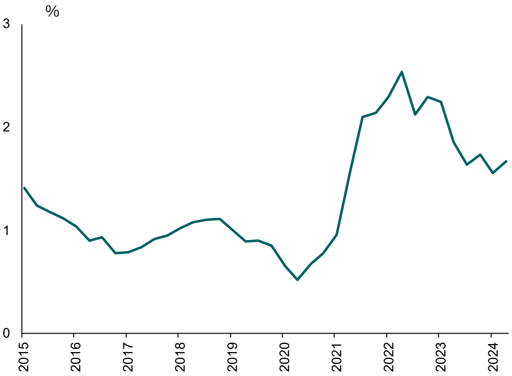
Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

The labor market is considerably tight…



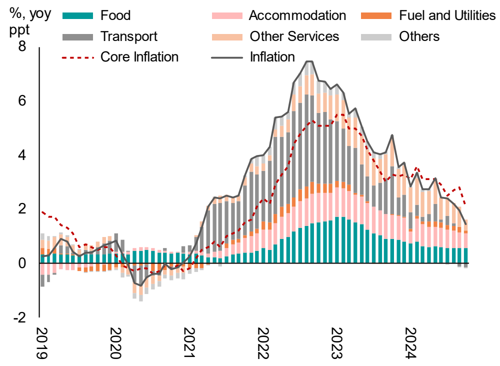
Source: Ministry of Manpower; CEIC; AMRO staff calculations

…as seen in the high job-vacancy-to-unemployment ratio.



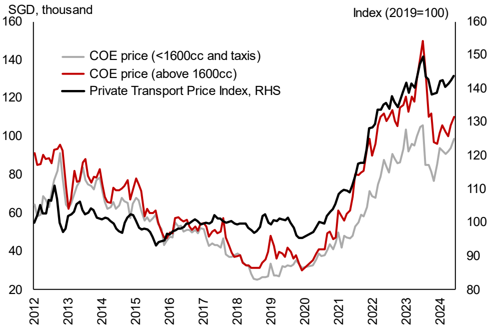
Source: Ministry of Manpower; CEIC; AMRO staff calculations

Inflation has been slowing recently…



Source: Singapore Department of Statistics, MAS; CEIC; AMRO staff calculations

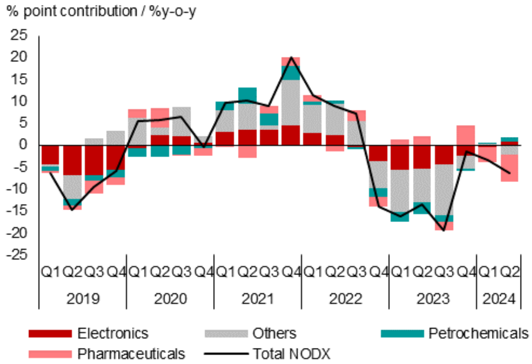
…in line with the stabilization of the cost of car ownership (Certificate of Entitlement).



Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

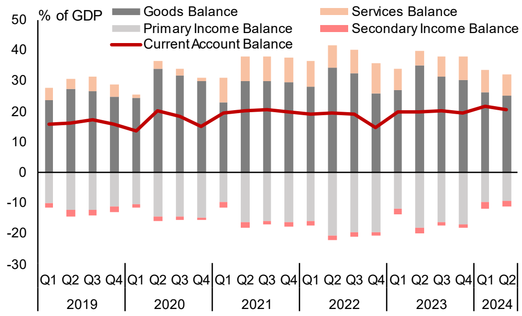
Figure 1.2. External Sector

Non-oil domestic exports (NODX) contracted sharply in 2023 but started to improve towards the end of the year.



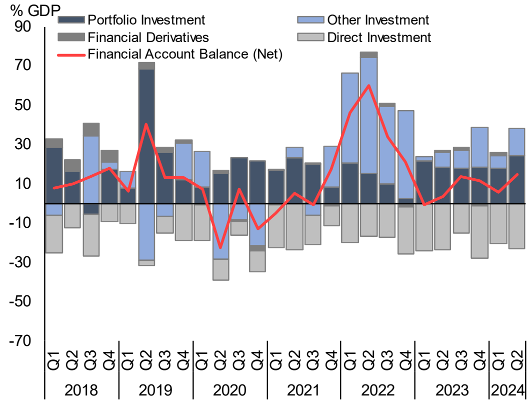
Source: Enterprise Singapore; CEIC; AMRO staff calculations

Current account balance increased in 2023 due mainly to higher goods surplus and a narrowed from primary deficit.



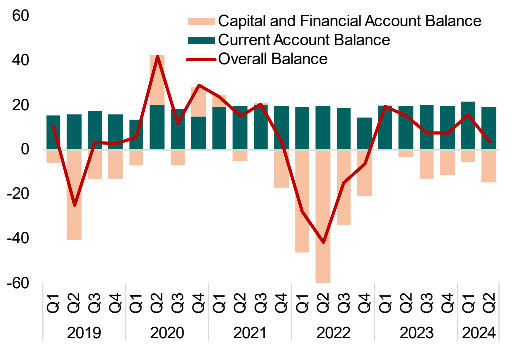
Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

Financial account registered lower net outflows due mainly to lower other investment outflows…



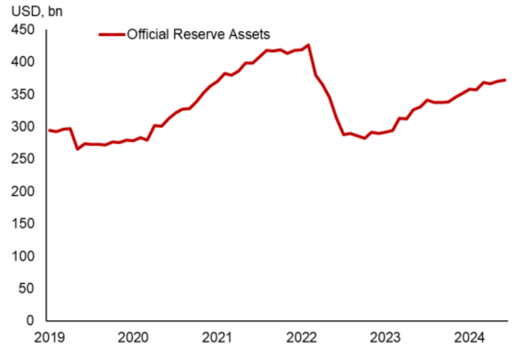
Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

…leading to a turnaround in the overall balance of payments



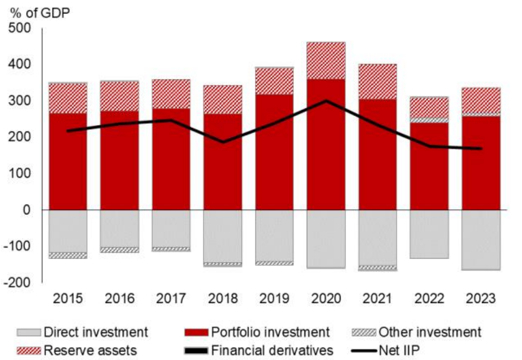
Source: Singapore Department of Statistics; CEIC; AMRO staff calculations
Note: Current/ Capital and financial accounts are balance.

International reserves increased in tandem.



Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

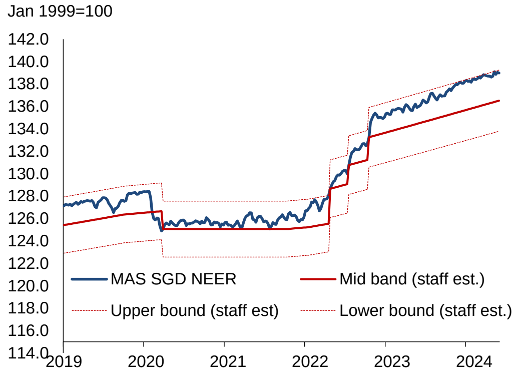
The net international investment position remained in a strong net assets position.



Source: Singapore Department of Statistics; CEIC; AMRO staff calculations

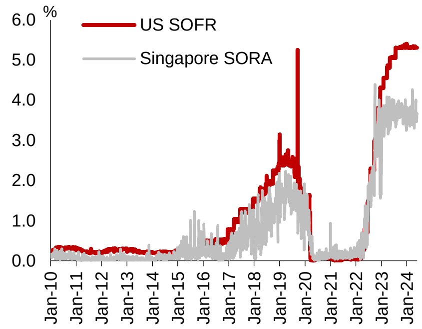
Figure 1.3. Monetary and Financial Sector

The slope of the S$NEER band has remained unchanged since October 2022 and the S$NEER has traded on the higher end of the band recently.



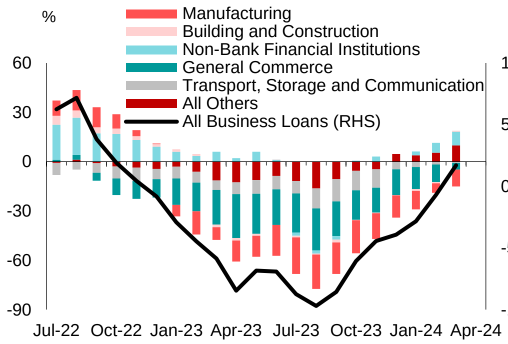
Source: MAS; CEIC; AMRO staff calculations

The Singapore Overnight Rate Average (SORA) rose along with the US SOFR in 2022 but has stabilized at a lower level since then.



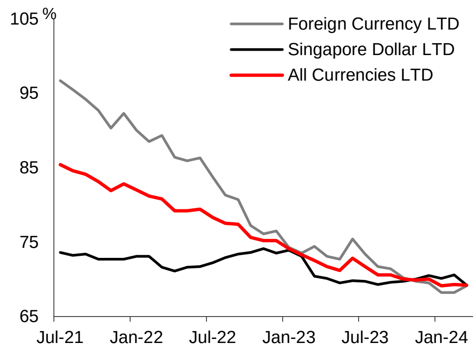
Source: Federal Reserve, MAS; CEIC; AMRO staff calculations

The slowdown in lending to businesses has eased since Q3 2023 as growth remains robust amid stable interest rates.



