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AMRO
ASEAN +3 MACROECONOMIC RESEARCH OFFICE

AMRO Annual Consultation Report

Malaysia – 2024

ASEAN+3 Macroeconomic Research Office (AMRO)

October 2024

Acknowledgments

1. This Annual Consultation Report on Malaysia 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 Malaysia from 25 June-5 July 2024 (Article 5 (b) of the AMRO Agreement). The AMRO Mission team was led by Dr. Runchana Pongsaparn, Group Head and Principal Economist. Members included Dr. Wee Chian Koh, Economist (Country desk); Ms. Pim-orn Wacharaprapapong, Economist; Mr. Dek Joe Sum, Fiscal Specialist; Mr. Yin Fai Ho, Research Analyst; and Mr. Vansopheaktraodorm Tep, Associate. AMRO Director Dr. Kouqing Li and Chief Economist Dr. Hoe Ee Khor participated in key policy meetings with the authorities. This AMRO Annual Consultation Report on Malaysia for 2024 was peer-reviewed by an economist group from AMRO's country surveillance, financial surveillance and fiscal teams; endorsed by Mr. Jiangyan Yu, Deputy Group Head and Senior Economist, Policy and Review Group; and approved by Dr. Hoe Ee Khor, AMRO Chief Economist.

3. The analysis in this Report is based on information available up to 16 August 2024.

4. By making any designation of or reference to a particular territory or geographical area, or by using the term "member" or "country" in this Report, AMRO does not intend to make any judgments as to the legal or other status of any territory or area.

5. On behalf of AMRO, the Mission team wishes to thank the Malaysian authorities for their comments on this Report, as well as their excellent meeting arrangements and hospitality during our visit.

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Executive Summary

1. The Malaysian economy moderated in 2023 amid challenging external conditions. Real GDP in 2023 grew 3.6 percent after a strong rebound of 8.9 percent in 2022. Growth was mainly supported by resilient domestic demand, while exports declined due to a broad-based slowdown in external demand.

2. Growth is projected to accelerate to 4.7 percent in 2024 and 4.9 percent in 2025, underpinned by robust domestic demand and recovery in external demand. Growth picked up to 5.1 percent in H1 2024, but private consumption may taper in H2 as higher inflation weighs on real household incomes. Nonetheless, favorable labor market conditions, government cash aid, and flexible withdrawals from EPF Account 3 will continue to support spending. Exports are expected to recover as global trade improves, while semiconductor shipments will also improve with the global technology upcycle. The surge in approved investments in recent years is expected to translate into higher realized investments.

3. Labor market conditions remain favorable. The unemployment rate stands at a pre-pandemic 3.3 percent, having fallen since November 2023 compared with the pandemic peak of 5.3 percent in May 2020. Meanwhile, the labor force participation rate soared to a record high of 70.4 percent in June 2024. Nominal wages per worker continue to grow, albeit at a slower rate and broadly in line with productivity growth. Despite these positive trends, skill-related underemployment remains elevated.

4. Inflation has moderated but is subject to upside risks from subsidy rationalization. Both headline and core inflation moderated in 2023 and H1 2024 as price pressures became more contained. However, inflation is expected to pick up slightly starting H2 2024 following new tax measures, an upward revision in water tariffs, and a full float of diesel prices. The planned subsidy rationalization of RON95 fuel presents an opportunity for more efficient resource allocation, with potential inflationary impacts depending on the timing and scale of the adjustment, which have yet to be determined.

5. The external position weakened in 2023 but has improved. Due to lower exports, the current account recorded a smaller surplus in 2023, which was partially mitigated by a narrower services deficit. The financial account turned to a net outflow amid smaller direct investment inflows and large portfolio investment outflows. The ringgit faced renewed depreciation pressures but has stabilized since end-February 2024 following efforts to encourage repatriation and conversion of foreign earnings. Gross foreign reserves stood at USD114.7 billion at end-July 2024 and remain sufficient by standard metrics, covering 1.0 times short-term external debt and 5.3 months of imports of goods and services.

6. The current neutral monetary policy stance is appropriate amid moderate inflation and improving demand conditions. The overnight policy rate has remained unchanged at 3.00 percent since May 2023, following monetary policy normalization that began in May 2022. Clear and consistent communication by Bank Negara Malaysia (BNM) has supported market confidence.

7. The banking system remains sound and continues to support credit growth. Banks have sufficient capital and liquidity buffers to withstand macro-financial shocks. Loan impairments remain low and stable. Despite an increase in corporate and household debt, the financial health of businesses and households continues to be robust. Credit remains forthcoming, with sustained loan application and approval rates.

8. The 2024 Budget indicates continued emphasis on fiscal consolidation, with subsidy rationalization a key focus. Fiscal spending on subsidies and social assistance rose further in 2023 after nearly tripling in 2022. Yet, the fiscal deficit narrowed to 5.0 percent of GDP in 2023, meeting the government's target, supported by higher corporate tax collection. The government projects the fiscal deficit to narrow further to 4.3 percent of GDP in 2024, mainly due to lower spending on subsidies. Over the medium term, the government aims to shrink the fiscal deficit even more to 3.0 percent of GDP.

9. Risks to the economic outlook are broadly balanced in the near term, while risks to inflation are skewed to the upside. Downside risks to growth are weaker-than-expected growth in major economies and adverse spillovers from the United States presidential election, while upside risks include faster implementation of investment projects. Renewed commodity price hikes and uncertainty about the timing and quantum of RON95 subsidy rationalization are key risks for inflation. Over the medium term, escalating tensions between the U.S. and China could lead to global economic fracturing, with ramifications on trade and investment. Other challenges include a lack of skilled talent, which could hinder industrial upgrading; inadequate retirement savings amid an aging population; and low preparedness for natural disasters and climate change.

10. Policy priorities should focus on rebuilding fiscal space through fiscal consolidation, calibrating monetary policy to contain any broader inflationary pressure, building up foreign reserves when market conditions allow, and addressing long-term structural challenges.

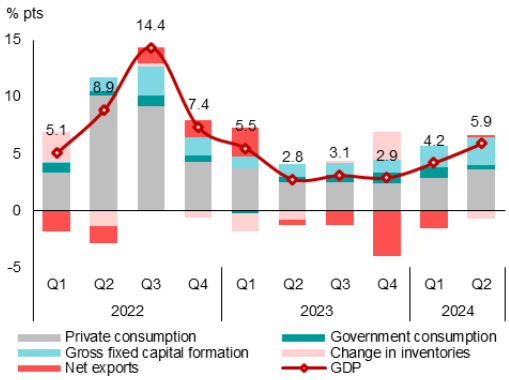
- The government's continued fiscal consolidation is warranted and should be supported by subsidy rationalization and tax reforms. While RON95 subsidy rationalization will yield substantial fiscal savings, a phased implementation with effective communication is recommended to avoid large inflationary shocks and allow for policy impact assessment. However, achieving the medium-term fiscal target would be challenging without introducing major tax reforms. In this regard, the government can consider reintroducing the goods and services tax (GST) after the full implementation of e-invoicing. The Public Finance and Fiscal Responsibility Act, enacted in October 2023, is a major institutional milestone, and the planned Government Procurement Act should be expedited to further strengthen governance, accountability, and transparency.
- Monetary policy calibration should continue to take a data-dependent approach. The emergence of broader price pressures from subsidy rationalization would warrant a tightening of monetary policy. BNM should continue to ensure the clarity and consistency of its policy communication to anchor market confidence.
- BNM should continue to build up foreign exchange (FX) reserves when opportunities arise. Although the level of exchange rate should be market-determined, FX interventions may be necessary at times to address excessive volatility. To be effective, such interventions should be backed by strong foreign reserves buffer. Despite gross reserves remaining adequate by international standards, given the recent decline in net reserves due in part to FX interventions, it would be prudent to accumulate more reserves when conditions are opportune.
- The authorities should accelerate structural reforms to enable industrial upgrading, particularly in moving up the semiconductor value chain. The authorities are encouraged to address talent and skill shortages, improve productivity and wages, and push for greater research collaboration among industry, government, and academia to enhance innovation capability.

