



AMRO Annual Consultation Report

Singapore - 2025

ASEAN+3 Macroeconomic Research Office (AMRO)

December 2025

Acknowledgments

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 of AMRO to Singapore from August 11 – September 5, 2025 (Article 5 (b) of the AMRO Agreement). The AMRO Mission team was led by Dr. Runchana Pongsaparn, Group Head and Lead Economist. Members included Pim-orn Wacharaprapapong, Economist (Country Desk Economist); Koon Hui Tee, Senior Economist; Catharine Kho, Senior Economist; Yoki Okawa, Economist; Leilei Lu, Economist; and Laura Britt Fermo, Senior Economist. AMRO Director Yasuto Watanabe and Chief Economist Dr. Dong He participated in key policy meetings and courtesy calls with the authorities. This AMRO Annual Consultation Report on Singapore for 2025 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. Dong He, AMRO Chief Economist.
3. The analysis in this Report is based on information available up to November 24, 2025.
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 Mission team wishes to thank the Singapore authorities for their comments on this Report, as well as their excellent meeting arrangements and hospitality during our visit.

Disclaimer: The findings, interpretations and conclusion expressed in this Report represent the views of the staff of ASEAN+3 Macroeconomic Research Office (AMRO) and are not necessarily those of its members. Neither AMRO nor its members shall be held responsible for any consequence from the use of the information contained herein.

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Executive Summary

- 1. Singapore's economic growth is set to moderate after a strong outturn in 2024 and the first three quarters of 2025.** Robust consumption, investment and front-loading of activities in expectation of United States tariffs lifted growth to 4.4 percent in 2024 and 4.3 percent in the first three quarters of 2025. The momentum was further aided by the global electronics upcycle, AI-related demand, and firm activity in financial services. As U.S. reciprocal tariffs take effect, Singapore's growth is projected to moderate to 4.1 percent in 2025 and 2.5 percent in 2026, as global demand softens, front-loaded exports unwind and investment sentiment turns more cautious.
- 2. U.S. tariff spillovers will weigh on external-oriented sectors.** The base U.S. tariff rate for Singapore at 10 percent is lower than other countries in the ASEAN+3 region, but Singapore is exposed to pharmaceutical tariffs, which was announced at 100 percent in September 2025 but has so far been delayed. Moreover, Singapore's highly open economy and deep integration in global value chains exposes it to second-round effects from the expected decline in broader external demand and global trade activities. Although the economy has shown resilience in 2025, the tariff shocks could weigh on the growth momentum in the near term, especially for external-oriented sectors such as manufacturing, wholesale trade and transport. The overall impact will depend on how the tariff negotiations develop and the pace at which front-loading unwinds.
- 3. Inflation is subdued and expected to remain low.** MAS core inflation fell to 0.6 percent in January-October 2025 due to continued appreciation of the Singapore dollar and enhanced subsidies for essential services. Headline inflation also declined to 0.8 percent thanks to easing accommodation price pressures as housing supply has been ramped up. With growth slowing and global commodity prices stabilizing, headline inflation is projected to hover around 0.9 percent in 2025 and 0.8 percent in 2026, while inflationary pressures would remain contained.
- 4. Robust growth performance over the past year contributed to a fiscal surplus.** Following strong revenue growth, the fiscal balance is estimated to reach 1.3 percent of GDP in FY2024, with revenue growth forecast at 11.3 percent year on year and expenditure growth at 11.3 percent. The FY2025 budget is expected to remain in surplus and continue to focus on similar areas as FY2023 and FY2024, including support for households and businesses to cope with cost-of-living and business-cost pressures, and programs to strengthen the social compact, enhance innovation, upskill the workforce and build climate resilience.
- 5. The banking system remains resilient.** Capital and liquidity buffers are ample, profitability is solid, and asset quality is sound. Credit to both businesses and households has recovered alongside better economic growth and lower interest rates. Property price gains have moderated thanks to well-coordinated policy measures, such as expansion of housing supply and macroprudential measures.
- 6. Amid broad weakness in the U.S. dollar, the Singapore dollar nominal effective exchange rate (S\$NEER) has continued to appreciate as global investors diversify toward Singapore's assets.** Capital inflows have kept the S\$NEER near the upper end of the policy band, even as the Monetary Authority of Singapore (MAS) reduced the appreciation slope of the S\$NEER policy band at two consecutive meetings in H1 2025. If diversification away from U.S. dollar assets persists, sustained inflows could dilute the intended policy easing and present challenges to monetary policy implementation. Domestic interest rates have moved lower, warranting caution on financial stability implications.
- 7. External risks dominate the near-term outlook, while structural issues weigh on the longer term.** The principal risks arise from a more aggressive US protectionist stance, especially if pharmaceutical tariffs take effect or if levies are imposed on semiconductors. Moreover, weaker growth in major trading partners would dampen external demand and could have financial stability implications through banks' exposures. Upside inflation risks could emerge from a renewed surge in commodity prices. In the long term, population aging will weigh on

potential growth and raise health care and social spending, while cybersecurity threats and climate-transition constraints will add to policy challenges.

8. The authorities should deploy a calibrated fiscal-monetary-trade mix to cushion near-term shocks. Fiscal policy should be flexible to deploy timely measures in case of adverse shocks. Support for vulnerable firms and households should be well targeted, while broad-based transfers can be phased out gradually as cost-of-living pressures ease. The accommodative monetary policy stance is appropriate amid low inflation and a softening growth outlook. Tight macroprudential measures should be maintained to mitigate risks of excessive debt buildup and overheating in the property market.

9. In parallel, the authorities should continue to strengthen Singapore's competitiveness while addressing impending structural challenges. Singapore should reinforce its competitive edge by enabling workforce adaptability, fostering a dynamic business environment and maintaining an agile regulatory framework. Policy should accelerate the effective adoption of automation and digitalization, supported by reskilling and job-matching initiatives to ease workforce transition. Schemes such as the Productivity Solutions Grant and the Enterprise Development Grant could be expanded.

10. A multipronged approach, including fiscal reforms, could play a pivotal role in addressing structural challenges. For instance, demand and supply-side health care policies will help alleviate health care costs. Furthermore, performance budgeting and fiscal transparency could be strengthened, including more regular updates of the medium-term fiscal projections, and to expand disclosures and communication on the National Infrastructure Plan and evaluation of the effectiveness of special transfers to inform future resource allocation.

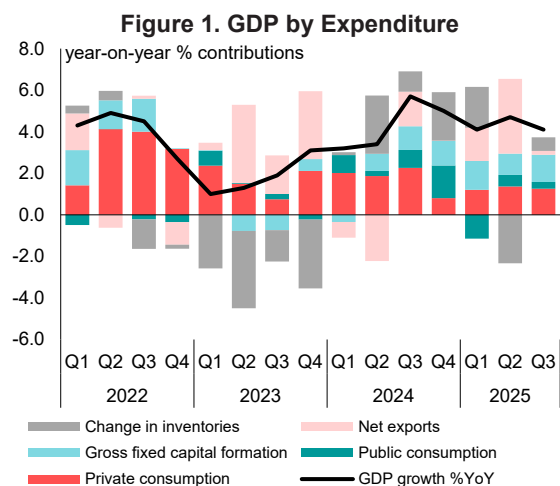
11. Finally, Singapore is well positioned to take a leading role in regional integration and beyond by leveraging flagship initiatives in trade, finance and climate. The Johor-Singapore Special Economic Zone (JS-SEZ) provides a potential blueprint for deeper ASEAN integration, underpinned by a shared commitment to a rules-based multilateral trading system. In financial connectivity, Singapore's leadership in ASEAN Regional Payment Connectivity, participation in Project Nexus and investment in digital infrastructures will lead to closer financial integration within the region. On climate change, Singapore can help drive regional climate governance through initiatives such as the ASEAN Power Grid and regional carbon markets.

A. Recent Developments and Outlook

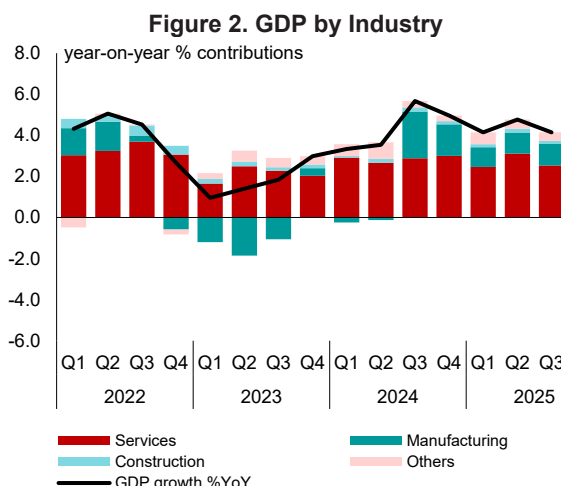
A.1 Real Sector Developments and Outlook

Growth is expected to moderate as the impacts of United States tariffs kick in, while inflation will likely remain subdued.

1. Singapore registered robust growth in 2024, which continued into the first three quarters of 2025 despite U.S. tariff uncertainties. Growth accelerated from 1.8 percent in 2023 to 4.4 percent in 2024, supported by stronger private consumption and investment amid moderating inflation and a decline in interest rates. A global electronics upcycle and front-loading of activities in expectation of U.S. tariffs led to a recovery in exports in the second half of the year, which partly underpinned expansions in manufacturing and wholesale trade. The financial and insurance sector also performed strongly, supported by firm credit growth and elevated trading activities, partly due to shifts in global financial market sentiment in the second half of 2024. The robust growth momentum persisted into the first three quarters of 2025, with GDP expanding by 4.3 percent year on year, thanks to a delay in U.S. reciprocal tariff implementation to August 7, continued front-loading activities in the region ahead of that deadline, and strong demand for AI-related goods and services.



Source: Department of Statistics; CEIC; AMRO staff calculations



Source: Department of Statistics; CEIC; AMRO staff calculations

2. Economic growth is expected to moderate in the near term, mainly due to the effects of the U.S. tariffs. Singapore's persistent trade deficit with the U.S. and the free trade agreement (FTA) between the two countries contributed to the U.S. levying a relatively low base tariff rate of 10 percent on Singapore. While Singapore is exposed to pharmaceutical tariffs, which was announced at 100 percent in September 2025, the implementation has so far been delayed. However, the indirect impacts will likely be significant. First, Singapore is an integral part of global value chains, which means its exports to the U.S. via other trade partners will be subject to higher tariffs than the 10 percent baseline. Second, Singapore's high degree of trade openness as a financial and logistics hub, with its external trade volume accounting for more than 300 percent of GDP, will result in second-round effects on the country from the expected decline in broader external demand and global trade activities. Weakening global economic activity is likely to weigh on Singapore's export-oriented sectors, notably manufacturing, wholesale trade and transport. In addition, external uncertainties could dampen domestic investment and consumption sentiment.

3. In light of the expected tariff impacts which will likely become more pronounced in 2026, AMRO projects that Singapore's GDP growth would moderate to 4.1 percent in 2025 and further to 2.5 percent in 2026. Although growth had held up in 2025, in part thanks

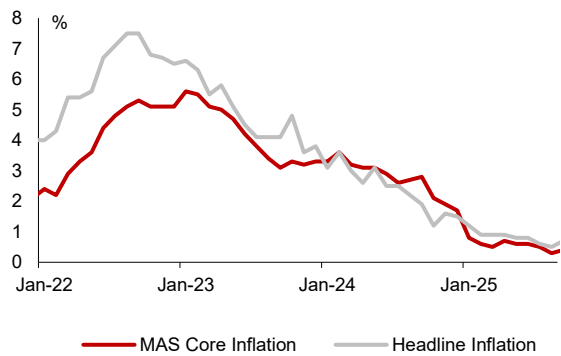
to delays in tariff implementations, the momentum is expected to decelerate in 2026 as the full-year effects of the tariffs are realized and the growth of Singapore’s major trading partners—including the U.S., China and ASEAN members— is expected to moderate. As a small open economy, Singapore’s growth in 2026 will be closely tied to the highly uncertain global trade developments and U.S. tariff outcomes, especially regarding pharmaceutical and semiconductor products.

4. Inflation moderated in 2024 and is expected to remain subdued in 2025 and 2026.

MAS Core Inflation, excluding accommodation and private transport, eased to 2.8 percent in 2024 and 0.6 percent in January-October 2025 following continued appreciation of the Singapore dollar, softer domestic consumption and enhanced government subsidies for essential services such as health and education. Accommodation inflation also moderated gradually, supported by an increased supply of Housing Development Board (HDB) flats¹. As a result, headline inflation declined to 2.4 percent in 2024 and 0.8 percent in the first ten months of 2025. Going forward, headline inflation is expected to remain subdued at around 0.9 percent in 2025 and 0.8 percent in 2026, as slowing growth keeps price pressures contained and global commodity prices stabilize.

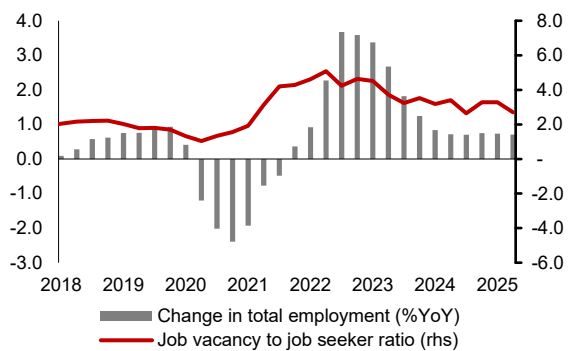
5. Labor market tightness gradually eased. Hiring demand softened, as reflected in the proportion of firms with an intention to hire in the next three months declining slightly from an average of 51.7 percent in 2024 to 44.1 percent in Q3 2025. According to the Ministry of Manpower’s Labor Market Advance Release for Q3 2025, hiring demand is likely to be sustained in Q4 2025. The ratio of job vacancies to unemployed people fell from 1.76 in end-2023 to 1.35 in Q2 2025. Thus far, the labor market moderation has not led to a noticeable increase in the resident unemployment rate, which remained at 2.8 percent in September 2025, close to the pre-pandemic average of 3.0 percent.

Figure 3. Inflation



Source: Department of Statistics; AMRO staff calculations

Figure 4. Employment Growth and Job Vacancy to Job Seeker Ratio



Source: Ministry of Manpower; Haver Analytics; AMRO staff calculations

A.2 External Sector and the Balance of Payments

6. Exports expanded strongly in the second half of 2024 and first half of 2025, but started to moderate in Q3 2025.

Following a contraction in 2023, non-oil domestic exports (NODX) rebounded in H2 2024, led by increased shipments of electronics. The strong performance continued through H1 2025 as the front-loading of exports, both electronics and non-electronics, ahead of the U.S. tariff implementation drove NODX growth to 5.2 percent year on year. The front-loading effect was stronger for non-oil re-exports (NORX), which rose by 16.5 percent year on year during H1 2025. However, NODX growth has weakened since July onward, an early sign that front-loading activities could be waning. Looking ahead, both NODX and NORX growth is expected to soften with the implementation of the U.S. reciprocal

¹ Housing Development Board (HDB) is Singapore’s public housing authority responsible for developing housing estates. Close to 80 percent of Singapore’s population live in HDB flats.

tariffs and a likely slowdown in global demand. A key risk to monitor is the outcome of the ongoing tariff negotiations for pharmaceutical and semiconductor products.

7. Singapore’s external position remained strong. In the first three quarters of 2025, the overall balance of payments recorded a surplus of SGD12.7 billion, equivalent to 2.3 percent of GDP. The current account surplus totaled SGD105.2 billion, or 18.7 percent of GDP, led by the goods surplus. This more than offsets deficits in the financial accounts, which registered a net outflow of SGD92.5 billion, largely reflecting portfolio investment abroad and other investment outflows.² Meanwhile, foreign direct investment inflows remained steady, with fixed asset investment commitments exceeding the five-year average in Q2 2025.³ The continued balance of payment surplus led to a rise in foreign reserves to an estimated 69 percent of GDP as of October 2025. Singapore’s net international investment position totaled SGD1.1 trillion as of Q2 2025.

Figure 5. NODX and NORX Growth

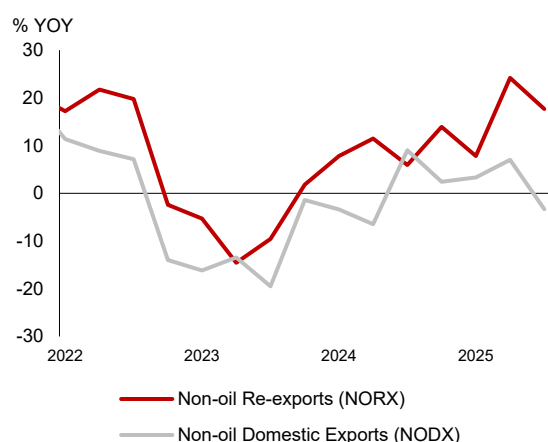
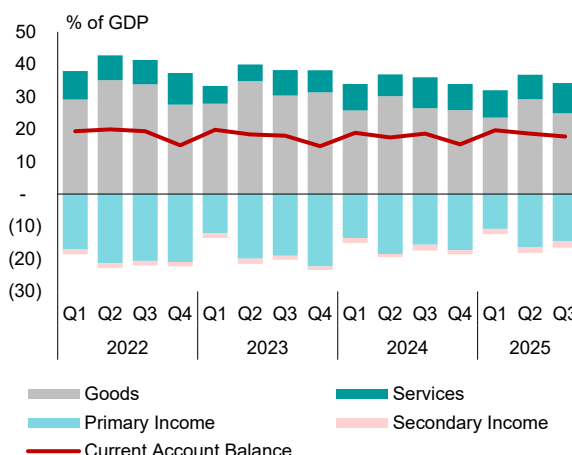


Figure 6. Current Account Balance



Source: Enterprise Singapore; Haver Analytics; AMRO staff calculations | Source: Department of Statistics; AMRO staff calculations

A.3 Fiscal Sector

Robust growth performance over the past year contributed to a fiscal surplus.

8. Following strong revenue growth, the fiscal balance is estimated to reach 1.3 percent of GDP in FY2024; meanwhile, the FY2025 budget will continue to focus on similar areas as previous budgets in FY2023 and FY2024. On the back of robust economic growth, revenue is estimated to grow by 11.3 percent in FY2024 on a year-on-year basis, equivalent to 19 percent of GDP. This forecast is supported by a broad-based increase in tax and nontax revenues (Figure 7).⁴ On the other hand, expenditure grew by 11.3 percent year on year, or 17.7 percent of GDP, on the back of broad-based growth across expenditure items (Figure 8).⁵ As a result, the fiscal balance is estimated to reach 1.3 percent of GDP, similar to

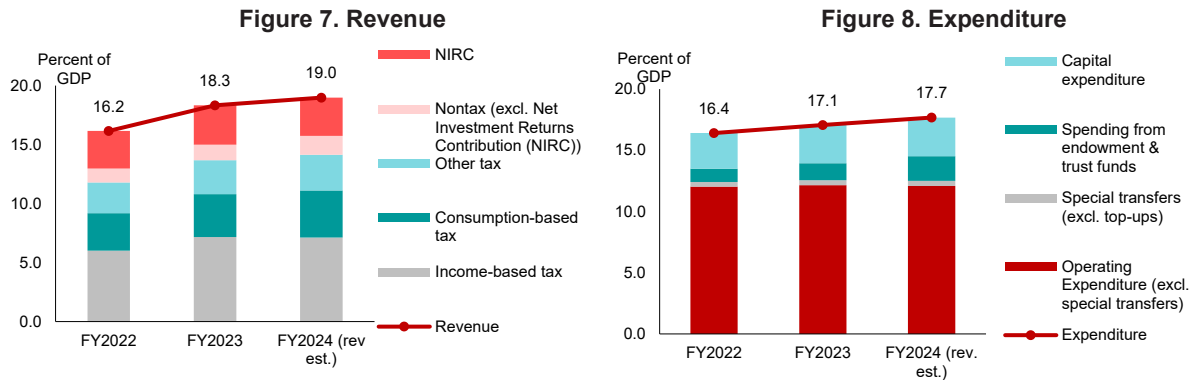
² The investment outflows included transfers from official foreign reserves to government-managed long-term investment vehicles.

³ The U.S. accounted for 54 percent of total commitments over the past five years.

⁴ Revenue includes nontax revenue from the Net Investment Returns Contribution (NIRC). In terms of growth contribution in FY2024, income-based and consumption-based tax revenues were estimated to contribute 2.6 and 3.6 percentage points of overall revenue growth, respectively. Notably, income-based tax collection was supported by robust economic growth as well as private consumption and wage growth. Nontax revenues from the NIRC and Vehicle Quota Premiums were estimated to contribute 0.8 and 1.6 percentage points of the increase in overall revenue, respectively.

⁵ Expenditure includes special transfers to households and businesses as well as spending from endowment and trust funds (ETFs). In terms of growth contribution in FY2024, operating and development expenditures contributed to 4.9 and 1.6 percentage points of overall expenditure growth, respectively. In addition, special transfers and spending from ETFs contributed to 0.3 and 4.5 percentage points of expenditure growth, respectively. By component, key growth contributors to overall expenditure were broad-based, particularly in social development (particularly health and national development), security and external relations, as well as spending on economic development.

FY2023.⁶ The FY2025 budget is expected to be in surplus and continues to support similar key focus areas as previous post-pandemic budgets. In particular, it outlines measures for households and businesses to cope with cost-of-living and business-cost pressures. Additionally, the budget continues to focus on strengthening the social compact, enhancing innovation, upskilling the workforce and building climate resilience.



9. While gross public debt is high, the country should have a net asset position given its large public financial assets. (Box A. Understanding Singapore’s Public Debt) The gross public debt-to-GDP ratio is projected to rise slightly over the medium term. Note also that the public debt is wholly domestic debt,⁷ which is primarily issued for non-spending purposes. Only about 1 percent of the public debt comprised debt issued for spending purposes under the Significant Infrastructure Government Loan Act (SINGA)⁸ in FY2024.

A.4 Monetary Conditions and the Financial Sector

The monetary policy stance is accommodative, while capital inflows have led to appreciation pressure on the Singapore dollar and lowered interest rates.

10. Amid declining inflationary pressures and heightened risks to growth, the MAS eased its monetary policy stance in the first half of 2025. The MAS, which manages monetary policy via the Singapore dollar nominal effective exchange rate (S\$NEER) policy band, implemented successive reductions in the slope of the band in January and April 2025, thereby moderating the pace of currency appreciation. The width and level at which the band is centered remained unchanged. The decisions lowered the estimated rate of S\$NEER policy band appreciation to 0.5 percent per annum from 1.5 percent.⁹ Then in July and October 2025, the MAS maintained its current policy stance and reiterated its commitment to closely monitor risks to inflation and growth in assessing the need for further policy adjustments.

⁶ In FY2024, as a share of GDP, revenue increased by 0.7 percentage points of GDP to reach 19.0 percent of GDP, while expenditure increased by 0.6 percentage points of GDP to reach 17.7 percent of GDP. The fiscal balance is based on AMRO’s definition. The difference between the fiscal balance derived by the authorities and by AMRO is mainly due to the treatment of SINGA and top-ups to endowment and trust funds. The authorities include the capitalization of SINGA as an “above-the-line” item contributing to a more positive fiscal balance, while AMRO considers this as a “below-the-line” item, which does not affect the fiscal balance but adds to public debt. Additionally, the authorities’ expenditure accounting considers top-ups to funds, while AMRO considers only the actual spending from these funds, in relation to the macroeconomic impact of fiscal policy.

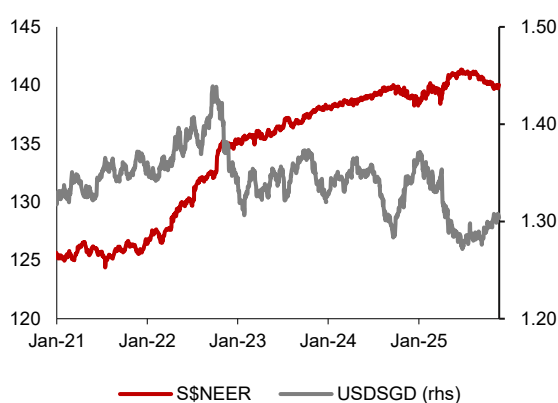
⁷ Government borrowings are denominated in the Singapore dollar, with no debt denominated in foreign currency.

⁸ The government passed the SINGA in 2021 to permit debt-financed qualifying capital expenditure for infrastructure projects. The legislation includes safeguards that specify the overall gross borrowing limit and annual interest threshold at SGD90 billion and SGD5 billion, respectively. Eligible projects must be of a large scale of at least SGD4 billion, have a long useful life of at least 50 years, generate productivity gains and/or improve economic, social and environmental sustainability, and be owned by the government to be capitalized on the government’s financial accounts. Excluded from consideration are recurrent costs from large-scale projects and land purchases (OECD, 2025). Infrastructure projects under SINGA include the North South Corridor, the Deep Tunnel Sewerage System, the Cross Island Line and the Jurong Region Line.

⁹ Estimated by Goldman Sachs, as the actual slope and band are not disclosed.

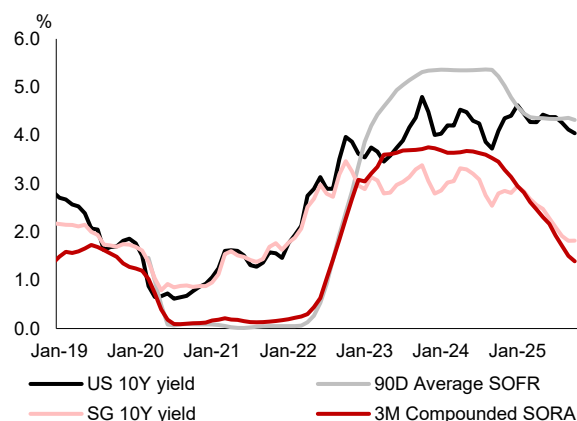
11. Capital inflows and broad USD weakness led to exchange rate appreciation and downward pressure on interest rates. Amid the broad U.S. dollar weakening trend and global investors’ diversification away from U.S. dollar assets, Singapore’s assets, such as government bonds and bank deposits, became attractive alternatives due to the country’s strong fundamentals and sound institutions. This is reflected in the narrowing financial account deficits in H1 2025. (BOX B. Singapore’s potential as a Regional Safe Haven and Lessons Learned from Switzerland). Consequently, the Singapore dollar has strengthened 4.0 percent against the U.S. dollar and the S\$NEER has increased 0.9 percent since the beginning of 2025. Meanwhile, domestic interest rates fell sharply, diverging from US interest rates; as of October 2025, the 3M compounded Singapore overnight rate average (SORA) and 10-year government bond yields had fallen by 1.7 and 1.0 percent, respectively, from end-2024. Declining interest rates coupled with a rise in the stock market index contributed to easing financial conditions.

Figure 9. Exchange Rates



Source: MAS; Bloomberg; AMRO staff calculations

Figure 10. Interest Rates



Source: MAS; Federal Reserve Bank of New York; Haver Analytics; AMRO staff calculations

The banking sector remains sound with strong buffers and profitability, while concerns over potential risks to the property sector have eased.

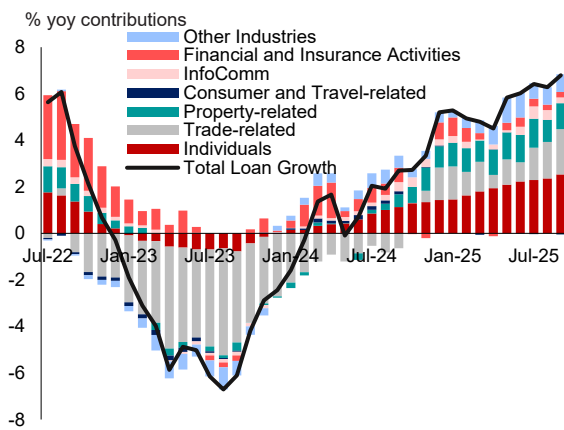
12. Lending to nonbank residents rebounded in 2024, with sustained momentum into 2025, following robust economic growth and eased financial conditions. After contracting 2.4 percent in 2023, resident nonbank lending grew by 5.2 percent in 2024 and 6.8 percent year on year in the first nine months of 2025 as both business loans and household loans recovered. The recovery of business loans was initially driven mostly by an upturn in trade-related industries and became more broad-based around mid-2024 amid improving business sentiment, particularly in property-related industries. The growth momentum of business loans peaked at the turn of the year, softened through April 2025 and then picked up again, largely driven by swings in lending to trade-related industries amid uncertainty around the U.S. President’s tariff policies. Household loans climbed steadily, underpinned by a strong demand for housing and bridging loans, partly due to lower interest rates.