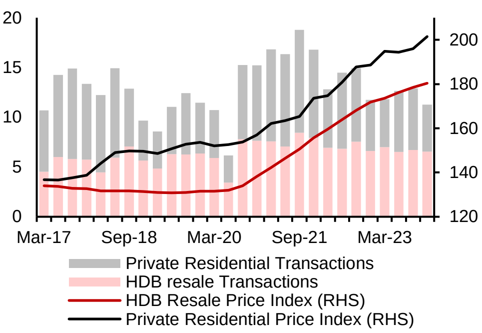
Source: MAS; CEIC; AMRO staff calculations
Note: year-on-year growth and percentage point contribution

The foreign loan-to-deposit ratio declined on the back of slower lending activity in foreign currency due to higher US dollar borrowing rates.



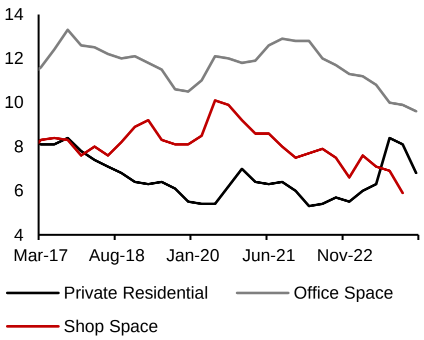
Source: MAS; CEIC; AMRO staff calculations

Transaction activity is lower than that in 2021-2022, but prices continue to rise…



Source: MAS; CEIC; AMRO staff calculations

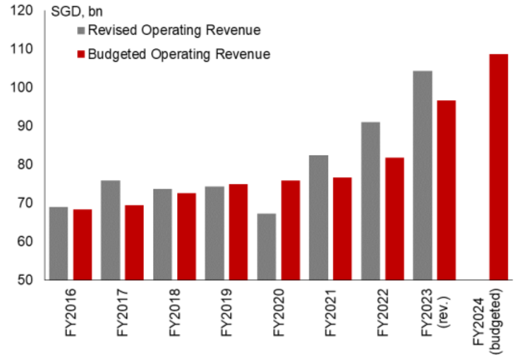
…while vacancy rates continued declining for office and shop spaces but rose for residential.



Source: URA; CEIC; AMRO staff calculations

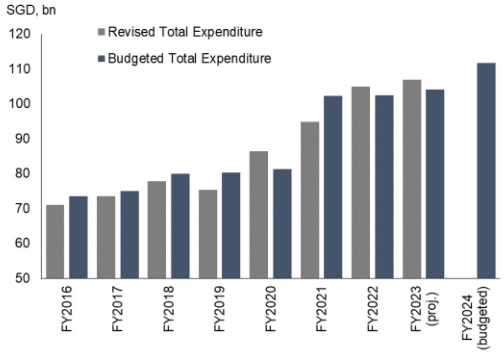
Figure 1.4. Fiscal Sector

Operating revenue is budgeted to rise…



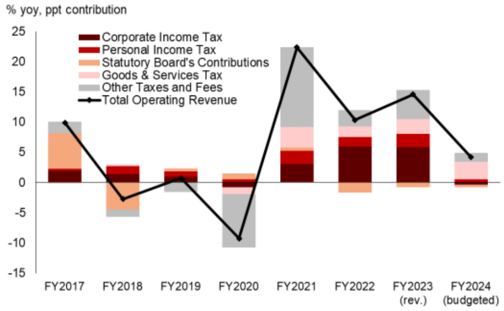
Source: Ministry of Finance; CEIC; AMRO staff calculations

…along with the increase in the budgeted expenditure.



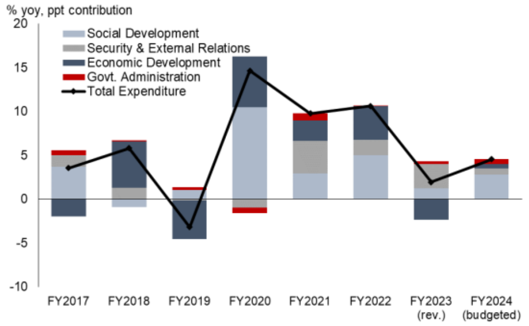
Source: Ministry of Finance; CEIC; AMRO staff calculations

Operating revenue is expected to increase due to the strong growth contribution from GST collection.



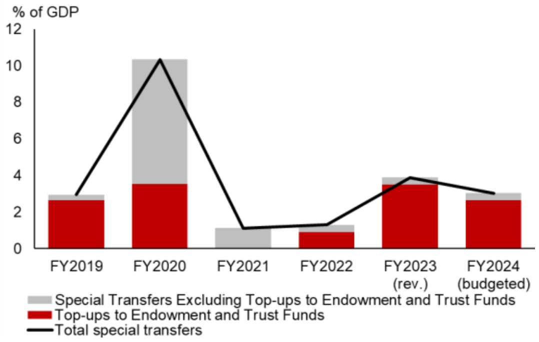
Source: Ministry of Finance; CEIC; AMRO staff calculations
Note: Other Taxes refer to Withholding Tax, Statutory Board's Contributions, Asset Taxes, Customs and Excise Taxes, Betting Taxes, Stamp Duty, Other Taxes, and Other Fees and Charges and Others.

Spending on social development, particularly health and education, is the key driver of the rise in total expenditure.



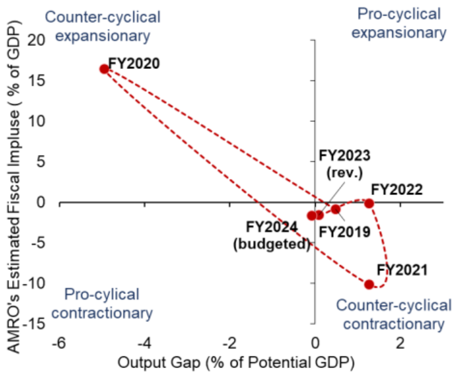
Source: Ministry of Finance; CEIC; AMRO staff calculations

Special Transfers and Top-Ups to Endowment and Trust Funds are projected to decline slightly.



Source: Ministry of Finance; CEIC; AMRO staff calculations

A The FY2024 budget maintains a similar fiscal stance to that of FY2023 realization.



Source: Ministry of Finance; CEIC; AMRO staff calculations

Appendix 2. Selected Economic Indicators for Singapore

	2020	2021	2022	2023	Projections	
					2024	2025
Real sector	(in annual percentage change, unless otherwise indicated)					
Real GDP	-3.9	9.7	3.8	1.1	3.7	2.9
Private consumption	-13.3	8.1	8.2	3.8	6.2	4.8
Government consumption	13.2	3.9	-1.9	2.6	4.8	3.2
Gross fixed capital formation	-14.2	23.6	2.5	-0.2	1.0	0.8
Exports of goods & services	-0.2	9.2	3.0	2.4	7.8	2.3
Imports of goods & services	-1.7	9.6	3.3	1.0	9.7	2.4
MAS core inflation	-0.2	0.9	4.1	4.2	3.0	2.0
Headline inflation	-0.2	2.3	6.1	4.8	2.4	2.5
Overall Unemployment rate, Annual Average	3.0	2.7	2.1	1.9	1.9	1.9
External sector	(in percent of GDP, unless otherwise indicated)					
Current account	16.6	19.8	18.0	19.8	19.7	20.3
Goods balance	29.7	28.0	30.2	30.9	29.7	29.8
Capital and Financial Account balance	-4.8	4.6	40.6	7.1	11.7	14.0
Direct investment (net)	-11.7	-17.5	-19.4	-22.4	-13.6	-13.7
Portfolio investment (net)	17.2	17.0	12.1	19.1	14.5	15.0
Other investment (net)	-9.5	5.2	47.3	10.1	10.6	12.6
Financial Derivatives (net)	-0.8	-0.2	0.5	0.2	0.2	0.2
Errors and omission	0.0	0.0	-0.3	-0.6	0.0	0.0
Overall Balance of Payments	21.4	15.2	-22.9	12.2	8.1	6.4
Net Investment International Position	299.7	232.9	174.0	168.3	167.63*	-
International Reserves (USD bn, end period)	362.3	417.9	289.5	351.0	371.7*	-
Fiscal Sector	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Revenue (% GDP)	13.7	13.5	13.3	15.2	15.5	15.6
Total Expenditure (% GDP)	17.6	15.5	15.3	15.6	15.8	16.0
Primary Surplus / Deficit (% GDP)	-3.9	-2.0	-2.0	-0.4	-0.4	-0.3
Special Transfers (% GDP)	10.3	1.1	1.3	4.0	3.2	2.5
Net Investment Returns Contribution (% GDP)	3.7	3.3	3.3	3.3	3.3	3.3
Overall Budget Surplus / Deficit (% GDP)	-10.5	0.3	0.3	-0.5	0.1	0.5
Monetary	(in annual percentage change, unless otherwise specified)					
3-month SGD Sibor (% end period)	0.41	0.44	4.25	4.06	4.05*	-
Broad Money, M2	10.7	8.8	7.8	3.2	3.2*	-
Narrow Money, M1	33.7	15.4	-13.0	-0.4	2.0*	-
Resident Non-Bank Loan Growth	2.2	6.7	-0.3	-2.4	0.4*	-
Non-Resident Non-Bank Loan Growth	-0.8	2.7	-6.4	-3.8	1.3*	-
Memorandum Items						
Straits Times Index (end period)	2844	3124	3251	3240	3337*	-
Nominal GDP (SGD, bn)	482.2	583.2	687.2	673.3	-	-
Nominal GDP (USD, bn)	349.6	433.9	498.4	501.3	-	-
Private Residential Property Index (2009Q1=100)	157.0	173.6	188.6	201.5	206.5*	-
Exchange rate (in SGD/USD, period average)	1.3792	1.344	1.3789	1.3431	1.3471*	-
Government debt (% GDP)	146.1	133.4	157.1	167.4	-	-

Source: Singaporean authorities; CEIC; AMRO staff calculations
Note: Fiscal sector figures for FY2024 reflect AMRO staff calculations. Primary Surplus/Deficit is defined as Operating Revenue less Total Expenditure.