A. Recent Developments and Outlook

A.1 Real Sector Developments and Outlook

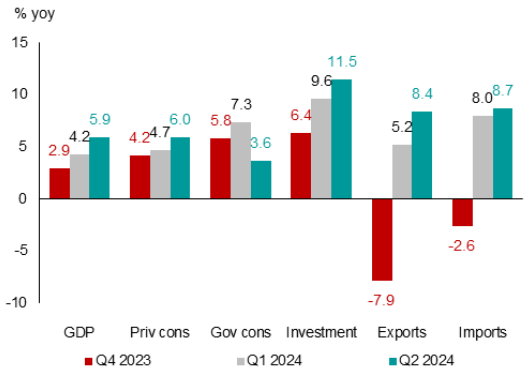
1. Malaysia's economic growth moderated in 2023 but picked up momentum in H1 2024. The Malaysian economy grew by 3.6 percent in 2023, after a strong rebound of 8.9 percent in 2022. Growth was mainly supported by resilient domestic demand amid challenging external conditions (Figure 1). Private consumption and investment continued to grow, albeit at a more moderate pace. Consumption was supported by improving labor market conditions, policy support to households, and a recovery in tourism. Investment activity was driven by new and ongoing projects and by capacity expansion.[1] Meanwhile, exports declined due to a broad-based slowdown in external demand and the global technology downcycle, with the contraction bottoming out in Q3 2023. Higher public consumption and investment in the second half of the year helped to bolster the economy.[2] Economic activity picked up in H1 2024—the economy expanded 5.1 percent year on year (yoy)—underpinned by higher household spending, stronger investment activities, and a turnaround in exports (Figure 2).[3]

Figure 1. Contribution to Real GDP Growth



Source: Department of Statistics Malaysia (DOSM); AMRO staff calculations

Figure 2. GDP Growth by Demand Component



Source: DOSM

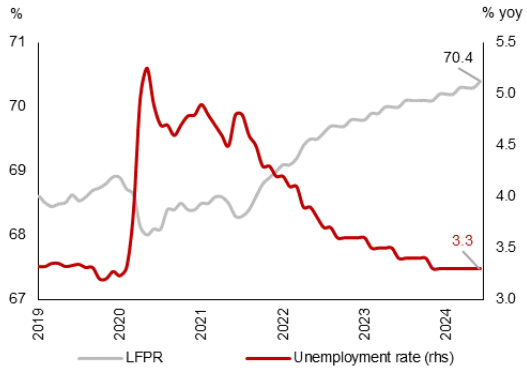
2. Labor market conditions continue to improve, but skill-related underemployment remains elevated. The unemployment rate fell to the pre-pandemic level of 3.3 percent in June 2024, a marked decline compared with the pandemic peak of 5.3 percent in May 2020 (Figure 3). Meanwhile, the labor force participation rate reached a record high of 70.4 percent in June 2024.[4] Despite these positive trends, the skill-related underemployment rate remains high at 37.0 percent as of Q2 2024, indicating a persistent mismatch between demand for skilled labor and existing local talent (Figure 4).[5] The creation of high-skilled jobs has declined compared with the pre-pandemic period and continues to lag behind the number of graduates entering the labor force. At the same time,

[1] Investment projects were mainly in the services and manufacturing sectors, such as construction of data centers and commercial and industrial buildings.
[2] Public investment was driven by a continuation of transport projects, such as the East Coast Rail Line (ECRL), Johor Bahru-Singapore Rapid Transit System (RTS), and Pan Borneo Highway.
[3] On a quarter-on-quarter (qoq) seasonally adjusted basis, growth improved from -1.0 percent in Q4 2023 to +1.5 percent in Q1 2024 and +2.9 percent in Q2 2024.
[4] This was largely due to a significant increase in the male participation rate, possibly reflecting more opportunities in gig work such as e-hailing and food delivery, as evidenced by strong growth in own-account workers.
[5] The skill-related underemployment rate refers to the share of tertiary-educated persons working in semi-skilled or low-skilled occupations. It increased during the pandemic, from 34.8 percent in Q4 2019 to a peak of 37.9 percent in Q1 2021, and has remained sticky.

the share of job vacancies that require high-level skills has increased, suggesting that firms face difficulties in looking for suitable candidates among the existing pool of graduates.[6]

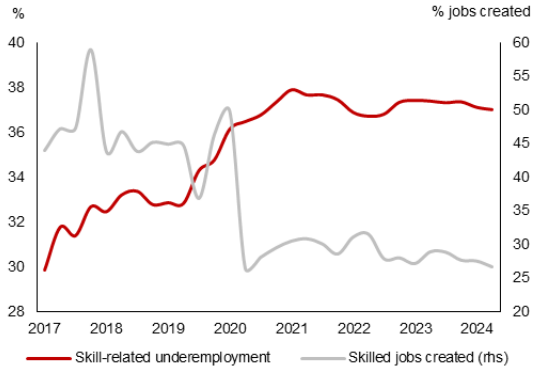
3. Wage growth has slowed, broadly in line with a slowdown in productivity improvements. Per worker wage growth in the manufacturing and services sectors has slowed in line with more gradual productivity improvements (Figure 5).[7] The slowdown happened despite the low unemployment rate, suggesting that the Phillips curve is reverting to the pre-pandemic relationship of a relatively flat curve (Figure 6). Inflation expectations remain well-anchored, indicating that a wage-price spiral is not developing, which also reflects a low and declining rate of unionization and collective bargaining in Malaysia.[8]

Figure 3. Unemployment Rate and Labor Force Participation Rate (LFPR)



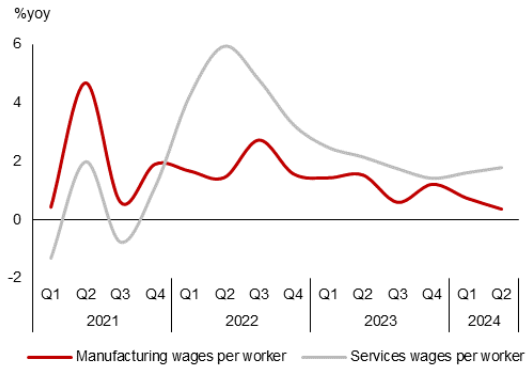
Source: DOSM

Figure 4. Skill-related Underemployment and Skilled Jobs Created



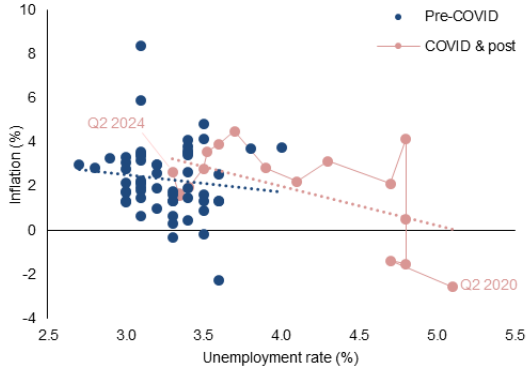
Source: DOSM; AMRO staff calculations

Figure 5. Nominal Wage Growth



Source: DOSM; AMRO staff calculations

Figure 6. Phillips Curve



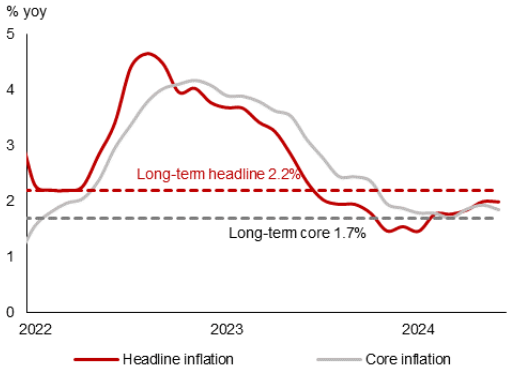
Source: DOSM; AMRO staff estimates
Note: Pre-COVID period refers to Q1 2004-Q1 2020, and COVID & post period means Q2 2020-Q2 2024.

4. Headline and core inflation declined steadily in 2023, while planned subsidy rationalization has been gradually rolled out. Headline inflation fell steadily from the most recent peak of 4.5 percent in Q3 2022 to 1.6 percent in Q4 2023 on account of lower inflation for fuel and food, then inched up to 1.8 percent in H1 2024 due to an upward

[6] Based on data from the Department of Statistics Malaysia (DOSM), the share of high-skilled vacancies (managers, professionals, technicians and associated professionals) rose from an average of 8 percent in 2019 to 37 percent in 2023. The World Bank Business Pulse Surveys in 2022 also showed that firms faced difficulties in filling existing high-skilled jobs.
[7] Pre-pandemic (2016-2019), per worker wage growth was broadly in line with productivity growth. Between 2020 and 2022, productivity dipped and surged at a faster rate compared to wage due to lockdowns and base effects before moderating in 2023. Productivity growth picked up in H1 2024, but wage growth has remained sluggish.
[8] As of 2022, data from the Department of Trade Union Affairs showed that only 5.8 percent of the labor force were unionized workers, and less than 2 percent were covered by collective bargaining agreements.

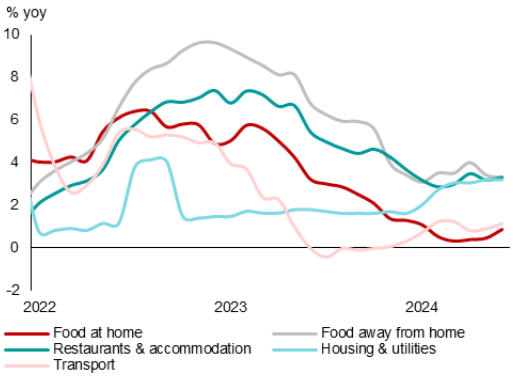
revision in water tariffs (Figures 7, 8). Core inflation also moderated, from 4.2 percent in Q4 2022 to 1.8 percent in H1 2024, but the pace of disinflation was more gradual due to sustained demand pressures, especially in the first half of 2023. Price pressures have become more contained, as evidenced by declining inflation pervasiveness.[9] New tax measures have thus far had only minimal impact on inflation. Likewise, subsidy rationalization measures that have been implemented, such as revision of electricity and water tariffs, have had limited impact on inflation due to their relatively small weight in the CPI basket. With diesel prices successfully floated in June, attention now turns to the planned subsidy rationalization of RON95 fuel.[10] Its potential inflationary impact would depend on the timing and scale of the adjustment, which have yet to be determined.[11]