13. The banking sector remained resilient, supported by sound asset quality, strong capital buffers, ample liquidity and solid profitability. The overall non-performing loan (NPL) ratio declined for a fifth consecutive quarter to 1.2 percent in Q2 2025, with all major segments registering lower NPL ratios than a year ago. In the meantime, the banking sector is well capitalized, with the capital adequacy ratio (CAR) at 18.2 percent and Tier 1 CAR at 16.7 percent in Q3 2025,¹⁰ well above minimum regulatory requirements. Total provisions to

¹⁰ CAR and Tier 1 CAR refer to the simple average of the three big local banking groups: DBS Bank (DBS), Oversea-Chinese Banking Corporation (OCBC) and United Overseas Bank (UOB).

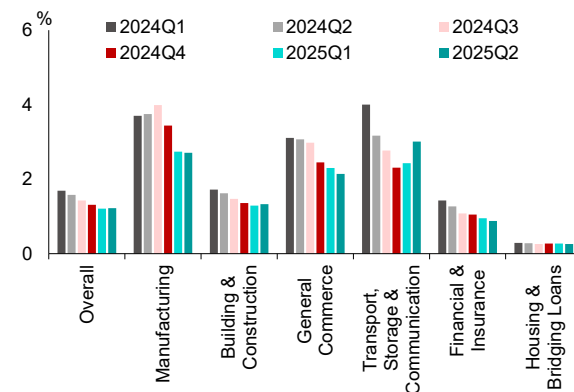
total non-performing assets (NPAs) reached 133 percent as of Q3 2025,¹¹ indicating adequate provisioning. Liquidity positions remained strong with the liquidity coverage ratio (LCR) and net stable funding ratio (NFSR) at 144 percent and 115 percent, respectively, in Q3 2025, above minimum regulatory requirements. The loan-to-deposit (LTD) ratio of around 66.7 percent in September 2025 indicated banks have room to extend credit, though they might be more prudent in lending in the current environment, and businesses may also be cautious borrowing amid the ongoing tariff uncertainties.¹² On profitability, the net interest margin (NIM) of local banking groups hovered around 1.9 percent in Q3 2025, in line with the historical average.¹³ As over one-third of their revenue comes from non-interest sources, local banking groups have well-diversified income sources which will help them withstand potential adverse impacts on revenues from a decline in interest rates.

Figure 11. Lending to Nonbank Residents



Source: MAS; Haver Analytics; AMRO staff calculations

Figure 12. NPL Ratio



Source: MAS; Haver Analytics

14. Well-coordinated policy measures across agencies helped moderate property price increases. Singapore authorities take a whole-of-government¹⁴ approach to ensure a stable and sustainable property market. The expansion of housing supply after the pandemic, coupled with previously enacted macroprudential measures, contributed to slower private residential property price growth of 4.0 percent year on year during January – September 2025, compared with 5.1 percent a year earlier. Increases in HDB resale prices also softened this year to 0.4 percent quarter on quarter in Q3 2025. On the demand side, although domestic demand has remained firm, bolstered by structural factors including a demographic shift toward smaller households, foreign demand has moderated due to an increase in ABSD rates that took effect in 2023. In July 2025, seller’s stamp duty (SSD) rates for residential properties were raised and the SSD holding period was extended from three years to four to curb speculative property flipping behavior.

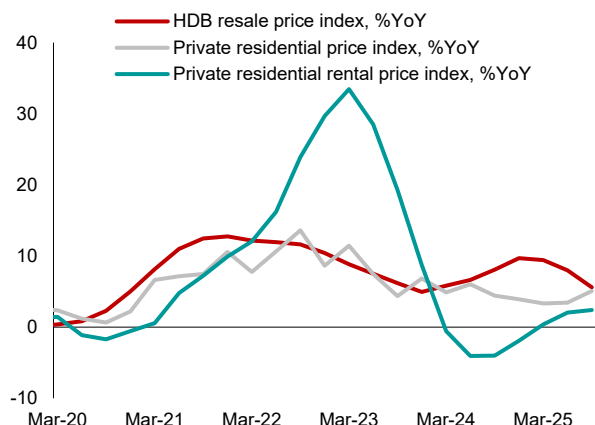
¹¹ The NPA coverage here is the simple average of the three big local banking groups. After taking collaterals into account, the NPA coverage ratio would exceed 200 percent in Q3 2025.

¹² According to National Business Survey 2025 by the Singapore Business Federation (SBF), the proportion of businesses expecting the economy to worsen in the next 12 months doubled from 22 percent in Q4 2024 to 40 percent in Q1 2025. The tariff policy uncertainty may have dampened business sentiment further. Similarly, quarterly business expectation surveys, compiled by the Economic Development Board for the manufacturing sector and by the Department of Statistics for the service sector, show that business sentiment declined sharply from end-Q4 2024 to end-Q1 2025, had recovered moderately by end-Q3 2025, but remained largely cautious overall.

¹³ The average NIM from Q1 2006 to Q3 2024 was 1.9 percent.

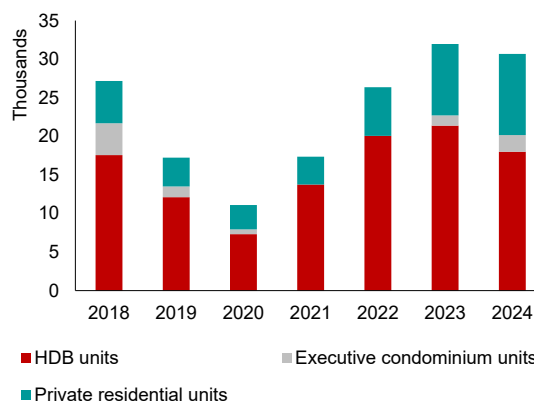
¹⁴ MAS, the Ministry of National Development and the Ministry of Finance monitor developments and coordinate policy measures on the property market.

Figure 13. Property Prices



Source: Housing Development Board; Urban Redevelopment Authority; CEIC; AMRO staff calculations

Figure 14. Supply of New Housing Units

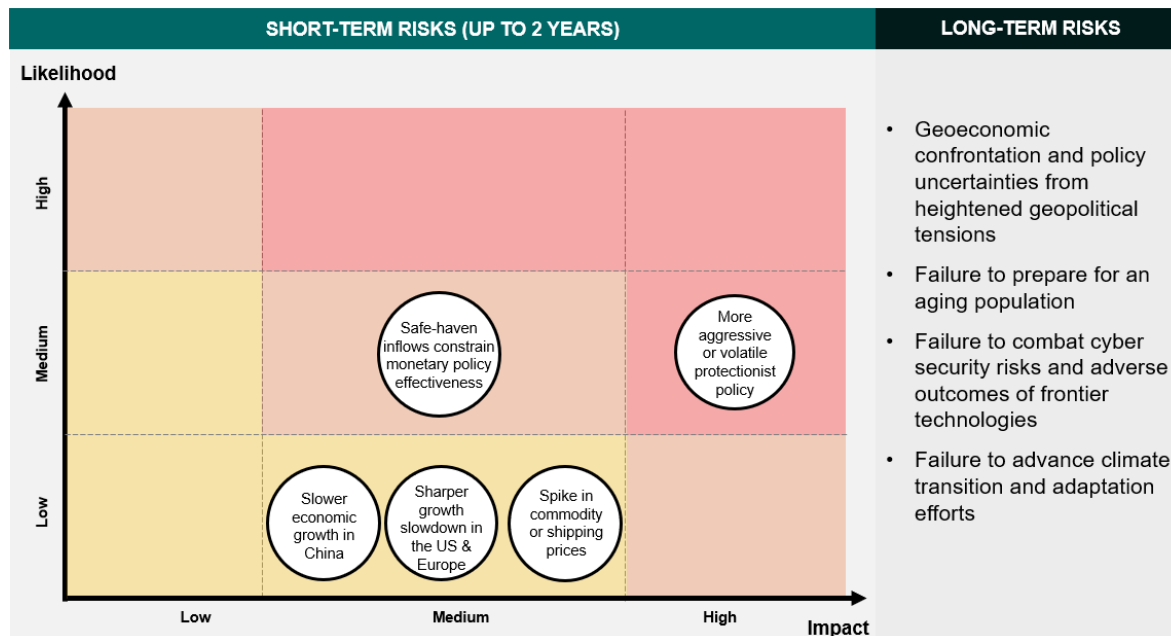


Note: "Private residential units" refers to new private housing supply on the Confirmed List of the Government Land Sales (GLS) programme.
Source: Housing Development Board; Urban Redevelopment Authority; Haver Analytics; AMRO staff calculations

B. Risks, Vulnerabilities and Challenges

Key risks to Singapore's economy in the short term arise from external factors, while structural challenges, particularly the aging population, can hinder growth over the long term.

Figure 15. Singapore: Country Risk Map



Source: AMRO staff assessment

B.1 Near-term Risks to Macro Outlook

15. The most pressing risk is the possibility of a more aggressive protectionist trade policy from the United States. U.S. trade policy remains highly uncertain, as details of the bilateral deals that have been reached remain opaque and sector-specific tariff negotiations are still ongoing. In particular, the 100 percent tariffs on pharmaceuticals, announced in September 2025 but has since been delayed, would potentially have a material impact on

Singapore if they eventually take full effect¹⁵, as pharmaceuticals constitute about 13 percent of Singapore's domestic exports to the U.S. This is notwithstanding Singapore's pharmaceuticals exports to other economies which could then be re-exported to the U.S. Also, the tariffs on semiconductor products are still under investigation. In addition, more punitive tariffs on key trading partners such as China, ASEAN or the European Union would expose Singapore indirectly to higher tariffs due to its deep integration into global value chains. For instance, while Singapore's direct exports to the U.S. in value-added (VA) terms averaged 2.8 percent of GDP during 2016-2020, this figure rises to 4.7 percent when the Singapore VA that is embedded in third-country exports to the U.S. is included. The adverse impact would be further amplified if other economies respond with retaliatory countermeasures. Conversely, a faster de-escalation of the tariffs, negotiated lower rates for pharmaceuticals or delays in tariff implementation present upside risks.

16. Another key risk arises from weaker economic performance among Singapore's major trading partners. As a small and highly open economy, Singapore sees 76 percent of its domestic output consumed by external demand and is therefore particularly vulnerable to fluctuations in trading partners' growth outlook. A slowdown in demand from China—Singapore's top export destination—could materialize if protectionist U.S. trade policies intensify or if China's real estate sector weakens further. Similarly, consumer demand from the U.S. may decline due to tariff-induced inflation or a tighter labor market resulting from mass deportations. Sensitivity analyses suggest that a 1 percentage point decline in annual growth in either China or the U.S. could reduce Singapore's growth by about 0.15 of a percentage point.¹⁶ On the flip side, stronger-than-expected growth outturns in key trading partners present upside risks.

17. In addition to the impact on growth, aggressive trade policy and a significant slowdown in major trading partners can have financial stability implications due to the banking sector's exposures. First, developments of overseas property markets merit close attention, especially in Greater China, which is closely tied to economic conditions. As of 2024, about a third of nonbank loans granted by Singapore's three local major banking groups went to the property sector, excluding mortgages. Nearly half of this one-third was lent overseas, mostly to Greater China.¹⁷ A rough estimate finds local banking groups' property exposure (excluding mortgages) in Greater China was 6-9 percent of total nonbank loans.¹⁸ Local banking groups tend to follow Singaporean companies abroad and lend to large conglomerates at low loan-to-value (LTV) ratios. While this may limit immediate risks, a sharp deterioration in the overseas property market could still bring credit loss and erode capital. Second, a protracted tariff war poses a broader macro threat that could dampen external demand, weigh on Singapore's highly trade-reliant economy, slow the income growth of companies and undermine their debt service capacity,¹⁹ generating second-order effects on banks' credit quality and profitability.

¹⁵ In his tariff announcement on September 26, 2025, the U.S. President said that 100 percent tariffs would apply only to branded and patented products, and would exclude companies that were building pharmaceutical manufacturing plants in America. The tariff has since been delayed to allow time for negotiations.

¹⁶ Based on the Oxford Economics Model.

¹⁷ Based on anecdotal evidence.

¹⁸ Given banks do not disclose their loan breakdown by industry within an economy or region, AMRO estimated DBS, OCBC and UOB's property exposures to mainland China and Hong Kong by using either an approximate number or range as disclosed by Moody's in its rating reports during May-June 2025 and calculated a weighted average.

¹⁹ Total corporate debt in Singapore decreased to 122.8 percent of GDP in Q4 2024 from about 140 percent before the pandemic, with the property and construction, manufacturing, and retail and wholesale sectors accounting for the largest proportions. A debt-at-risk (DAR) analysis using interest coverage ratios (ICRs) shows that the overall DAR, which is defined as the debt of firms with an ICR below 1.25, accounts for 9.6 percent of GDP and 16.8 percent of total corporate debt in 2024. However, when firms' cash reserves are considered, the share of DAR declines to 2.2 percent of total corporate debt, while firms in the DAR category (FARs), most of which are small and medium enterprises, account for 13 percent of total firms. Broken down by sector, the bulk of FARs come from the manufacturing and industrial, retail and wholesale, and raw material sectors. These sectors are mostly external-oriented and may face further pressure amid ongoing tariff uncertainty and trade tensions.

18. Intensified capital inflows to Singapore could cause challenges to its exchange rate-based monetary policy. Amid rising concerns over U.S. protectionist policies and fiscal sustainability, the U.S. dollar's dominance as a global safe-haven currency could be increasingly questioned. The share of global portfolio flows into U.S. assets has declined since early 2025 (ASEAN+3 Financial Stability Report 2025). In this environment, Singapore may experience stronger capital inflows given its AAA credit rating and stable currency. The trend has already presented challenge to monetary policy implementation this year; although MAS has reduced the slope of S\$NEER appreciation to ease financial conditions in January and April, the S\$NEER strengthened towards the estimated upper end of the policy band and remained there for some months, only weakening more recently. If this trend of diversification from U.S. dollar assets continues, more sizable and sustained capital inflows could erode the intended easing stance of monetary policy and keep the exchange rate stronger than warranted by underlying fundamentals. More frequent foreign exchange intervention would be required, leading to excess liquidity and lower interest rates, which may induce financial stability issues and require a sustained use of macroprudential tools.

19. A surge in commodity prices can pose an upside risk to inflation through cost-push pressures. An escalation of geopolitical conflicts, particularly in the Middle East, could disrupt global energy supply and trigger a sharp increase in energy prices. As a net importer of energy without domestic energy price subsidies, Singapore would be directly affected by higher global energy prices. The immediate impact would be on domestic energy prices, which account for 3.7 percent of the CPI basket, and on transport services, which comprise another 3.8 percent²⁰. If the price surge is sustained, elevated electricity and fuel costs could spill over to inflation among broader goods and services. AMRO found in a study that a 10 percent year-on-year increase in oil prices could raise Singapore's CPI by 0.2 of a percentage point in the first year ([AMRO 2022](#)).

B.2 Longer-term Challenges and Vulnerabilities

20. In the long term, Singapore's aging population is expected to weigh on potential growth and raise fiscal pressures. Potential growth is projected to slow further over the next 25 years, with the shrinking labor force contributing less than half of its current share from 2034 onwards ([AMRO 2025a](#)). While labor force participation among the elderly ranks highly among cities in high-income countries with ageing populations, it would be a challenge to ensure that older workers possess the skills needed to remain meaningfully employed in a rapidly digitalizing and evolving economy ([AMRO 2025b](#)). Singapore's old-age dependency ratio is projected to double by 2050, which would likely increase fiscal burdens related to health care and social protection.

21. Cybersecurity risks and potential adverse outcomes of frontier technology are common concerns, particularly for international financial centers with significant technological advancement. While digitalization of financial services brought significant benefits to customers and financial institutions, it could change the nature of risks to financial stability. Chief among them are cybersecurity risks. Since 2014, reported cyberattacks in ASEAN+3 have been on the rise, with the financial industry increasingly targeted ([AFSR 2025](#)). While no systemic risks have arisen from cyber incidents thus far, increasing interconnectedness among financial entities through technological and financial links may escalate severe cyberattacks and lead to systemic failures.

22. Climate transition remains a long-term risk. Singapore's pathway to net-zero carbon remains dependent on accelerated advancements in emerging mitigation technologies and

²⁰ The share of energy prices in CPI basket includes Electricity (1.79 percent), Gas (0.2 percent), and Petrol (1.74 percent). The Transport Services share constitutes Bus & Train fares (1.38 percent), Point-to-point transport services (1.08 percent), Airfares (1.29 percent), and Transport services of goods (0.08 percent).

the deepening of international cooperation on this front. Given its small land area, natural resources and climate constraints, Singapore faces challenges in deploying renewable energy at scale and, as a result, relies heavily on the realization of its initiatives for regional power connectivity and the development of regional carbon markets to gain access to cleaner energy and enhance its own mitigation efforts. Over the long term, key risks stem from uncertainties surrounding the sustained commitment of partner economies to climate strategies—particularly in light of geopolitical shifts and resistance from major global actors such as the U.S.—as well as the scalability and success of nascent technologies.

C. Policy Discussions and Recommendations

C.1 Policy Mix to Cushion Near-term Vulnerability

A fiscal-monetary-trade policy mix should be deployed to mitigate near-term challenges from trade disruptions and capital inflows, while macroprudential measures will help safeguard financial stability.

23. The fiscal surplus is expected to continue accumulating in the FY2025 budget, providing room for flexible fiscal policy to respond to short-term external risks. The FY2025 budget is expected to generate a fiscal surplus of about 1.2 percent of GDP, similar to the past two years. FY2025 revenue is projected to increase by 6.6 percent year on year, with continued support from both tax and nontax revenues.²¹ Expenditure is projected to grow by 7.1 percent year on year, driven by higher operating expenditure, development expenditure and special transfers.²² The fiscal stance is assessed to be neutral in FY2025. With output gap turning from positive in FY2025 to slightly negative in FY2026 and lingering external risks to growth, fiscal policy should be flexible to deploy timely and targeted support measures to cushion the economy against adverse shocks.

24. Despite the room for fiscal policy to maneuver, a more targeted approach could be more appropriate. In FY2025, special transfers are expected to grow by 23 percent year on year, reflecting an increase in transfers partly to address cost-of-living pressures and one-off transfers to commemorate SG60.²³ Such transfers should be phased out gradually as cost-of-living pressures ease, and more targeted support to vulnerable households should be adopted. The establishment of the Singapore Economic Resilience Taskforce (SERT)²⁴ to help businesses and workers navigate immediate uncertainties arising from the U.S. tariffs provides important tripartite engagement in the timely implementation of fiscal support measures. Notably, a fiscal grant to help eligible enterprises adapt to the new tariff environment epitomizes targeted and temporary fiscal measures to cushion the impact of

²¹ In terms of growth contribution in the FY2025 budget, income-based and consumption-based tax revenues are expected to contribute 2.1 and 1.0 percentage points to overall revenue growth, respectively. Corporate and personal income tax revenues were supported by robust economic growth and nominal wage growth in the previous year. However, growth in consumption tax revenue is projected to moderate amid slower growth in private consumption. Nontax revenue from the NIRC is forecast to contribute 2.2 percentage points of the increase in overall revenue.

²² In terms of growth contribution in the FY2025 budget, operating and development expenditures are projected to contribute 5.7 and 2.6 percentage points to overall expenditure growth, respectively. In addition, special transfers are expected to contribute 0.5 of a percentage point to expenditure growth. While the budget does not provide projections on ETF spending, AMRO staff members forecast it would decline in FY2025 based on the utilization rate, which is broadly similar to FY2024. By sector, total expenditure excluding special transfers is projected to increase by 9.6 percent year on year, driven by social development (particularly the health, education and social ministries), security and economic development.

²³ To mark the 60th anniversary of Singapore's independence, an SG60 package has been distributed, including one-off SG60 vouchers and personal income tax rebates.

²⁴ SERT is chaired by the Deputy Prime Minister and Minister for Trade and Industry, and comprises ministers who oversee socioeconomic ministries as well as representatives from the SBF, Singapore National Employers Federation and National Trades Union Congress.

external risks and build economic resilience.²⁵ The temporary support measures should be monitored and calibrated in light of the evolving trade and employment situations, with feedback from the business community and labor union.

25. Regarding MAS monetary policy, an easier policy stance is appropriate under the low inflation and softening growth outlook, and any adjustment should be data-dependent. The MAS made timely decisions to reduce the slope of the S\$NEER policy band earlier this year in response to a continued slowdown in inflation and expected deterioration in the growth outlook. With core inflation expected to stay well below the MAS target in 2025 and 2026 while economic growth will likely soften in 2026, there is room for further easing – as part of a policy mix to cushion the economy – through a flattening of the policy band. The decision on when and how to adjust policy settings should be guided by incoming data, especially on the evolving impact of tariff measures and material shifts in risks to growth and inflation. Finally, policy decisions would have to consider the prevailing financial conditions, in light of persistent capital inflows that may keep the S\$NEER stronger than desired.

26. On the financial stability front, while overall risks associated with corporate debt remain well contained, pockets of vulnerabilities in external-oriented sectors may arise amid the challenging global environment. Prolonged trade tensions or a tightening of global financial conditions may weigh on the corporate sector, making it difficult for firms, especially SMEs which are particularly vulnerable due to concentrated export markets or weaker balance sheets, to service their debt.²⁶ Given the critical role of SMEs in generating employment, continued monitoring of SMEs' financial health and banks' exposure to them is warranted. Targeted support can be provided to firms with viable business models if external shocks intensify.

27. The whole-of-government approach to mitigating risks of overheating in the property market is commended; meanwhile, tight macroprudential measures should be maintained to avoid over-leveraging amid a more accommodative interest rate environment. Due to congruent efforts from all relevant agencies, both demand and supply side measures have been implemented to address property price issues effectively, as discussed earlier. Going forward, domestic interest rates are expected to remain subdued, supported by continued capital inflows into Singapore dollar-denominated assets and potential policy rate cuts by the U.S. Federal Reserve. This could lead to a decline in SORA and government bond yields, thus reducing borrowing costs, potentially fueling speculative activity in the property market and leading to more household borrowing. To contain such risks, existing macroprudential tools—including the LTV limit and total debt servicing ratio—and other property market measures such as ABSD and SSD, should be retained. As domestic interest rates remain accommodative, macroprudential measures can be tightened further if there are increasing signs of speculative activities in the property market or a rapid debt buildup among households.

28. Singapore-based businesses should diversify their markets and enhance supply chain resilience with support from the government. Singapore's export base is relatively well diversified compared with ASEAN+3 peers, with lower reliance on the U.S. market and larger ASEAN+3 intra-regional exports.²⁷ Nonetheless, there remains scope to expand into underrepresented markets such as the Middle East and North Africa, a region that accounts

²⁵ First announced by the SERT in July 2025, the Enterprise Singapore has launched the new Business Adaptation Grant (BizAdapt) on 7 October 2025 to help businesses navigate the new tariff environment. The grant provides additional support for companies impacted by recent tariff measures to adapt their external-oriented operations and strengthen supply chain resilience. Notably, BizAdapt will support up to 50 percent of eligible costs for local small and medium enterprises (SMEs) and up to 30 percent for local non-SMEs. Capped at SGD100,000 per company, the grant will be available for a two-year period until 6 October 2027, to help Singapore businesses navigate the new tariff environment (see [BizAdapt Factsheet](#) for more information)

²⁶ See footnote 19.

²⁷ Singapore's exports to the U.S. accounted for 9 percent of gross exports in 2024, below the ASEAN+3 average of 15 percent. Its exports to ASEAN+3 totaled 62 percent, above the regional average of 43 percent.

for 8 percent of world GDP²⁸ but only 2 percent of Singaporean exports; or Latin America, which makes up 7 percent of world GDP but only 3 percent of Singapore's exports. Concurrently, Singapore-based businesses face the need to strengthen supply chain resilience to minimize the tariff impacts. To this end, government support schemes, including the Market Readiness Assistance grant and the Business Adaptation Grant under SERT, are highly welcome to aid these efforts, especially among SMEs. The adequacy of these programs should be periodically assessed in consultation with the business community. In addition, private-sector collaboration, for example, between local and foreign business federations or between multinational corporations in Singapore and local SMEs, can be leveraged to develop new export opportunities.

29. International trade agreements are a key pillar for unlocking new export opportunities, but more can be done to increase FTA usage. Amid rising protectionist sentiment in some parts of the global economy, Singapore remains firmly committed to a rules-based multilateral trading system. This commitment is reflected in pacts such as the Pacific Alliance-Singapore Free Trade Agreement (PASFTA) and the EU-Singapore Digital Trade Agreement (EUSDTA), the first digital trade agreement between the E.U. and an ASEAN member. Beyond signing new agreements, improving the use of existing FTAs is equally critical. A survey on Singapore-based firms during 2023 – 2024 indicated that only 30 percent of businesses were making use of FTAs²⁹, citing limited awareness and high compliance costs. Targeted financial and advisory support from the government and business associations can raise FTA usage and lower market entry costs.

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30. The MAS concurred that strong capital inflows posed challenges to the conduct of monetary policy, but emphasized that potential risks from capital inflows can be managed with existing policy tools. Singapore has faced similar episodes in the past given its role as a financial center. The central bank noted that it was well equipped with instruments to manage both the exchange rate and domestic liquidity. In addition, ongoing equity market development initiatives would help channel inflows toward productive activities, allowing them to be absorbed more effectively and benefit the real economy. The MAS also acknowledged the need to remain vigilant about financial stability risks arising from borrowing activities and property prices, while stressing that macroprudential tools were available to address any pockets of vulnerabilities. Finally, the MAS highlighted that the whole-of-government approach, including macroprudential and property market measures as well as the expansion of housing supply, had been effective in moderating the pace of property price increases.

C.2 Medium to Long-term Strategy to Enhance Competitiveness

In parallel, the authorities should continue to strengthen Singapore's competitiveness while addressing impending structural challenges.

31. In the medium term, Singapore's economy could be significantly reshaped by ongoing global trade realignments. Rising protectionism and supply chain fragmentation are prompting businesses to shift from efficiency-driven models to "just-in-case" strategies that prioritize resilience. While Singapore can leverage its strategic location within ASEAN—the world's fourth-largest economy—along with policy stability and consistently high global competitiveness rankings,³⁰ these advantages would require proactive and continuous effort to maintain. Enabling workforce adaptability, fostering a dynamic business environment and adopting an agile regulatory framework would therefore be critical to successfully tap the

²⁸ Source: Our World in Data

²⁹ Kim, Soo Yeon and others. 2025. "States, Markets and Regional Integration." IPS-SBF Conference, July 2025.

³⁰ Singapore is ranked among the top five globally and first place in the Asia-Pacific on the IMD World Competitiveness Ranking.

potential in this rapidly evolving global landscape. The timely launch of the Economic Strategy Review in August 2025 is a commendable initiative to formulate strategies for sustaining long-term competitiveness. (**Selected Issue. Navigating U.S. Tariffs: Singapore's Path Forward**).