Appendix 3. Balance of Payments

	2018	2019	2020	2021	2022	2023
	(in percent of GDP, unless otherwise indicated)					
Current Account	16.0	16.0	16.6	19.8	18.0	19.8
Goods Balance	27.6	25.6	29.7	28.0	30.2	30.9
Exports	122.2	116.9	119.6	117.9	118.2	108.9
Imports	94.6	91.4	89.9	89.9	88.0	78.0
Services Balance	2.1	4.0	1.7	8.2	8.3	6.5
Exports	56.1	59.4	62.0	65.1	67.5	65.4
Imports	53.9	55.4	60.2	56.9	59.2	58.9
Primary Income Balance	-12.2	-11.6	-13.6	-15.0	-19.2	-16.1
Secondary Income Balance	-1.5	-1.9	-1.2	-1.4	-1.4	-1.5
Capital and Financial Account	12.5	18.3	-4.8	4.6	40.6	7.1
Direct Investment	-15.4	-10.1	-11.7	-17.5	-19.4	-22.4
Assets	6.3	18.0	11.4	14.1	10.5	12.6
Liabilities	21.8	28.1	23.1	31.6	29.8	34.9
Portfolio Investment	14.0	28.5	17.2	17.0	12.1	19.1
Assets	10.6	30.1	16.2	19.4	17.3	20.0
Liabilities	-3.5	1.6	-1.0	2.3	5.2	0.8
Other Investments	8.4	-1.9	-9.5	5.2	47.3	10.1
Assets	28.1	12.4	17.5	21.2	51.0	6.0
Liabilities	19.7	14.3	26.9	15.9	3.7	-4.1
Financial Derivatives	5.5	1.8	-0.8	-0.2	0.5	0.2
Overall Balance	**3.3**	**-2.2**	**21.4**	**15.2**	**-22.9**	**12.2**
Net International Investment Position (SGD bn, end period)	945.4	1,224.5	1,445.1	1,358.5	1,196.0	1,133.5
External Assets	5,198.5	5,848.2	6,562.1	7,040.2	7,160.8	7,420.4
External Liabilities	4,253.1	4,623.7	5,117.0	5,681.8	5,964.8	6,287.0

Source: Singaporean authorities; CEIC; AMRO staff calculations

Appendix 4. General Government Budget

	FY2020	FY2021 (actual)	FY2022 (actual)	FY2023 (revised)	FY2024 (budgeted)
	(in billions of SGD, unless otherwise indicated)				
Operating Revenue	**67.4**	**82.5**	**91.0**	**104.3**	**108.6**
% of GDP	13.7	13.5	13.3	15.2	15.1
% yoy	-9.3	22.4	10.3	14.6	4.2
Tax Revenue	**61.4**	**74.8**	**82.7**	**95.0**	**99.0**
Income Tax	30.5	34.3	40.7	48.1	48.4
Corporate Income Tax	16.1	18.2	23.1	28.4	28.0
Personal Income Tax	12.7	14.2	15.5	17.5	18.1
Withholding Tax	1.6	1.9	2.1	2.2	2.3
Statutory Boards' Contributions	2.5	2.9	1.5	0.7	0.3
Assets Taxes	3.1	4.7	5.1	5.9	6.7
Customs, Excise and Carbon Taxes	3.6	3.7	3.5	3.4	3.6
Goods and Services Tax	10.3	12.6	14.1	16.4	19.4
Motor Vehicle Taxes	2.1	2.2	2.2	2.6	2.8
Betting Taxes	1.7	2.3	2.8	3.2	3.3
Stamp Duty	3.9	6.8	6.0	5.9	5.7
Other Taxes	3.6	5.3	7.0	8.8	8.9
Fees and Charges	**5.5**	**6.8**	**7.7**	**8.7**	**9.0**
Vehicle Quota Premiums	2.3	3.2	3.8	4.7	4.7
Other Fees and Charges	3.2	3.6	3.9	4.1	4.2
Other Receipts	**0.5**	**0.9**	**0.6**	**0.6**	**0.6**
Total Expenditure	**86.4**	**94.8**	**104.9**	**106.9**	**111.8**
% GDP	17.6	15.5	15.3	15.6	15.5
% yoy	14.6	9.8	10.6	1.9	4.6
Social Development	44.5	47.0	51.8	53.1	56.1
Security and External Relations	20.5	23.7	25.4	28.3	29.1
Economic Development	18.7	20.7	24.3	21.8	22.4
Government Administration	2.6	3.3	3.3	3.7	4.2
Primary Surplus/Deficit	**-19.0**	**-12.3**	**-13.8**	**-2.6**	**-3.1**
% of GDP	-3.9	-2.0	-2.0	-0.4	-0.4
Less: Special Transfers Excluding Top-ups to Endowment and Trust Funds	**33.5**	**6.8**	**2.7**	**2.8**	**2.9**
Basic Surplus / Deficit	**-52.5**	**-19.1**	**-16.5**	**-5.4**	**-6.1**
% of GDP	-10.7	-3.1	-2.4	-0.8	-0.8
Less: Top-ups to Endowment and Trust Funds	**17.3**	**0.0**	**6.3**	**24.3**	**20.4**
Add: Net Investment Returns Contribution	**18.2**	**20.4**	**22.4**	**22.9**	**23.5**
Overall Budget Surplus / Deficit	**-51.6**	**1.2**	**-0.4**	**-6.8**	**-2.9**
% GDP	-10.5	0.2	-0.1	-1.0	-0.4
Add: Capitalisation of Nationally Significant Infrastructure, net of Depreciaton		0.7	2.2	3.5	4.1
Less: SINGA Interest Costs and Loan Expenses			0.1	0.2	0.4
Overall Fiscal Position	-51.6	1.9	1.7	-3.6	0.8
% GDP	-10.5	0.3	0.3	-0.5	0.1

Source: MOF; CEIC; AMRO staff calculations
Note: Primary Surplus/Deficit is defined as Operating Revenue less Total Expenditure.

Appendix 5. Climate Dashboard[24]

A. Physical Risks

Exposure/ Sources of risk	Potential macro-financial impacts
• Extreme rainfall • Rising sea levels • Higher temperatures	• With 30% of Singapore being less than 5 metres above sea level and the population density being one of the highest in the world, rising sea levels poses a serious threat to Singapore and could lead to loss of scarce land space, damage to infrastructure and disruption of key economic activities, if nothing is done to protect its coastlines. • Extreme rainfall could overwhelm Singapore's drainage system and lead to flash floods, affecting economic activities and infrastructure. • Higher temperatures could lead to thermal discomfort, requiring greater use of air-conditioning, increasing Singapore's energy consumption and costs. • Decline in productivity as warmer temperatures may lead to increased heat stress and vector-borne diseases like dengue. • As Singapore imports 90 percent of its food, intense weather conditions would threaten global food security, leading to fluctuations in food supply and prices.

B. Transition Risks

Sources of risk	Potential macro-financial impacts
• Domestic carbon pricing instruments	Higher inflation due to rising carbon tax.