Figure 7. Headline and Core Inflation



Source: DOSM; AMRO staff calculations

Figure 8. Inflation by Selected Category



Source: DOSM; AMRO staff calculations

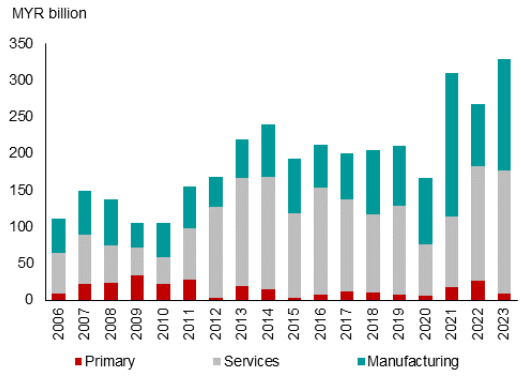
5. Malaysia's growth is projected to accelerate in 2024, driven by resilient domestic demand and recovery in external demand. After a weaker-than-expected growth outturn last year, the Malaysian economy is forecast to grow by 4.7 percent in 2024. The economy performed better than expected in H1 2024, in part due to larger policy support and festive spending.[12] Although private consumption may be dampened by new tax measures and higher inflation when fuel subsidies are gradually reduced in H2, favorable labor market conditions, government cash assistance, and flexible withdrawals from Account 3 of the Employees Provident Fund (EPF) should support spending. Meanwhile, external demand is expected to recover as global trade improves, but Malaysia's semiconductor exports will stage a more robust recovery only in the second half of the year due to the country's position at the back end of the global supply chain.[13] A surge in approved investments in recent years is expected to translate into higher realized investments (Figure 9). Moreover, implementation of national master plans unveiled last year, combined with the proposed Johor-Singapore Special Economic Zone (see Box 3), is

[9] Inflation pervasiveness can be measured by the share of items in the CPI basket with monthly price increases.
[10] Retargeting of diesel subsidies, initially slated to be operationalized in March 2024, received Cabinet approval in May and took effect on June 10, 2024. The retail price of diesel was increased from MYR2.15/liter to MYR3.35/liter.
[11] Details on RON95—the largest component of the subsidy bill, and yet to be tabled to the Cabinet—are still undisclosed, including the targeting mechanism to protect low-income households. As of end-March 2024, 52.6 percent of the 22 million adult Malaysians had registered on PADU, a central socioeconomic database, which will be used to decide eligibility for subsidies.
[12] Policy support includes one-off early incentive payment and Hari Raya special financial assistance to civil servants, Rahmah cash aid disbursed in January and April, and MYR7 billion withdrawn from EPF Account 3 in May and June. The EPF has estimated that MYR25 billion could flow out of Account 3 in 2024 and moderate to MYR4 billion to MYR5 billion per year thereafter.
[13] Malaysia is a significant player in the late stages of the semiconductor supply chain, particularly in chip assembly, testing, and packaging, holding a 13 percent share of the global market. However, it has limited direct exposure to the advanced logic and memory segments, which are currently driving rapid growth in semiconductor sales.

expected to boost investment going forward.[14] Growth is projected to remain solid at 4.9 percent in 2025 on account of robust domestic and external demand.

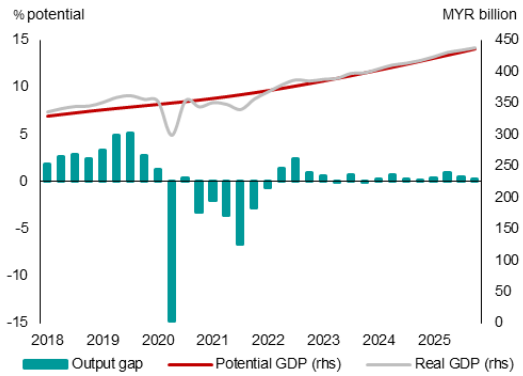
6. Inflation is projected to remain moderate in 2024 and to pick up in 2025, but considerable uncertainty exists over the timing and magnitude of fuel subsidy rationalization. Headline inflation is projected to increase only gradually in the first half of the year due to limited impact of the new tax measures, but is expected to pick up somewhat when subsidy rationalization of RON95 fuel is implemented.[15] The effects of exchange rate depreciation would remain manageable because of existing price controls on food-related items that are sensitive to exchange rates. Overall, headline inflation is forecast to average 2.3 percent in 2024 and rise markedly to 3.6 percent in 2025. Core inflation is projected to be moderate but remain above its long-term level.

Figure 9. Approved Investments



Source: DOSM; Malaysia Investment Development Authority (MIDA)

Figure 10. Output Gap



Source: DOSM; AMRO staff estimates

Authorities' Views

7. The authorities broadly agree with AMRO staff's assessment of the growth and inflation outlook. The authorities expect growth to be near the upper end of their forecast of between 4.0 and 5.0 percent in 2024, supported by resilient domestic demand and a recovery in exports. The output gap is expected to turn positive in 2024, in line with AMRO staff's estimates (Figure 10). Headline inflation is expected to remain moderate amid contained cost pressures, averaging between 2.0 and 3.5 percent, with the upper end of the forecast incorporating potential upsides from the implementation of fuel subsidy rationalization.

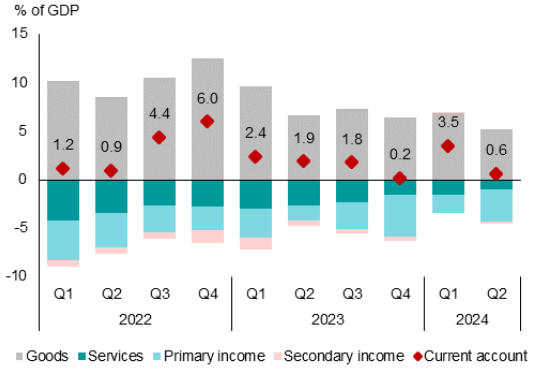
A.2 External Sector

8. The external position weakened in 2023 amid a challenging external environment but has improved. The current account recorded a surplus of 1.5 percent of GDP in 2023, down from 3.2 percent in 2022 (Figure 11). Goods surplus moderated due to lower exports but the impact was partially offset by a narrower service deficit thanks to a strong recovery in travel receipts.[16] The financial account switched to a net outflow of 0.8 percent of GDP, from a net inflow of 0.5 percent in 2022, due to large portfolio investment outflows amid smaller direct investment and other investment inflows. Portfolio investment

[14] The New Industrial Master Plan (NIMP) 2030 and National Energy Transition Roadmap (NETR) were announced in H2 2023.
[15] Our baseline case assumes RON95 retail prices will be increased in a phased manner.
[16] International tourist arrivals to Malaysia surpassed pre-pandemic levels in December 2023, the fastest among ASEAN economies, supported by visa exemptions for China and India.

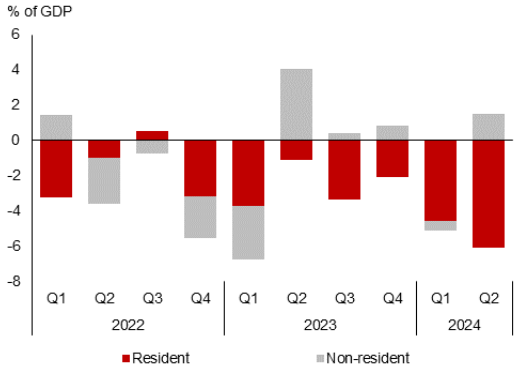
outflows were driven by resident investors and only partially offset by non-resident inflows (Figure 12).[17] Foreign direct investment (FDI) inflows also moderated amid subdued external demand, but FDI related to data centers and cloud services increased significantly. The current account surplus improved to 2.0 percent of GDP in H1 2024 following improvements in both the services and income accounts, despite a smaller goods surplus. The financial account also improved slightly as other investment net inflows helped offset portfolio and direct investment net outflows.

Figure 11. Current Account Balance



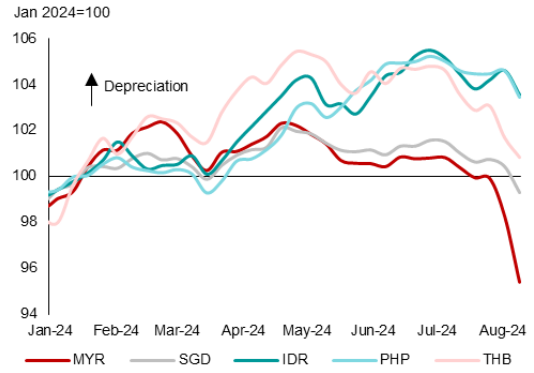
Source: BNM; DOSM; AMRO staff calculations

Figure 12. Portfolio Investment



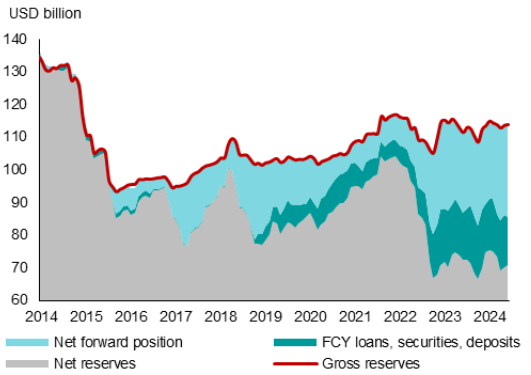
Source: BNM; DOSM; AMRO staff calculations