32. Strengthening the adoption and effective use of automation and reskilling programs remains a key policy priority to boost productivity and support a labor market transition. Singapore has made significant progress in promoting digital transformation, underpinned by government initiatives supporting workforce reskilling and business automation.³¹ The authorities' timely response to evolving labor market needs, by launching localized job-matching initiatives and enhanced upskilling programs, is highly welcomed. Singapore is also well positioned to benefit from job augmentation through generative artificial intelligence rather than widespread job displacement.³² Yet, automation uptake remains low. Nearly 70 percent of local firms automate less than a quarter of their operations, while close to one-fifth use no automation at all.³³ Expanding support schemes such as the Productivity Solutions Grant and the Enterprise Development Grant could help to bridge this gap. Scaling up income support programs, such as the SkillsFuture Jobseeker Support scheme, could cushion the impact of job disruptions amid accelerated skill obsolescence due to rapid digitalization and high costs of living.

33. A multipronged approach, including fiscal reforms, could play a pivotal role in addressing structural challenges. Singapore's fiscal policy is characterized by a strong orientation toward long-term planning and fiscal prudence. Amid higher spending pressures related to the aging population and infrastructure spending, including on climate change, the fiscal surplus is projected to be lower during FY2025-FY2029 compared with the pre-pandemic period.³⁴ Moreover, the revenue impact of Base Erosion and Profit Shifting (BEPS) 2.0 implementation is uncertain.³⁵ Against this backdrop, a multipronged approach could be adopted:

- a. **Containing health care costs.** Amid the aging population, annual national long-term care (LTC) operating expenditure has almost doubled over the last five years, from SGD1.7 billion to about SGD3 billion presently. This expenditure is expected to increase further as care needs intensify with aging. To alleviate costs, fiscal policy could be geared toward enhancing preventive care to reduce demand for more expensive LTC services. In this regard, the Healthier SG program, launched in 2023, could help transform the health sector by focusing on preventive care and affordable primary care. A healthier population could moderate the rising demand and costs associated with LTC services (**Box C Long-term Integrated Measures to Contain Health Costs in Singapore**).

³¹ About 90 percent of participants under the Workforce Singapore Career Conversion Programme to reskill mid-career individuals remain employed 24 months after embarking on the program (Ministry of Manpower 2022).

³² ASEAN+3 Macroeconomic Research Office. 2024. "Special Feature: ASEAN+3 and the Economic Impact of Generative AI". ASEAN+3 Regional Economic Office.

³³ Kim, Soo Yeon and others. 2025. "States, Markets and Regional Integration." IPS-SBF Conference, July 2025.

³⁴ The fiscal surplus is projected to be 0.6 percent of GDP per annum on average over FY2025-FY2029, about half of the 1.1 percent recorded during FY2015-FY2019, before the pandemic broke out. The authorities took timely revenue mobilization measures in the FY2022 budget, including implementation of the goods and services tax (GST) rate increase from 7 percent to 9 percent, which was communicated in advance; increases in the top marginal personal income tax rate; higher residential property tax rates for higher-end and non-owner-occupied properties; and a new additional registration fee tier for luxury cars.

³⁵ Under Pillar One, Singapore has to give up some taxation rights over profits from economic activities conducted within the country, and will receive very little returns due to its small domestic market. Pillar Two introduces a minimum effective tax rate (ETR) of 15 percent for large MNE groups via the Global Anti-Base Erosion (GloBE) Model Rules. If an affected MNE has an ETR of less than 15 percent in any jurisdiction at the group level, other jurisdictions can collect the difference of up to 15 percent. Singapore has implemented a domestic top-up tax (DTT) and multinational enterprise top-up tax (MTT), which is based on the income inclusion rule (IIR). The DTT and MTT impose a minimum ETR of 15 percent on large MNE groups from businesses' financial years starting on or after January 1, 2025. The DTT and MTT apply to MNE groups with annual group revenue of EUR750 million or more in at least two of the four preceding financial years. The potential revenue impact of both pillars of BEPS 2.0 is uncertain.³⁶ A sound public investment management framework embodies three well-established goals: (i) fiscal sustainability, and its consistency with total public investment spending over the long term; (ii) allocative efficiency, requiring that selected projects be consistent with the government's sectoral priorities; and (iii) operational efficiency, with projects and programs delivering outputs and outcomes in a cost-efficient manner (IMF 2013).

- b. Establishing a public infrastructure investment plan.** Infrastructure spending pressure will increase due to generational upgrades of infrastructure and spending on new infrastructure, including climate change. Notably, an infrastructure investment plan is an integral part of sound public investment management.³⁶ The Master Plan (MP) is the statutory land use plan which guides Singapore's development in the medium term over the next 10 to 15 years.³⁷ Importantly, it is commendable that the authorities have established a National Infrastructure Plan (NIP), which embodies a systematic whole-of-government coordination mechanism. The NIP operates on an annual cycle to synchronize development and infrastructure planning across all major agencies. It helps to align the 15-year staging plans, resolve cross-cutting issues, and identify synergies for co-location and coordinated works.³⁸
- c. Strengthening performance budgeting and fiscal transparency.** Performance budgeting could focus on two areas. The government has established various endowment and trust funds (ETFs) to allocate money through the budget for specific purposes, typically designed to meet spending needs arising from long-term challenges (**Box D Special Transfer Expenditure in Singapore**).³⁹ It would be helpful to assess the efficiency of special transfer allocation, and use the assessment results in the budgeting for future resource allocation. In this context, AMRO commends the authorities' initiative to evaluate the effectiveness of special transfers, such as the CDC Vouchers, in alleviating cost-of-living pressures on households.⁴⁰ Second, there is scope to enhance fiscal transparency, particularly in the area of medium-term macro-fiscal forecasts and assumptions. In this regard, the Ministry of Finance's publication of a medium-term fiscal outlook up to FY2030 in its 2023 occasional paper is a step in the right direction.

34. On the financial side, authorities should continue enhancing the attractiveness of the domestic equity market to broaden funding access and strengthen Singapore's position as the regional financial hub. As of 2024, total market capitalization stood at 117 percent of GDP, lower than other major financial hubs, such as 210 percent in Switzerland and 1,118 percent in Hong Kong. In February 2025, the authorities launched a set of initiatives to boost competitiveness of the market and strengthen its role as a source of capital for local and regional firms, in order to bolster the business ecosystem and productivity. At the center is the MAS Equity Market Development Programme, which will invest SGD5 billion focused on the Singapore's equity market to strengthen the local asset management and research ecosystem, and to raise investor interest.⁴¹ The FY2025 budget also includes corporate income tax rebates for new listings in the domestic equity market to increase supply of quality listings. The initiative's multipronged approach should continue, emphasizing not only the

³⁶ A sound public investment management framework embodies three well-established goals: (i) fiscal sustainability, and its consistency with total public investment spending over the long term; (ii) allocative efficiency, requiring that selected projects be consistent with the government's sectoral priorities; and (iii) operational efficiency, with projects and programs delivering outputs and outcomes in a cost-efficient manner (*IMF 2013*).

³⁷ The MP is reviewed every five years and translates the broad long-term strategies of the Long-Term Plan (which guides development over the next 50 years and beyond) into detailed plans to guide the development of land and property.

³⁸ See the *URA FY2023 Sustainability Report* for more information on the NIP.

³⁹ Various top-ups to ETFs have been established for infrastructure spending, including the SGD5 billion Rail Infrastructure Fund, the SGD10 billion Future Energy Fund and the SGD10 billion Coastal and Flood Protection Fund.

https://www.oecd.org/en/publications/budgeting-in-singapore-in-2025_79ec8b00-en.html

⁴⁰ The CDC Vouchers Scheme was rolled out in December 2021 during the COVID-19 pandemic. Since then, three more tranches had been launched in 2022, 2023 and 2024 to help Singaporean households with daily expenses amid cost-of-living pressures. A 2023 study by the Ministry of Trade and Industry on the impact of the first and second tranches of CDC Vouchers found that more than 96 per cent of the 1.22 million eligible Singaporean households claimed their CDC Vouchers from both the 2021 and 2022 tranches, with 96 per cent of the claimed vouchers eventually spent. The high usage rate suggests that CDC Vouchers have helped to alleviate inflationary pressures faced by households, as part of a broader suite of measures that address Singaporeans' cost-of-living pressures. Moreover, spending on these two tranches of CDC Vouchers could generate up to 0.05 per cent of Singapore's 2022 nominal GDP.

⁴¹ The MAS investment of SGD5 billion accounts for 0.6 percent of total domestic market capitalization.

demand and supply of listings, but also stronger market research capabilities, improved investor protection and streamlined listing criteria, while preserving Singapore's strong legal infrastructure.

35. The continuous pursuit of financial innovation and firm emphasis on risk management will further lift Singapore's position as a global financial technology (fintech) hub. The MAS was one of the early adopters of the fintech regulatory sandbox, which tests innovative business models under proper safeguards for eventual practical application to the overall financial system. Along this line, the MAS introduced the digital bank licensing framework to promote banking efficiency and financial inclusion with innovative technologies. To mitigate risk, the MAS issued licenses to only institutions with a track record in technology or e-commerce, and adopted a phase-in approach that encouraged digital banks to grow their businesses gradually. AMRO welcomes the good progress from digital banks in building their services and serving individuals and small businesses that do not have credit records, known as "thin-file" customers (**Box E. Singapore's Digital Banks: Early Progress and Key Lessons**). AMRO also commends consistent MAS efforts in strengthening regulation on Digital Payment Token (DPT) service providers.⁴² This will improve the central bank's regulatory framework on crypto assets, enhance Singapore's reputation for safety and stability, and strengthen its competitiveness as a global financial center.

36. Singapore's integrated approach to climate strategy can set a good example. Its climate strategy is based on a dual approach of adaptation and mitigation and anchored in Singapore Green Plan 2030. There are clear targets across energy, transport, buildings, waste and nature. Moreover, the plan is integrated across several ministries, which helps ensure synergy and commitment. Transition risks have also been mitigated effectively through expansive policy frameworks that closely align with the country's long-term Nationally Determined Contributions (NDCs).⁴³ These policies have not only supported domestic decarbonization but also served as a catalyst for green transition efforts across other ASEAN+3 economies. Adaptation efforts focus on enhancing resilience to climate impacts such as rising sea levels, extreme weather and urban heat.⁴⁴ Mitigation strategies are even more expansive, targeting emission reduction across all sectors. These include switching to cleaner energy sources, improving energy efficiency and implementing a carbon tax. (**Selected Issue. Singapore's Leadership in Sustainable Finance: Progress, Drivers and Regional Initiatives**)

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37. The Ministry of Finance broadly agreed with the fiscal reform recommendations, many of which aligned with the government's plans. The Ministry of Finance acknowledged that there was scope to provide more regular updates of the medium-term fiscal projections, and to expand disclosures and communication on the National Infrastructure Plan and evaluation of the effectiveness of special transfers including ETFs. Nevertheless, the Ministry of Finance is cognizant of the need to focus on communicating information that is useful to the public to strengthen public knowledge and fiscal transparency, where it is appropriate to do so.

⁴² Given the high money laundering risk involved in DPT transactions, the MAS brought DPT service providers under the regulatory scope of the Payment Service Act and tightened licensing on DPT service providers, especially those serving only overseas customers which are hard to oversee, to promote user protection and foster financial stability.

⁴³ Singapore shifted to targeting absolute greenhouse gas emissions in 2022, the first to do so in ASEAN+3. The country submitted its revised and upgraded NDC to the United Nations Framework Convention on Climate Change (UNFCCC) in February 2025. It intends to reduce emissions to 45 million to 50 million tonnes of carbon dioxide equivalent (MtCO₂e) by 2035 (<https://www.nccs.gov.sg/singapore-submits-2035-nationally-determined-contribution/>).

C.3 Regional Integration Initiatives

Singapore is well positioned to take the leading role in regional integration and beyond.

38. The Johor-Singapore Special Economic Zone (JS-SEZ), jointly established by the Singapore and Malaysia governments, presents a potential blueprint for deeper ASEAN regional integration. The JS-SEZ combines Singapore's strengths as a financial, logistics and innovation hub with Johor's advantages in land availability and labor supply, aiming to develop a competitive economic zone that supports both Singapore-based firms that want to scale up their operations, and global investors seeking supply chain diversification and expansion into the ASEAN market. Strong political backing from both governments and a shared commitment to a rules-based multilateral trading system reinforce the credibility of the initiative amid uncertainties in global trade policy. If successful, the JS-SEZ could serve as a model for cross-border collaboration across the region (**Box F. Johor-Singapore Special Economic Zone as Potential Blueprint for Regional Collaboration**)

39. AMRO commends the authorities' continuous initiatives in advancing financial integration across the region and beyond. As a key player in ASEAN Regional Payment Connectivity (RPC), Singapore has established bilateral payment linkages with Thailand, India and Malaysia; and is a founding central bank partner of Nexus⁴⁵, a multilateral instant cross-border payment scheme. AMRO welcomes Nexus' transition from a Bank for International Settlements project toward real-world implementation, and the establishment of Nexus Global Payments (NGP) in Singapore to manage and operationalize, as Nexus will develop a scalable payment network within the region and potentially around the globe. AMRO also commends the authorities' plans to support the commercialization of asset tokenization⁴⁶ and appreciate the progress made in the forward-looking Global Layer One (GL1) initiative, which aims to foster an ecosystem of open, interoperable and shared ledger infrastructures that host tokenized money and assets. GL1 will facilitate seamless cross-border transactions and lay the foundation for an inclusive and integrated financial ecosystem. In addition, the Global Finance & Technology Network (GFTN) established in October 2024 will bring industry, regulators and multilateral bodies together, foster common standards for interoperability, and deliver great synergies to achieve impactful innovation in financial services. All these efforts will lead to closer financial integration within the region and beyond, and strengthen Singapore's standing as a leading fintech hub and global financial center.

40. As Singapore has made great strides in climate change adaptation and mitigation, it should take a leading role in regional climate governance and collaboration. Singapore has made notable progress in its climate goals, exceeding its 2020 target by reducing emissions to 32 percent below business-as-usual (BAU) levels. The country has also expanded solar energy deployment and invested in low-carbon technologies, such as hydrogen and carbon capture. Despite long-term challenges from limited land, a lack of natural renewable energy sources and reliance on imports, Singapore can leverage international cooperation and take the lead in developing and implementing⁴⁷ the ASEAN Power Grid⁴⁸ and

⁴⁵ Central banks of India, Indonesia, Malaysia, the Philippines, Singapore and Thailand are first mover central bank partners in Nexus. The European Central Bank and Bank Indonesia, which took part in previous phases of Nexus, continue to serve as special observers throughout this operationalization phase.

⁴⁶ MAS is facilitating the commercialization of products and services of Project Guardian participants, following successful industry trials on the use of asset tokenization in capital markets. MAS is also facilitating financial institutions' access to common settlement assets, including Singapore dollar wholesale central bank digital currency (CBDC), on Singapore Dollar Testnet, for market testing purposes.

⁴⁷ A key milestone of the ASEAN Power Grid is the Laos-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP) initiated in 2022. This pathfinder initiative originally enabled the cross-border exchange of up to 100 megawatts (MW) of electricity. In August 2025, the project progressed to its second phase, with its trading capacity expanded to 200MW. This development was facilitated by multidirectional power trading arrangements, allowing both Lao PDR and Malaysia to contribute electricity to the system (Source: ASEAN Power Grid Summit 2018; MTI).

⁴⁸ Further momentum was generated at the ASEAN Energy Ministers Meeting in September 2024, where the Ministers mandated the ASEAN Centre for Energy to undertake two strategic tasks. The first is to develop a comprehensive framework and terms of reference for the deployment of subsea power cables, marking a critical step toward regional energy integration.

regional carbon markets to access cleaner energy and mitigation opportunities. With its proactive stance and international partnership position, Singapore is well placed as a leader in climate governance and a sustainable finance hub of the region.

The second is to lead efforts toward full realization of the ASEAN Power Grid by 2045. These directives built upon bilateral collaboration that Singapore has initiated with fellow ASEAN members since early 2024. To support this agenda, ASEAN has formed dedicated working groups with Cambodia, Lao PDR and Vietnam to explore the technical and infrastructural requirements for subsea cable development. Recommendations from these groups will inform and shape the broader ASEAN energy integration process (<https://www.mti.gov.sg/Newsroom/Speeches/2024/10/Speech-by-2M-Tan-See-Leng-at-the-Asia-Clean-Energy-Summit-2024>).

Box A. Understanding Singapore's Public Debt⁴⁹

At around 173 percent of GDP, Singapore's gross public debt-to-GDP ratio is among the highest of advanced economies.⁵⁰ However, this box explains why it is crucial to understand the rationale for government borrowing and for its high gross public debt-to-GDP ratio.⁵¹

Unique Features of Singapore's Fiscal Policy

Singapore has a well-defined budget framework with clear fiscal objectives in its Constitution that are designed to ensure long-term fiscal sustainability.⁵² Notably, Singapore's fiscal policy exemplifies a hallmark of strong fiscal governance, long-term fiscal planning and fiscal prudence.

- a. **Strong fiscal governance.** Under the Constitution, the government is required to adhere to a balanced budget rule over each term of government.⁵³ Moreover, the Constitution distinguishes between reserves accumulated by the government during its current term of office, and past reserves, which are reserves not accumulated by the government during its current term of office. In particular, the government can draw on past reserves only with the approval of the President. This constitutional framework protects past reserves by enforcing fiscal prudence while allowing the government to draw on past reserves only in times of need.⁵⁴
- b. **Long-term fiscal planning.** In the past, the government strengthened social security systems and invested in necessary public infrastructure ahead of time. Presently, the government continues to plan for the long term to prepare for structural challenges, such as an aging population and climate change. Special transfers to endowment and trust funds pre-fund large, anticipated spending in socioeconomic investments, including in health care, to address the growing needs of the aging population (Box D. Special Transfers Expenditure in Singapore). Additionally, to prepare for long-term fiscal implications of climate change, the government has adopted green budgeting practices to systematically incorporate environmental sustainability considerations in its financial policies while ensuring that Singapore remains fiscally sustainable.⁵⁵
- c. **Fiscal prudence.** The government adopts a disciplined and prudent approach toward borrowing. It does not borrow for recurrent spending needs, so as not to overly burden future generations, who would have to service the debt incurred by the current and previous generations.

Rationale for Government Borrowing

Notably, the government issues debt instruments to meet specific long-term objectives. Singapore's public debt is wholly domestic debt, which is primarily issued for non-spending purposes. Domestic debt instruments fall into two main categories (Figures A1, A2).

- a. **Non-spending purposes.** The first category of domestic debt instruments is issued under the Government Securities (Debt Market and Investment) Act 1992 for non-spending purposes. Borrowing proceeds raised under this Act are invested and cannot be spent. Debt instruments under this Act are issued for specific purposes and include:
 - o **Publicly held domestic debt instruments.** This comprises (i) Singapore Government Securities (Market Development) and Treasury Bills, which are issued to develop the country's debt markets; (ii) Cash Management Treasury Bills, which

⁴⁹ Prepared by Koon Hui Tee (Senior Economist).

⁵⁰ Among OECD countries, Japan has the highest public debt-to-GDP ratio, followed by Greece and Italy.

⁵¹ This box draws on key information highlighted in the Singapore Ministry of Finance's occasional paper on government borrowings (Ministry of Finance (2025), "Overview of Singapore Government Borrowings", Occasional Paper).

⁵² OECD (2025), "Budgeting in Singapore in 2025".

⁵³ This means each term of government has to ensure that the fiscal deficit in any year must be balanced by surpluses from previous years within its term in office (Institute of Policy Studies (2023), "Public Deliberation on Singapore's Fiscal Policies and National Reserves").

⁵⁴ Singapore Department of Statistics (<https://www.singstat.gov.sg/publications/reference/ebook/economy/public-finance-public-sector>).

⁵⁵ Singapore Ministry of Finance (2025), "Green Budgeting in Singapore: A Progress Update", Occasional Paper.

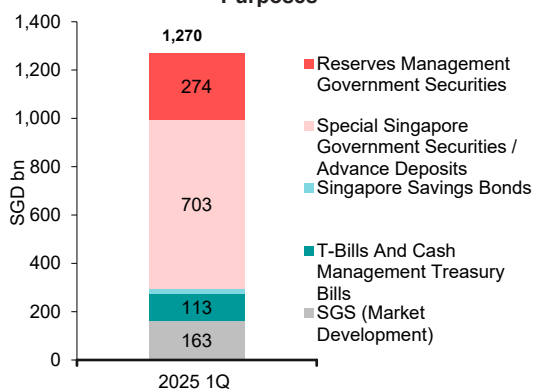
are issued on an ad hoc basis as a contingency cash management tool to manage the government’s short-term cash-flow mismatches; and (iii) Singapore Savings Bonds, which are issued to provide individual investors with a long-term savings option.

- **Non-publicly held domestic debt instruments.** This comprises (i) Special Singapore Government Securities, which are primarily issued to meet the investment needs of the Central Provident Fund; and (ii) Reserves Management Government Securities,⁵⁶ which are issued only to the Monetary Authority of Singapore (MAS) to facilitate the transfer of Official Foreign Reserves (OFR) above what the central bank requires to the government for longer-term investment.
- b. **Specific spending purposes.** The second category is issued under the Significant Infrastructure Government Loan Act 2021 (SINGA) for spending purposes. These domestic debt instruments comprise Singapore Government Securities (Infrastructure) and Green Singapore Government Securities (Infrastructure), which are publicly held. Borrowing proceeds from Singapore Government Securities (Infrastructure) are used to finance spending on nationally significant infrastructure. Borrowing proceeds from Green Singapore Government Securities (Infrastructure) are used to fund nationally significant infrastructure that qualifies as eligible green expenditure under the Singapore Green Bond Framework.

Conclusion

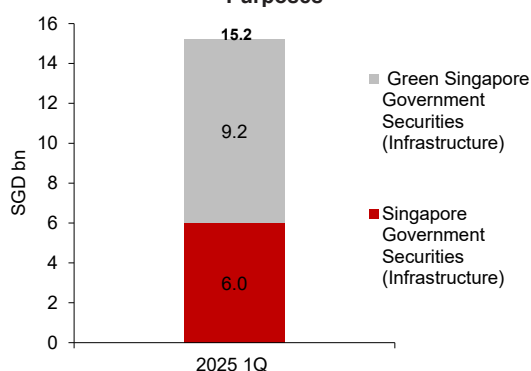
Singapore’s high gross public debt reflects its unique fiscal framework which focuses on the long term. To ensure long-term fiscal sustainability, the country has a well-defined budget framework with clear fiscal objectives in its Constitution. Moreover, the public debt is wholly domestic debt, which is primarily issued for non-spending purposes. Against this backdrop, the country has a net asset position, which the gross debt does not account for. Importantly, Singapore’s net asset position underpins its strong sovereign credit ratings of AAA from credit rating agencies including S&P Global Ratings, Moody’s and Fitch Ratings. Importantly, this net asset position is in fact reflected in the significant net investment returns generated on Singapore’s reserves (OECD 2025). In other words, if the government’s assets were inadequate to meet its liabilities, net investment returns would not have made a positive contribution to the government budget.⁵⁷

Figure A1. Domestic Debt Issued For Non-spending Purposes



Source: Department of Statistics

Figure A2. Domestic Debt Issued For Spending Purposes



⁵⁶ The Reserves Management Government Securities were introduced in 2022 to facilitate the continued transfer of the MAS’ OFR to the government. These transfers are a long-standing practice to optimize returns by having Government Investment Corporation (GIC) invest these assets in a portfolio with a profile of higher risk to deliver good long-term returns (Ministry of Finance, 2025).

⁵⁷ Part of the investment returns is made available for spending on the government’s budget via the NIRC, which is estimated to be about 3.2 percent of GDP.

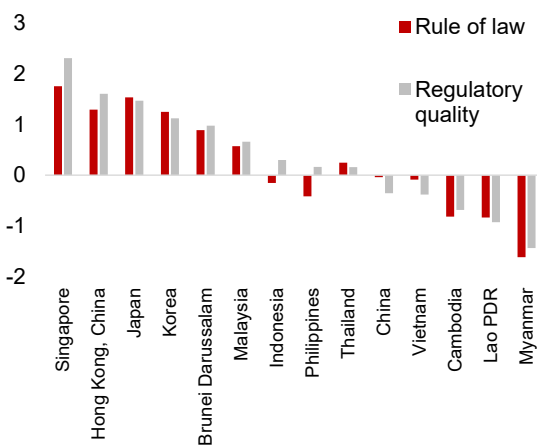
Box B. Singapore’s potential as a Regional Safe Haven and Lessons Learned from Switzerland⁵⁸

This box explores characteristics of Singapore which enable it to attract capital inflows during periods of high uncertainties, while drawing lessons learned from Switzerland during a period of large capital inflows.

Singapore as a regional safe haven

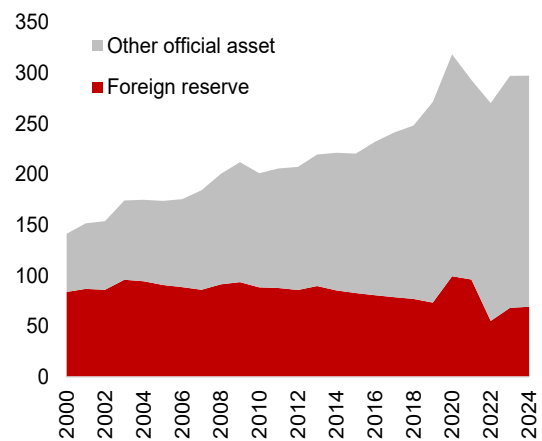
Singapore meets many of the structural preconditions of a regional safe haven, particularly in its institutional and fiscal foundations. The country’s governance indicators for rule of law and regulatory quality are the highest in the ASEAN+3 region, contributing to a stable investment environment that is widely considered a prerequisite for safe-haven behavior (Figure B1; Habib and Stracca 2012; Acemoglu, Johnson and Robinson 2001). This environment is reinforced by a strong sovereign balance sheet, reflected in the AAA credit rating, large net international investment position and strong fiscal framework and hallmark of fiscal prudence (Box A. Understanding Singapore’s Public Debt). The country’s robust external position supported by persistent trade surplus reflects a history of sustained capital inflows, with gross official external assets consistently exceeding 200 percent of GDP for much of the last two decades (Figure B2).⁵⁹

Figure B1. Institutional Qualities in ASEAN+3 (Index)



Source: World Bank
Note: 2024 World Governance Indicator. A higher value indicates better quality.

Figure B2. Estimated Public-sector Gross External Assets of Singapore (percentage of GDP)



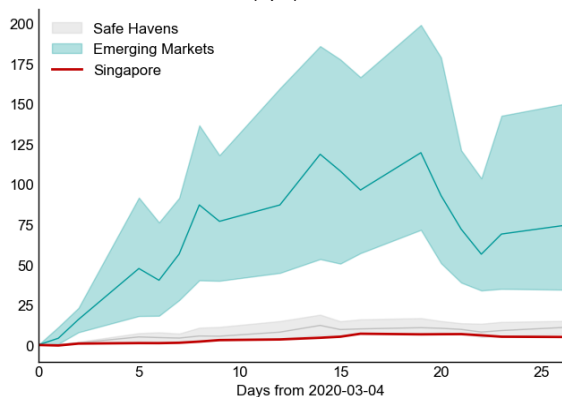
Source: MAS; AMRO staff estimates
Note: Percentage of GDP. Other official assets include the state-owned GIC and Temasek Holdings and are estimated as the cumulative sum of annual balance of payment official-sector assets from 1995. Changes in valuation are excluded.

CDS data during risk-off periods also confirms stability in the Singapore market. Sovereign credit default swap (CDS) spreads remained virtually unchanged in both the COVID-19 crisis of 2020 and the U.S. tariff announcements of 2025, in sharp contrast to the significant widening observed across emerging markets (Figures B3, B4). This pattern places Singapore firmly alongside established safe havens and reflects market confidence in its sound fiscal position, strong institutional frameworks and consistent macroeconomic management.