C. Adaptation Response Framework and Strategies

Adaptation framework	Key initiatives/strategies	Estimated financing need and sources	
		• USD 573 million (0.17 percent of GDP) per annum under a SSP3 scenario with 2.0 degree warming (UNESCAP).	
		Domestic	**External**
• Third National Climate Change Study (2024) • First Adaptation Communication as part of Singapore's Fifth National Communication (Nov 2022)	• The Resilience Working Group (RWG) under the Inter-Ministerial Committee on Climate Change (IMCCC) assesses Singapore's physical vulnerabilities to climate change based on a resilience framework, which guides the formulation of adaptation plans up to 2100. Adaptation efforts include: o Adapting to Sea Level Rise and Building Flood Resilience o Ensuring Water Sustainability. o Heat Resilience. o Safeguarding Biodiversity and Greenery. o Strengthening Resilience in Public Health. o Ensuring Food Resilience o Ensuring Infrastructure Resilience.	• Annual budget	• Global Environment Facility

D. Mitigation Response Framework and Strategies

Nationally Determined Contribution (NDC)	National framework/strategies	Estimated financing and sources
• Reduce emissions to around 60 MtCO2e in 2030 after peaking emissions earlier. (UNFCCC 2020) **Long-term commitment** • Achieve net zero emissions by 2050.	• To achieve net zero by 2050, Singapore is accelerating the low-carbon transition for industry, economy and society through four key thrusts: ○ Catalysing business transformation; ○ Investing in low-carbon technologies; ○ Pursuing effective international cooperation; and ○ Adopting low-carbon practices. • These key thrusts are supported by a carbon tax, as a key enabler of this transition. • Singapore Green Plan 2030 seeks to galvanize a whole-of-nation movement and advance Singapore's national agenda on sustainable development. ○ Spearheaded by five ministries, the Green Plan charts ambitious and concrete targets for the rest of this decade. Key sectoral strategies and initiatives include: • National Hydrogen Strategy: aims to develop infrastructure to use hydrogen as a key power supply. • Sustainable Air Hub Blueprint: Singapore's plan for the decarbonization of its aviation sector and sustainable aviation growth. • Maritime Singapore Decarbonisation Blueprint: charts domestic strategies and concrete targets to drive the decarbonisation of Singapore's domestic maritime sector, and plans for collaborations with researchers, industry and international partners to catalyse green shipping. • Singapore Green Building Masterplan: encourage developers to embed sustainability as part of a building's life cycle from the onset. • Enterprise Sustainability Programme: supports Singapore companies, especially SMEs, to build capabilities and capture new opportunities	• The S$50 million SG Eco Fund was launched by the Ministry of Sustainability and the Environment to support the co-creation of solutions for a sustainable Singapore. • $1.4bn has been allocated for research and development (R&D) under the Research, Innovation and Enterprise 2025 (RIE2025) Urban Solutions and Sustainability domain to support the Singapore Green Plan 2030. • S$55 million has been awarded to projects that support Singapore's National Hydrogen Strategy and promising low-carbon energy R&D areas under Phase 2 of the Low-Carbon Energy Research Programme. • The S$90 million CREATE's Thematic Programme on

[24] Prepared by Catharine Kho.

	through capability and product development projects via the Enterprise Development Grant.	Decarbonization was launched by the National Research Foundation to grow Singapore's capabilities in hydrogen utilization and non-fossil fuel-based pathways to produce sustainable aviation fuel and high-value chemicals

E. **Enabling Regulations for Climate Resilience**

E.1. Legal Framework	**E.3. Carbon Pricing frameworks**	**E.4. Sustainable Finance Frameworks**
Climate disclosure All listed companies in Singapore will be required to make climate-related disclosures starting from FY2025 The requirement will also apply to large non-listed companies from FY2027. Since 2013, energy intensive companies in the industry sector are required, under the Energy Conservation Act (ECA) to implement mandatory energy management practices, such as monitoring and reporting energy use and submitting energy efficiency improvement plans. **E.2. GHG Accounting Framework** • Singapore's emissions are estimated using the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National GHG Inventories.	Carbon Pricing Act (Jan 2019) ○ The tax was set at S\$5/tCO2e from 2019 to 2023 to provide a transitional period for emitters to adjust. To support Singapore's net zero target, the carbon tax has been raised to S\$25/tCO2e in 2024, and will be increased further to S\$45tCO2e in 2026 and 2027, with a view to reach S\$50-80 tCO2e by 2030.	• Singapore Green Bond Framework (Jun 2022) ○ The Framework lists eight categories of green projects that may be financed by Singapore sovereign green bonds. ○ Singapore sovereign green bonds are used to finance major, long-term green infrastructure in Singapore that qualify under the Framework.

E.5. Financial System

Initiatives	**Guidelines**	**Status**
Taxonomy	• Singapore-Asia Taxonomy for Sustainable Finance (Dec 2023)	• Sets out detailed thresholds and criteria for defining green and transition activities that contribute to climate change mitigation across eight focus sectors. • While the Taxonomy is not mandated for any institutions at the time of publishing, Financial Institutions can use it to report on the degree to which their investments, products or range of transactions (in the case of single loans, etc.) are aligned with the Taxonomy and the environmental objectives to which the undertaking contributes.
Risk management assessments	• Handbook on Implementing Environmental Risk Management (Jan 2021) • Project Viridis— A Climate Risk Platform for Financial Authorities (Jun 2024)	• The Green Finance Industry Taskforce (GFIT) has also issued a handbook that offers guidance to banks, insurers, and asset managers on best practices in environmental risk management. It will support the financial industry's efforts to implement MAS' Guidelines on Environmental Risk Management. • The Bank for International Settlements (BIS) and the Monetary Authority of Singapore (MAS) have developed a blueprint for a platform that integrates regulatory and climate data to help financial authorities identify, monitor and manage climate risks in the financial system.
Climate-related financial disclosures	• Climate Reporting and Assurance Roadmap (Feb 2024)	• From FY2025, all listed issuers will be required to report and file annual CRD, using requirements aligned with the International Sustainability Standards Board (ISSB) standards. • From FY2027, large NLCos (defined as those with annual revenue of at least S\$1 billion and total assets of at least S\$500 million) will be required to do the same. ACRA will review the experience of listed issuers and large NLCos before introducing reporting requirements for other companies.

F. Potential Opportunities in Transition to Low Carbon

• Within the clean technology (cleantech) sector, Singapore has secured several key investments in high-value manufacturing, engineering, biofuels, research and development (R&D) and regional headquarters activities.	• As a major financial centre, Singapore is an ideal launch pad for leading insurance, reinsurance and insurance brokerage companies wanting to meet the region's insurance needs for climate-related risks.	• Singapore can leverage its position as an established professional services, trading, and financial hub, as well as its proximity to Southeast Asia that is one of the largest carbon credit sources and is seeing growing demand for carbon services as it seeks to decarbonise, to develop as a carbon services and trading hub.

Appendix 6. Data Adequacy for Surveillance Purposes: A Preliminary Assessment

Criteria/ Key Indicators for Surveillance	Availability[1]	Reporting Frequency/ Timeliness[2]	Data Quality[3]	Consistency[4]	Others, if Any[5]
National Account	Available	Quarterly, no later than eight weeks after the end of the reference quarter for the "Preliminary Estimates"	-	-	-
Balance of Payments (BOP)	Available	Quarterly, no later than eight weeks after the end of the reference quarter	-	-	-
International Investment Position (IIP)	Available	Quarterly, no later than three months after the end of the reference quarter	-	-	-
External Debt	Available	Quarterly, no later than three months after the end of the reference quarter	-	-	-
State Budget and Government	Available	Central government revenue (monthly, within two months of the end of the reference period) Central government expenditure (quarterly, within two months of the end of the reference period)	-	-	-
Money Supply and Credit Growth	Available	Monthly, within one month of the end of the reference period	-	-	-
Financial Sector Soundness Indicators	Partially Available	Quarterly, within six months	-	Financial Soundness Indicators are not reported to IMF	-
State-owned Enterprises Statistics[6]	Available if publicly listed on the stock exchange, otherwise limited	Quarterly data available for listed companies within two months of the reference quarter, but not available for non-listed companies	-	-	-
Housing Market Indicators	Available	Quarterly, within two months of the end of the reference quarter (for preliminary data)	-	-	-

Source: AMRO staff compilation. This preliminary assessment will form the “Supplementary Data Adequacy Assessment" in the EPRD Matrix.

Notes:

[1] Data availability refers to whether the official data are available for public access by any means.

[2] Reporting frequency refers to the periodicity with which the available data are published. Timeliness refers to how up-to-date the published data are relative to the publication date.

[3] Data quality refers to the accuracy and reliability of the available data given the data methodologies.

[4] Consistency refers to both internal consistency within the data series itself and its horizontal consistency with other data series of either the same or different categories.

[5] Other criteria might also apply, if relevant. Examples include but are not limited to potential areas of improvement for data adequacy.

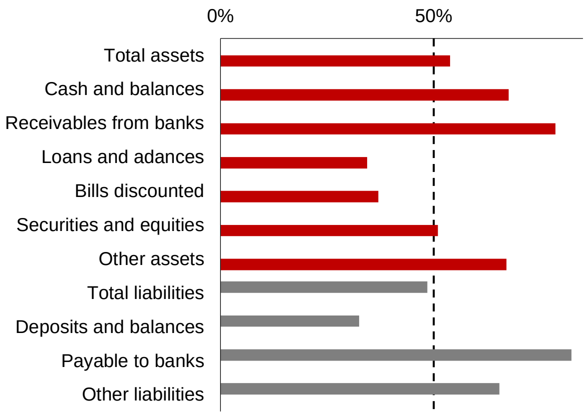
[6] This refers to government-linked companies, not SOEs.

Annexes: Selected Issues

1. The US Dollar in Singapore's Financial System[25]

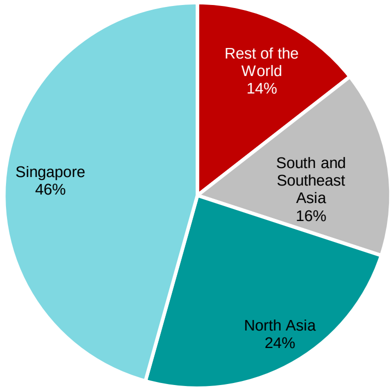
1. Singapore's banking system is highly integrated with the global financial system and acts as a key provider of banking services to ASEAN+3 economies. The share of external assets and liabilities in the banking sector is more than 50 percent while a high share of external "payable to banks" and "receivables for banks" shows the high degree of integration of the banking system with the global banking system (Figure A1.1). Singapore's major local banks are also well integrated in the ASEAN+3 financial system and almost 75 percent of their foreign lending is to entities based in the region (Figure A1.2)[26].