Figure 13. ASEAN-5 Currencies vs. U.S. Dollar



Source: BNM; Haver Analytics; national authorities; AMRO staff calculations

Figure 14. BNM's International Reserves Position



Source: BNM

9. In line with external conditions, the ringgit weakened in 2023 but stabilized in Q2 2024 reflecting coordinated efforts by the authorities to encourage more consistent and timely repatriation and conversion of foreign investment income for a more balanced two-way flow. In 2023, the ringgit depreciated by 3.9 percent against the U.S. dollar and 3.7 percent in nominal effective exchange rate (NEER) terms. In addition to the weaker external position, global factors such as expectations of prolonged high U.S. interest rates and heightened geopolitical uncertainty drove the weakness in the ringgit. In the first two months of 2024, the currency fell further by 3.8 percent against the U.S. dollar. In response, Bank Negara Malaysia (BNM) and the government responded through various initiatives including stepping up coordination with government-linked companies (GLCs) and government-linked investment companies (GLICs) to encourage more consistent and timely repatriation and conversion of foreign investment income and to encourage more

[17] Portfolio investment net outflows amounted to 2.0 percent of GDP in 2023 (residents: -2.6 percent; non-residents: +0.6 percent).

balanced two-way flows. Moreover, BNM has announced a plan to incentivize companies to repatriate foreign investment income by introducing a fast-track approval framework for those reinvesting abroad. Between February and July 2024, the ringgit appreciated 3.7 percent against the U.S. dollar, and in NEER terms, it strengthened 3.3 percent (Figure 13).

10. BNM's gross international reserves (GIR) remain broadly unchanged, having declined from USD114.6 billion at end-2022 to USD113.5 billion at end-2023, but climbed back to USD114.7 billion as of end-July 2024 (Figure 14). At this level, the GIR is sufficient to finance 5.3 months of imports of goods and services, and is 1.0 times total short-term external debt. The reserves coverage on short-term external debt would fall to 0.7 after netting out BNM's short-term foreign currency liabilities, including its net short foreign exchange (FX) position which hit a record high in April 2024. However, the relatively low net reserves coverage is mitigated by the profile of short-term external debt. As of Q2 2024, almost half of short-term external debt was in the form of intragroup borrowings on stable and concessional terms, while nearly one-fifth comprised trade credits backed by export earnings. Moreover, corporations and financial institutions together held liquid external assets amounting to 1.7 times short-term external debt. These assets can be drawn upon to meet their short-term external debt obligations, without posing a claim on official reserves.

Authorities' Views

11. BNM clarified that the increase in the net short FX position from its FX swap operations was largely due to onshore banks' demand for ringgit liquidity, and was not a deliberate action to influence the exchange rate or the reserve level. BNM has focused its FX interventions in the spot market, while the forward position is part of the central bank's two-way transactions under FX swap operations to provide ringgit liquidity. BNM expects the forward position to decline as onshore liquidity conditions improve amidst improving global financial market conditions and more capital inflows later this year.

A.3 Monetary Conditions and Financial Sector

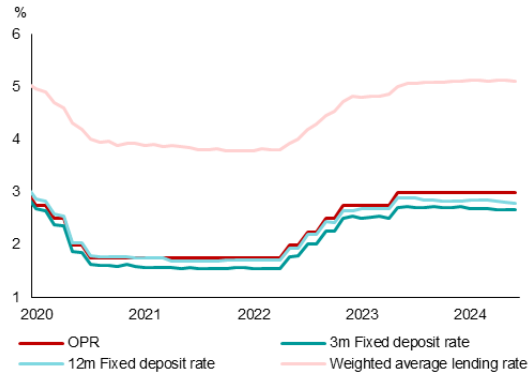
12. Amid easing inflation and a resilient growth outlook, the overnight policy rate (OPR) has been kept unchanged since May 2023. BNM's Monetary Policy Committee (MPC) raised the OPR by 25 basis points (bps) in May 2023—the only adjustment last year after a cumulative 100 bps hike in 2022—and then maintained the rate at six consecutive meetings through May 2024 in view of steady disinflation and stabilizing demand conditions. At the current OPR level of 3.00 percent, BNM assesses the monetary policy stance to be supportive of the economy.

13. Overall financing conditions have been broadly stable. Policy rate hikes have been transmitted effectively to bank lending and deposit rates (Figure 15). Fixed deposit rates rose 15-20 bps in 2023 while the weighted average lending rate increased 28 bps. The rates have broadly stabilized since the start of 2024. In the bond market, the 10-year benchmark government bond yields declined by 36 bps in 2023 before rising 13 bps in H1 2024. Compared with U.S. Treasury yields, the upward adjustments in Malaysian government bond yields have been more muted, reflecting lower inflation and a stable policy rate outlook in Malaysia. Meanwhile, corporate spreads narrowed among high-quality

issuers following strong demand.[18] However, in the interbank market, the spread between the three-month KLIBOR and OPR narrowed from a peak of 96 bps in mid-January 2023 to 77 bps as of end-December 2023, and remained elevated at 57 bps at end-July 2024 despite broad market expectations of a steady policy rate this year.[19] The remaining tightness in interbank funding conditions is partly a result of the decline in domestic ringgit liquidity.[20]

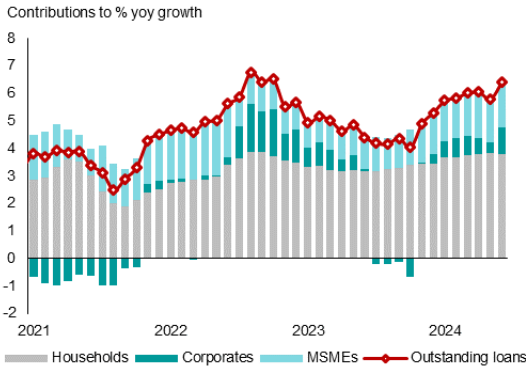
14. The financial system continues to support economic activity through robust bank loan growth as well as new funds raised in the capital market. Outstanding loan growth moderated from 4.7 percent at end-2022 to 4.0 percent in October 2023, before rebounding to 6.0 percent in June 2024 on the back of a stronger pickup in economic activity, especially in service-related sectors (Figure 16). Meanwhile, the loan growth of micro, small, and medium enterprises (MSMEs) continued to hold up. Household loans continued to post robust expansion in 2023, mainly for residential properties and vehicles amid improvement in labor market conditions and supportive housing measures.[21] In 2023, outstanding corporate bonds of the private non-financial sector grew by a robust 4.8 percent rate on average, although growth moderated to 3.4 percent in Q2 2024. Funds raised via issuances of new primary shares picked up and reached MYR3.6 billion in 2023 from MYR3.4 billion in 2022. Meanwhile, funds raised on alternative financing platforms rose to MYR2.2 billion from MYR1.7 billion in the same period.[22]

Figure 15. Key Policy and Bank Interest Rates



Source: BNM

Figure 16. Banking System Loans



Source: BNM; AMRO staff calculations

15. The domestic equity market has been supported by optimism surrounding positive developments in the economy. Following an extended decline of 7.9 percent in H1 2023, the equity benchmark index FBMKLCI has rebounded by around 16 percent since H2 2023 and outperformed regional peers, buoyed by announcements of national master plans and special economic zones as well as record-high approved investments. The recovery was broad-based, led by sectors that are expected to benefit from these developments, such as utilities, property, and construction.

[18] Between January 2023 and May 2024, AAA-rated issuers saw their corporate spreads of three to 10-year tenors fall by 42-56 bps. A-rated issuers declined by 45-54 bps and BBB-rated issuers by 16-26 bps, while the spreads of issuers rated BB and below increased 11-32 bps.
[19] The 3M KLIBOR-OPR spread averaged 45 bps during 2015-2019.
[20] The banking system's liquidity placement at BNM via deposits, reverse repo, and BNM bills declined by MYR25 billion between December 2022 and December 2023, and by another MYR30 billion in Q1 2024. Such decline in domestic ringgit liquidity resulted in part from capital outflows. The issue is discussed more comprehensively in a Selected Issue in AMRO's Annual Consultation Report on Malaysia 2023.
[21] Policy measures included stamp duty exemptions for first-time property buyers.
[22] This included equity crowdfunding (ECF) and peer-to-peer (P2P) financing. Funds raised from ECF fell from MYR141 million in 2022 to MYR126 million in 2023, while P2P financing grew from MYR1.6 billion to MYR2.1 billion in the same period.

16. The banking system maintains ample buffers and asset quality has improved, but profitability moderated slightly. Both capital and liquidity buffers far exceed regulatory requirements, with the total capital adequacy ratio, common equity tier 1 (CET1), and liquidity coverage ratio (LCR) registering 18.4 percent, 14.8 percent, and 155 percent respectively, in June 2024.[23] On asset quality, the share of non-performing loans (NPLs) declined steadily from 1.72 percent at end-2022 to 1.59 percent in June 2024 (Figure 17). The improvement was driven by a drop in impairments among corporate loans, which more than offsets the uptick in MSME loans, while households' NPL ratio remained stable. The share of Stage 2 loans, meaning loans with higher credit risk, also fell to 7.2 percent at end-2023 from 8.8 percent at end-2022. Meanwhile, bank profitability declined slightly in 2023 amid lower net interest income that was in part due to a rise in funding costs following a shift toward longer-term deposits.