⁵⁸ Prepared by Yoki Okawa, Economist

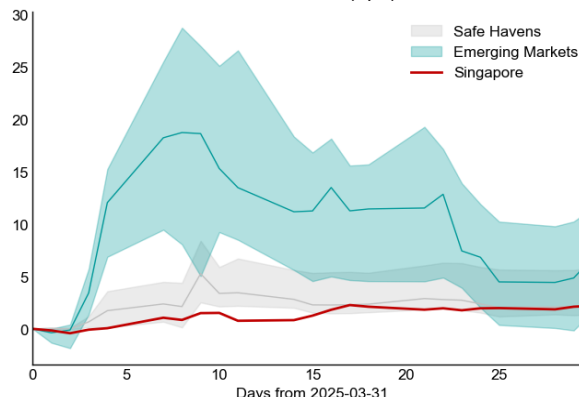
⁵⁹ The “bump” in 2020 in Figure B.2 reflects the sharp decline and rebound in GDP following the COVID-19 shock, rather than an increase and subsequent contraction in external assets.

Figure B3. CDS Spreads Following COVID-19 Shock
(bps)



Source: Haver Analytics; Cbonds
Note: Change in the sovereign CDS spread since March 4, 2020. Safe Havens = U.S., Germany, Switzerland, Japan. Emerging Markets = 22 markets included in the MSCI Emerging Markets Index. Shaded areas represent the first and third quartiles; solid lines represent the median.

Figure B4. CDS Spread Following U.S. Tariff Announcements
(bps)

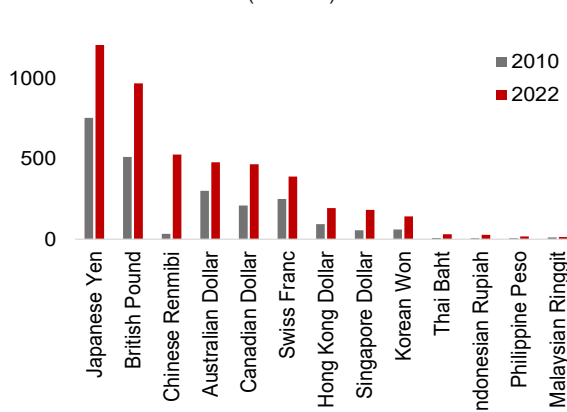


Source: Haver Analytics; Cbonds
Note: Change in sovereign CDS spread since March 31, 2025. Safe Havens = U.S., Germany, Switzerland, Japan. Emerging Markets = 22 markets included in the MSCI Emerging Markets Index. Shaded areas represent the first and third quartiles; solid lines represent the median.

However, foreign exchange turnover data underscores the scale constraints of Singapore’s markets. The Singapore dollar, while supported by highly developed domestic financial infrastructure, accounts for only a fraction of global trading relative to established safe-haven currencies, such as the yen, the sterling, or even the Australian and Canadian dollars (Figure B5). Limited liquidity in FX instruments restricts the system’s capacity to absorb large reallocations of global capital, preventing Singapore from serving as a universal destination for “flight-to-safety” flows. The literature is also divided on whether Singapore can be regarded as a global safe haven.⁶⁰

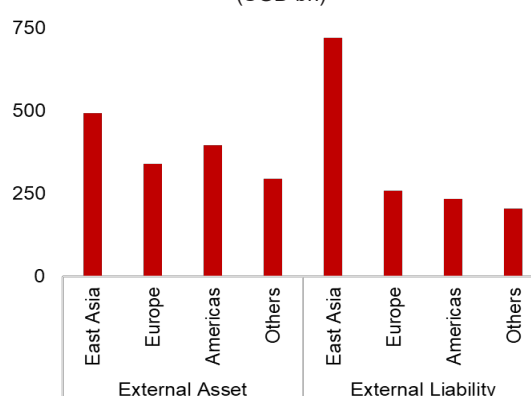
The banking sector’s external balance data confirms Singapore’s regional anchoring. Both assets and liabilities are disproportionately concentrated in East Asia, with exposures to Europe and the Americas markedly smaller (Figure B6). On the liability side, dependence on East Asian counterparties suggests that regional dynamics, rather than broad-based global portfolio shifts, dominate Singapore’s role in cross-border intermediation. This concentration strengthens its function as a regional hub during stress episodes but circumscribes its global safe-haven capacity.

Figure B5. FX Turnover
(USD bn)



Source: Bank for International Settlements
Note: Daily average turnover of over-the-counter FX instruments, by currency, in billions of U.S. dollars on a “net-net” basis. The U.S. dollar (USD6,638 billion in 2022) and the euro (USD2,292 billion in 2022) are excluded to improve the visibility of currencies with smaller turnovers.

Figure B6. Singapore Banking-sector External Balance
(SGD bn)



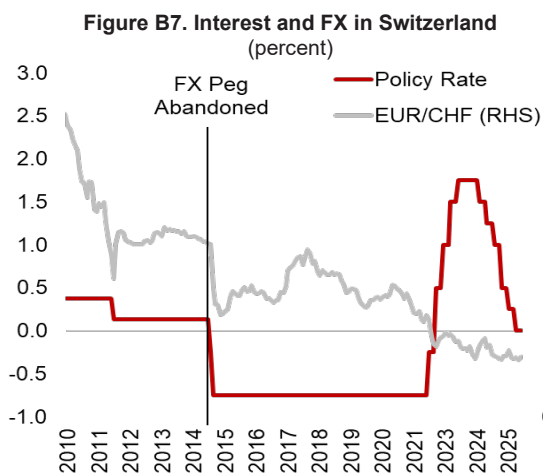
Source: MAS; Department of Statistics
Note: As of July 2025. East Asia includes ASEAN, China, Japan, Korea and Taiwan Province of China. Europe and the Americas follow MAS definitions.

⁶⁰ Some reports find that Singapore exhibits safe-haven features (Yau 2022; Siahaan & Robiyanto 2021), while others conclude the country lacks attributes associated with established global safe havens (Fahad, Sensoy and Goodell 2023; Habib and Stracca 2012; Masujima 2017).

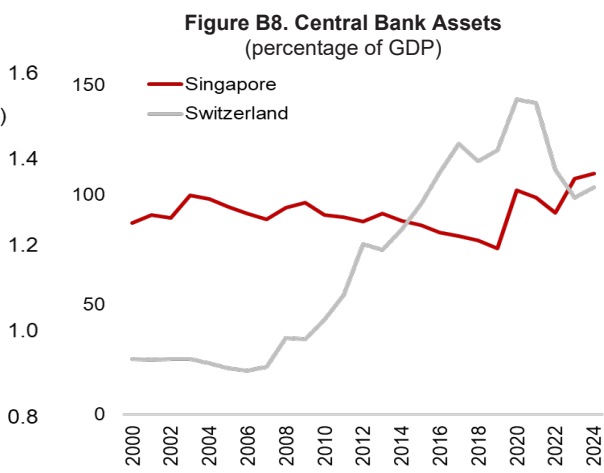
Implications of Large Capital Inflows: The Case of Switzerland

Switzerland's experience during the European sovereign debt crisis illustrates vulnerabilities that can arise in small financial centers exposed to large safe-haven flows. In September 2011, the Swiss National Bank (SNB) introduced a minimum exchange rate of CHF1.20 per euro in response to extreme appreciation pressures. The measure initially stabilized conditions but required substantial and persistent interventions (Figure B7). By 2014, the SNB's foreign currency reserves had expanded to about 80 percent of GDP. The policy framework proved unsustainable in January 2015 when the expectation of an expanded European Central Bank asset purchase program generated one-way market pressures. The exchange-rate floor was abruptly discontinued, accompanied by the introduction of a deeply negative policy rate of -0.75 percent, which remained in place until September 2022.

The design of the exchange-rate floor created a discrete focal point for speculative activity targeted at Switzerland. The subsequent regime shift was associated with heightened volatility. By 2020, the SNB's interventions had expanded its balance sheet beyond 120 percent of GDP, concentrating exposures to foreign currency assets (Figure B8). As of late 2023, reserves were allocated predominantly to the U.S. dollar (39 percent) and the euro (37 percent), with a strategic allotment of 75 percent to fixed income securities and 25 percent to equities. This structure generated significant valuation risks. In 2022, the SNB reported a loss of CHF132.5 billion, equivalent to about 18 percent of GDP, largely attributable to bond price declines, equity market losses, and exchange-rate valuation effects from a stronger franc. The scale of losses constrained profit distributions to the federal government and cantons and intensified political scrutiny of the SNB's risk profile.



Source: Haver Analytics



Source: Haver Analytics; SNB; MAS

Singapore and Switzerland: A Comparison

Singapore's exchange rate management framework differs from Switzerland in several dimensions. The MAS maintains a managed float regime, guiding the Singapore dollar nominal effective exchange rate (S\$NEER) within a policy band. The ability to adjust the slope, width and center of this band allows for continuous and gradual exchange rate movements. The framework reduces the likelihood of discrete regime shifts and mitigates speculative dynamics associated with hard exchange rate commitments. Intervention-related liquidity is sterilized by issuing government securities and central bank bills. Surplus reserves can be transferred to the government for management by sovereign wealth funds. These institutional arrangements limit the direct impact of valuation swings on the central bank's balance sheet and reduce the political sensitivity of investment performance, as fiscal resources depend primarily on long-term net investment returns.

Domestic transmission channels further distinguish between the two countries, while Singapore's macroprudential framework can help mitigate risks from capital inflows. In Switzerland, a prolonged period of negative policy rates compressed bank profitability, weakened the position of pension funds and insurance companies, and encouraged risk-taking in lending and asset allocation. Macroprudential measures, including the countercyclical capital buffer, were deployed but proved insufficient to offset these side effects. Singapore has relied instead on a combination of

institutional buffers and an extensive macroprudential framework. The Central Provident Fund system provides a stable base of domestic savings that moderates external shock transmission. Macroprudential instruments, including the total debt servicing ratio (TDSR), loan-to-value ratio (LTV) and additional buyer's stamp duty (ABSD), have been employed to manage housing market pressures linked to capital inflows. These measures have contained systemic risks in the property sector without the broader distortions associated with a prolonged negative interest rate environment. Singapore's role as a regional hub with robust buffers suggests resilience to localized shocks. However, its structural limits preclude the global safe-haven status enjoyed by larger financial centers.

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Box C. Long-term Integrated Measures to Contain Health Costs in Singapore⁶¹

This box aims to discuss the key drivers of rising health care expenditure in Singapore and highlight the suite of supply and demand-side policies undertaken by the government to contain costs.

Overview

Expenditure on health care has grown at around 10 percent per annum since FY2019. It was estimated to be equivalent to about 2.4 percent of GDP in FY2024, the second largest expenditure item after defense, which took up 2.8 percent.

Going forward, health care expenditure is expected to increase to 2.9 percent to 3.5 percent of GDP during FY2026-FY2030 on the back of three key drivers.⁶²

- a. **Older demographics.** As the population ages⁶³, older patients are more likely to have greater comorbidities and health complications, requiring more medical attention and longer hospital stays.
- b. **Increased age-standardized utilization rates.**⁶⁴ Notably, changing lifestyles and increased health screening leading to earlier diagnoses have contributed to a higher age-standardized prevalence of chronic diseases, such as hypertension (high blood pressure) and hyperlipidemia (high blood cholesterol). Additionally, rising affluence and greater access to quality health care services have also led to higher usage rates.
- c. **Rising cost per unit of health care.** The higher bills are mainly due to medical advancements, which improve life expectancy and quality of life but cost more per treatment. Moreover, manpower cost pressures have increased to ensure that health care workers are appropriately recognized and remunerated.

Long-term Integrated Measures to Contain Health Costs

To manage the growing costs, the Singapore government is implementing integrated supply and demand-side policies.⁶⁵

- a. **Supply-side policies.** First, to contain the costs of health care delivery, the Ministry of Health has introduced Health Technology Assessments, under which it funds and encourages the use of health technologies that are clinically and cost-effective. With these efforts, drug spending growth in the public health care system slowed from around 10 percent before FY2021 to 5 percent in FY2023. Second, the ministry is also implementing a value-driven care program throughout public health care clusters, tracking and benchmarking quality and cost outcomes across common conditions and identifying areas for improvement. These initiatives ensure that health care spending is commensurate with good health outcomes for Singaporeans.
- b. **Demand-side policies.** There are three main focus areas of demand-side policies. First, through preventive health programs like Healthier SG⁶⁶ and active aging programs such as Age Well SG,⁶⁷ the government is investing in population health to keep Singaporeans healthier for longer. Moreover, there is greater focus on transforming care to anchor care in communities as far as possible instead of over-relying on acute hospitals.⁶⁸ Second, the

⁶¹ Prepared by Koon Hui Tee, Senior Economist

⁶² Ministry of Finance (2023), "Occasional Paper on Medium-Term Fiscal Projections".

⁶³ Share of resident population aged 65 and above has more than doubled from 9 percent in 2010 to about 19 percent in 2025.

⁶⁴ These represent health care usage healthcare utilization rates after normalizing for the impact of aging.

⁶⁵ Parliamentary Reply (2025), "Long-term Strategies to Ensure Healthcare Cost Containment and Reduction of Unnecessary Medical Tests," Notice Paper No. 3610.

⁶⁶ Healthier SG is a national initiative by the Ministry of Health focusing on preventive health. Singaporeans can take proactive steps to manage their health, prevent the onset of chronic diseases and receive strong support to lead healthier lifestyles.

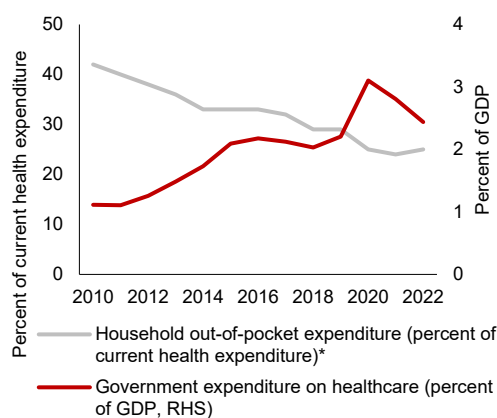
⁶⁷ The Age Well SG program is a tailored approach targeted at supporting the elderly population to age actively and healthily. This complements the Healthier SG preventive care program.

⁶⁸ Acute hospitals provide health care services to inpatients to treat brief but severe episodes of illness or any disease or trauma, or during recovery from surgery. On the other hand, community hospitals are intermediate inpatient care facilities that

Ministry of Health developed and published fee benchmarks for nearly 2,200 common medical procedures and conditions to guide the setting of fees in the private health care sector. Information about hospital bill size is also published across all hospitals and ward types to facilitate more informed treatment comparisons.⁶⁹ Third, to maintain fiscal discipline, the ministry finances health care spending through a combination of subsidies via MediShield Life and MediSave, while maintaining some requirement of co-payment from patients.

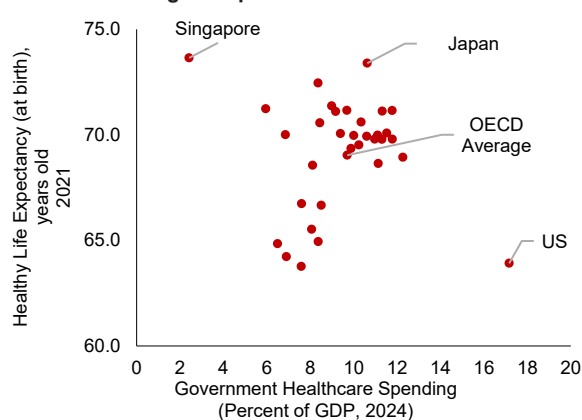
c. **Outcomes.** Singapore’s healthcare policies have helped to keep health care affordable in Singapore and reduce the financial burden on Singaporeans (Figure C1). Moreover, compared to other advanced economies with aged population, Singapore has achieved better health outcomes with relatively lower government spending on healthcare (Figure C2).

Figure C1. Government Expenditure on Healthcare and Household Out-of-pocket Expenditure in Singapore



Source: Singapore Department of Statistics; World Health Organization; AMRO staff estimates.
*Latest available data for out-of-pocket expenditure is 2022.

Figure C2. Comparison of Health Outcome and Government Healthcare Expenditure Between Singapore and OECD Countries with Aged Population⁷⁰



Source: OECD; World Health Organization; AMRO staff estimates.

offer convalescent rehabilitative and subacute care, such as for stroke, knee or hip replacement and respiratory infection, usually after the patient has stabilized at an acute hospital and before he moves to a community or residential facility (<https://www.moh.gov.sg/seeking-healthcare/find-a-facility-or-service/types-of-medical-facilities-and-services/acute-hospitals>).

⁶⁹ In 2022, a Claims Management Office was established to enhance monitoring and enforcement against inappropriate MediShield Life claims that may increase costs and health insurance premiums.

⁷⁰ Aged population is defined by share of population aged 65 and above of more than 14 percent. In Singapore, about 19 percent of the resident population is aged 65 and above, similar to the OECD average of 20 percent for countries with aged population.

Box D. Special Transfer Expenditure in Singapore⁷¹

This box aims to provide a primer on the roles of special transfer expenditure and discuss how it illustrates the uniquely Singaporean approach to long-term fiscal planning and fiscal prudence.

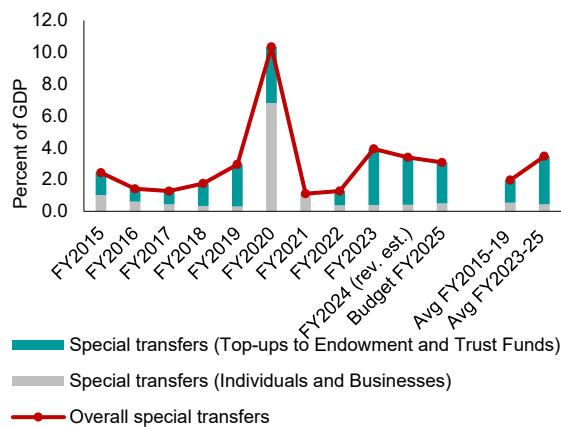
Overview

Special transfer expenditure in the budget consists of two categories: transfers to Singaporean households and businesses; and top-ups to endowment and trust funds (ETFs). The guiding approach to special transfers reflects the Singapore government's commitment to meet the country's spending needs in a sustainable manner. Basically, special transfers to households and businesses might be used to fulfill temporary needs or share one-off surpluses without adding to recurrent spending, while top-ups to ETFs ensure that long-term socioeconomic investment programs will not be affected by annual or cyclical fluctuations in revenues due to the economic cycle.⁷²

Special transfer expenditure has increased over the past 10 years. As a share of GDP, special transfers grew from 2.0 percent on average before COVID-19 (FY2015-FY2019) to 3.5 percent after the pandemic (FY2023 to the FY2025 budget). In particular, top-ups to ETFs doubled during these periods, while special transfers to individuals and businesses remained stable (Figure D1). As a result, ETF top-ups formed the bulk of special transfer expenditure, rising from 70.2 percent before COVID-19 to 87.2 percent after the pandemic (Figure D2).

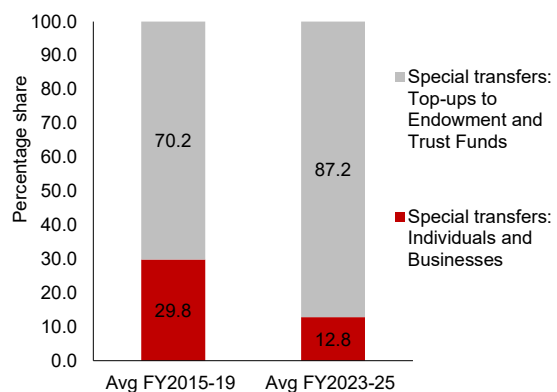
Special transfers were not mechanically determined by the fiscal balance. The timing and amounts of special transfers, including ETF top-ups, were determined based on the government's longer-term plans, the needs of the economy and society, and the government's fiscal position, given the need to maintain a balanced budget over each term of government as required under the Singapore Constitution.

Figure D1. Special Transfers, FY2015-FY2025



Source: Ministry of Finance; AMRO staff estimates

Figure D2. Breakdown of Special Transfers



Source: Ministry of Finance; AMRO staff estimates

Special Transfers to Businesses and Households

Special transfers are disbursed to help Singaporeans and businesses cope with transitional shifts and changes in key policies. Singapore offers special transfers via avenues including the Wage Credit Scheme, MediSave top-ups in the Central Provident Fund and goods and services tax (GST) vouchers. For instance, the FY2012 budget introduced a permanent GST Voucher scheme to help lower and middle-income households with their expenses, particularly what they pay in GST.⁷³ For businesses, special transfers include corporate income tax rebates, the Enterprise Innovation Scheme (EIS) and the Job Support Scheme. For example, the FY2023 budget

⁷¹ Prepared by Koon Hui Tee, Senior Economist

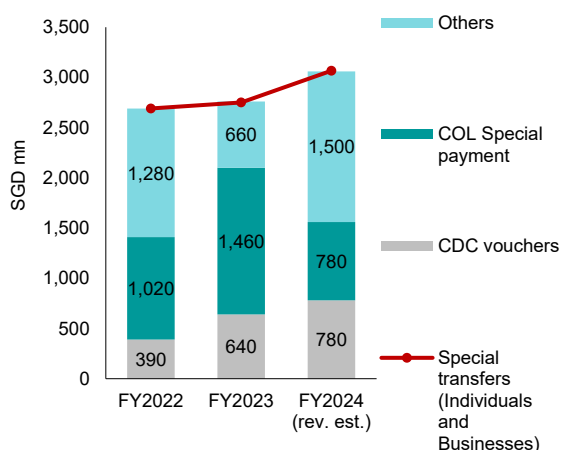
⁷² The Estimates Committee (EC) examines the Singapore government's budget and reports on what economies, improvements in organization, efficiency or administrative reforms consistent with the policy underlying the estimates may be effected, and suggests the form in which the estimates shall be presented to Parliament. Box D draws on key findings from the EC's enquiries on special transfers, which were published in the report on the "Thirteenth Parliament of Singapore (2019), Fourth Report of the Estimates Committee, Parliamentary Session 18 of 2019."

⁷³ Each of the four avenues supports different household needs – cash for their immediate expenses, MediSave to help with seniors' health care, U-Save to offset utility bills, and rebates on service and conservancy charges (S&CC).

announced the EIS to encourage businesses to engage in research and development (R&D), innovation and capability development activities.⁷⁴

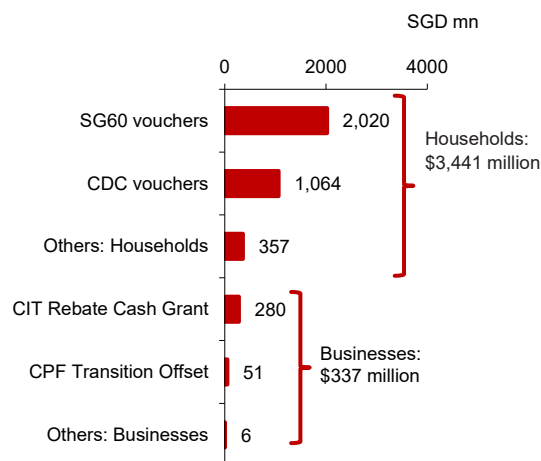
In recent years, disbursements of special transfers have focused on alleviating rising cost-of-living (COL) pressures for Singaporeans and businesses. Notably, COL Special Payment and Community Development Council (CDC) Vouchers formed about half of special transfer expenditures to individuals and businesses during FY2022-FY2024 (Figure D3). In the FY2025 budget, about 91 percent of special transfers would be spent on households, including one-off SG60 vouchers and more CDC Vouchers (Figure D4). While the COL Special Payment entails recipients meeting income eligibility criteria,⁷⁵ CDC Vouchers are broad-based transfers to all Singaporeans.⁷⁶

Figure D3. Special Transfers, FY2022-FY2024



Source: Ministry of Finance; AMRO staff estimates. Figures are rounded off.

Figure D4. Special Transfers, Budget FY2025



Source: Ministry of Finance; AMRO staff estimates

Special transfers might increase in times of budgetary deficits as part of countercyclical measures during a downturn, or in the event of unexpected budgetary surpluses. During a significant economic downturn, the government might supplement regular annual expenditure through special transfers to households and businesses as part of countercyclical fiscal measures. For example, during the 2009 global financial crisis, the government announced an SGD4.5 billion Jobs Credit Scheme to encourage businesses to preserve jobs. Similarly, during COVID-19, a Job Support Scheme aimed to help employers retain their local employees, while a Care and Support Package provided financial support to Singaporeans. On the other hand, during years of unexpected budgetary surpluses, the government might use special transfers to share one-off surpluses with Singaporeans. For example, the 2018 budget announced a one-off SGD700 million SG Bonus arising from an exceptional one-off revenue upside from higher stamp duty collections and MAS contributions. Another example was the 2011 budget, which had one-off growth dividends totaling SGD1.5 billion as part of a Grow and Share Package to share the fruits of Singapore’s exceptional economic growth in 2010.⁷⁷

Endowment and Trust Funds (ETFs)

ETFs are special funds typically used to meet the spending needs of long-term challenges. From a budgeting perspective, these special funds enable money to be set aside in years when fiscal space is available to meet long-term spending commitments, within the constraints of the fiscal rules on past reserves.⁷⁸ Specifically, ETFs support long-term socioeconomic investments, setting aside

⁷⁴ Besides improving existing tax deduction measures and introducing a new tax deduction for innovation activities, the EIS enables eligible businesses to opt to convert up to SGD100,000 of total qualifying expenditure across all qualifying activities for each year of assessment into a non-taxable cash payout at a conversion rate of 20 percent.

⁷⁵ Under an enhanced Assurance Package announced in the FY2024 budget, eligible adult Singaporeans aged 21 and above in 2024 would receive a one-off cash payment of SGD200 to SGD400 in September 2024, depending on their assessable income and property ownership.

⁷⁶ For example, every Singaporean household will receive SGD800 CDC Vouchers as part of more Assurance Package enhancements announced in the FY2025 budget.

⁷⁷ The one-off special transfers to household and businesses in FY2011 budget and FY2018 budget were small at 0.4 percent and 0.1 percent of GDP respectively. Nevertheless, going forward, sharing of unexpected fiscal surplus should consider its impact on the business cycle.

⁷⁸ OECD (2025), “Budgeting in Singapore in 2025”, OECD Papers on Budgeting, Volume 2025/01.

money upfront and using the returns from these special funds to finance social or infrastructure programs.⁷⁹

There are two types of special funds: endowment funds and trust funds.

- a. **For endowment funds, only investment income can be spent.** The principal sum set aside cannot be spent. It is used to generate a stream of investment income to finance programs. These programs are ongoing and, hence, need a recurrent source of income. Examples of endowment funds are the Edusave Endowment Fund, ElderCare Fund, Community Care Endowment Fund and Medical Endowment Fund. As the principal sum cannot be spent, expenditure from endowment funds is roughly equal to the rate of investment return.
- b. **For trust funds, the principal sum, together with the investment income, might be drawn down to meet expenditure needs over multiple years.** Trust funds include the National Research Funds, National Productivity Fund, GST Voucher Fund, Pioneer Generation Fund, Long-term Care Fund, Skills Development Fund, Progressive Wage Credit Scheme Fund, Financial Sector Development Fund, Majulah Package Fund, Changi Airport Development Fund, Coastal and Flood Protection Fund and Future Energy Fund. For example, the Pioneer Generation Fund is used to fund the cohort-based Pioneer Generation Program (PGP), which is required to operate till the last Pioneer had passed on. The Changi Airport Development Fund will be used to develop Changi East, where construction is expected to last for more than a decade.