Figure A1.1. Share of External Assets and Liabilities in Singapore's Banking System, 2023
(Percent)



Source: MAS via CEIC, AMRO staff calculations.

Figure A1.2. Loans Made by major local banks by Location of Borrowers
(Percent of total)



Source: DBS, OCBC, UOB.
Note: Major local banks are DBS, OCBC, and UOB

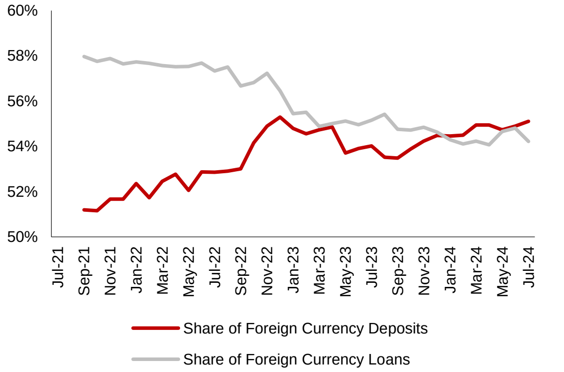
2. A significant part of the business in Singapore's banking sector is done in foreign currencies, especially the US dollar. Foreign currency loans and deposits account for about 54 and 55 percent of all banking sector loans and deposits respectively (Figure A1.3). The US dollar is the most dominant foreign currency used in the banking system and it accounts for 30 percent of the deposits and 20 percent of loans in major local banks (Figure A1.4). Over the past few years, the share of US dollar loans has declined partly due to higher US borrowing rates and a stronger US dollar while the share of US dollar deposits has increased slightly as investors have tapped into higher interest rates.

3. The primary source of funding for banks has been deposits from non-bank customers (Figure A1.5), which are typically sticky and stable. These deposits also form the primary source of foreign currency funding, including the US dollar. In addition, there is some evidence that the foreign currency deposits (either in absolute amounts or as a share of total deposits) tend to rise in episodes with heightened market stress, such as the taper tantrum (May 2023), the onset of the COVID-19 pandemic (March 2020) and the Fed's recent hiking cycle (2022-2023) (Figure A1.6). Though funding stress typically rises in episodes of market stress, the domestic banking system is perceived to be safe by investors and customers and

[25] Prepared by Prashant Pande.
[26] Major local banks in this annex are DBS, OCBC, and UOB.

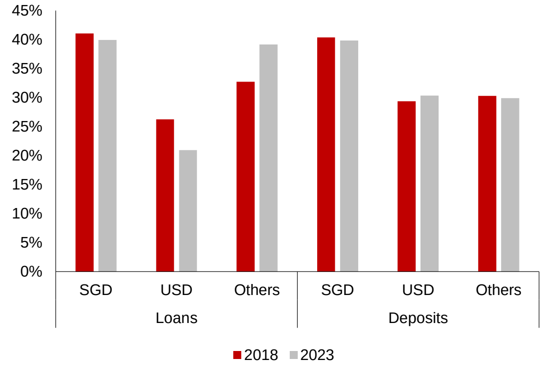
this could be one of the factors diriving them to park their foreign currency funds with the major local banks.

Figure A1.3. Share of Foreign Currency in Banking Sector's Non-bank Deposits and Loans.
(Percent)



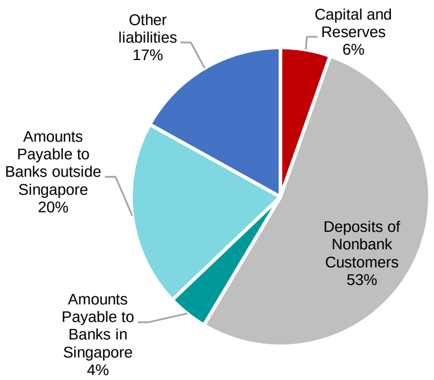
Source: MAS via CEIC, AMRO staff calculations.
Note: The share of local currency loans is calculated using non-bank deposits and non-bank LDR.

Figure A1.4. Share of US Dollar in Banking Sector's Deposits and Loans
(Percent)



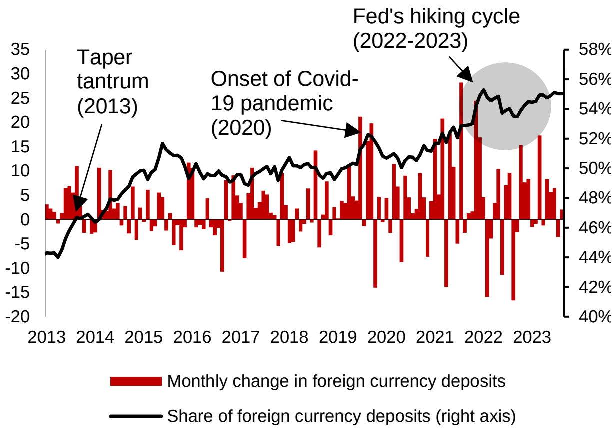
Source: DBS, OCBC and UOB, AMRO staff calculations.

Figure A1.5. Funding Structure for Singapore's Banking System.
(Percent of total liabilities)



Source: MAS via CEIC, AMRO staff calculations.

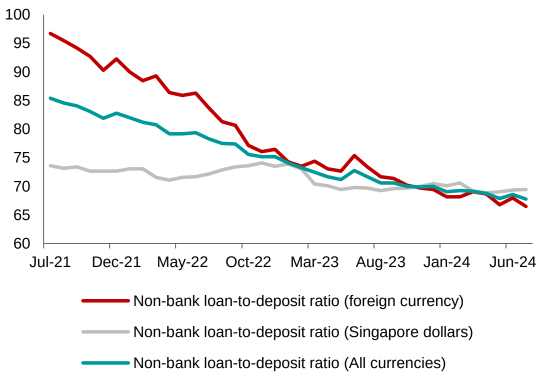
Figure A1.6. Monthly change in foreign currency Deposits
(Billions of US dollars, percent)



Source: MAS via CEIC, AMRO staff calculations.

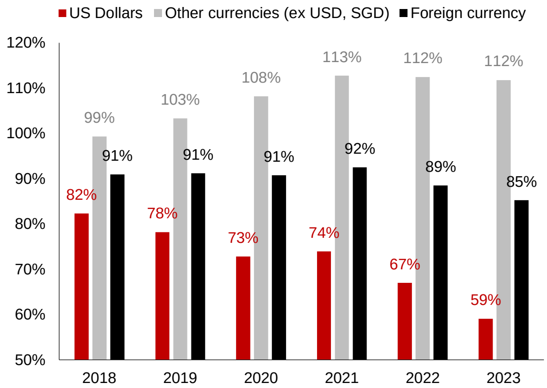
4. High deposit growth and tepid loan demand has created a US dollar liquidity surplus in the banking system. The loan-to-deposit (LTD) ratio for Singapore banks has continued to fall for both Singapore dollars and foreign currencies (Figure A1.7), which shows that there is surplus liquidity in the banking system. Our estimates of the US dollar LTD ratio for D-SIBs have also shown a sharp fall since the pre-pandemic levels while those of other foreign currencies rose before stabilizing since 2021 (Figure A1.8). The D-SIBs have surplus US dollars, which are likely swapped into other foreign currencies to meet loan demand in other foreign currencies.

Figure A1.7. Loan-to-deposit (LTD) Ratio for Singapore's Banking System.
(Ratio)



Source: MAS via CEIC, AMRO staff calculations.

Figure A1.8. Estimated USD Loan-to-deposit for D-SIBs
(Ratio)



Source: DBS, OCBC and UOB, AMRO staff calculations.

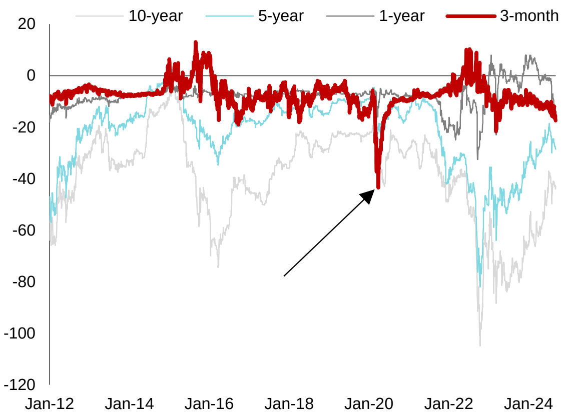
5. The US dollar liquidity remains ample for the D-SIBs during normal market conditions, but stress in global US dollar funding conditions could affect the orderly function of the financial system. Even though the D-SIBs have low USD LTD ratio, which indicates ample US dollar liquidity, the cross-currency basis for Singapore dollar remains negative i.e., the borrowing of synthetic US dollars (borrow Singapore dollar and swap to US dollars) remains more expensive than borrowing US dollars directly. This phenomenon, observed across major currencies since 2008, can be attributed to several factors. Domestic investors may be swapping local currencies for US dollars and the banks might have reduced their hedging services due to low interest rates and tighter regulations (Avdjiev, Eren, and McGuire 2020). Alternatively, regulatory limits on arbitrage activities may have kept the basis negative (Borio and others 2016). Note that in March 2020 (the onset of the COVID-19 pandemic), the 3-month basis widened (i.e. turned more negative), thus showing that the financial system is still exposed to global US dollar funding stress (Figure A1.9). However, as compared to other ASEAN+3 markets, the widening of basis was less severe and returned to pre-stress levels quickly. It reflects structural resilience in the cross-currency funding markets in Singapore (Box B, AMRO Annual Consultation Report Singapore 2021), which is in part also attributable to the credibility of the D-SIBs which were able to attract deposits from customers even during the episode of heightened volatility.