17. Financial health of the business sector remains sound overall despite pockets of emerging vulnerabilities. The corporate debt-to-GDP ratio increased from 97.5 percent at end-2022 to 101.2 percent at end-2023.[24] The share of corporate debt-at-risk remained stable at 35 percent among listed companies.[25] Nevertheless, the debt-at-risk share rose at a faster pace for the property and construction, raw material, as well as utility and waste management sectors. Meanwhile, the proportion of SMEs which are delinquent in repayments increased from 1.6 percent in June 2023 to 2.1 percent in December 2023, pointing to emerging pockets of vulnerability among small firms which warrant close monitoring.

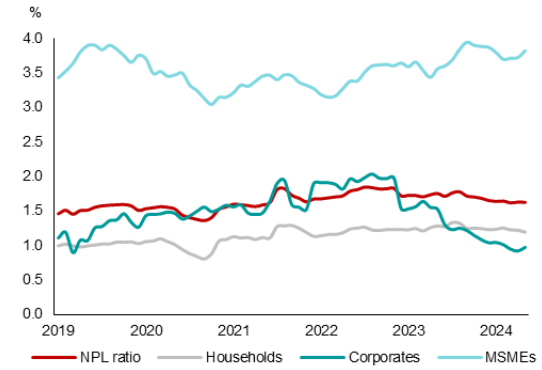
18. Households' financial position remains sound overall. The household debt-to-GDP ratio rose from 80.9 percent in December 2022 to 84.2 percent in December 2023. Overall credit quality is sound, with NPLs stabilizing at 1.2 percent of total loans at end-2023 and into 2024, and the share of Stage-2 loans declining from 6.7 percent in December 2022 to 4.8 percent in December 2023. However, NPLs among loans for residential properties valued at less than MYR500,000 are gradually rising.[26] In addition, the number of new enrolments in the Debt Management Program by the National Credit Counseling and Management Agency (AKPK) rose 50 percent in 2023 from the previous year. While much of the uptick may be due to increased awareness of AKPK's services,[27] it could also in part reflect growing financial strains on some households from the higher costs of living. Thus, while the overall share of household debt under AKPK's program remains very small at 0.54 percent of total household loans, the trend should be monitored amid upside risks to the costs of living.

19. Oversupply in the property market has gradually eased. The volume of unsold completed residential units fell 10.4 percent between December 2022 and December 2023. The easing of the supply glut was broad-based across states (Figure 18). Demand for housing was supported by improvements in employment conditions and government

[23] The regulatory thresholds for total capital ratio, CET1, and LCR are 10.5 percent, 7.0 percent (inclusive of the capital conservation buffer) and 100 percent, respectively. BNM's latest stress tests indicate that banks have sufficient capital buffers to withstand severe macro-financial shocks.
[24] Including loans from banks and development financial institutions (DFIs) to businesses, outstanding corporate bonds issued by non-financial corporates, and external debt of non-financial corporates.
[25] Debt-at-risk is defined by the total debt of companies that have an interest coverage ratio (ICR) below 1.25.
[26] NPLs for residential property valued below MYR300,000 increased from 1.3 percent in December 2022 to 1.4 percent in December 2023, while those between MYR300,000 and MYR500,000 rose from 0.9 percent to 1.1 percent. Overall residential property NPLs fell from 1.4 percent to 1.3 percent.
[27] For example, increased financial institutions' referrals to AKPK, the Pre-Bankruptcy Advisory and Repayment Support (PARAS) program, and AKPK's own outreach initiatives.

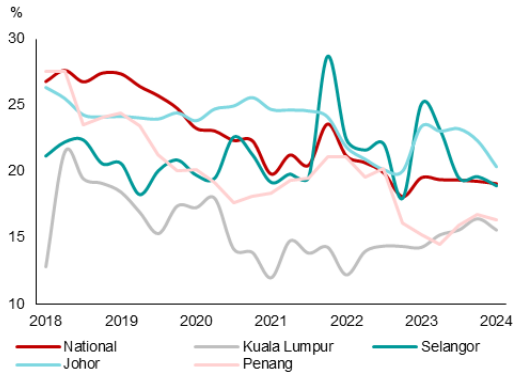
measures aimed at promoting homeownership, such as stamp duty exemptions for first-time home buyers. Meanwhile for commercial property, occupancy rates of shopping complexes and office buildings have recovered slightly, reversing the steady declines of 2016-2022.

Figure 17. Non-performing Loans



Source: BNM

Figure 18. Residential Property Overhang Rate



Source: National Property Information Centre (NAPIC)
Note: A residential property is defined as overhang when the unit has received its certificate of completion and compliance but remains unsold nine months after launch.

Authorities' Views

20. BNM affirmed that no new signs of credit deterioration have emerged among lower-income borrowers. BNM noted that repayment trends have been broadly similar across all income segments. As of March 2024, loan delinquency and loan impairment of the lower income segment, defined as earning less than MYR5,000 monthly, were 1.0 percent and 1.3 percent, respectively, broadly unchanged from end-2023. In addition, the rise in new enrolments in AKPK's Debt Management Program reflected in part increased referrals from financial institutions and AKPK's outreach initiatives, and thus may not be construed as clear signs of greater financial difficulties among households.

A.4 Fiscal Sector

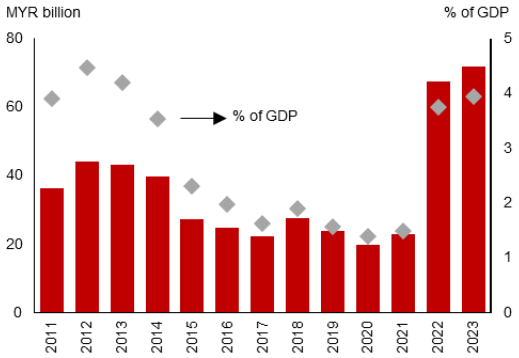
21. While inflation has been kept low, the effort has come at a substantial fiscal cost due to blanket energy subsidies and price controls. Government spending on subsidies and social assistance rose further to MYR71.9 billion (3.9 percent of GDP) in 2023, after nearly tripling to MYR67.4 billion (3.8 percent of GDP) in 2022 (Figure 19). On the revenue front, higher corporate and personal income tax collection helped to cover increased expenditure on subsidies, supplies and services, and pensions. Higher corporate tax collection was partially derived from the Prosperity Tax, while changes to personal income tax (PIT) rates contributed to higher individual tax collection.[28] As a result, the fiscal deficit narrowed to 5.0 percent of GDP in 2023, meeting the government's target and continuing its consolidation path from a deficit of 5.5 percent in 2022 and 6.4 percent in 2021 (Figure 20).

22. The fiscal deficit in 2023 narrowed as planned, and is projected to continue its near-term consolidation path in 2024. Fiscal consolidation is projected to continue in 2024, with the government expecting a smaller deficit of 4.3 percent of GDP, broadly in line

[28] Companies with taxable income of more than MYR100 million were charged an additional 9 percentage points on the corporate tax rate. PIT rates were increased by 0.5 to 2 percentage points for those in the high-income brackets (annual income MYR100,000 to MYR1 million).

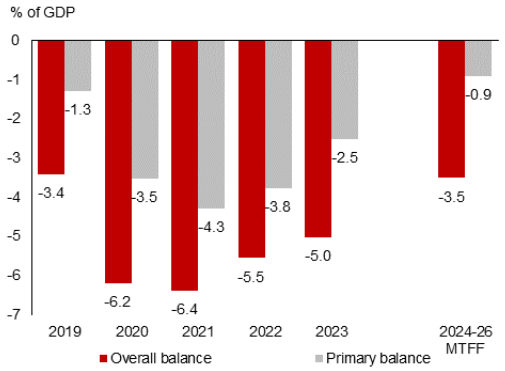
with the AMRO staff estimate. Federal government expenditure in Budget 2024 is projected to be lower at 19.9 percent of GDP compared with actual spending of 22.3 percent in 2023, primarily due to a planned reduction in subsidies and the exclusion of 1MDB bond repayments.[29] Total revenue is projected to decline to 15.6 percent of GDP in 2024 from 17.3 percent in 2023, owing to lower proceeds from non-tax revenue.[30] Overall, the fiscal stance in 2024 is assessed as broadly neutral.[31]

Figure 19. Fiscal Spending on Subsidies and Social Assistance



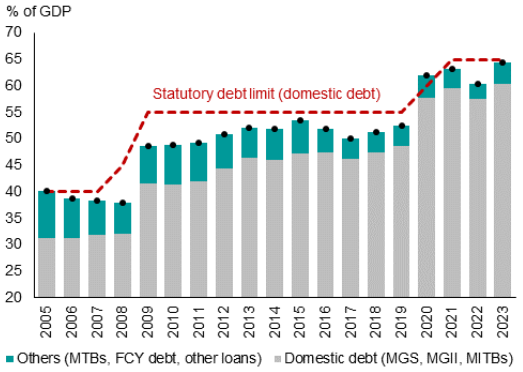
Source: DOSM; MOF; AMRO staff calculations