Top-ups to ETFs embody good fiscal governance and fiscal prudence. Topping up ETFs when fiscal space is available is a fiscally prudent approach that assures the public that sustainable funding is available to meet future needs. Importantly, ETF top-ups are subject to the same annual budget process, fiscal framework and performance management framework as all other spending. For example, ETF top-ups can be found in the Supply Bill and the Revenue and Expenditure Estimates Report, also known as the Budget book, both of which are tabled to Parliament for approval. In addition, the top-up amount for each ETF, as well as the starting and ending fiscal year balance and annual outlay, can be found in financial statements published by either the government, the relevant statutory board that has been appointed as the trustee, agent or custodian, or the Institution of a Public Character or charity. These financial statements are publicly accessible.⁸⁰ Moreover, the agency overseeing each fund is responsible for reviewing the outcomes and key performance indicators (KPIs) to assess whether the fund is meeting its objectives and purposes.⁸¹

Conclusion

Special transfers epitomize the uniquely Singapore’s approach to long-term fiscal planning and fiscal prudence. Special transfers to businesses and households are temporary in nature without adding to recurrent spending, while ETFs pre-fund large, anticipated spending in socioeconomic investments. As cost-of-living pressures abate, untargeted special transfers to Singaporeans, such as CDC Vouchers, could be phased out gradually, and more targeted support to vulnerable households should be adopted. Moreover, while ETF top-ups are governed by an established budget process, it would be useful to communicate the guidelines governing the actual spending of the ETF annually more clearly. Moreover, evaluation of the effectiveness of special transfers, such as 2023 study on the impact of CDC Vouchers, and its assessment results can be used to inform future resource allocation.

⁷⁹ Nee Soon Chia (2018), “The Singapore Way of Calculating Budget Balances”, The Straits Times.

⁸⁰ For instance, the purpose and scope of the Coastal and Flood Protection Fund are defined in the Public Utilities Act, and annual inflows and outflows from top-ups and expenditure are reported in the financial statements of the Public Utilities Board (OECD, 2025).

⁸¹ KPIs include tracking the number and profile of grant recipients, the amount of grants disbursed each year, the recipients’ usage rate of their grants, and details of projects and initiatives funded by the grants. The Ministry of Finance takes into account the progress and KPIs when reviewing the funds (Second Report of the Estimates Committee 2017).

Box E. Singapore's Digital Banks: Early Progress and Key Lessons⁸²

This box provides an overview of the development of digital banks in Singapore, examines key factors driving their expansion, and offers insights into the broader evolution of digital banks across the region.

Background

In line with Singapore's Smart Nation Initiative and its broader strategy to digitalize financial services, the Monetary Authority of Singapore (MAS) introduced a digital bank licensing framework in 2019 to foster innovation, spur competition and promote financial inclusion. Five digital banks began operations between 2021 and 2022: GXS Bank and MariBank, which hold Full Bank⁸³ licenses; ANEXT Bank and Green Link Digital Bank (GLDB), which operate under Wholesale Bank⁸⁴ licenses; and Trust Bank, which holds a full bank license under the Significantly Rooted Foreign Bank⁸⁵ (SRFB) framework but operates as a digital bank (Table E1). Despite Singapore's highly developed banking sector, which is anchored by the three dominant local banks DBS, OCBC and UOB, the strong presence of foreign banks and near-universal financial access,⁸⁶ digital banks have nonetheless carved out a niche and demonstrated encouraging early performance.

Table E1. Overview of Singapore's Five Digital Banks

Bank	License	Start Date	Owner	Targeted Clients
Trust Bank	Full bank	December 2021	Standard Chartered Bank and FairPrice Group	Individuals and National Trades Union Congress (NTUC) union members
GXS Bank	Full bank	April 2022	Grab Holdings and Singapore Telecommunications (Singtel)	Individuals, sole proprietors and SMEs
MariBank	Full bank	July 2022	Sea Group ¹	Shopee retail customers and SMEs
GLDB	Wholesale bank	June 2022	Greenland Holdings and Linklogis ²	Micro, small and medium enterprises (MSMEs), SMEs and corporates
ANEXT Bank	Wholesale bank	June 2022	Ant International	Start-ups and SMEs

Source: Fintech News Network; digital banks' websites; AMRO compilation

Note: 1. The Sea Group is a consumer internet company which operates the Shopee e-commerce platform in Southeast Asia.

2. The Greenland Group is a Chinese real estate developer. Linklogis is a technology solutions provider of supply chain finance (SCF) in China.

Performance of Singapore's Digital Banks

Digital banks in Singapore have experienced rapid growth over the past two years. Their aggregate assets expanded by 1.9 times year on year in 2023 and 1.2 times in 2024. On a full-year comparison basis,⁸⁷ aggregate loans had tripled by end-2024 while aggregate deposits had more than doubled since end-2023. However, these digital banks' market share in total commercial bank assets, loans and deposits remain low at 0.30, 0.19 and 0.45 percent, respectively (Figure E1). Some digital banks have made significant progress in attracting customers, with Trust Bank reported to have reached one million customers in early 2025,⁸⁸ making it the fourth-largest retail bank in Singapore by customer base.

Digital banks in Singapore offer tailored financial products to individuals and SMEs, ranging from savings and lending to flexible instalment plans. Retail-focused DFBs tap their ecosystem data, such as e-commerce purchases and ride hailing, to serve the underbanked and unbanked and provide personalized services. Some of them have expanded into investment and insurance through partnerships. DWBs target thin-file SMEs using alternative data such as e-commerce transactions and supply chain information to complement traditional credit assessment. Their common features include remote onboarding, fast loan approval, fee-less accounts, gamified interfaces and alternative credit assessment, which have improved user experience and enhanced financial inclusion. With

⁸² Prepared by Leilei Lu, Economist

⁸³ DFBs are allowed to take deposits from and provide banking services to retail and non-retail customers.

⁸⁴ DWBs are allowed to take deposits from and provide banking services to SMEs and other non-retail customers.

⁸⁵ Standard Chartered was awarded SRFB status in 2020 and thus gained another full-bank license to operate new or alternative business models, such as a digital-only bank.

⁸⁶ The World Bank's Global Findex Database 2025 shows that 98 percent of the population aged 15 or above in Singapore have an account at a bank or financial institution or a mobile money account, and 95 percent own a debit card.

⁸⁷ As most digital banks in Singapore started operations around mid-2022, full-year aggregate data on loans and deposits became available and comparable only from 2023 onwards.

⁸⁸ <https://trustbank.sg/newsroom/thank-you-to-our-one-million-customers/>

core offerings established, most digital banks are scaling up lending, as seen in their rising loan-to-deposit (LTD) ratios by end-2024 (Figure E2).

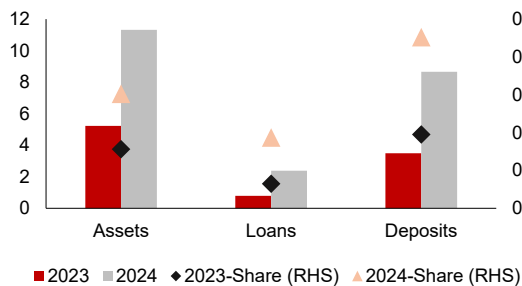
While digital banks in Singapore continue to report losses in the early years of operation, signs of improving cost efficiency have emerged. At this early stage of development, significant investments are required to build technology infrastructure, acquire talent and develop innovative products while revenue streams remain limited. These factors, combined with extensive marketing campaigns, have contributed to consecutive losses in the initial years of operation. Nonetheless, operating expenses are stabilizing and cost efficiency is improving, underpinning gradual improvements in return on equity (Figure E2). As digital banks grow, they are expected to lower marginal costs and strengthen operating leverage with a larger customer base and broader business scope,⁸⁹ supporting future profitability.

Key Drivers

Singapore’s digital banks have gained early traction despite the market’s maturity, driven by digital-native advantages and local enablers. Like peers elsewhere, they leverage modern cloud-native systems for agility, enabling fast Application Programming Interface (API) integration, rapid product launches and mobile-first paperless banking. They also draw on advanced data analytics and artificial intelligence for credit assessment and personalization, as well as biometric authentication to enhance security, which together strengthen their appeal to digitally savvy users.

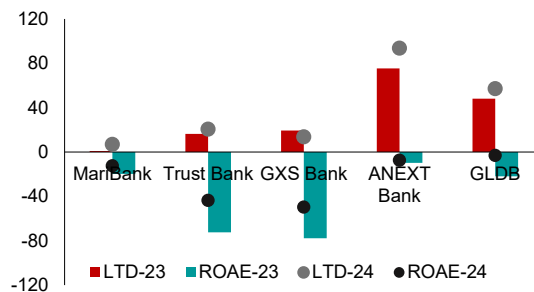
Distinctively, they target underserved segments such as gig workers, the self-employed and youth through simplified onboarding, flexible credit and rewards tied to daily spending, attracting early adopters and achieving growth via word of mouth. A key differentiator is their integration with large tech and e-commerce ecosystems. As mandated by the MAS, digital banks must be backed by tech or platform players, granting them instant access to broad user bases and rich behavioral data. This arrangement supports embedded finance, namely, contextual banking within everyday platforms, enhancing engagement and personalization.

Figure E1. Digital Banks’ Assets, Loans and Deposits and Their Share in Commercial Banks
(SGD bn; percent)



Source: Digital banks’ financial statements; MAS’ website; AMRO staff calculations

Figure E2. LTD Ratio and ROAE of Digital Banks
(Percent)



Source: Digital banks’ financial statements; Moody’s BankFocus; AMRO staff compilation

Note: ROAE stands for return on average equity. Due to data availability, only 2023 and 2024 data is displayed here.

Way Forward

While Singapore’s digital banks have made promising early strides in service innovation and customer acquisition, important challenges remain. One is in retaining customers beyond initial marketing campaigns, as many users still treat digital banks as secondary accounts. Building long-term loyalty will require broader service offerings and deeper engagement. Another challenge is in achieving sustainable profitability. With high initial costs and limited revenue streams, digital banks must scale up to bring down average costs, manage risks effectively, broaden their product spectrum with more innovative features and expand into services with stronger profit potential. Nonetheless, by building on the early momentum and leveraging their ecosystem strengths, digital banks can strengthen their foothold and play a bigger role in Singapore’s evolving financial landscape.

⁸⁹ The MAS has adopted a phased-in approach for digital banks, imposing restrictions during the initial years of operations to allow a gradual scale-up of activities. This calibrated framework enables banks to test and learn as they grow their businesses while ensuring that adequate controls are put in place, commensurate with the size and complexity of their operations.

Box F. Johor-Singapore Special Economic Zone as Potential Blueprint for Regional Collaboration⁹⁰

This box examines the Johor-Singapore Special Economic Zone (JS-SEZ) as a potential blueprint for regional collaboration, focusing on its “twinning” model, which leverages the complementary strengths of the two locations and the strong cross-border government partnership that underpins its progress.

The establishment of the Johor-Singapore Special Economic Zone (JS-SEZ) in January 2025 reaffirmed the commitment of Singapore and Malaysia to deepen their bilateral economic ties. While the idea of special economic zones in the region is not new, the JS-SEZ has generated renewed optimism among observers, who welcome the firm political support for the partnership from both governments at a time when protectionist policies in the United States are generating uncertainties in trade and investment across the world.

The JS-SEZ spans nine flagship zones that will host strategic sectors⁹¹ from manufacturing to modern services under a “twinning” model that leverages the complementary strengths of Singapore and Johor. Singapore offers advantages as a hub for research and development, finance and logistics, while Johor provides ample land, lower operating costs and a larger labor pool. These synergies, underpinned by geographical proximity, position the JS-SEZ as a launchpad for Singaporean firms to expand internationally, while also attracting multinational companies seeking a stable gateway to the ASEAN market. The clustering of multinational firms could in turn draw more SMEs into their supply chains.

Breaking Down Barriers to Cross-border Investment

To realize this vision, Singapore and Malaysia are collaborating on many fronts to improve the cross-border investment environment.

First, joint training partnerships are being developed to ease labor shortages, which remain among top business concerns. According to the Johor-Singapore Special Economic Zone Proposal published in 2024 by the Singapore Business Working Group, 58 percent of Singaporean businesses operating in Johor reported difficulties sourcing skilled labor, while 27 percent cited shortages of unskilled workers. Human capital development is therefore a central focus of the JS-SEZ partnership. Singapore’s universities and polytechnics, equipped with strong training expertise, will partner with training institutions in Johor to build a vocational training system that supplies workers to match industry demand. Beyond developing local labor, however, the JS-SEZ can also consider greater flexibility in acquiring foreign workers.

Second, new systems and infrastructure are being put in place to ease congestion at the Singapore-Johor border, a long-standing bottleneck for businesses. Singapore introduced passport-free QR code immigration clearance in 2024 to expedite travel. Concurrently, the Rapid Transit System (RTS) Link, scheduled for completion in 2026, will provide a faster option for border crossing and ease jams at the Causeway bridging the two sides. A remaining challenge lies in strengthening connectivity between the RTS Link and the wider SEZ, as well as with Kuala Lumpur.

Third, both governments are collaborating to improve the ease of doing business in the JS-SEZ. The fragmented and time-consuming investment approval process has been another obstacle hindering investment. On the Malaysian side, the Invest Malaysia Facilitation Centre - Johor (IMFC-J) has been established as a one-stop shop to streamline investment procedures in the zone. On the Singaporean side, the Ministry of Trade and Industry, Enterprise Singapore and the Economic Development Board have set up a Joint Project Office to work closely with IMFC-J and Singaporean firms to accelerate investment approvals and troubleshoot specific issues. These coordinated efforts could significantly shorten the time from investment intention to realization, boosting attractiveness of the JS-SEZ.

Blueprint for Regional Partnerships

Since its launch in January, the JS-SEZ has attracted strong interest from the business community. While actual investments have been gradual, the pipeline is expected to expand steadily in the coming years. The long-term success of the initiative, however, will depend on continued

⁹⁰ Prepared by Pim-orn Wacharapapong, Economist

⁹¹ The JS-SEZ consists of nine flagship zones in southern Johor: Johor Bahru Waterfront, Iskandar Puteri, Tanjung Pelepas, Tanjung Langsat – Kong-kong, Senai-Skudai, Kulai-Sedenak, Desaru-Penawar, Forest City, and Pengerang. The strategic economic sectors include logistics, manufacturing, financial services, business services, the digital economy, tourism, food security, education, health, energy and the green economy.

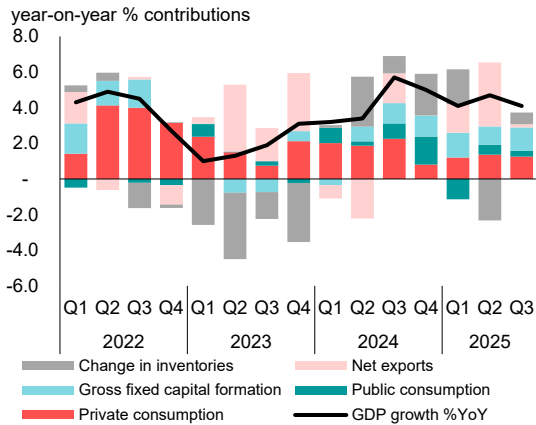
political commitment and tangible progress in resolving the identified challenges, which are critical to sustaining investor confidence in the zone's attractiveness. If successful, the JS-SEZ could serve as a blueprint for similar collaboration between Singapore and other ASEAN members, and among other ASEAN members, by demonstrating how economic complementarities, trusted government partnerships, and streamlined processes and regulations can unlock new growth opportunities.

Appendices

Appendix 1. Selected Figures for Major Economic Indicators

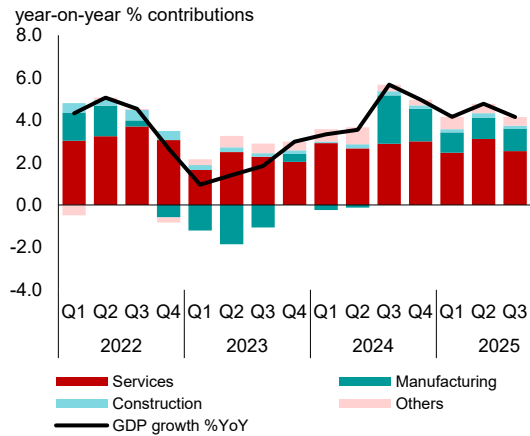
Figure 1.1. Real Sector

Singapore's economic growth strengthened to 4.4 percent in 2024.



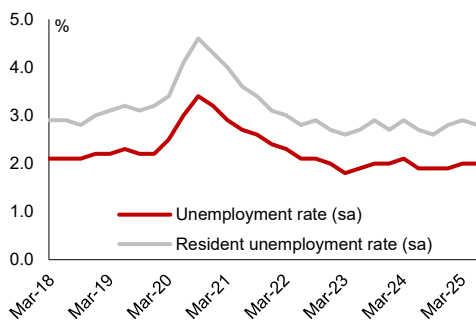
Source: Department of Statistics; CEIC; AMRO staff calculations

Both services and manufacturing posted robust growth in H2 2024 and H1 2025



Source: Department of Statistics; CEIC; AMRO staff calculations

The unemployment rate stabilized close to pre-pandemic levels



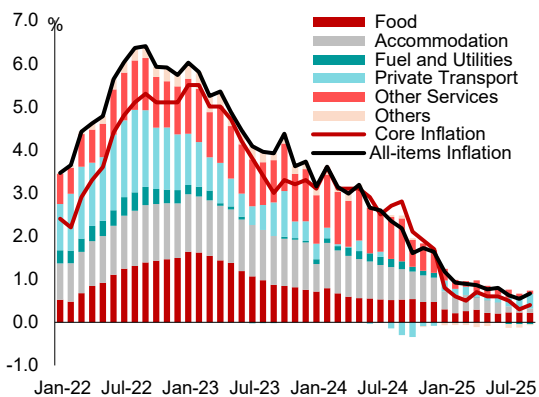
Source: Ministry of Manpower; CEIC; AMRO staff calculations

The ratio of job vacancies to job seeker eased from the pandemic peak



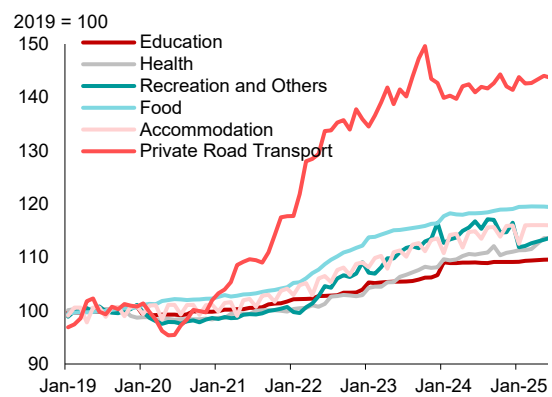
Source: Ministry of Manpower; CEIC; AMRO staff calculations

Inflation moderated across most categories



Source: Department of Statistics; CEIC; AMRO staff calculations

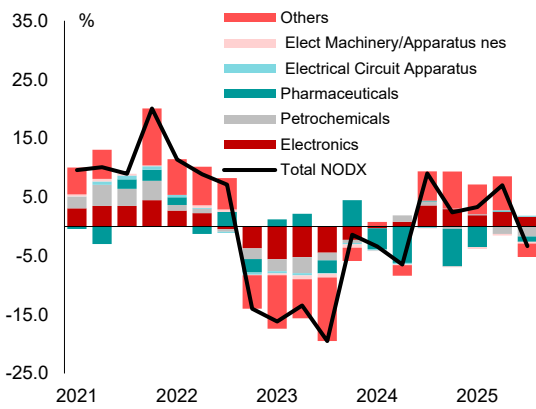
But prices remained elevated compared to pre-pandemic



Source: Department of Statistics; CEIC; AMRO staff calculations

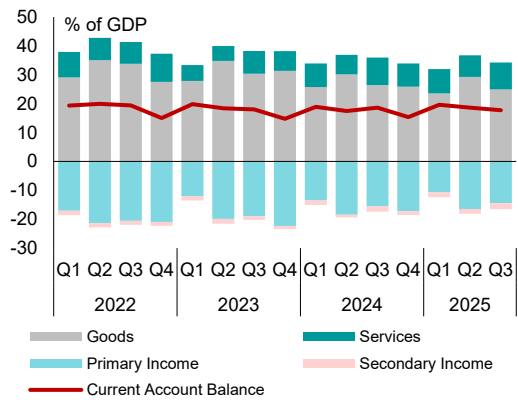
Figure 1.2. External Sector

Non-oil domestic exports (NODX) posted robust growth in H2 2024 and H1 2025



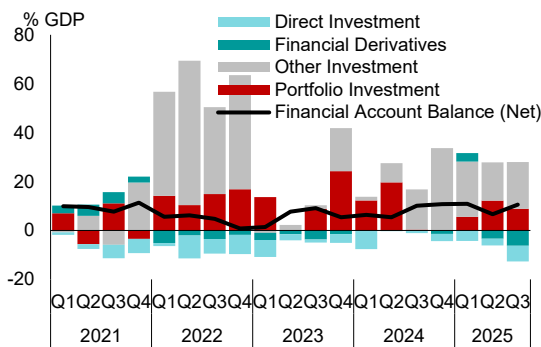
Source: Department of Statistics; CEIC; AMRO staff calculations

The current account balance recorded a persistent surplus at close to 20 percent of GDP



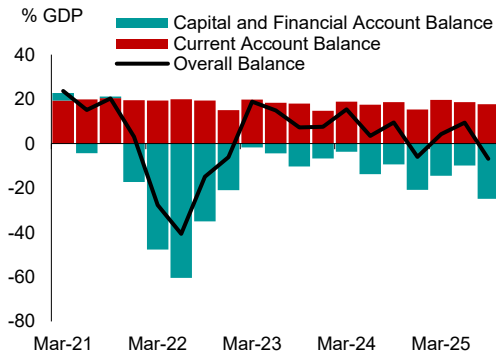
Source: Department of Statistics; CEIC; AMRO staff calculations

The financial account registered lower net outflows in H1 2025.



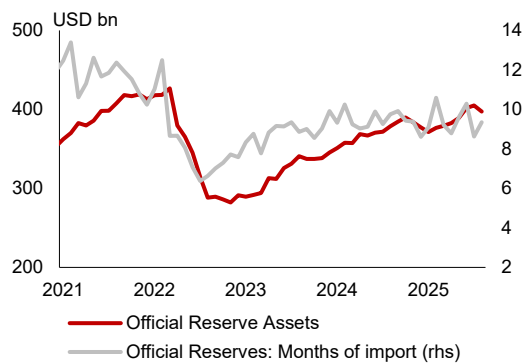
Source: Department of Statistics; CEIC; AMRO staff calculations

The overall balance of payments averaged 5 percent of GDP in 2024



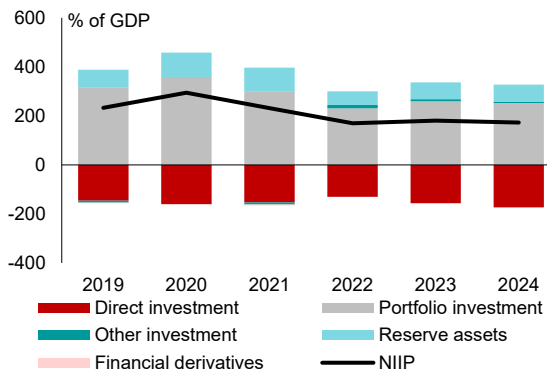
Source: Department of Statistics; CEIC; AMRO staff calculations

International reserves remained ample



Source: Department of Statistics; CEIC; AMRO staff calculations

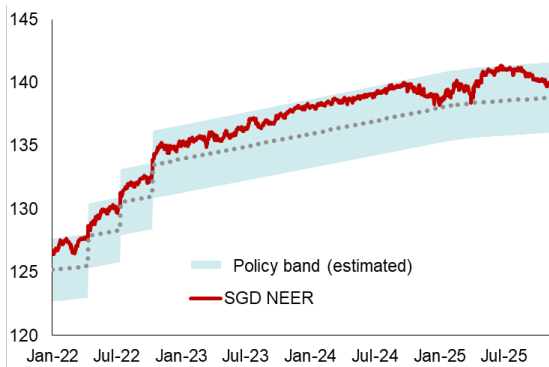
The net international investment position stayed in a strong net asset position



Source: Department of Statistics; CEIC; AMRO staff calculations

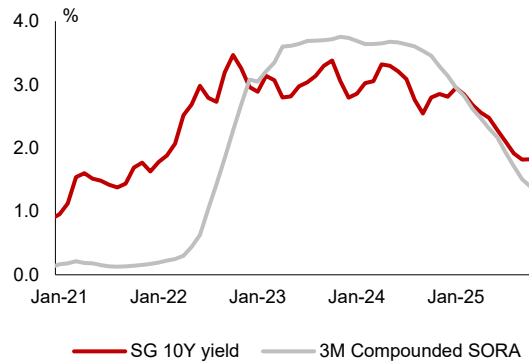
Figure 1.3. Monetary and Financial Sector

The MAS slightly reduced the slope of the S\$NEER policy band in 2025



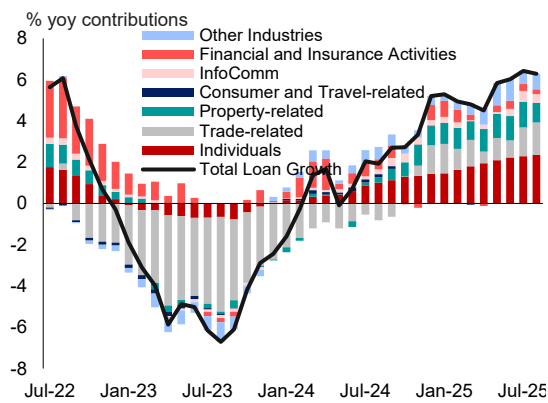
Source: MAS; CEIC; Goldman Sachs; Bloomberg; AMRO staff calculations

Singapore interest rates declined.



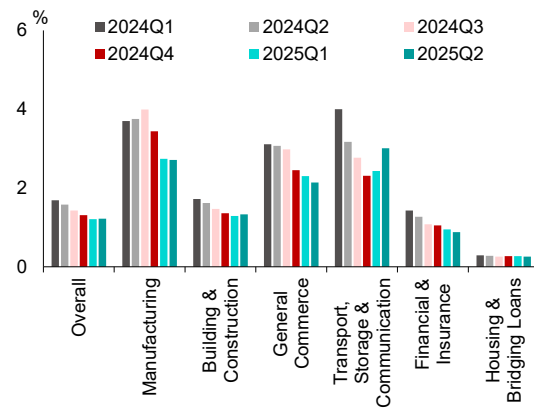
Source: MAS; Haver Analytics; AMRO staff calculations

Bank lending to residents rose from H2 2024 in tandem with economic growth trends



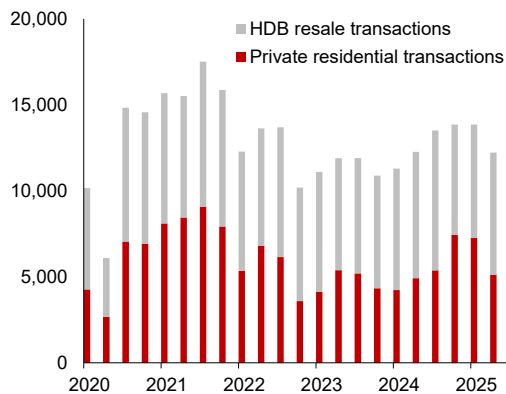
Source: MAS; CEIC; AMRO staff calculations

The overall NPL ratio declined



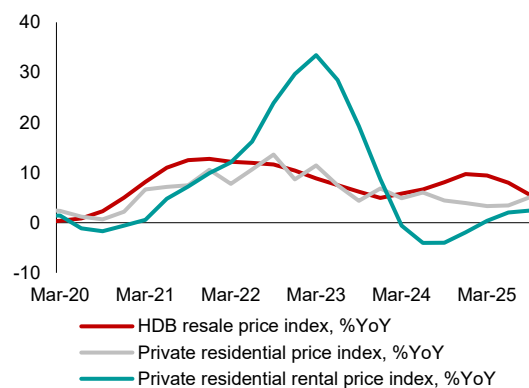
Source: MAS; CEIC; AMRO staff calculations

Overall residential transactions stabilized



Source: MAS; CEIC; AMRO staff calculations

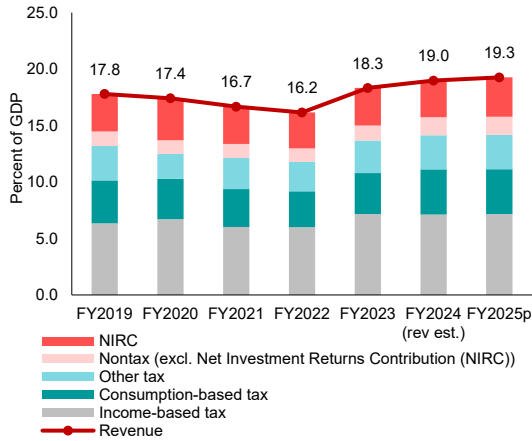
Residential prices are moderating



Source: Urban Redevelopment Authority (URA); Haver Analytics

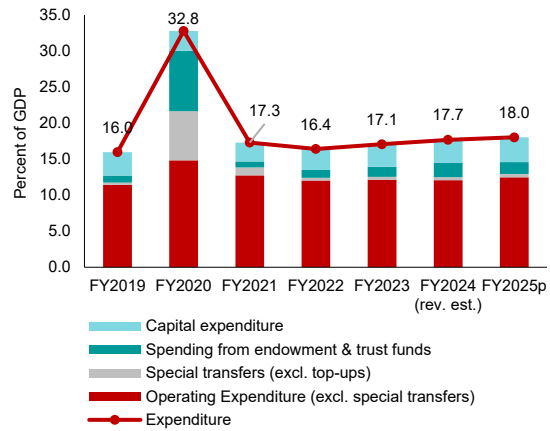
Figure 1.4. Fiscal Sector

Revenue has been robust and surpassing pre-pandemic levels...