6. While the depth of the foreign exchange markets provides ample tools and counterparties to mitigate US dollar funding risks, the downside is that Singapore's deep integration in the global financial system would also help propagate shocks to other economies. Singapore is the third largest foreign exchange market globally and enables the trading of a wide range of currencies and FX instruments (BIS 2022). However, a large portion of these transactions are crossborder with dealers (which include major banks) being the most important participants (Figure A1.10). In this regard, any stress in the D-SIBs can quickly spread to other regional financial markets. We note that Singapore's extensive external connections make it a potential channel of spillover for the region (upcoming AFSR 2024, Chapter 1, Feature 1)

7. The policy framework is robust and has enough capacity to provide support in episodes of severe market stress. The authorities have ample precautionary and remedial tools to prevent and address US dollar funding stress and the regulatory framework is robust. It requires the major banks (either internationally active or incorporated and headquartered in

Singapore) to maintain an all currency liquidity coverage ratio (LCR) of at least 100 percent, which provides short-term buffer to liquidity shocks. MAS also evaluates the foreign currency mismatch risk[27] in the corporate sector to evaluate the foreign currency vulnerability of corporates. In an adverse scenario, the MAS has ample policy levers to stabilize the funding markets. Note that MAS has been a recipient of the Fed's dollar liquidity swap lines in 2007 and 2020, which have enhanced its ability to provide US dollar liquidity support during the Global Financial Crisis and the Covid-19 pandemic. During the USD funding stress at the onset of the pandemic, the MAS increased its daily USD provision to the banking system pre-emptively. The readiness of the MAS to intervene during episodes of extreme stress also provides an important safety net for the USD funding conditions. We support the close monitoring of foreign currency positions in the financial and corporate sectors. However, given Singapore's role as an international financial center, the authorities could consider working with other regional authorities to evaluate the potential spillovers during episodes of market stress.

Figure A1.9. Cross Currency Basis for the Singapore Dollar.
(Basis points)



Source: Bloomberg, AMRO staff calculations.
Note: The cross-currency basis ("basis") for 1-year, 5-year and 10-year tenors have been stitched to accommodate for the LIBOR transition in 2021. The 3-month basis has been calculated from FX spot, FX forwards and interest rates for USD and SGD.

Figure A1.10. Composition of FX Market Transactions in Singapore.
(Percent of total transactions)

	Dealers	Other Financial Institutions	Non-financial institutions	Total
Local				
All instruments	**6 (11)**	**5 (15)**	**1 (3)**	**12 (29)**
Spot transactions	1 (3)	1 (5)	0 (1)	**3 (9)**
Outright forwards	1 (1)	1 (3)	0 (1)	**2 (5)**
FX swaps	4 (7)	3 (6)	0 (1)	**7 (14)**
Currency swaps	0 (0)	0 (0)	0 (0)	**0 (0)**
Options	0 (0)	0 (1)	0 (0)	**0 (1)**
Crossborder				
All instruments	**61 (47)**	**26 (22)**	**1 (1)**	**88 (71)**
Spot transactions	17 (12)	5 (6)	0 (0)	**22 (19)**
Outright forwards	8 (6)	6 (4)	0 (0)	**14 (10)**
FX swaps	32 (27)	14 (11)	0 (1)	**46 (39)**
Currency swaps	0 (1)	0 (0)	0 (0)	**1 (1)**
Options	4 (2)	1 (1)	0 (0)	**6 (3)**

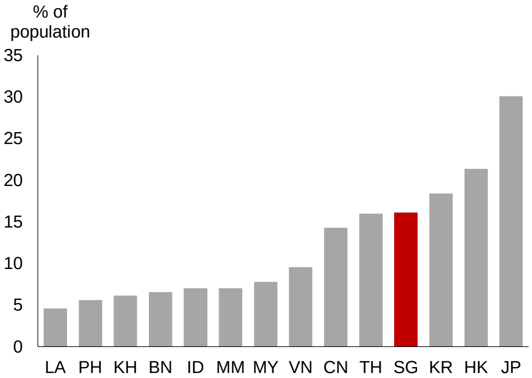
Source: DBS, OCBC and UOB. AMRO staff calculations.
Note: Numbers in brackets are the global averages.

[27] Foreign currency mismatch risk is the risk of economic loss due to adverse movements in the value of foreign currencies against the Singapore dollar (https://www.mas.gov.sg/-/media/MAS-Media-Library/regulation/notices/ID/notice-133/MAS-Notice-133_29-Mar-2022_clean.pdf)

2. Navigating Singapore's Demographic Shift and Macroeconomic Challenges[28]

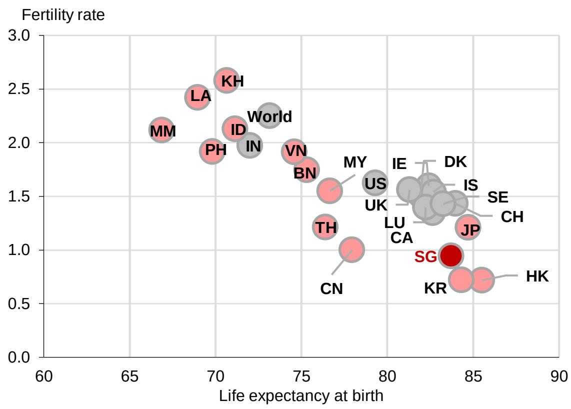
1. Singapore's already-aged population is getting even older rapidly. Singapore is currently the oldest ASEAN nation and the fourth oldest ASEAN+3 nation, with 16.1 percent of its population aged 65 and above (Figure A2.1). This demographic profile arises from a combination of having one of the world's lowest fertility rates and one of the highest life expectancies globally (Figure A2.2). As a result, Singapore's population pyramid is expected to narrow at the base and widen at the top, leading to a substantial increase in the share of elderly individuals in the population by 2050 (Figure A2.3).

Figure A2.1. Share of Population Aged 65 and Above, 2022



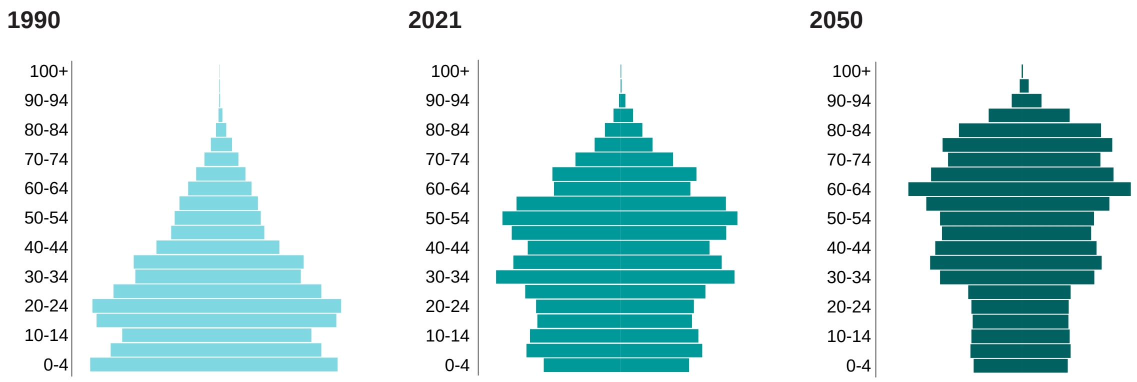
Source: UN World Population Prospects 2022

Figure A2.2. Fertility Rate and Life Expectancy, 2023



Source: United Nations Department of Economic and Social Affairs, Population Division; AMRO calculations.
Note: Pink bubbles refer to ASEAN+3 economies. BN = Brunei Darussalam; CA = Canada; CH = Switzerland; DK = Denmark; HK = Hong Kong, China; ID = Indonesia; IE = Ireland; IN = India; IS = Iceland; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; LU = Luxembourg; MM = Myanmar; MY = Myanmar; PH = the Philippines; SE = Sweden; SG = Singapore; TH = Thailand; UK = United Kingdom; US = United States; VN = Vietnam.

Figure A2.3. Share of Total Population by Age Group in Singapore



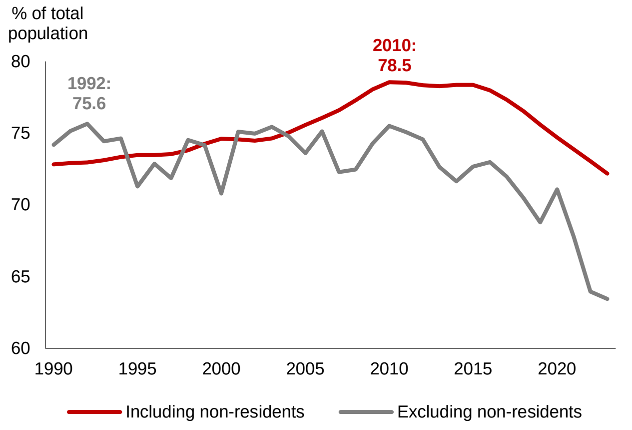
Source: United Nations Department of Economic and Social Affairs, Population Division; AMRO staff calculations.
Note: Figures after 2021 use UN estimates (medium variant).