Figure 20. Overall and Primary Fiscal Balance



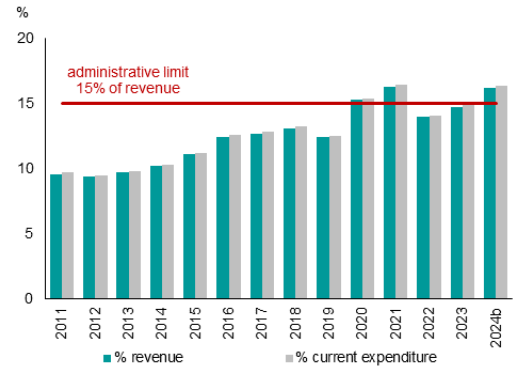
Source: DOSM; MOF; AMRO staff estimates

Figure 21. Federal Government Debt



Source: DOSM; MOF; AMRO staff calculations

Figure 22. Interest Payments on Public Debt



Source: MOF; AMRO staff calculations

23. Total government debt is projected to remain broadly unchanged in 2024 before declining slightly over the medium term, but contingent liabilities remain sizable. Government debt increased to 64.3 percent of GDP in 2023 from 60.2 percent in 2022, driven largely by lower increase in GDP deflator and lower economic growth (Figure 21). Debt service payments in 2023 amounted to 14.7 percent of federal government revenue, and are expected to reach 16.2 percent in 2024, exceeding the administrative limit of 15 percent (Figure 22). Total contingent liabilities as a share of GDP declined slightly from 20.4 percent GDP in 2022 to 19.7 percent in 2023, but remain sizable relative to peer countries. AMRO staff projects the debt level to be broadly unchanged at 64.4 percent of

[29] Government expenditure in 2023 included 1MDB's bond redemption of USD3 billion (MYR14.2 billion), which has been adjusted for in AMRO's fiscal stance assessment.
[30] Several tax measures were introduced in 2024 including capital gains tax (0.04 percent of GDP), low value goods tax (0.04 percent of GDP), and an expansion of the service tax rate from 6 percent to 8 percent for selected sectors (0.2 percent of GDP), as well as e-invoicing to improve revenue administration. The high value goods tax, initially planned to take effect from March 2024, has been postponed. These tax measures have not been taken into account in the revenue estimate of 15.6 percent of GDP. Lower proceeds from investment income in 2024 is mainly due to smaller PETRONAS dividend from MYR40 billion to MYR32 billion (0.8 percent of GDP) and non-revenue receipts from MYR6.7 billion to MYR3.6 billion (0.2 percent GDP).
[31] The fiscal impulse, measured by the change in the structural primary balance as a percentage of GDP, is estimated at 0.3.

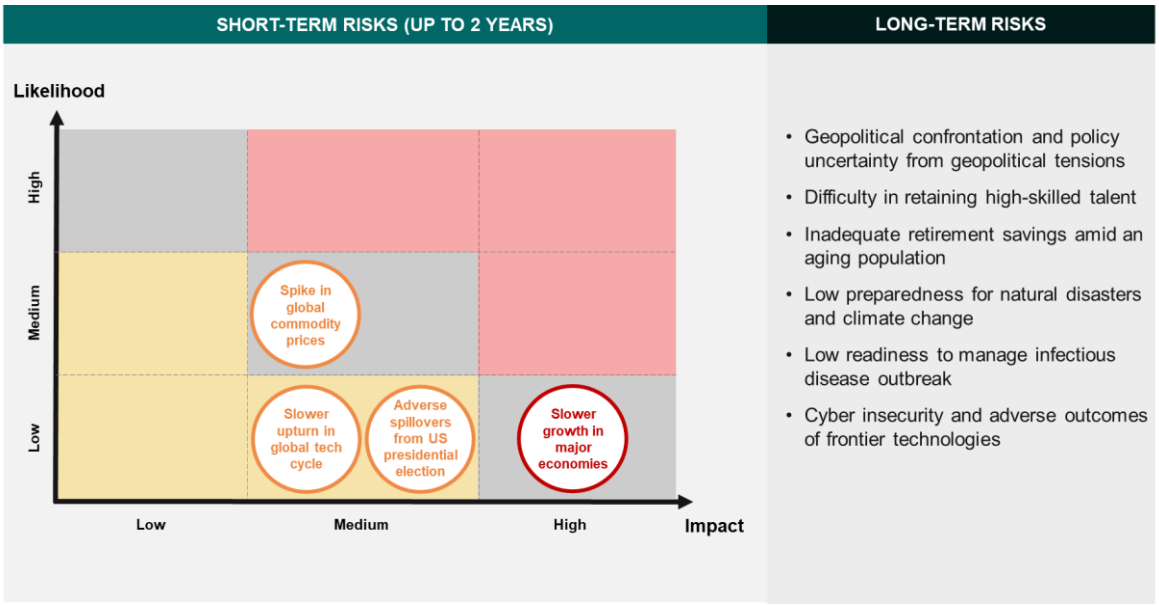
GDP in 2024 and remain above 60 percent of GDP in 2028 under existing policies (see Selected Issue 4).

Authorities' Views

24. The Ministry of Finance (MOF) noted that there is some upside to revenue realization than what was assumed in Budget 2024. The MOF pointed out that the new tax measures introduced in Budget 2024 have not been factored in the official revenue projection, hence indicating further upside to revenue collection this year. The new tax measures include a higher service tax rate applied to selected sectors, low value goods tax, capital gains tax on unlisted shares, and an approved high value goods tax pending implementation.

B. Risks, Vulnerabilities and Challenges

Risk Map: Malaysia



Source: AMRO staff

Short term risks

25. Risks to Malaysia's growth outlook are broadly balanced, with downside risks stemming from weaker-than-expected growth in major economies and adverse spillovers from the U.S. presidential election. A notable growth slowdown in China, reflecting a faltering recovery in the property sector, could significantly impact Malaysia through declines in trade, investment, and tourism.[32] Likewise, if U.S. inflation stays elevated and interest rates remain high for longer, the U.S. economy could experience a sharper moderation and drag down Malaysia's exports.[33] In addition, rising protectionist sentiments as the U.S. presidential election goes into full swing could heighten policy uncertainty, as evidenced by recent imposition of higher import tariffs on China. Although Malaysia would likely benefit from increased trade and investment diversion, a blanket tariff

[32] China is Malaysia's largest export market and a significant source of FDI and tourist inflows.
[33] The U.S. is Malaysia's third-largest export market. More than 20 percent of U.S. chip imports come from Malaysia, its largest origin for semiconductors and more than Taiwan Province of China, Korea, or Japan.

on all U.S. imports as proposed by one of the presidential candidates could depress global trade. Malaysia's potential gains in making up for China's lost share in U.S. imports are far from guaranteed, given intensifying competition that has India, Mexico, and Vietnam emerging as equally attractive friendshoring options (See Box 1). Upside risks include faster implementation of investment projects and greater spillover from the tech upcycle.

26. Risks to the inflation outlook are skewed to the upside, owing to a mix of external and domestic factors. On the external front, spikes in global commodity prices, fueled by a combination of weather-related and geopolitical factors, remain a key risk. Although El Niño has ended, the ensuing hot and dry conditions could affect the global supply of key food commodities. Such changes could raise global food prices, exacerbated by additional protectionist measures on exports, especially of staple foods, which would place renewed upward pressure on Malaysia's food prices and domestic living costs. Furthermore, if conflicts in the Middle East and between Russia and Ukraine were to worsen, crucial sea routes may be disrupted, leading to higher transport costs and a resurgence in inflationary pressures. A broader conflict in the Middle East and supply management measures could also drive energy prices higher. As for domestic factors, large adjustments to fuel prices from the planned subsidy rationalization would result in higher inflation owing to a sizable share of fuel in the CPI basket and the knock-on effects.

Medium to long term risks

27. Global economic fracturing could fundamentally reshape economies and markets, posing challenges to cross-border financial flows, technology transfers, and supply chain security. The strategic rivalry and escalating tension between the United States and China could lead to a fracturing of the global economy into ideological blocs centered on the two nations, with ramifications for trade and investment.[34] The global economy is expected to be worse off in a fractured world as trade is eliminated between rival blocs and production networks break down or are disrupted.[35] Nonetheless, macroeconomic effects at the country level would be more nuanced. Malaysia can reap the benefits of trade and investment diversion if it is able to strategically maneuver through major power rivalry. For instance, Malaysia's strategic positioning as a neutral party has allowed the country to attract FDIs from the U.S., Europe, and China to strategic sectors such as semiconductors, telecommunications, and solar energy in recent years.