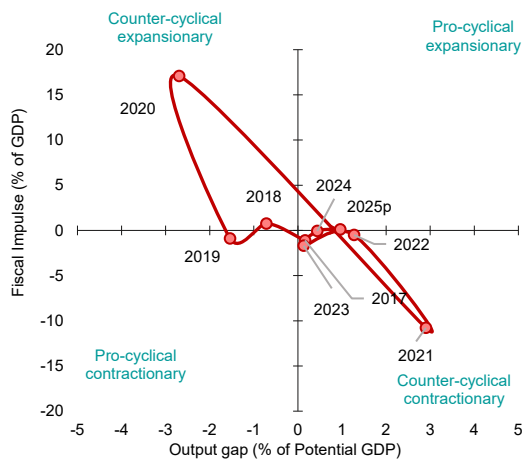
Source: Ministry of Finance; Haver Analytics; AMRO staff calculations

... which more than offsets the increase in expenditure since FY2023



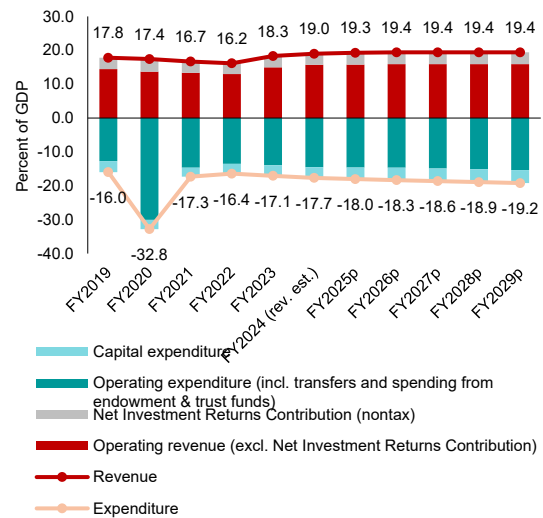
Source: Ministry of Finance; Haver Analytics; AMRO staff calculations

The fiscal stance in FY2025 is assessed to be neutral



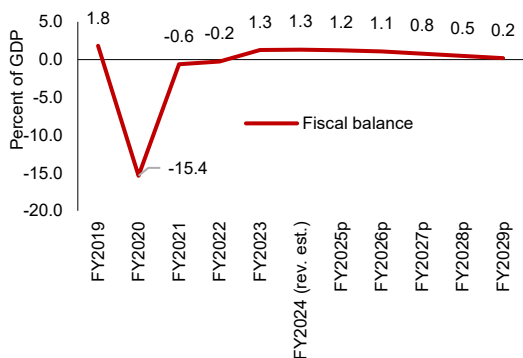
Source: Ministry of Finance; Haver Analytics; AMRO staff calculations

For the medium term, while revenue is projected to be higher than expenditure, the gap could narrow...



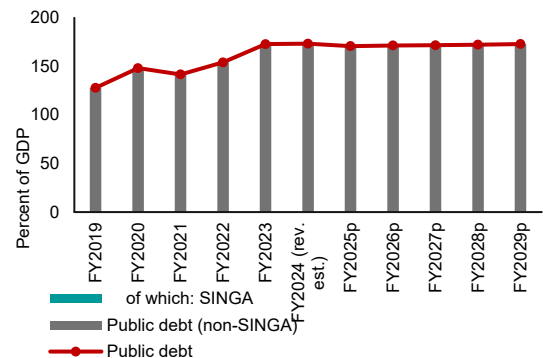
Source: Ministry of Finance; Haver Analytics; AMRO staff calculations

... as a result, the fiscal surplus is projected to be lower over the medium term



Source: Ministry of Finance; Haver Analytics; AMRO staff calculations

While the gross public debt-to-GDP ratio is high, the debt is primarily issued for non-spending purposes



Source: Ministry of Finance; Haver Analytics; AMRO staff calculations

Appendix 2. Selected Economic Indicators for Singapore

	2021	2022	2023	2024	Projections	
					2025	2026
Real sector	(in annual percentage change, unless otherwise indicated)					
Real GDP	9.8	4.1	1.8	4.4	4.1	2.5
Private consumption	7.2	9.7	4.9	4.8	4.8	3.0
Government consumption	3.9	-2.3	1.8	8.3	3.5	2.0
Gross fixed capital formation	23.2	4.7	-0.9	2.9	5.5	3.5
Exports of goods & services	8.8	4.9	5.7	5.4	3.8	1.0
Imports of goods & services	8.9	5.8	5.3	6.6	3.5	0.9
MAS core inflation	0.9	4.1	4.2	2.8	0.7	0.9
Headline inflation	2.3	6.1	4.8	2.4	0.9	0.8
Overall unemployment rate, Annual Average	2.8	2.1	1.9	2.0	2.0	2.2
External sector	(in percentage of GDP, unless otherwise indicated)					
Current account	19.8	18.4	17.7	17.5	18.8	18.8
Goods balance	27.8	31.5	31.1	27.1	27.0	26.7
Capital and Financial Account balance	4.8	41.1	5.8	12.0	13.7	9.6
Direct investment (net)	-16.6	-17.6	-18.5	-17.7	-12.5	-13.0
Portfolio investment (net)	16.9	12.1	19.4	14.4	14.1	12.8
Other investment (net)	5.1	46.1	5.2	15.0	11.8	9.5
Derivatives (net)	-0.6	0.5	-0.3	0.3	0.3	0.3
Errors and omissions	0.1	0.3	0.2	-0.1	0.0	0.0
Overall Balance of Payments	15.2	-22.4	12.1	5.4	5.1	9.2
Net Investment International Position	231.3	166.8	176.1	149.6	-	-
International Reserves (USD bn, end period)	417.9	289.5	351.0	371.4	-	-
Fiscal Sector⁹²	FY21	FY22	FY23	FY24	FY25	FY26
Revenue (% GDP)	16.7	16.2	18.3	19.0	19.3	19.4
Operating Revenue (% GDP)	13.4	13.0	15.0	15.7	15.8	15.9
Net Investment Returns Contribution (% GDP)	3.3	3.2	3.3	3.2	3.5	3.5
Total Expenditure (% GDP)	17.3	16.4	17.1	17.7	18.0	18.3
Operating expenditure, including transfers and spending from funds (% GDP)	14.7	13.5	13.9	14.5	14.6	14.7
Development expenditure	2.6	2.9	3.1	3.2	3.4	3.7
Fiscal Balance (% GDP): AMRO	-0.6	-0.2	1.3	1.3	1.2	1.1
Fiscal Balance (%GDP): Authorities ⁹³	0.3	0.3	-0.4	1.0	0.9	-
Monetary	(in annual percentage change, unless otherwise specified)					
3-month compound SORA (% end period)	0.19	3.03	3.70	3.03	-	-
Broad Money, M2	8.8	7.8	3.2	6.7	-	-
Narrow Money, M1	15.4	-13.0	-0.4	8.6	-	-
Resident Nonbank Loan Growth	9.3	-0.3	-2.4	5.2	-	-
Non-Resident Nonbank Loan Growth	5.7	-5.0	-2.0	0.6	-	-
Memorandum Items						
Straits Times Index (end period)	3124	3251	3240	3788	-	-
Nominal GDP (SGD, bn)	586.6	701.8	678.7	731.4	-	-
Nominal GDP (USD, bn)	436.6	509.0	505.4	547.5	-	-
Private Residential Property Index (2009Q1=100)	173.6	188.6	201.5	209.4	-	-
Exchange rate (in SGD/USD, period average)	1.34	1.38	1.34	1.34	-	-
Government debt (% GDP) ⁹⁴	141.7	154.1	172.9	173.4	170.8	171.5

⁹² Fiscal figures in FY2025 (mainly based on Budget) and FY2026 are AMRO's projections.

⁹³ The difference between the fiscal balance derived by the authorities and by AMRO is mainly due to the treatment of SINGA and top-ups to endowment and trust funds. The authorities include the capitalization of SINGA as an "above-the-line" item contributing to a more positive fiscal balance, while AMRO considers this as a "below-the-line" item, which does not affect the fiscal balance but adds to public debt. Additionally, the authorities' expenditure accounting considers top-ups to funds, while AMRO considers only the actual spending from these funds, in relation to the macroeconomic impact of fiscal policy.

⁹⁴ See Box A Understanding Singapore's Public Debt.

Appendix 3. Medium-term Projections for Key Economic Indicators

	2025	2026	2027	2028	2029
Real sector	(in annual percentage change, unless otherwise indicated)				
Real GDP	4.1	2.5	2.9	2.8	2.7
MAS core inflation	0.7	0.9	1.5	1.8	1.8
Headline inflation	0.9	0.8	1.5	1.8	1.8
Overall unemployment rate, Annual Average	2.0	2.2	2.0	2.0	2.0
External sector	(in percentage of GDP, unless otherwise indicated)				
Current account	18.8	18.8	20.4	22.9	25.7
Capital and Financial Account balance	13.7	9.6	10.3	12.3	14.0
Overall Balance of Payments	5.1	9.2	10.1	10.6	11.6
Fiscal Sector⁹⁵	FY2025	FY2026	FY2027	FY2028	FY2029
Revenue ⁹⁶ (% GDP)	19.3	19.4	19.4	19.4	19.4
Expenditure ⁹⁷ (% GDP)	18.0	18.3	18.6	18.9	19.2
Fiscal Balance ⁹⁸ (% GDP)	1.2	1.1	0.8	0.5	0.2
Government Debt ⁹⁹ (% GDP)	170.8	171.5	171.8	172.3	173.0

⁹⁵ AMRO's projections.

⁹⁶ Includes Net Investment Returns Contribution.

⁹⁷ Includes spending from endowment and trust funds.

⁹⁸ Fiscal balance is based on AMRO staff estimates, which differ from the authorities' estimates (see footnote 94).

⁹⁹ See Box A Understanding Singapore's Public Debt.

Appendix 4. Balance of Payments

	2019	2020	2021	2022	2023	2024
	(in percent of GDP, unless otherwise indicated)					
Current Account	15.4	17.5	19.8	18.4	17.7	17.5
Goods Balance	25.2	29.5	27.8	31.5	31.1	27.1
Exports	117.0	119.5	117.5	119.4	110.7	106.5
Imports	91.8	90.1	89.7	87.9	79.6	79.4
Services Balance	4.2	2.1	8.5	8.4	6.3	8.1
Exports	59.9	62.3	65.2	66.7	70.9	72.3
Imports	55.7	60.2	56.7	58.3	64.6	64.1
Primary Income Balance	-12.1	-12.8	-15.0	-20.0	-18.4	-16.3
Secondary Income Balance	-1.9	-1.2	-1.4	-1.4	-1.3	-1.4
Capital and Financial Account	18.1	-3.7	4.8	41.1	5.8	12.0
Direct Investment	-9.9	-10.0	-16.6	-17.6	-18.5	-17.7
Assets	18.4	12.8	16.7	11.9	7.7	10.1
Liabilities	28.3	22.8	33.3	29.4	26.2	27.8
Portfolio Investment	29.0	17.0	16.9	12.1	19.4	14.4
Assets	30.6	15.9	20.1	17.0	20.0	19.8
Liabilities	1.6	-1.0	3.2	4.9	0.6	5.5
Other Investments	-2.8	-9.8	5.1	46.1	5.2	15.0
Assets	11.6	17.2	21.0	50.0	2.2	27.5
Liabilities	14.4	27.0	15.9	3.9	-3.0	12.5
Financial Derivatives	1.8	-0.8	-0.6	0.5	-0.3	0.3
Overall Balance	-2.2	21.4	15.2	-22.4	12.1	5.4
Net International Investment Position (SGD bn, end period)	1,194.2	1,419.0	1,357.0	1,170.5	1,194.9	1,094.1
External Assets	5,826.0	6,536.9	7,067.1	7,217.7	7,462.9	8,040.9
External Liabilities	4,631.7	5,117.9	5,710.2	6,047.1	6,268.0	6,946.8

Appendix 5. Statement of Government Operations

	FY2020	FY2021	FY2022	FY2023	FY2024 (revised est.)	FY2025 (Budget)
	(in billions of SGD, unless otherwise indicated)					
Revenue (Overall)	85.6	102.9	113.4	126.4	140.6	149.9
% of GDP	17.4	16.7	16.2	18.3	19.0	19.3 -
% yoy	-6.2	20.1	10.2	11.5	11.3	6.6
Operating Revenue	67.4	82.5	91.0	103.4	116.6	122.8
Tax Revenue	61.4	74.8	82.7	94.3	104.8	110.3
Income Tax	33.0	37.1	42.2	49.4	52.8	55.7
Corporate Income Tax	16.1	18.2	23.1	29.0	30.9	32.7
Personal Income Tax	12.7	14.2	15.5	17.5	19.0	20.2
Withholding Tax	1.6	1.9	2.1	2.2	2.3	2.4
Statutory Board's Contribution	2.5	2.9	1.5	0.7	0.6	0.4
Assets Taxes	3.1	4.7	5.1	5.9	6.7	6.9
Customs, Excise and Carbon Taxes	3.6	3.7	3.5	3.3	3.5	4.0
Goods and Services Tax	10.3	12.6	14.1	16.6	20.6	21.7
Motor Vehicle Taxes	2.1	2.2	2.2	2.1	2.5	2.6
Betting Taxes	1.7	2.3	2.8	3.2	3.2	3.3
Stamp Duty	3.9	6.8	6.0	5.8	6.4	5.9
Other Taxes	3.6	5.3	7.0	7.9	9.1	10.2
Fees and Charges	5.5	6.8	7.7	8.5	11.1	11.7
Vehicle Quota Premiums	2.3	3.2	3.8	4.5	6.5	6.6
Other Fees and Charges	3.2	3.6	3.9	4.1	4.6	5.1
Other Receipts	0.5	0.9	0.6	0.6	0.8	0.8
Net Investment Returns Contribution (NIRC)	18.2	20.4	22.4	23.0	24.0	27.1
Expenditure (Overall)	161.2	106.7	115.1	117.7	131.0	140.3
% of GDP	32.8	17.3	16.4	17.1	17.7	18.0
% yoy						
Expenditure (Operating & Development)	86.4	94.8	104.9	105.3	112.9	123.8
Social Development	44.5	47.0	51.8	52.0	55.9	61.3
Security and External Relations	20.5	23.7	25.4	28.0	29.9	33.2
Economic Development	18.7	20.7	24.3	21.7	23.0	24.5
Government Administration	2.6	3.3	3.3	3.6	4.1	4.7
Special transfers (including spending from Endowment and Trust Funds)¹⁰⁰	74.8	11.9	10.3	12.4	18.1	16.5
AMRO's Fiscal Balance¹⁰¹	-75.5	-3.8	-1.7	8.7	9.7	9.6
% of GDP	-15.4	-0.6	-0.2	1.3	1.3	1.2
<u>Authorities' Computation of Fiscal Balance:</u>						
Primary Surplus/Deficit¹⁰²	-19.0	-12.3	-13.8	-1.9	3.7	-1.0
% of GDP	-3.9	-2.0	-2.0	-0.3	0.5	-0.1

¹⁰⁰ Spending from Endowment and Trust Funds for FY2025 is AMRO's staff estimates. The Budget FY2025 only contains estimates of top-ups to Endowment and Trust Funds.

¹⁰¹ AMRO's fiscal balance is derived from overall revenue (including NIRC) minus overall expenditure (including spending from Endowment and Trust Funds).

¹⁰² Operating revenue minus expenditure (operating and development).

Less: Special transfers (excl. top-ups to Endowment and Trust Funds)	33.5	6.8	2.7	2.8	3.1	3.8
Basic Surplus/Deficit	-52.5	-19.1	-16.5	-4.6	0.6	-4.8
% of GDP	-10.7	-3.1	-2.4	-0.7	0.1	-0.6
Less: Top-ups to Endowment and Trust Funds	17.3	0.0	6.3	24.3	22.1	19.6
Add: NIRC	18.2	20.4	22.4	23.0	24.0	27.1
Overall Budget Surplus/Deficit	-51.6	1.2	-0.4	-6.0	2.6	2.7
% of GDP	-10.5	0.2	-0.1	-0.9	0.4	0.4
Add: Capitalization of Nationally Significant Infrastructure, net of Depreciation		0.7	2.2	3.6	4.2	4.6
Less: SINGA Interest Costs and Loan Expenses			0.1	0.2	0.4	0.6
Overall Fiscal Position	-51.6	1.9	1.7	-2.6	6.4	6.8
% of GDP	-10.5	0.3	0.2	-0.4	0.9	0.9

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 one month of the end of the reference quarter	-	-	-

Appendix 7. Climate Clipboard—Risks, Responses and Opportunities¹⁰³

A. Physical risks						
Exposure/Sources of risk	Potential macro-financial impacts					
<ul style="list-style-type: none"> Threat of rising sea levels: 30 percent of the island is less than 5 meters above sea level. Mean sea levels could rise 0.23 to 1.15 meters by 2100 under low to high emission scenarios, and up to around 2 meters by 2150 under a high emission scenario, based on Climate Research Singapore's Third National Climate Change Study (V3) (cited from MSE). Coastal flooding (acute, chronic) Higher temperatures Drought (acute, chronic) 	<ul style="list-style-type: none"> Coastal flooding can disrupt production and business and cause loss of life and property. Lower productivity under warmer temperatures may increase heat stress and vector-borne diseases such as dengue. Higher temperatures could lead to thermal discomfort requiring greater use of air-conditioning, increasing Singapore's energy usage and costs. 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					
<ul style="list-style-type: none"> Lack or absence of renewable energy resources Phaseout of unabated coal 	<ul style="list-style-type: none"> Inability to seek alternative renewable energy in the long term could disrupt energy supply for production activities and business continuity in the financial sector, in industry and corporates, and in SMEs. Inflation could increase due to the rising pathway for carbon taxes. 					
C. Adaptation response framework and strategies						
Adaptation framework	Key initiatives/strategies	Estimated financing need and sources				
<ul style="list-style-type: none"> Third National Climate Change Study (2024) First Adaptation Communication Pursuant to the Paris Agreement (Nov 2022) Climate Action Plan (2016) 	<ul style="list-style-type: none"> Adaptation efforts include: <ul style="list-style-type: none"> Flood and coastal resilience Heat resilience Biodiversity and greenery Infrastructure resilience Food resilience Public health (SG Adaptation Plans) Since April 2020, Singapore's national water agency Public Utilities Board (PUB) has taken on the role of national coastal protection agency. By combining coastal protection responsibilities with its stormwater management functions, PUB will look at inland and coastal flooding holistically to strengthen Singapore's resilience against climate change. 	<ul style="list-style-type: none"> USD573 million (0.17 percent of GDP) per annum under a worst-case scenario with 2.0 degree warming (UNESCAP). <table border="1"> <thead> <tr> <th>Domestic</th> <th>External</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Annual budget </td> <td> <ul style="list-style-type: none"> Global Environment Facility </td> </tr> </tbody> </table>	Domestic	External	<ul style="list-style-type: none"> Annual budget 	<ul style="list-style-type: none"> Global Environment Facility
Domestic	External					
<ul style="list-style-type: none"> Annual budget 	<ul style="list-style-type: none"> Global Environment Facility 					
D. Mitigation response framework and strategies						
Nationally Determined Contribution (NDC)	National framework/strategies	Estimated financing and sources				
<ul style="list-style-type: none"> Reduce emission levels in 2035 to 45 to 50 million tons (Mt) CO₂e (UNFCCC 2025) Reduce emissions to around 60 MtCO₂e before 2030 after peaking emissions earlier (UNFCCC 2020) 	<p>A. To achieve net-zero emissions by 2050, Singapore is accelerating the low-carbon transition for industry, economy and society through these key thrusts:</p> <ol style="list-style-type: none"> Build a low-carbon city and promote sustainable living <ul style="list-style-type: none"> Maximise solar deployment <ul style="list-style-type: none"> Target: To deploy at least 2 gigawatt-peak (GWp) of solar energy by 2030. Has deployed 1.5 GWp as of end-2024, more than triple the capacity since 2020. Green land transport and buildings <ul style="list-style-type: none"> Continuing to make transport and buildings more environmentally friendly. Encourage sustainable and low-carbon consumption <ul style="list-style-type: none"> Promoting lifestyle and consumption changes to reduce the carbon footprint. Catalyze industry and business transformation <ul style="list-style-type: none"> Green transition road maps <ul style="list-style-type: none"> Have published sectoral plans for Aviation, Data Centers, Marine and Offshore, Maritime, Sustainable Jurong Island and Tourism as of February 2025. Industry enablers <ul style="list-style-type: none"> Implementation of energy efficiency regulations and standards. Regulatory reviews and government green procurement initiatives. Enterprise support 	<ul style="list-style-type: none"> Through platforms such as FAST-Partnership (FAST-P) and Green Investments Partnership (GIP), Singapore is mobilizing funds to neighboring countries. These two platforms alone aim to mobilize up to USD5 billion overall in blended finance to support green infrastructure in ASEAN. These funds target marginally bankable projects in renewable energy, electric mobility, water and waste management, and circular economy sectors. The SGD50 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. SGD220 million has been allocated for research and development in resource circularity and water technologies under the 				
Long-term commitment						
<ul style="list-style-type: none"> Achieve net-zero emissions by 2050. 						

¹⁰³ Updated by Laura Britt Fermo, (Deputy Group Head-MFR/Senior Economist)

	<ul style="list-style-type: none"> ○ Programs and resources are available to help businesses improve energy efficiency, reduce emissions, measure and report sustainability, and develop green skills. <p>3. Pursue effective cross-border solutions</p> <ul style="list-style-type: none"> • Regional grid and clean energy imports <ul style="list-style-type: none"> ○ Target: About 6GW of clean energy imports by 2035. ○ As of 2024, Singapore had awarded Conditional Licenses for projects from Indonesia, and Conditional Approvals for projects from Australia, Cambodia, Indonesia and Vietnam. • High-quality carbon credits <ul style="list-style-type: none"> ○ As of October 2025, Singapore had signed Implementation Agreements with Bhutan, Chile, Ghana, Mongolia, Papua New Guinea, Paraguay, Peru, Rwanda, Thailand, and Vietnam. • Cross-border carbon capture and storage <ul style="list-style-type: none"> ○ Target: To capture and store about 2 Mt of carbon per annum by 2030. <p>4. Support measures: Price carbon with carbon tax</p> <ul style="list-style-type: none"> • 2024 <ul style="list-style-type: none"> ○ To raise carbon tax to SGD25 per tonne of CO₂ equivalent (tCO₂e). • By 2030 <ul style="list-style-type: none"> ○ To progressively increase the carbon tax rate to between SGD50 and SGD80 per tCO₂e. <p>5. Study and invest in low-carbon technologies</p> <ul style="list-style-type: none"> • Singapore is investing in and studying various low-carbon technologies, including: <ul style="list-style-type: none"> ○ Advanced geothermal energy ○ Carbon dioxide removal ○ Advanced nuclear energy ○ Carbon capture and utilization ○ Bioresources ○ Hydrogen and ammonia <p>B. The Singapore Green Plan charts ambitious and concrete targets over the next 10 years, strengthening the country's commitments under the UN's 2030 Sustainable Development Agenda and the Paris Agreement, and positioning itself to achieve its long-term net-zero emission aspiration by 2050.</p> <ul style="list-style-type: none"> • The plan outlines five key pillars: <ul style="list-style-type: none"> ➢ City in Nature ➢ Sustainable Living ➢ Green Economy ➢ Energy Reset, and ➢ Resilient Future • The plan is supported by enablers: <ul style="list-style-type: none"> ➢ Green Government, and ➢ Green Citizenry projects. • The government has set specific targets under each pillar, including: <ul style="list-style-type: none"> ➢ Planting one million more trees, ➢ Quadrupling solar energy deployment by 2025, ➢ Reducing the waste sent to landfills by 30 percent by 2030, ➢ Making at least 20 percent of schools carbon neutral by 2030, and ➢ Requiring all newly registered cars to be cleaner-energy models by 2030. <p>C. Key sectoral strategies and initiatives:</p> <ul style="list-style-type: none"> • National Hydrogen Strategy: to develop infrastructure that uses hydrogen as a key power supply. • Sustainable Air Hub Blueprint: to decarbonize Singapore's aviation sector and achieve sustainable aviation growth. • Singapore Green Building Masterplan: to encourage developers to embed sustainability as part of a building's life cycle from the onset. • Enterprise Sustainability Programme: to support Singaporean companies, especially SMEs, to build capabilities and capture new opportunities through capability and product development projects via the Enterprise Development Grant. 	<p>Research, Innovation and Enterprise 2025 (RIE2025) Urban Solutions and Sustainability domain</p>
<p>E. Enabling regulations for climate resilience</p>		
<p>E.1. Legal framework</p> <ul style="list-style-type: none"> • Extension of climate disclosure <ul style="list-style-type: none"> ➢ The Accounting and Corporate Regulatory Authority (ACRA) and Singapore Exchange Regulation (SGX RegCo) have extended the timelines for implementing climate reporting (including external assurance) requirements in August 2025 to support listed companies and large non-listed companies 	<p>E.3. Carbon pricing frameworks</p> <ul style="list-style-type: none"> • Carbon Pricing Act (Jan 2019) <ul style="list-style-type: none"> ➢ The carbon tax was set at SGD5/tCO₂e from 2019 to 2023 as a transition period to give the industry time to adjust to its impact. It was raised to SGD25/tCO₂e in 2024 and will be increased further to SGD45/tCO₂e in 2026 and 2027, with a view to 	<p>E.4. Sustainable finance frameworks</p> <ul style="list-style-type: none"> • Singapore Green Bond Framework (June 2022) <ul style="list-style-type: none"> ➢ The framework lists eight categories of green projects that may be financed by Singapore's sovereign green bonds. ➢ Singapore's sovereign green bonds are used to finance major, long-term domestic green infrastructure that qualifies under the framework.