2. The shrinking working-age population poses significant challenge to Singapore's future growth potential. The share of the local working-age population has been declining since 1992 (Figure A2.4). Bolstered by the inclusion of foreign talent, the peak of overall working-age population has been raised and delayed to 2010. Despite supplementing with

[28] Prepared by Catharine Kho.

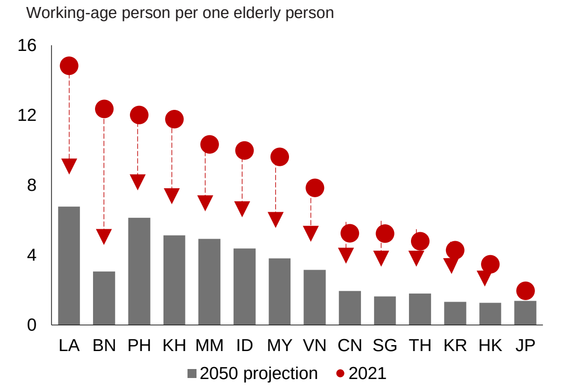
foreign workers, the overall working-age population has been moderating and is forecast to continue to decline. This trend would contribute to a projected halving of the support ratio by 2050—implying that the number of working-age individuals supporting each elderly person will decrease from five in 2021 to fewer than two (Figure A2.5). Besides increasing fiscal burden (AMRO 2023), this demographic trend could also weigh on GDP per capita growth, as the potentially higher labor productivity of the smaller working-age population[29] may not fully offset the economic burden of an expanding elderly population (Figure A2.6).

Figure A2.4. Share of Working-Age Population in Singapore



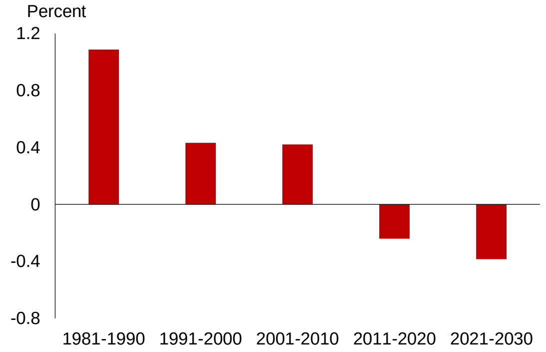
Source: United Nations Department of Economic and Social Affairs, Population Division; AMRO calculations.
Note: Working-age population refers to the population between 20 and 64 years old.

Figure A2.5. Projected Potential Support Ratios in 2050, by Economy



Source: United Nations Department of Economic and Social Affairs, Population Division; AMRO staff calculations.
Note: BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = the Philippines; SG = Singapore; TH = Thailand; VN = Vietnam. Figures after 2021 use UN estimates (medium variant). Potential support ratio is calculated as the ratio of the working-age population (ages 15 to 64 years) to the old-age population (ages 65 and above).

Figure A2.6. Contribution of the Change in Share of Working-Age Population to GDP per Capita Growth



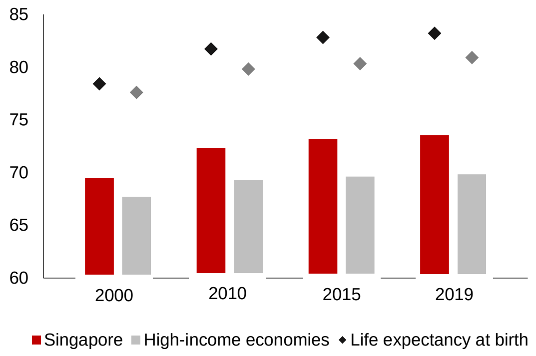
Source: United Nations Department of Economic and Social Affairs, Population Division; IMF World Economic Outlook April 2024; AMRO staff calculations.
Note: The decomposition methodology follows IMF (2019); data refers to annual average during the period.

3. Singapore's robust healthcare system has contributed significantly to its population's longevity and health outcomes. In addition to living longer than the global average, Singaporeans are also aging healthier (Figure A2.7). The government's proactive approach to managing an aging population is evident in initiatives such as the Healthier SG program, launched in 2022, which emphasizes preventive care and community-based health management. Additionally, the establishment of the Agency for Integrated Care in 2009 has enhanced the coordination of aged care services, fostering a supportive environment for active

[29] Future labor productivity is likely to be higher, reflecting improved employees' skills benefitting from upskilling and reskilling initiatives amid continued high educational attainment, and rapid technological adoption.

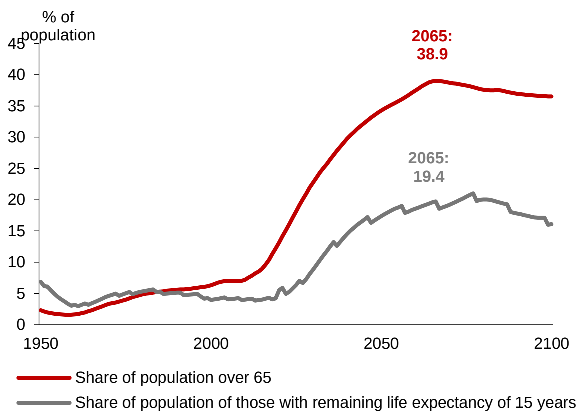
aging. These measures, coupled with ongoing efforts to maintain the efficiency and quality of healthcare delivery, are critical in mitigating the potential strain on healthcare resources as the population ages. Based on the prospective measure of aging—where a person is only considered to be old when their remaining life expectancy is less than 15 years—the extended healthy lifespan can be accounted for, resulting in the proportion of "old" people in Singapore to be almost half of current measure by 2065 (Figure A2.8).

Figure A2.7. Healthy Life Expectancy and Life Expectancy at Birth



Source: World Health Organisation

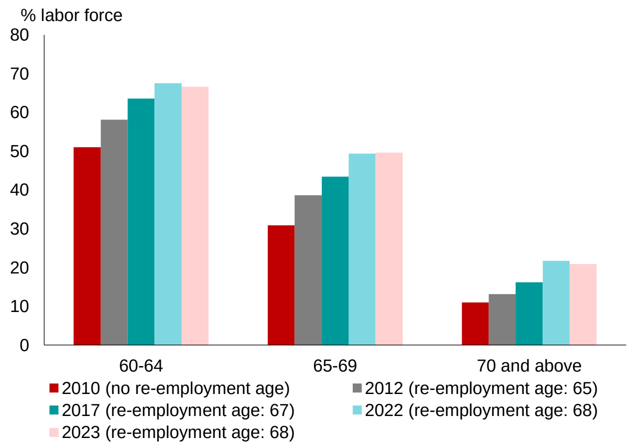
Figure A2.8. Prospective versus Retrospective Measure of Old Age Population for Singapore



Source: United Nations Department of Economic and Social Affairs, Population Division; AMRO staff calculations

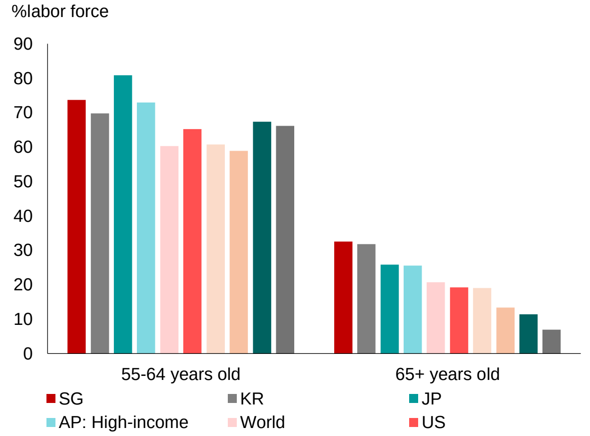
4. A healthier silver population and labor market reforms have enabled Singapore to harness the longevity dividend. The country has progressively raised the retirement age from 60 in 1993 to 63 today. Its defined-contribution Central Provident Fund allows withdrawals at various life stages, facilitating the extension of retirement age over the years. Singapore has also introduced a re-employment age in 2012, to promote higher participation of older worker in the workforce. Efforts to boost elderly workforce engagement have proven successful, with employment rates for those aged 60-64 rising from 50 percent before re-employment age reforms to 67 percent currently, and for those aged 65-69 rising from under one-third in 2010 to 50 percent today (Figure A2.9). Employment among those aged 70 and above has also increased significantly, from 11 percent in 2010 to 21 percent in 2023. Currently, Singapore has one of the highest labor force participation rates for individuals aged 65 and above globally (Figure A2.10).