28. Increased outflow of skilled talent could hold back the realization of aspirational national master plans. The New Industrial Master Plan (NIMP) 2030 and the National Energy Transition Roadmap (NETR) have provided greater clarity on the government's strategic direction for the country's development. A critical challenge to the realization of the ambitious goals outlined in these national plans, such as encouraging innovation and producing more sophisticated products, is in attracting and retaining skilled talent.[36] Increased talent outflow, exacerbated by limited creation of high-skilled jobs and

[34] For instance, China-aligned countries could suffer from limited technology transfers and financial inflows from advanced economies. On the other hand, these countries could have a relatively secure supply of raw materials and intermediate inputs.
[35] Depending on the severity of the hypothetical decoupling across blocs, current estimates of overall economic losses from geoeconomic fragmentation range from 1.2 percent to 6.9 percent of global GDP (Aiyar *et al.* 2023).
[36] According to the Ministry of Human Resources, as of 2022, 1.86 million Malaysians had migrated overseas, of which 1.13 million resided in Singapore. A 2022 study by the Department of Statistics Malaysia showed that more than half of the Malaysian diaspora in Singapore had tertiary-level qualifications.

exchange rate weakness, could hinder industrial upgrading and diminish the country's competitiveness in attracting high-tech FDIs.[37]

29. Inadequate retirement savings amid a rapidly aging population could cause future socioeconomic and fiscal complications. Massive withdrawals during the pandemic have exacerbated the inadequacy of retirement savings, especially of the lower income groups.[38] Among EPF members aged 51 to 55, only 17 percent meet the basic savings target of MYR240,000.[39] Additional withdrawals would aggravate the already alarmingly low level of savings and increase financial vulnerabilities over the long term. Meanwhile, DOSM projects that the number of people aged 60 and above will grow to 8.23 million or almost 20 percent of the population by 2040, nearly doubling from 3.75 million or 11 percent in 2020. The government will likely have to provide additional social assistance to supplement their living expenses given insufficient retirement savings, on top of funding the ballooning civil service pension bill, which raises the risk of a fiscal crisis.[40]

30. Other long-term risks persist, including climate change transition, natural disasters, infectious disease outbreaks, and cybersecurity threats. Floods in Malaysia have occurred more frequently in the past two decades, causing significant damage and loss of human lives. According to the United Nations Office for Disaster Risk Reduction (UNDRR), sea levels could rise 0.25 to 0.5 meters by the end of the century in Peninsular Malaysia and exceed 1.06 meters in Sabah, which would completely inundate villages in low-lying areas. Malaysia's climate also makes the country vulnerable to vector-borne diseases. The risk of another pandemic cannot be downplayed—the United Nations Development Programme (UNDP) has predicted the likelihood of another pandemic like COVID-19 in the next 25 years to be about 50 percent. Lastly, cybersecurity threats pose significant risks, including to financial stability.

C. Policy Discussions and Recommendations

C.1 Rebuilding Fiscal Space and Strengthening Governance

31. The authorities have committed to a medium-term fiscal consolidation to lower debt and rebuild fiscal buffers. A projected positive output gap in 2024-2025 and reduced fiscal space due to the pandemic, support the need for fiscal consolidation.[41] The Medium-Term Fiscal Framework (MTFF) envisages an ambitious target to narrow the fiscal deficit to 3 percent of GDP. The consolidation strategy primarily hinges on spending based measures such as fiscal savings from subsidy rationalization and an increase in non-petroleum revenue, which aims to reduce government debt to below 60 percent of GDP by 2028, as set out in the Public Finance and Fiscal Responsibility Act (PFFRA).

32. The much-needed fuel subsidy rationalization is underway, but ensuring socioeconomic fairness and effective communication will be critical for a successful

[37] Recruitment agencies reported 30 to 50 percent increase in Malaysians seeking jobs in Singapore in Q1 2024 amid the weakening ringgit; https://www.channelnewsasia.com/singapore/malaysians-working-jobs-ringgit-inflation-manpower-employment-4265736.
[38] Total withdrawals from i-Lestari (2020), i-Sinar (2020), i-Citra (2021), and special withdrawal (2022) amounted to MYR145.4 billion (equivalent to 8.0 percent of GDP in 2023 or 12.8 percent of EPF's investment assets as of December 2023).
[39] The basic savings of MYR240,000 are derived from the current minimum public pension of MYR1,000 a month (below the minimum wage of MYR1,500 and BNM's living wage estimate of MYR2,700) for retired civil servants and assuming a 20-year retirement period.
[40] Civil service pensions are projected to rise from MYR34 billion in 2023 to MYR120 billion by 2040 if no reforms are undertaken.
[41] Malaysia's fiscal space is assessed as moderate based on AMRO's fiscal space framework. While debt-to-GDP and gross financing needs-to-GDP ratios are projected to remain below the respective thresholds under the baseline, the share of government debt held by non-residents and the level of external financing are projected to exceed the lower early warning benchmark of 15 percent and 5 percent, respectively.

reform.[42] A targeted diesel subsidy was implemented in mid-June and the authorities are committed to rationalizing RON95 subsidy subsequently. The establishment of a consolidated socioeconomic database, PADU, is an important step in the right direction to ensure fairer subsidy distribution. However, PADU's relatively low registration rate has hampered its timely deployment for diesel subsidy rationalization. As such, the authorities have resorted to existing income databases to facilitate targeted cash transfers while working toward refining PADU and income group reclassification.[43] Clear and forward-looking policy communication as well as adequate and well-targeted cash transfers would help promote understanding and build social consensus to pave the way for smoother implementation.

33. AMRO staff recommends the implementation of RON95 fuel subsidy rationalization in a phased manner. A phased approach helps to reduce the impact on inflation while allowing households and firms to adjust to higher prices. At the same time, it allows the authorities to monitor the effects of the reform and make appropriate adjustments and provides time to build credibility by showing that the subsidy savings are used productively. However, a phased nature could create uncertainty if stakeholders are unclear about the timing and specifics of each phase, though this can be mitigated by clear and consistent communication. Although an immediate full float of fuel prices involves less administrative complexity and can lead to larger fiscal savings, it will trigger a sharper increase in inflation and galvanize opposition to further reforms.[44] Case studies show that most of the successful reforms in various parts of the world involved a phased reduction in subsidies.[45] In terms of timing, the current environment of moderate inflation and stable demand conditions offers a window of opportunity to implement subsidy rationalization which, when accompanied by a phased hike in fuel prices, would soften the impact on inflation.

34. However, even with subsidy rationalization, it will be challenging to achieve the MTFF targets without new major revenue sources. AMRO staff estimates that a complete removal of fuel subsidies can potentially generate annual fiscal savings of 0.9 percent of GDP, after factoring in targeted cash transfers to low-income households. However, the outcome will still fall short of the MTFF deficit targets, which would require an additional spending adjustment equivalent to 0.7 percent of GDP in the absence of a new major revenue source. The scope for further spending cuts is limited given the large share of committed and non-discretionary expenditures, such as emoluments, retirement charges, and debt service payments.

35. To achieve the authorities' fiscal consolidation and growth objectives, a comprehensive revenue mobilization strategy is required that would encompass

[42] The government estimated that the T20 income group enjoyed 53 percent of total fuel subsidies in 2022, while the B40 group received 15 percent.
[43] The government has announced a gradual transition to a new approach that would be based on net household disposable income instead of the current static income-based approach, which categorizes households as B40 (bottom 40 percent of households with net income of below MYR4,850 monthly), M40 (middle 40 percent of households with a net income between MYR4,851 and MYR10,960 monthly), and T20 (top 20 percent of households with net income above MYR10,960 monthly) categories.
[44] For instance, when RON92 and diesel prices were raised by MYR0.74/liter and MYR1.00/liter respectively in June 2008, inflation soared to an average of 8.1 percent over five months from 3.8 percent in May 2008, leading to repeated cuts in fuel prices due to public backlash. By contrast, inflation was relatively contained when RON95 and diesel prices were increased by MYR0.20/liter in September 2013 and October 2014 respectively. Fuel subsidies were removed in December 2014, and the retail prices of RON95 and diesel were determined monthly using a managed float system until February 2021. AMRO staff estimates that a full float of RON95 prices starting October 2024 (from MYR2.05/liter to MYR3.05/liter) would result in inflation averaging 5.0 percent between Q4 2024 and Q2 2025. With a phased approach in the baseline assumption (from MYR2.05/liter to MYR2.40/liter in October 2024 and fully floated from July 2025), inflation would rise more gradually and average 3.6 percent over the same period.
[45] See UNDP (2021) Fossil Fuels Subsidy Reforms Lessons and Opportunities; IMF (2013) Energy Subsidy Reform Lessons and Implications.

reintroducing the goods and services tax (GST). Tax revenue as a share of GDP has trended lower, notwithstanding the one-off boost in 2022 and 2023 due to the Prosperity Tax and the Special Voluntary Disclosure Program.[46] While new tax measures were introduced in 2024, the estimated additional revenue collection is small. AMRO staff have projected the tax revenue-to-GDP ratio to decline further from 12.5 percent of GDP in 2024 to 11.5 percent in 2028. That said, Malaysia has considerable room for higher revenue collection. PIT revenue is relatively low at 2.4 percent of GDP, trailing peers and failing to keep up with per capita income growth.[47] Malaysia also faces a significant indirect tax gap, characterized by an inefficient single-stage consumption tax regime.[48] The sales tax and service tax (SST) generated revenues equivalent to 1.8 percent of GDP during 2019-2023, significantly lower than its predecessor, the GST, which generated 3.3 percent of GDP when it was in full effect during 2016-2017. In this regard, the authorities are encouraged to consider reintroducing GST in the medium term. In fact, the full roll-out of e-invoicing in July 2025 would pave the way for a smoother implementation of GST as it will result in improved compliance for companies and lesser administrative burden.