<p>(NLCos) in developing reporting capabilities.</p> <p>➤ All listed companies will continue to report Scope 1 and 2 greenhouse gas (GHG) emissions from the financial year starting on or after January 1, 2025, while Straits Times Index (STI) constituents will continue to lead efforts to implement other International Sustainability Standards Board-based (ISSB-based) climate-related disclosures (CRDs) from FY2025, and Scope 3 GHG emissions from FY2026 (ACRA website).</p>	<p>reaching SGD50-SGD80/tCO2e by 2030.</p>	
<p>E.2. GHG accounting framework</p>		
<ul style="list-style-type: none"> SGX RegCo's Listing Rules require listed companies to report Scope 1 and 2 GHG emissions in accordance with the IFRS Sustainability Disclosure Standards from FY2025, with STI constituents to report Scope 3 GHG emissions from FY2026. 		
<p>E.5. Financial system</p>		
<p>Initiatives</p>	<p>Guidelines</p>	<p>Status</p>
<p>1. Taxonomy</p>	<ul style="list-style-type: none"> Singapore-Asia Taxonomy (SAT) for Sustainable Finance (Dec 2023) 	<p>The SAT has been applied and incorporated into various frameworks. (MAS 2025):</p> <ol style="list-style-type: none"> Adoption in Public-sector Initiatives <ul style="list-style-type: none"> Alignment of the Singapore Green Bond Framework (SGBF) with the SAT. The SGBF, central to Singapore's sustainability strategy, was updated in January 2025 to align its green thresholds with the SAT. This update ensures that all public-sector green bonds comply with both international standards and SAT criteria. Statutory boards are also updating their frameworks to reflect this alignment, reinforcing the government's commitment to credible, high-quality green bond issuances. Expansion of the Enterprise Financing Scheme-Green (EFS-Green): Since April 2024, EFS-Green has been referencing the SAT's green and transition activities, broadening support to adopters of green or transition solutions across four key sectors: clean energy and decarbonization, circular economy and resource optimization, green infrastructure, and clean transportation. Financial sector adoption <ul style="list-style-type: none"> Integration into sustainable financing frameworks: Local and select foreign banks have incorporated the SAT into their sustainable financing frameworks. Singapore's major banks DBS, OCBC and UOB have updated their frameworks to use the SAT as a core reference for structuring green and transition financing. Origination of green and transition financing solutions: Banks use the SAT to evaluate project eligibility when structuring green and transition bonds or loans. The SAT is referenced in both use-of-proceeds instruments (where funds are allocated to specific green or transition projects) and sustainability-linked instruments (where terms are tied to sustainability KPIs). Client engagement and strategic guidance: Banks leverage the SAT in client engagements, guiding corporates toward decarbonization activities aligned with SAT criteria, thus supporting broader sustainability strategies. Asset managers: Asset managers use the SAT to ensure their sustainability-related funds meet credible thresholds, informing investment eligibility and portfolio allocation. Foreign banks: Foreign banks operating in Singapore, such as Cr�dit Agricole CIB, HSBC and Standard Chartered, use the SAT alongside other international taxonomies, such as the EU Taxonomy, to reflect local context and enhance internal governance and policy frameworks. Inclusion of the SAT in the Multi-Jurisdiction Common Ground Taxonomy (M-CGT) <ul style="list-style-type: none"> At COP29 in November 2024, the IPSF launched the Multi-Jurisdiction Common Ground Taxonomy (M-CGT), comparing the sustainable finance taxonomies of China, the EU, and Singapore. Developed by MAS, the People's Bank of China, and the EU Directorate-General for Financial Stability (FISMA), the M-CGT serves as a technical reference document to support financial institutions, corporates and investors in identifying and assessing activities that could be classified as green activities in China, the EU and Singapore. This, in turn, will allow bond issuers or fund managers in these jurisdictions to offer green bonds or green funds aligned with the M-CGT criteria to be distributed across the respective M-CGT markets.

<p>2. Risk management assessment</p>	<ul style="list-style-type: none"> Handbook on Implementing Environmental Risk Management (Jan 2021) Project Viridis – A Climate Risk Platform for Financial Authorities (Jun 2024) 	<ul style="list-style-type: none"> 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 the MAS' Guidelines on Environmental Risk Management. The Bank for International Settlements (BIS) and the 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.
<p>3. Extension of climate-related financial disclosures</p>	<ul style="list-style-type: none"> The climate reporting timelines were extended in August 2025. The extension considered the uncertain global economic landscape, as well as feedback from various sources, including the Singapore Business Federation, to take into greater consideration the varying levels of resources and readiness in climate reporting (SBF Feedback). <p>With the updated requirements, companies will be better able to balance compliance costs with developing climate reporting capabilities, which are required for the longer term to maintain their place in global supply chains.</p>	<ul style="list-style-type: none"> The approach for listed companies, which takes immediate effect, is: <ul style="list-style-type: none"> a. A three-tier structure to phase in reporting obligations based on market capitalization: <ul style="list-style-type: none"> i. Straits Times Index (STI) constituents; ii. Non-STI-constituent listed companies with a market capitalization of SGD1 billion and above; and iii. Non-STI-constituent listed companies with a market capitalization of less than SGD1 billion. b. Scope 1 and 2 GHG emissions reporting will remain mandatory for all listed companies from FY2025. c. Scope 3 GHG emission reporting will remain mandatory for STI-constituent listed companies from FY2026. For non-STI-constituent listed companies, Scope 3 GHG emission reporting will be voluntary until further notice. d. Other ISSB-based CRDs (beyond Scope 1, 2 and 3 GHG emissions) will remain mandatory for STI-constituent listed companies from FY2025. Non-STI-constituent listed companies with a market capitalization of SGD1 billion and above will be required to report other ISSB-based CRDs from FY2028. Non-STI-constituent listed companies with a market capitalization of less than SGD1 billion will follow from FY2030. e. External limited assurance for Scope 1 and 2 GHG emissions is deferred to FY2029 for all listed companies.¹⁰⁴ The approach for large non-listed companies (NLCos), is: <ul style="list-style-type: none"> a. Large NLCos are defined as companies with i) revenue of SGD1 billion and above, and ii) assets of SGD500 million and above. b. ISSB-based CRDs (including Scope 1 and 2 GHG emissions) are deferred to FY2030. c. Scope 3 GHG emissions reporting remains voluntary until further notice. d. External limited assurance for Scope 1 and 2 GHG emissions is deferred to FY2032. (ACRA website).

F. Potential opportunities in transition to low carbon

<ul style="list-style-type: none"> Singapore is ASEAN's largest market for green, social, sustainability and sustainability-linked (GSSSL) bonds and loans, accounting for more than half of the market. The MAS supports global and Asian corporates to access sustainable financing for green and transition projects through its Sustainable Bond Grant Scheme and Sustainable Loan Grant Scheme. 	<ul style="list-style-type: none"> Given the pressing need for financing transition activities in ASEAN, with its rapid urbanization and economic growth, Singapore's financial service sector is in a good position to capture significant opportunities as the net-zero transition agenda expands in the region. As a major financial center, Singapore is also an ideal launchpad for insurance, reinsurance and insurance brokerage companies wanting to meet the region's insurance needs for climate-related risks. Singapore has pioneered several financial instruments to support the green transition. These include green and sustainability-linked bonds and loans, blended finance models that combine public, private and philanthropic capital, and transition credits—a novel tool to accelerate the retirement of coal-fired power plants. 	<ul style="list-style-type: none"> Singapore's strategic approach to sustainable finance—anchored in its robust policy framework, innovative financial instruments and regional collaboration—has positioned the country as Asia's leading sustainable finance hub. Its leadership not only strengthens domestic resilience but also empowers ASEAN's developing economies to pursue inclusive and sustainable growth. As the region navigates the complexities of climate transition, Singapore's model offers a blueprint for integrating sustainability into economic development.
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Source: National authorities; media reports; AMRO staff compilation

¹⁰⁴ The Greenhouse Gas (GHG) Protocol defines Scope 1 emissions as direct emissions from owned or controlled sources, like company vehicles or on-site fuel combustion. Scope 2 emissions are indirect emissions from the generation of purchased electricity, steam, heat, and cooling. Scope 3 emissions are all other indirect emissions in the company's value chain, including upstream (e.g., purchased goods) and downstream (e.g., product use and disposal) activities ([Greenhouse Gas Protocol](#)).

Annexes: Selected Issues

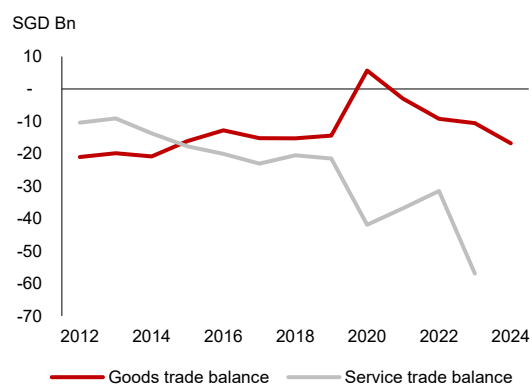
1. Navigating U.S. Tariffs: Singapore's Path Forward¹⁰⁵

Faced with protectionist U.S. trade policy, Singapore has to broaden its sources of growth to prepare for the potential of prolonged global trade disruptions. This selected issue first assesses the direct and indirect impacts of U.S. tariffs on Singapore's economy. It then discusses how Singapore can enhance its competitiveness and resilience in the new global economic environment.

Introduction

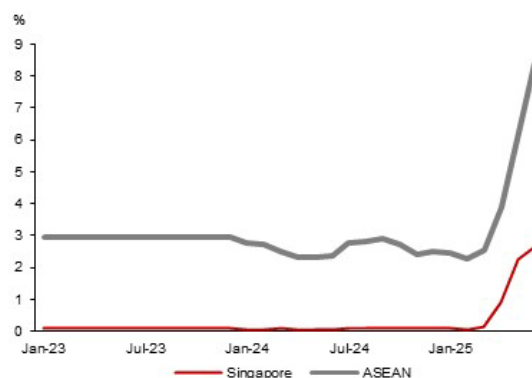
1. Despite Singapore's persistent trade deficit with the United States, the latter imposed 10 percent broad tariffs and 100 percent pharmaceutical tariffs on the city-state, with wide-ranging implications. Singapore has consistently recorded a trade deficit with the U.S. since 2006, with the sole exception of 2020. In 2024, the deficit amounted to SGD16.7 billion (Figure A1.1). The service trade deficit has been even larger, further widening the overall imbalance. Moreover, Singapore has signed a free trade agreement with the U.S. that eliminates tariffs on all U.S. goods imported into Singapore. While the 10 percent tariff is lower than those levied on regional peers, pharmaceutical exports are facing 100 percent tariffs, bringing the weighted tariff rate on Singapore to an estimated 40.3 percent. As the tariffs begin to take effect, the realized tariff rates on U.S. imports from Singapore more than tripled since beginning of 2025 (Figure A1.2).

Figure A1.1. Singapore's Trade Balance with U.S.



Source: Enterprise Singapore; AMRO staff calculations
Note: The data shows the difference between Singapore's exports to the U.S. and its imports from the U.S.

Figure A1.2. Realized U.S. Tariffs on Imports of Selected Economies



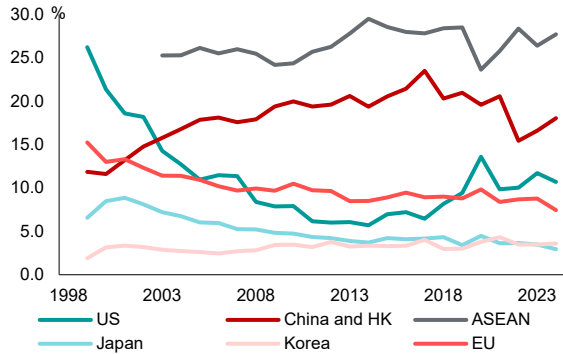
Source: USITC; AMRO staff calculations
Note: Realized tariff rates are calculated as duties collected divided by customs value, based on U.S. customs data.

Tariffs to hit not only manufacturing but also trade-related services and beyond

2. The tariffs could materially affect Singapore's economy both directly, given the importance of the U.S. as an export market, and indirectly through Singapore's role as a trade hub. While China, Hong Kong and ASEAN now account for the largest share of Singapore's gross exports at 46 percent (Figure A1.3), the U.S., though down from 20 percent in 2000, remains significant at 9 percent. Furthermore, the U.S. share is a higher 16 percent for non-oil domestic exports (NODX) and as the final demand for Singapore's value-added exports (Figure A1.4). Beyond the direct effect on U.S.-bound exports, the tariffs could also disrupt or divert regional trade flows, which may dampen demand for Singapore's trade-related services. Finally, the broad-based nature of the tariffs, affecting economies worldwide, is likely to slow global growth and further weigh on Singapore's economic performance.

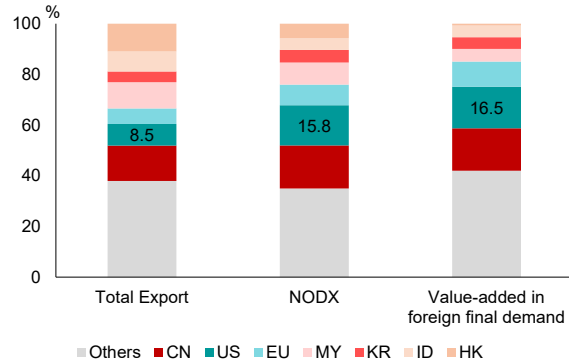
¹⁰⁵ Prepared by Pim-orn Wacharapapong, Economist, and Catharine Kho, Senior Economist

Figure A1.3. Share of Singapore's Gross Exports by Destination



Source: Enterprise Singapore; Haver Analytics; AMRO staff calculations

Figure A1.4. Share of Singapore's Exports by Market

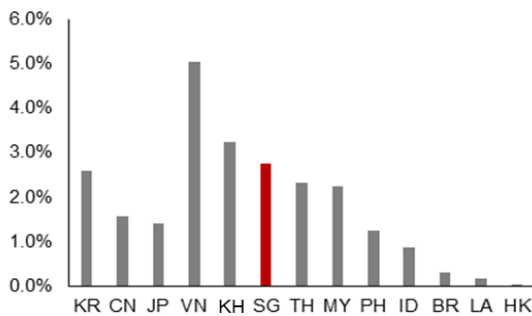


Source: Enterprise Singapore; OECD Trade in Value-Added; AMRO staff calculations

Note: Total export and NODX figures are for 2024. Value-added in foreign final demand is for 2022, which is the latest available.

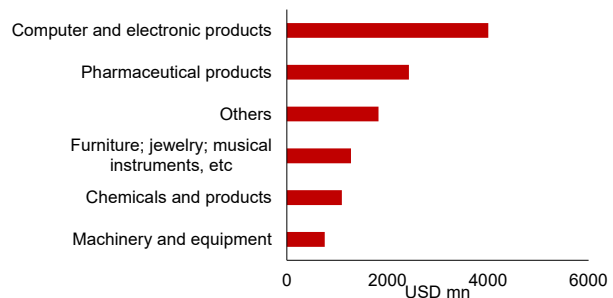
3. The manufacturing sector would be the most directly affected by the tariffs on Singapore's goods exports. The domestic value-added (VA) of Singapore's manufacturing in U.S. final demand averaged 2.7 percent of GDP during 2016-2020, above the ASEAN+3 average of 1.8 percent (Figure A1.5). Exposure is concentrated in two clusters: computers and electronics, and pharmaceuticals, which account for about 34 percent and 21 percent of domestic VA in U.S. final demand, respectively (Figure A1.6). With pharmaceutical tariffs already announced at 100 percent and semiconductors tariffs possible in the future, these two clusters are most vulnerable to the tariff developments.

Figure A1.5. Domestic Manufacturing VA in U.S. Final Demand as % of GDP, 2016-2020 Average



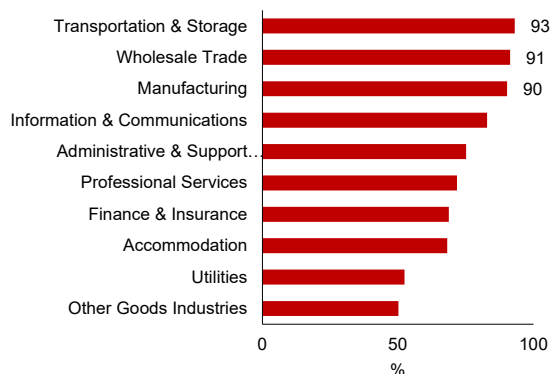
Source: IMF; Haver Analytics; AMRO staff calculations

Figure A1.6. Singapore VA in U.S. Final Demand, 2018-2022 Average



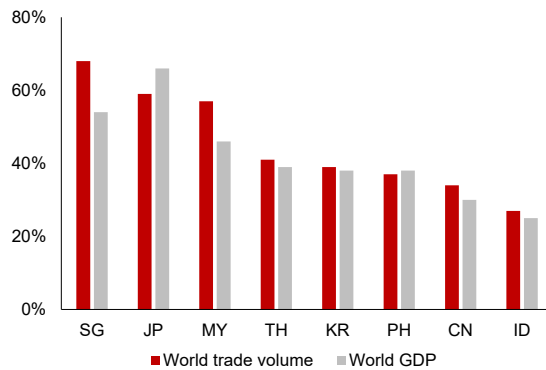
Source: OECD Trade in Value-added; AMRO staff calculations

Figure A1.7. Share of VA Supplied to External Final Demand (Top 10 Sectors)



Source: OECD Trade in Value Added; AMRO staff calculations

Figure A1.8. GDP Growth Correlations with Global Trade and GDP, 2015-2025



Source: IMF; Haver Analytics; AMRO staff calculations

4. The vulnerabilities differ among the two clusters. Pharmaceuticals are more concentrated in U.S. final demand, with the U.S. accounting for 54 percent of their foreign final demand compared with 13 percent for computers and electronics. The latter, however, is more

vulnerable to supply chain shocks. As a proportion of U.S. imports of Singapore's VA in this cluster, 46 percent is shipped directly from Singapore, while 33 percent is routed through other ASEAN economies or China. This makes Singapore's VA indirectly exposed to tariffs or restrictions imposed on these economies. By contrast, 86 percent of U.S. imports of Singapore's VA in pharmaceuticals comes directly from Singapore, with negligible exposure via the rest of ASEAN or China.

5. The impact of tariffs would extend beyond manufacturing, generating negative spillovers to the service sector. As a regional trading hub, Singapore's service ecosystem, in particular transport and storage and wholesale trade services, relies on external final demand for more than 90 percent of its output (Figure A1.7). Given such high dependence on international trade flows, these services, which account for about 20 percent of Singapore's GDP,¹⁰⁶ will have to navigate significant headwinds amid global trade disruptions and rerouting.

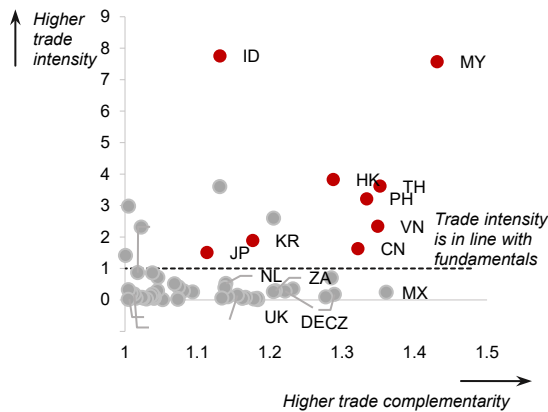
6. Beyond the direct impacts, the broader global growth slowdown, disruption of regional supply chains and dampened business sentiment would also weigh on Singapore's growth prospects. Exports of goods and services have averaged more than 2.5 times domestic demand over the past decade, the highest ratio in ASEAN+3. Consequently, Singapore's GDP growth is more closely dependent on global trade and economic conditions than its regional peers, with as high as 70 percent correlation between GDP growth and global trade volume growth (Figure A1.8). Thus, the imposition of U.S. tariffs on Singapore's major trading partners, such as China, ASEAN and the EU, is expected to cause growth slowdown and deterioration in investment and consumption sentiment in these countries as well as in the U.S. itself, and also have second-round effects on the demand for Singapore's goods and services. The extent of such second-round effects will depend on not only how well the global economy adjusts to the tariff shocks, but also how quickly Singapore finds new growth opportunities in this shifting environment.

Policy Discussion: How Singapore Can Strengthen Resilience in the New Environment

7. Amid rising trade fragmentation and shifting global trade patterns, trade diversification has become increasingly more critical to strengthen economic resilience. While Singapore has historically maintained low trading market concentration risk—reflecting its role as a regional trading hub—it can further increase diversification by deepening ties with non-traditional export markets. There is untapped potential to expand trade with economies such as the Czech Republic, Germany, Hungary and Mexico, where trade complementarity is high but trade intensity is low (Figure A1.9). At the same time, Singapore's trade volumes remain relatively low with the Middle East and North Africa, Latin America, and the Caribbean (Figure A1.10). Expanding connections within ASEAN and forging stronger partnerships beyond the Asia cluster will be key to mitigating concentration risks. In this regard, initiatives like the Future of Investment and Trade (FIT) Partnership, launched in September 2025, represent a positive step toward broader, more diversified economic engagement.

¹⁰⁶ Average share in 2015-2024.

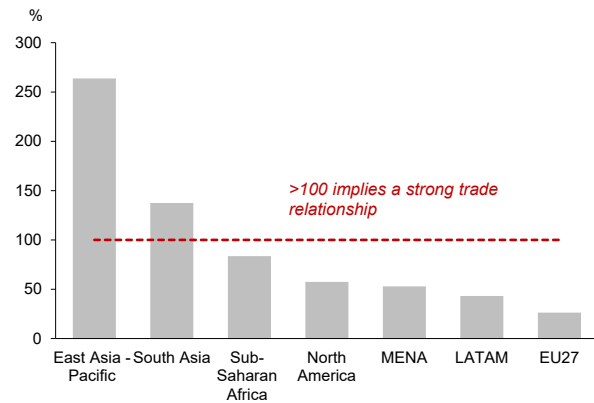
Figure A1.9. Trade Complementarity vs Trade Intensity by Partner Economy for Singapore



Source: World Integrated Trade Solutions; World Bank; AMRO staff calculations

Note: The Trade Complementarity Index (TCI) measures how well a country's export profile aligns with another country's import profile. A high score suggests strong complementarity, with potential for increased bilateral or regional trade agreements. The Trade Intensity Index (TII) measures the difference in an economy's share of exports to the world than is predicted by the economy's relative share of the global trading system. A higher index denotes a stronger trade relationship. TCI and TII scores are normalized to 50 and 100, respectively, for ease of comparison.

Figure A1.10. Trade Intensity by Partner Region for Singapore



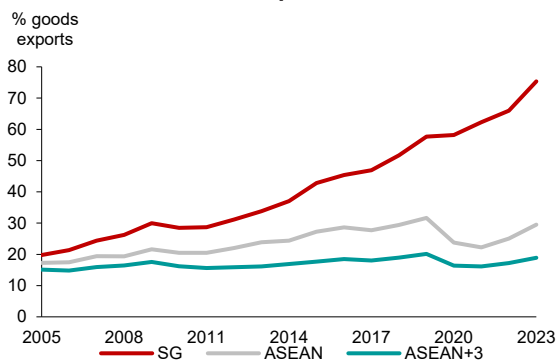
Source: World Bank; AMRO staff calculations

Note: The Trade Intensity Index measures the difference in an economy's share of exports to the world than is predicted by the economy's relative share of the global trading system. A higher index denotes a stronger trade relationship. An index of above 100 percent indicates that the proportion of exports to that partner is higher than expected based on the two economies' relative size in world trade. MENA = Middle East and North Africa; LATAM = Latin America and the Caribbean; EU27 = European Union.

8. Singapore has scope to expand its service exports, which offer a resilient complement to goods exports and are less vulnerable to global shocks and tariff-related disruptions. Services such as finance, logistics, digital solutions and professional consulting are not only less exposed to trade barriers but also aligned closely with Singapore's comparative advantages as a global hub for connectivity and innovation. Singapore's service exports have significantly outpaced regional peers, with the ratio of service to goods exports rising from around 20 percent in 2005—comparable to other regional economies—to nearly 80 percent in 2024 (Figure A1.11). This shift has been driven largely by modern, digitally delivered services, in which Singapore holds a competitive edge due to its strong digital infrastructure and highly skilled workforce (Figure A1.12). Modern services also exhibit strong forward links, reinforcing their role within broader production networks ([AMRO 2021](#)). As global value chains evolve, a robust service sector will be essential to positioning Singapore and the wider region as integral nodes in a more digital and interconnected global economy.

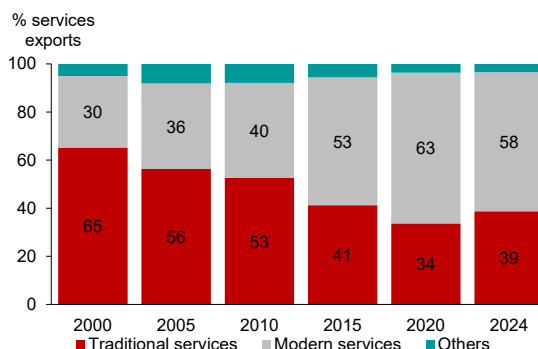
9. Singapore is well positioned to lead efforts in strengthening regional governance and institutional frameworks, which are critical to enhancing resilience against external shocks. The country's track record reflects a commitment to interoperable systems of high standards, including its pioneering role in the 2022 cross-border renewable energy trade with Lao PDR—serving as a pathfinder for the ASEAN Power Grid—and its leadership in developing the ASEAN Taxonomy. As ASEAN+3 faces shared structural challenges such as demographic shifts, climate change and technological disruption, Singapore can play a catalytic role in advancing initiatives such as the ASEAN Digital Economy Framework Agreement, driving regulatory harmonization, setting standards and building capacity to support deeper, rules-based regional integration. Singapore's highly open regulatory environment further supports this endeavor, enabling it to serve as a connector hub for intra-regional trade and investment flows (Figure A1.13).

Figure A1.11. Ratio of Service Exports to Goods Exports



Source: Department of Statistics; United Nations Conference on Trade and Development; AMRO staff calculations
Note: Goods exports refer to merchandise goods exports.

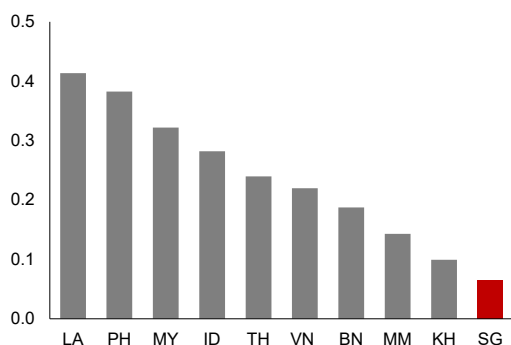
Figure A1.12. Share of Export of Services by Category



Source: Department of Statistics
Note: Traditional services refer to transport and travel. Modern services refer to ICT-enabled services, which include ICT, finance and insurance, charges for the use of intellectual property (IP), and professional services.

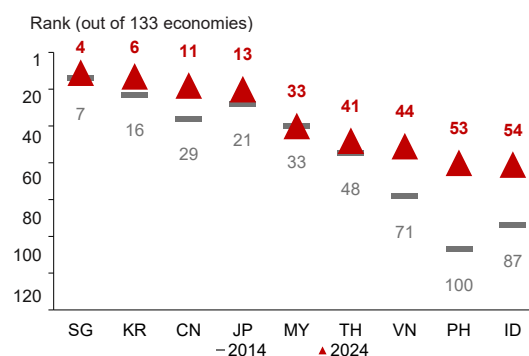
10. Lastly, Singapore can accelerate the regionalization of its SMEs to enhance competitiveness and strengthen regional integration. Singapore is well positioned to drive this agenda as the top-ranked innovative economy within ASEAN+3—and alongside the Plus-3 economies, which account for four of the world’s top 15 most innovative economies (Figure A1.14). ASEAN+3 also holds significant savings surpluses that should be recycled regionally to boost competitiveness and foster inclusive growth. Regionalizing SMEs will increase their integration into value chains and encourage adoption of innovative business models, helping build a more agile and adaptable ecosystem. Beyond local initiatives such as the Market Readiness Assistance Grant, SMEs should leverage regional platforms such as the ASEAN Business Entity framework and the ASEAN Industrial Projects-Based Initiative (AIPBI) to access broader markets.

Figure A1.13. OECD FDI Regulatory Restrictiveness Index in 2023 (Open=0; Closed=1)



Source: OECD; AMRO staff calculations

Figure A1.14. Global Innovation Index Rankings for ASEAN+3 in 2024



Source: World Intellectual Property Organization (WIPO); AMRO staff compilation
Note: The Global Innovation Index evaluates economies based on a comprehensive set of 80 indicators.