Figure A2.9. Labor Force Participation Among the Elderly



Source: Ministry of Manpower

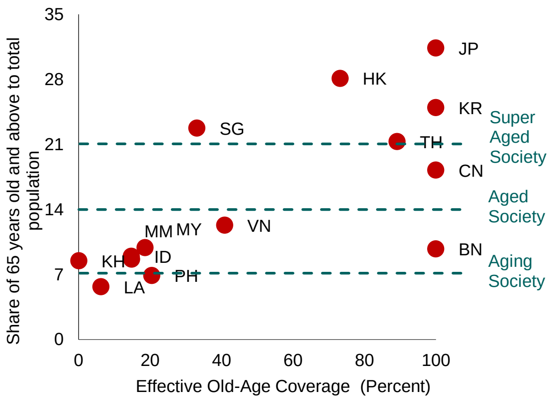
Figure A2.10. Labor Force Participation Among the Elderly, by Economy



Source: ILO

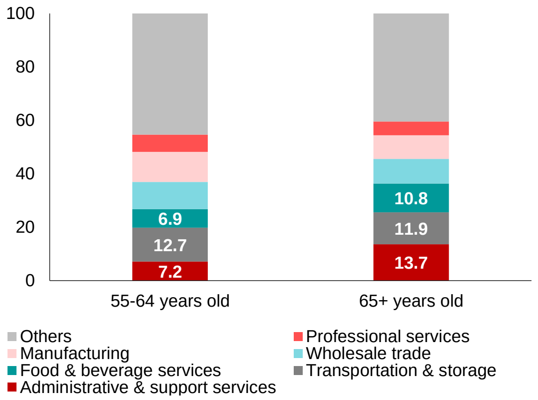
5. Despite Singapore's progress in enabling productive aging, significant challenges remain as the economy faces rapid technological advancements, rising living costs, and growth headwinds. By 2030, Singapore is projected to become a super aged nation with over 21 percent of its population aged 65 and above[30]. However, as its pension coverage lags behind peers, some elderly continue to seek employment for supplemental income[31] (Figure A2.11). Currently, 36.4 percent of employed individuals aged 65 and above, work in administrative & support services, transportation & storage, and wholesale trade sectors (Figure A2.12, MRSD MOM 2024a), industries that traditionally have a higher proportion of lower-skilled positions and may face increasing technological disruption. Workplace age discrimination persists, with 18.1 percent of resident job seekers reporting such experiences (MRSD MOM 2024b) and 57 percent perceiving reduced access to training opportunities as they age (Ranstad 2020).

Figure A2.11. Effective Old-Age Coverage versus Old-Age Ratios for ASEAN+3, 2030
(Percent of total population)



Source: United Nations Department of Economic and Social Affairs, Population Division; International Labour Organization; AMRO staff calculations.
Note: BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = the Philippines; SG = Singapore; TH = Thailand; VN = Vietnam. Effective coverage of old-age refers to ratio of persons above statutory retirement age receiving an old-age pension to the number of persons above statutory retirement age (including contributory and non-contributory).

Figure A2.12. Employment by Industry for Workers Aged 55 and Above in Singapore, 2023



Source: MRSD, MOM

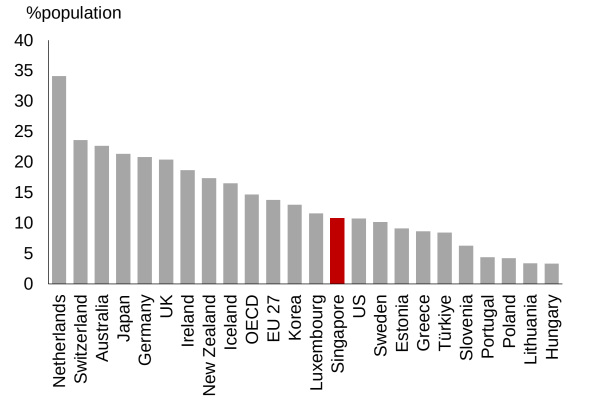
6. Embracing digitalization and automation could play a crucial role in mitigating the impact of an aging workforce on productivity. These technologies can mitigate physical limitations of older workers, allowing them to transition into supervisory roles or pursue new growth areas with higher income potential and job satisfaction. As noted in IMF (2019), automation, when implemented alongside an expanded labor force, can enhance overall productivity. The integration of AI and Industry 4.0 technologies may reduce labor requirements in certain sectors, but it also creates opportunities for upskilling and redeployment of workers into higher-value roles (AMRO 2024). A well-designed strategy for technological integration alongside a flexible labor market could help maintain Singapore's productivity while supporting the continued productive engagement of its aging population.

7. A more flexible labor market would enhance workforce participation and reduce underemployment. Singapore's labor market remains largely conventional, with fixed employment contracts predominant and part-time employment below the OECD average

[30] United Nations Department of Economic and Social Affairs, Population Division
[31] Other forms of targeted financial support are available for the elderly to ensure retirement adequacy, including healthcare and social support schemes via Pioneer Generation Package (for those born before 1950) and Merdeka Generation Package (for those born in the 1950s).

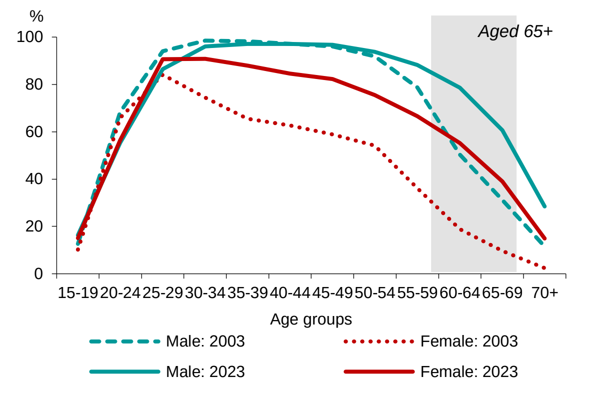
(Figure A2.13). While the SkillsFuture Jobseeker Support scheme[32] marks progress in reducing job search costs, authorities could further tailor such programs to address the needs of vulnerable groups, particularly less educated or skilled older workers who face prolonged unemployment due to reskilling needs[33] and potential health-related constraints (OECD 2024). Efforts to strike a balance between conventional employment and the gig economy to optimize skills utilization and productivity are crucial amid a shrinking workforce (Messenger 2018). Increasing women's workforce participation, which currently lags that of men across age groups above 30, remains key (Figure A2.14). As technological changes accelerate job turnover, continuous learning and reskilling initiatives will prove essential in maintaining economic dynamism and productivity growth (World Bank, 2019).

Figure A2.13. Part-time Employment Rate, 2022



Source: OECD; Ministry of Manpower
Note: Part-time employment rate is the incidence of people in employment (whether employees or self-employed) who usually work less than 30 hours per week in their main job.

Figure A2.14. Labor Force Participation, by Gender



Source: Ministry of Manpower

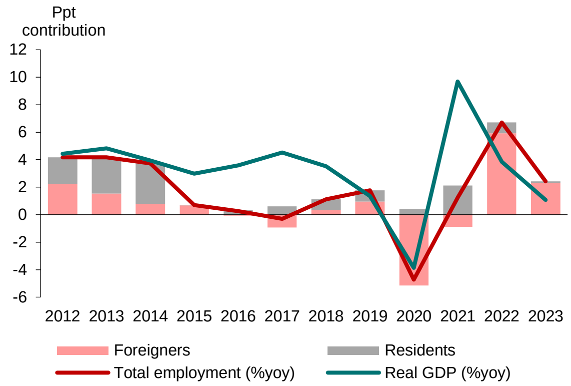
8. Singapore could further leverage its appeal to foreign talent to address critical skill gaps during its future economic and demographic transitions. The strategic calibration of foreign worker inflows remains a key policy lever in managing labor market dynamics, as evidenced during the COVID-19 pandemic. When containment measures led to economic contraction, foreign worker employment was reduced first, allowing resident employment to maintain marginal growth (Figure A2.15). As the economy rebounded in 2021, resident employment accelerated while foreign worker inflows were gradually reinstated to pre-pandemic levels, alongside a full economic recovery in 2022. While the Complementarity Assessment Framework (COMPASS)[34] provides a solid foundation for managing foreign talent, enhancing its flexibility to accommodate more dynamic workforce needs could be explored. Going forward, a carefully balanced approach to increasing foreign worker intake, while preserving social cohesion, would provide a crucial buffer for labor market transitions and support sustained economic growth. This strategy should be complemented by measures to promote the active participation of local residents in the workforce.

9. In addition to efforts to enhance labor market dynamism, there remains a need to enhance elderly welfare support. Recent data from SMU ROSA (2023) reveals that nearly one-third of older adults in Singapore anticipate a significant risk of financial hardship, with almost half expecting a lower standard of living. To mitigate these challenges, policymakers

[32] The scheme offers temporary financial support for Singaporean citizens or permanent residents who lose their jobs due to involuntary reasons. The amount is capped at SGD6,000 over 6 months for eligible individuals.
[33] Budget 2024 has enhanced financial support for Singaporeans aged 40 and above to pursue reskilling and upskilling via the SkillsFuture Level-Up Programme.
[34] A transparent points-based system that complements the qualifying salary criterion to enable employers to select high-quality foreign professionals, while improving workplace diversity and supporting a strong local core.

should prioritize strengthening the social safety net. This approach would not only protect elderly workers but also support those facing unemployment due to lower educational attainment or inability to sustain themselves due to illness or inadequate retirement savings. By implementing such measures, Singapore can strike a crucial balance between maintaining economic productivity and fostering social well-being in its rapidly aging society. This proactive stance will be essential in ensuring the city-state's continued economic resilience and social cohesion as it navigates demographic shifts.

Figure A2.15. Change in Employment Growth vis-à-vis Economic Growth



Source: Ministry of Manpower; Singapore Department of Statistics; AMRO staff calculations

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