2. Singapore’s Leadership in Sustainable Finance: Progress, Drivers and Regional Initiatives¹⁰⁷

This selected issue paper explores Singapore’s progress in becoming one of Asia’s sustainable finance hubs, the key drivers of climate and transition finance within its ecosystem, and its role in catalyzing the green transition across ASEAN+3’s developing economies.

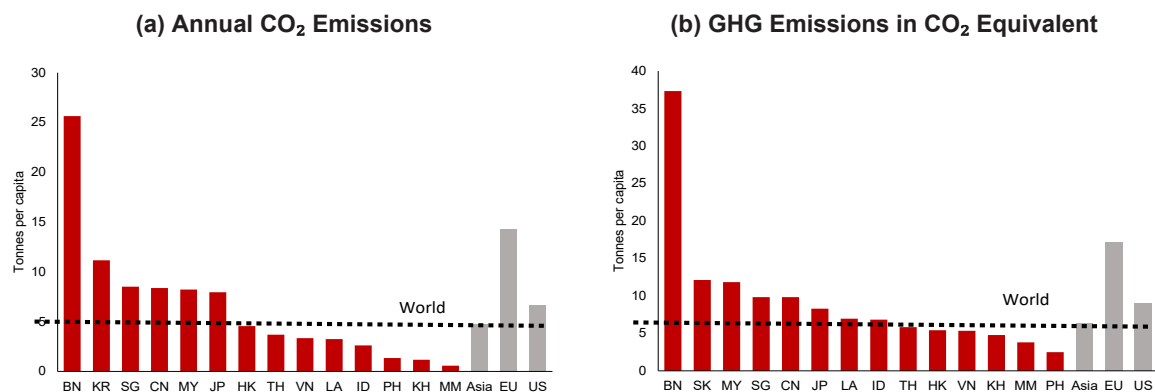
Introduction

1. In the wake of growing environmental challenges, sustainable finance has become a pivotal tool in addressing climate change. Finance plays a critical role in facilitating the global transition to a low-carbon economy. Singapore has emerged as a front-runner in Asia’s sustainable finance landscape, leveraging its strategic location, robust financial infrastructure and forward-looking policy frameworks. As climate change intensifies and global economies pivot toward net-zero goals, Singapore has positioned itself not only as a resilient financial center but also as a catalyst for green transformation across the ASEAN+3 region.

2. Compared with its neighboring ASEAN economies, Singapore is less vulnerable to the physical risks of climate change. Whereas developing ASEAN countries such as the Philippines, Indonesia, Myanmar, and Vietnam ranked 1st, 2nd, 6th and 16th, respectively, on the World Risk Index Global Rankings in 2024, Singapore ranked 186th with a score of less than 1. The economy’s score on vulnerability to natural disasters is close to zero as it has not experienced any type of natural disaster since 2000, according to the [Emergency Events Database](#) (EM-DAT).

3. In terms of annual per capita household carbon dioxide (CO₂) emissions and greenhouse gas (GHG) emissions, however, Singapore is among the top six carbon emitters in ASEAN+3. Per capita emissions in Singapore exceed the world average, based on [OurWorldinData](#) (Figure A2.1). Authorities have therefore taken a whole-of-nation approach to the regulations, policies and initiatives necessary to achieve Singapore’s Nationally Determined Contributions (NDC) and move the economy toward net-zero emissions by 2050.

Figure A2.1. Annual per Capita CO₂ and Greenhouse Gas Emissions, 2023



Source: Global Carbon Budget (2023); population based on various sources (2023) via OurWorldinData; Chart updated from AMRO 2025A and AMRO 2025B.

Note: BN = Brunei, CN = China, HK = Hong Kong, ID = Indonesia, JP = Japan, KH = Cambodia, KR = Korea, LA = Lao PDR, MM = Myanmar, MY = Malaysia, PH = Philippines, SG = Singapore, TH = Thailand and VN = Vietnam.

¹⁰⁷ Prepared by Laura Britt Fermo (Deputy Group Head-MFR/Senior Economist)

Singapore's Progress in Climate Policy Ambitions

4. Singapore has made great strides in its climate goals and is well placed as the region's sustainable finance hub. The country exceeded its 2020 target by reducing emissions to 32 percent below business-as-usual (BAU) levels, leading the pack among ASEAN economies. It has also expanded solar energy deployment and invested in low-carbon technologies, such as hydrogen and carbon capture. Singapore is thus taking the leading role in regional climate governance and collaboration.

5. Singapore has articulated a clear and ambitious pathway toward achieving net-zero emissions, a "whole-of-nation" approach marked by a series of progressive milestones. Singapore aims to reduce its GHG emissions to about 60 million tonnes of CO₂ equivalent by 2030, and further to 45 million to 50 million tonnes by 2035, finally attaining net-zero emissions by 2050. Singapore's net-zero journey is a collective endeavor, requiring the active participation of all sectors of society and a comprehensive suite of strategies that span urban development, industry transformation, cross-border collaboration and technological innovation.

6. Central to Singapore's approach is the creation of a low-carbon city and the promotion of sustainable living. The government has set a target to deploy at least 2 gigawatt-peak of solar energy by 2030. Efforts to develop green land transport and buildings are ongoing, complemented by initiatives that encourage sustainable consumption patterns and low-carbon lifestyles among residents, and catalyze industry and business transformation through sector-specific green transition road maps. These efforts are underpinned by robust regulatory frameworks, including energy efficiency standards, regular reviews and green procurement policies.

7. Singapore's journey toward sustainability is anchored in a multilayered strategy that integrates national advocacy, financial-sector transformation and regional collaboration. The [Singapore Green Plan 2030](#)¹⁰⁸ charts ambitious and concrete targets over the next 10 years, strengthening Singapore's commitments under the UN's 2030 Sustainable Development Agenda and the Paris Agreement, and positioning itself to achieve its long-term net-zero emissions aspiration by 2050. The plan outlines five key pillars—City in Nature, Sustainable Living, Green Economy, Energy Reset and Resilient Future—supported by enablers such as its Green Government and Green Citizenry projects. The government has set specific targets under each pillar, including planting one million more trees, quadrupling solar energy deployment by 2025, reducing the waste sent to landfills by 30 percent by 2030, making at least 20 percent of schools carbon neutral by 2030, and requiring all newly registered cars to be cleaner-energy models by 2030. Recognizing the importance of regional cooperation, Singapore is actively pursuing cross-border solutions as well.

8. Transition planning guidelines were also introduced by the Monetary Authority of Singapore (MAS) in October 2023 which, in turn, help financial institutions in the country navigate the global climate transition. The Consultation Paper on [Guidelines on Transition Planning](#) (MAS 2023B) outlines strategies for aligning business models with specific climate outcomes. Additionally, the MAS promotes green and transition financing solutions, such as the use of green and sustainability-linked bonds and loans. Singapore is ASEAN's largest market for green, social, sustainability and sustainability-linked (GSSSL) bonds and loans, accounting for more than half of the market. The central bank supports global and Asian corporates to access sustainable financing for green and transition projects through its [Sustainable Bond Grant Scheme](#) and [Sustainable Loan Grant Scheme](#).

¹⁰⁸ The Green Plan is a multi-agency effort coined as "A Whole-of-Nation Sustainability Movement". It is spearheaded by five ministries: The Ministry of Education, Ministry of National Development, Ministry of Sustainability and the Environment, Ministry of Trade and Industry, and the Ministry of Transport.

9. Singapore’s total sustainable bonds have taken off in 2021, slowed in 2022 and 2023, but rebounded in 2024 despite the recent realignment of environmental, social and governance (ESG) priorities in the U.S. and other major economies. Green bonds remain as the type of sustainable bond with the highest issuance, making up 90.2 percent of total climate-related bond issuances in 2024. Singapore’s GSSSL bond issuance volumes recovered significantly in 2024, in line with more bond issuances globally, due to a more benign interest rate environment. In the same year, GSSSL loans originating from Singapore hit an annual high with more than SGD48 billion loans issued ([MAS](#)).

Factors Scaling Up Climate and Transition Finance

I. Policy and Regulatory Proactiveness and Innovation

10. Singapore’s success in climate finance is underpinned by its proactive regulatory environment. The [Singapore-Asia Taxonomy](#) (MAS 2023) introduced a traffic light system—green, amber and red—to classify economic activities based on their alignment with net-zero goals. Amber activities, which are not yet aligned but are in the transition process, are subject to sunset dates to ensure they converge with green standards over time. The system ensures that financial flows are directed toward activities that support net-zero outcomes. The taxonomy is designed to be interoperable with global taxonomies, facilitating cross-border financing and helping financial institutions manage reputational risks.

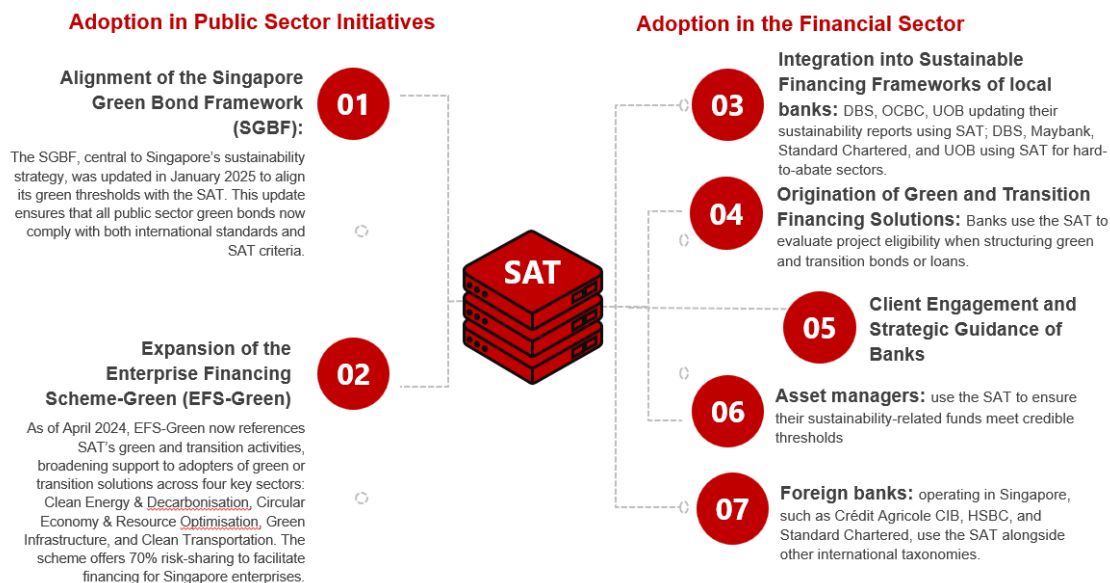
11. The adoption of the Singapore-Asia Taxonomy (SAT) has been successfully integrated into broader financing frameworks. The SAT has become a foundational reference for sustainable finance in Singapore, guiding public-sector frameworks, expanding enterprise financing and shaping the financial sector’s approach to green and transition finance. The taxonomy’s adoption by both local and foreign stakeholders underscores its role in advancing Singapore’s net-zero ambitions and ensuring the credibility of sustainable finance activities ([MAS 2025](#), Figure A2.1.1). An internal assessment framework for the SAT is needed given that the ASEAN Taxonomy was aligned with SAT, and several economies have used both taxonomies as basis in developing their own national taxonomies. There is also a need for further enhancement of the ASEAN taxonomy to cover other sectors, such as the blue economy, which is a critical sector in the region (UNEPFI, 2025).¹⁰⁹

12. Strong regulations are crucial in maintaining the momentum of sustainable finance. The number of climate laws and regulations have continually increased over time in both Singapore and ASEAN+3 ex-Singapore, based on the Climate Change Laws of the World database. In addition, jurisdictions across the world, such as Australia, China, the EU, Hong Kong, Japan and Singapore, have introduced or are planning to introduce sustainability-related disclosure, and seven out of the 22 who have mandated disclosure are from ASEAN+3, including Singapore.¹¹⁰

¹⁰⁹ According to the International Union for Conservation of Nature ([IUCN](#)), Asia exhibits the highest rate of economic expansion globally. With over 25% of the world’s population—approximately 6.676 billion people residing in Southeast Asia—the region faces intense anthropogenic pressure on its marine and coastal ecosystems. This dynamic renders the economies of these nations, many of which are heavily reliant on ocean-based revenues, particularly vulnerable to environmental degradation and economic volatility. Among the ASEAN countries, only the Philippine national taxonomy has incorporated coastal and marine resources as a priority sector in its decarbonization strategy ([UNEPFI, 2025](#)).

¹¹⁰ ESG Global: Mandatory Climate Reporting to Aid Risk Analysis, Moody’s Ratings, TCFD Status Report 2023 and ECOFACT Policy Outlook.

Figure A2.1.1. Application of Singapore-Asia Taxonomy (SAT)



Source: Application of the Singapore-Asia Taxonomy in the Financial and Corporate Sectors, MAS (March 2025); AMRO staff compilation

II. Role of Carbon Pricing and Carbon Markets

13. Singapore supports ASEAN+3's adoption of carbon pricing instruments, as it believes that a price on carbon is a cost-effective mitigation option which enables the region's climate ambition. The carbon market associations of Indonesia, Malaysia, Singapore and Thailand announced a memorandum of collaboration regarding the development of the ASEAN Common Carbon Framework at the UN's 29th Conference of the Parties (COP29) in 2024. The framework aims to foster greater interoperability among ASEAN members' carbon markets by aligning claims guidance and methodologies for crediting. Singapore recognizes, however, that regional economies face diverse and unique national circumstances and are at different stages of developing and implementing carbon pricing policies.

14. The MAS is also actively involved in developing transition credits, particularly through the [Transition Credits Coalition \(MAS 2024\)](#), which seeks to accelerate the phaseout of coal plants in the region. MAS convened and launched the Transition Credits Coalition (TRACTION)¹¹¹ during the 28th Conference of the Parties (COP28) in 2022. This initiative reflects a broader effort to scale up carbon markets and provide a complementary financing tool for the energy transition. The MAS launched the final TRACTION report at COP30 in 2024, which now serves as a playbook to expand the implementation of transition credits.

15. There is, however, a need to explore methodologies to establish additionality¹¹² and credibility for TRACTION's transition carbon credits. Concerns have been raised

¹¹¹ Transition credits come from closing coal plants earlier so that less planet-warming gases are released into the atmosphere. Each credit represents one tonne of planet-warming emissions that is prevented from being released. Governments and companies can buy these credits to shrink their carbon footprint to meet their net-zero emission claims. For example, an agreement was signed on Aug 16, 2024, by Temasek-owned investment platform GenZero, infrastructure company Keppel, and Acen, the energy unit of Philippine conglomerate Ayala Corporation, to study the development of a first-of-its-kind transition credit project in the Philippines. The project involves decommissioning a coal-fired power plant in Batangas City, South Luzon by 2030—ten years earlier than originally planned—and replacing it with a solar energy facility paired with a battery storage system.

¹¹² Additionality is a foundational criterion in both voluntary and compliance carbon markets, used to assess whether a climate mitigation project results in greenhouse gas (GHG) reductions or removals that would not have occurred in the absence of the financial incentive provided by carbon credits. It ensures that the credited impact is truly incremental and not part of a "business-as-usual" scenario. Additionality is essential for maintaining the environmental integrity of carbon markets, as it prevents the issuance of credits for actions that would have occurred regardless of market incentives. Without credible

about the criteria for retiring power plants earlier than the maintenance period. The challenges and benefits of nature-based carbon credits and the additionality concept bring out the importance of setting baselines in both regulated and deregulated markets to ensure credible additionality.

III. Data, Definitions and Disclosures

16. Transparency is a cornerstone of Singapore’s climate finance strategy. Under its Finance for Net Zero (FiNZ)¹¹³ Action Plan, the MAS emphasizes “3Ds”—Data, Definitions and Disclosures—to prevent greenwashing and improve market confidence. The rationale is that reliable climate data, credible taxonomies and mandatory disclosures enable financial institutions and investors to assess risks accurately and make informed decisions. The achievement of the 3Ds is important because financial institutions are hesitant to fund sustainability-related projects and transition activities, mainly on account of uncertainty on the level of risk and inability to determine how to price in this risk.

17. A policy innovation that has the potential to strengthen transparency, reduce the uncertainty in climate projects and, hence, encourage and scale up transition financing is *Greenprint*,¹¹⁴ a green data solution launched to help both small and medium-sized enterprises (SMEs) and corporates with sustainability reporting. Project Greenprint is a suite of green financial technology initiatives designed to leverage fintech in building a data-centric ecosystem that advances the financial sector’s sustainability goals. The project is anchored in the development of two main pillars: digital utilities and a dynamic ESG fintech ecosystem. It pursues three core objectives: (i) fostering a vibrant ecosystem, by nurturing the growth of green fintech in Singapore and scaling these solutions internationally; (ii) enabling strategic partnerships, by connecting financial institutions, investors, green technology providers, ESG service providers and corporates; and (iii) establishing trusted data flows, by creating digital infrastructure that ensures the consistent, transparent and reliable exchange of ESG data, with integration into global and sector-specific data platforms.¹¹⁵

18. An ESG Impact Hub¹¹⁶ was launched in 2022 to encourage co-location and collaboration among ESG fintech start-ups, solution providers and financial institutions. The hub serves as a dedicated space to bring these groups together, fostering interaction and innovation to support the development of a robust and vibrant ESG ecosystem in Singapore, powered by technology and data.

19. The MAS also launched *Gprnt*¹¹⁷ in November 2023, an integrated digital platform that harnesses technology to simplify how the financial sector and real economy collect, access and act upon ESG data to support their sustainability initiatives. Gprnt is the culmination of Project Greenprint and offers an enhanced digital reporting solution for both large businesses and SMEs to seamlessly report their ESG information. It was progressively rolled out beginning Q1 2024. Once fully deployed, Gprnt’s reporting platform¹¹⁸ is anticipated to streamline ESG reporting for companies through automation while enabling end-users—including financial institutions, regulators and large corporates—to access pertinent data and timely insights that inform sustainability-related decisions.

IV. Financial Instruments and Platforms

20. Singapore has pioneered several financial instruments to support the green transition. These instruments include green and sustainability-linked bonds and loans, blended finance models that combine public, private and philanthropic capital, and transition credits, a novel tool to accelerate the retirement of coal-fired power plants.

additionality, carbon credits risk becoming a form of greenwashing rather than a legitimate climate solution (Sources: [Climate Sustainability Directory](#); [Forliance.com](#) and [The Integrity Council](#))

¹¹³ <https://www.mas.gov.sg/news/media-releases/2023/mas-launches-finance-for-net-zero-action-plan>

¹¹⁴ https://www.mas.gov.sg/-/media/MAS/News/Media-Releases/2021/Infographic_MAS-Project-Greenprint.pdf

¹¹⁵ <https://www.mas.gov.sg/development/fintech/green-fintech>

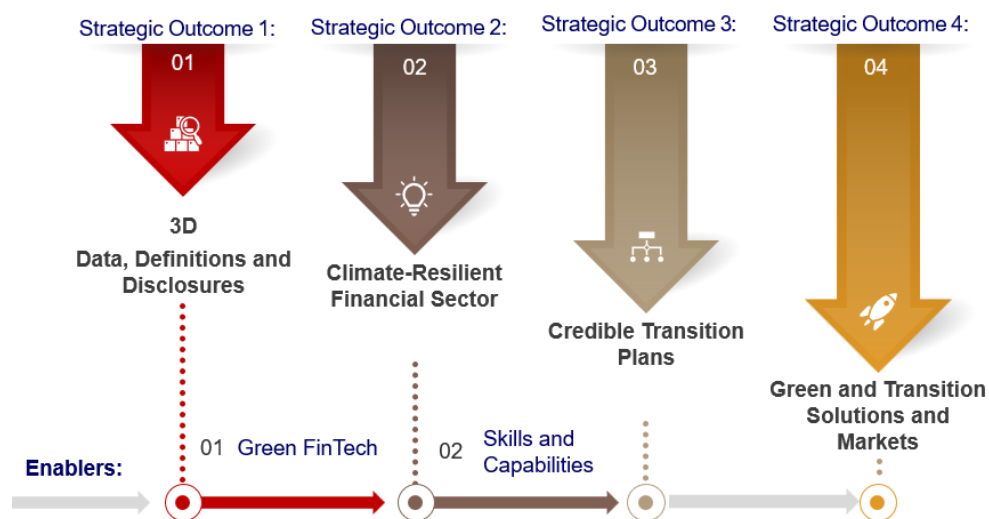
¹¹⁶ <https://www.mas.gov.sg/news/media-releases/2022/mas-launches-esg-impact-hub-to-spur-growth-of-esg-ecosystem>

¹¹⁷ <https://www.mas.gov.sg/news/media-releases/2023/mas-launches-digital-platform-for-seamless-esg-data-collection-and-access#2>

¹¹⁸ <https://www.gprnt.ai/>

21. At the financial-sector level, the MAS launched the Finance for Net Zero (FiNZ) Action Plan on April 20, 2023.¹¹⁹ The FiNZ action plan aims to build a climate-resilient financial system, develop credible transition plans, mobilize green and transition financing and enhance data transparency. One of its key outcomes is fostering a climate-resilient financial sector, which involves deepening capabilities in climate scenario analysis and risk management. The FiNZ Action Plan is an expansion of the earlier Green Finance Action Plan (GFAP), launched in 2019, that encompasses new policies on transition finance. It presents a strategic framework to accelerate the transition to a net-zero economy by integrating finance, technology and talent development.

Figure A2.4.1. MAS Finance for Net Zero (FiNZ) Action Plan



Source: MAS, [Finance for Net Zero \(FiNZ\) Action Plan](#) and AMRO staff illustration.

22. To mobilize capital effectively, the FiNZ Action Plan encourages the use of blended finance models involving public, private and philanthropic partnerships, alongside innovative green and transition financing instruments such as bonds and loans. FiNZ supports blended finance projects that help decarbonize carbon-intensive sectors, particularly in Southeast Asia, where green infrastructure remains underfunded. It also aids the development of carbon markets and platforms to facilitate sustainable investment flows. Enabling these efforts are digital solutions such as Project *Greenprint*, which provides infrastructure for accessing verifiable sustainability data, and initiatives to build a transition-ready workforce through targeted skill development and research.

23. The potential for de-risking tools, such as currency hedging and insurance, also plays a critical role in advancing transition finance, particularly in mobilizing private capital for sustainability-linked projects. These instruments help mitigate financial risks—such as exchange rate volatility, political instability and project-specific uncertainties—that often deter banks and investors from committing to long-term transition initiatives. Tools such as hedging strategies and credit guarantees can provide the confidence needed for banks to scale up lending for transition-related projects, especially in emerging markets where risk perceptions are higher. The World Bank notes that de-risking practices, if not carefully managed, can inadvertently exclude smaller financial institutions and remittance companies from the global financial system, undermining financial inclusion and transparency.¹²⁰ Therefore, a balanced approach is needed, one that promotes risk mitigation while maintaining access to regulated financial services. The World Economic Forum’s Playbook of Solutions outlines a range of de-risking tools, including policy instruments, blended finance mechanisms

¹¹⁹ <https://www.mas.gov.sg/news/media-releases/2023/mas-launches-finance-for-net-zero-action-plan>

¹²⁰ <https://www.worldbank.org/en/topic/financialsector/brief/de-risking-in-the-financial-sector>

and insurance products, all designed to improve the risk-return profile of sustainable investments and catalyze capital flows at scale.¹²¹

24. Multilateral development banks have been instrumental in deploying partial credit guarantees to support renewable energy investments. The Asian Development Bank (ADB) and the International Finance Corporation (IFC) have used such instruments to reduce credit risk and attract private capital into utility-scale solar projects. However, uptake has been limited mostly to the renewable energy sector due to high costs, complexity and a lack of awareness, highlighting the need for more flexible and accessible de-risking solutions.

Singapore's Role in ASEAN Green Transition via Regional Initiatives

25. Sustainable financing needs in ASEAN are projected to expand at a compound annual growth rate (CAGR) of 9 percent, with total demand expected to reach between SGD4 trillion and SGD5 trillion by 2032. ASEAN has a pressing need for financing transition activities, given the region's rapid urbanization and economic growth. Funding for these transition projects is forecasted to grow faster than for green projects, at 13 percent CAGR compared with 7 percent CAGR, respectively. This trend is especially pronounced in the energy sector, where reliance on fossil fuels persists, and in hard-to-abate industries such as transport and manufacturing. As set out in the MAS' FiNZ Action Plan, Singapore's financial service sector is in a good position to capture significant opportunities as the net-zero transition agenda expands in the region ([MAS 2025](#)).

26. The Financing Asia's Transition Partnership (FAST-P)¹²² is a Singapore-led blended finance initiative in collaboration with key global public, private and philanthropic partners. FAST-P¹²³ aims to mobilize up to USD5 billion to de-risk and fund transition and marginally bankable green projects in Asia. This combined pool of concessional capital will be used to attract commercial capital and other sources of finance to support Asia's green energy transition. The partnerships reflect the MAS' commitment to catalyzing scalable, innovative financing structures that support credible decarbonization pathways and align with global best practice. They also underscore the growing role of public-private-philanthropic collaboration in addressing Asia's significant energy transition financing gap.

27. As a member of the ASEAN Taxonomy Board ([ASEAN 2024](#)), Singapore also helped align regional taxonomies with global standards, promoting consistency and scalability. Singapore's influence extends beyond its borders through regional partnerships and capacity-building initiatives. The country also plays a key role in knowledge transfer and technical assistance. By piloting transition credits in the Philippines and supporting the decarbonization of hard-to-abate sectors such as steel and cement, Singapore is helping ASEAN economies leapfrog toward sustainable development.

Conclusion: Challenges and Opportunities

28. Despite its progress, Singapore faces challenges such as regulatory uncertainty due to global political shifts and the need to balance energy security with decarbonization. ESG and sustainability priorities have undergone some near-term realignment globally, introducing uncertainties in the global pathway to a net-zero future. The rise of power-intensive technologies such as AI also poses new sustainability risks. However, opportunities abound. Climate remains a long-term structural driver of change, with sustained momentum in climate action. Singapore can scale its transition finance tools across ASEAN, raise interoperability with global taxonomies and attract international capital by leveraging its reputation as a trusted and innovative international financial center.

29. Long-term challenges also arise from Singapore's limited land area, lack of natural renewable energy sources and reliance on future renewable energy imports. Nevertheless, Singapore is leveraging international cooperation and taking the lead in the

¹²¹ <https://initiatives.weforum.org/playbook-of-solutions/de-risking-tools>

¹²² <https://www.nccs.gov.sg/media/speeches/speech-by-senior-minister-teo-chee-hean-at-cop28-singapore-pavilion-3dec2023/>

¹²³ <https://www.mas.gov.sg/publications/sustainability...ibrant-sustainable-finance-ecosystem/strategy>

development and implementation of the ASEAN Power Grid¹²⁴ and the framework for regional carbon markets to access cleaner energy and mitigation opportunities.

30. Singapore’s role in shaping sustainable finance frameworks and developing innovative data platforms and financial instruments underscore the critical role that financial-sector development and regional cooperation play in addressing climate change. Through initiatives like the FiNZ Action Plan, transition credits under TRACTION, the ASEAN Common Carbon Framework, the Singapore-Asia and ASEAN taxonomies, and data innovations such as *GPRNT* and the ESG Impact Hub, Singapore is leading the way in promoting sustainable investments and driving transition and sustainable finance in the ASEAN+3 region. By integrating science-based approaches, fostering transparency and facilitating international cooperation, Singapore is setting a strong example of how finance, through government and central bank support, can catalyze climate action across ASEAN+3 and beyond.

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¹²⁴ A key milestone of the ASEAN Power Grid is the Laos-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP), which was initiated in 2022. This pathfinder initiative originally enabled the cross-border exchange of up to 100MW of electricity. In August 2025, the project progressed to its second phase, with its trading capacity expanded to 200MW. This development was facilitated by multidirectional power trading arrangements, allowing both Malaysia and Lao PDR to contribute electricity supply to the system (Source: ASEAN Power Grid Summit 2018; MTI).

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