36. AMRO staff recommends a sequential implementation approach toward meeting the MTFF targets. The immediate priority is to implement the planned subsidy rationalization program while providing vulnerable groups with income support to mitigate the impact on the cost of living. At the same time, the authorities are encouraged to improve tax administration, especially in PIT, to foster voluntary tax compliance, refine income tax brackets, and broaden the PIT base to better capture workers in the growing gig economy and informal sector. To avoid sharp spending adjustments while striving to achieve MTFF targets, the authorities' plan to rely less on petroleum dividends should be matched with the introduction of a more sustainable revenue source. In this regard, the tapering of petroleum dividends can be aligned to the reinstatement of GST after e-invoicing is fully implemented. A phased and well-timed approach, supported by a clear communication strategy and proactive stakeholder engagement, can allow for a more orderly trajectory towards meeting MTFF goals.

37. Institutional reform initiatives and a commitment to higher development spending are expected to enhance spending efficiency. The government is committed to ensure that the budget for development expenditure exceeds 3 percent of GDP as stipulated in the Public Finance and Fiscal Responsibility Act 2023, supported by strict fiscal management and government procurement processes to prevent leakages and wastage. The Government Procurement Act (GPA) should be expedited in order to improve public procurement transparency and institutionalize the sound management of public finances.

38. The Public Finance and Fiscal Responsibility Act (PFFRA) is encouraging. The mandatory annual publication of mid-year expenditure performance, fiscal risk statement, tax expenditure report, and economic outlook report, will improve fiscal transparency and accountability. Fiscal planning is strengthened by requiring the formulation of MTFF, underpinned by a medium-term revenue strategy and a public expenditure policy. The

[46] Malaysia ranked 10th out of 14 ASEAN+3 economies in tax revenue-to-GDP ratio in 2022, trailing behind its ASEAN peers such as Cambodia (17.0 percent), Philippines (14.6 percent), Vietnam (13.4 percent), Thailand (13.1 percent) and Singapore (12.1 percent). Malaysia also falls shorts of the 15 percent of GDP benchmark, a "tipping point" above which growth has been found to accelerate.
[47] Average PIT revenue as a share of GDP is 3.1 percent of GDP among emerging market economies, see Benedeck *et al.* (2022).
[48] SST is a single-stage tax system and comprises two independent taxes, governed by separate legislations. Sales tax is generally an ad valorem tax imposed at a rate of 10 percent. However, certain goods are taxed at 5 percent, while others are taxed at specific rates or exempted. The sales tax, on its own, is inefficient because of cascading effects as the tax elements are embedded into the cost of each successive stage in the supply chain. In addition, the overlapping of two separate tax systems may cause an item to be taxed twice.

PFFRA also includes an escape clause and provision of a fiscal adjustment plan in the event of a deviation from fiscal rules due to shocks. Existing debt legislation focuses on regulating government borrowing, the use of proceeds, and maintaining statutory debt limits that need to be followed at all times.[49] In comparison, the PFFRA is a principle-based legislation, aimed at enhancing fiscal responsibility and fiscal transparency, encompassing borrowing and debt management policy while allowing the government flexibility in setting fiscal targets in the medium term.

Authorities' Views

39. The MOF broadly agreed with AMRO staff's policy suggestion of a sequential approach to fiscal consolidation. The MOF affirmed its commitment toward fiscal consolidation. The immediate focus is on rationalizing expenditure, including by retargeting subsidies for electricity, water, diesel, and RON95. While the development of PADU may take time, other databases are available that can facilitate targeted cash transfers in supporting the implementation of retargeting RON95 fuel subsidy. The MOF also agreed that achieving the MTFF targets in light of the declining trend in tax revenue, calls for a broadening of the tax base and better tax administration. This includes the possibility of reinstating GST but will likely be implemented only in the medium term and after expenditure rationalization is anchored. The implementation progress of e-invoicing, a major tax administrative effort to plug tax leakage, is on track to be rolled out in August 2024.

40. The government is committed to implementing further fiscal reforms following the historic passing of the PFFRA. The MOF has highlighted that the PFFRA represents a significant milestone in institutional reform to enhance governance, accountability, and transparency in fiscal management. The GPA, which is another major reform to improve fiscal transparency, is expected be tabled in the Parliament for approval in the second half of this year. MOF is currently conducting engagement sessions with relevant stakeholders to ensure comprehensive input and alignment with key objectives. MOF will present the findings and recommendations to the Cabinet for deliberation, prior to its submission for tabling in Parliament.

C.2 Calibrating Monetary Policy to Balance Growth and Inflation

41. Against the backdrop of moderate inflation and an improved growth outlook, the current monetary policy stance is deemed appropriate. AMRO staff estimates of the neutral real interest rate indicate that the current monetary policy stance is broadly neutral. AMRO's augmented Taylor Rule model also suggests that the current OPR level of 3.00 percent is appropriate, based on staff's growth (and corresponding output gap estimates) and inflation projections as well as assumptions on the U.S. Federal Funds rate by end-2024.[50] Given considerable uncertainty surrounding the implementation of the fuel subsidy rationalization plan, including the magnitude and timing of price adjustments and the risk of second-round effects post-subsidy reduction, BNM should continue to be vigilant

[49] Malaysia's fiscal rules span multiple legislations. The statutory debt limit, covering MGS, MGII, and MITB, are governed by the Loan (Local) Act 1959 and Government Funding Act 1983, which prohibits the statutory debt level to exceed the ceiling limit of 65 percent of GDP. Offshore borrowings and MTB are governed by the External Loans Act 1963 and Treasury Bills (Local) Act 1946, which impose a cap of MYR35 billion and MYR10 billion, respectively. The PFFRA comprises four numerical rules: (i) annual development expenditure to be at least 3 percent of GDP; (ii) fiscal balance to be less than 3 percent of GDP in the medium term; (iii) government debt to be lower than 60 percent of GDP in the medium term; and (iv) financial guarantees to be less than 25 percent of GDP.

[50] The output gap is estimated to be 0.3 and 0.5 percent of GDP in 2024 and 2025, respectively. The implied policy rate path assumes one cut to the Fed Funds target rate to 5.00-5.25 percent by end-2024.

and take a data-dependent approach to monetary policy calibration. The emergence of broader price pressures following the removal of fuel subsidies would warrant a tightening of monetary policy.

42. AMRO staff observes that recent monetary policy decisions have been communicated with greater clarity and consistency, thus supporting market confidence. The MPC's clear and consistent narrative on the balance of risks to growth and inflation in recent monetary policy statements has provided market participants with a high degree of confidence in the central bank's monetary policy decisions. This is evident from *Bloomberg* and *Reuters* polls, whereby surveyed economists unanimously agreed on the direction of the policy rate. Notably, market analysts have high confidence that the OPR will not be raised to support the weak ringgit as BNM has other tools at its disposal to manage excessive exchange rate volatility, a position the central bank has repeatedly affirmed.[51] In this regard, BNM should continue to ensure the clarity and consistency of its communication to minimize confusion and speculation among market participants. This would allow market participants to better align expectations of future interest rates with the monetary policy stance.

C.3 Preserving Financial Stability Amid a Challenging External Environment

43. Movements of the ringgit exchange rate since 2023 to some extent reflect global and domestic developments, but investor sentiments also play a role. While elevated U.S. interest rates have spurred the broad weakness in regional currencies and the ringgit against the U.S. dollar, the relative ringgit underperformance can be explained in part by the wider policy rate differential against the Fed policy rate and a larger deterioration in the external position compared with peer economies (see Selected Issue 2).[52] However, at times the ringgit depreciation appeared to be driven by other exogenous factors, such as weakness in the Chinese yuan[53] or investors' self-fulfilling sentiments. Going forward, successful implementation of structural reforms that lift productivity, crowd in foreign investments, and improve export performance, will provide lasting support to the ringgit. [54] Well-coordinated communication from the authorities on such positive developments will also improve market perception of the ringgit's fair value.

44. A weaker ringgit can be a boon for Malaysia's export industries as exchange rate passthrough (EPRT) has been muted thus far and risks to financial stability are well contained. As a net exporter, Malaysia stands to benefit from a weaker ringgit through higher export income conversions and better price competitiveness—reflecting the role of a flexible exchange rate as an automatic stabilizer.[55] Periods of relatively weak ringgit can be an opportune time to attract FDIs and grow Malaysia's export markets. Meanwhile, risks from ringgit depreciation to the external position are low. Although external debt is relatively high, the currency risk is mitigated by prudent FX risk management. Furthermore, the ERPT

[51] By contrast, the decision to keep the OPR steady in January 2023 and the timing of resuming the policy rate hike in May 2023 surprised most analysts. Moreover, analysts had mixed views on whether the policy rate would be increased to reduce differentials vis-à-vis the Fed rate when the ringgit faced sharp depreciation pressures from August to October 2023.
[52] Malaysia's current account balance (CAB) deteriorated by 1.7 percentage points of GDP between 2022 and 2023. Indonesia's CAB declined by 0.9 percentage points of GDP, while the CAB in the Philippines, Singapore, and Thailand improved by 1.9, 1.8, and 4.6 percentage points of GDP respectively.
[53] The Malaysian ringgit is perceived by market participants as a proxy currency for the Chinese yuan, and has the highest correlation with the yuan among ASEAN currencies.
[54] A Bloomberg survey as of June 2024 shows that the median forecast for USD/MYR is 4.63 and 4.45 for end-2024 and end-2025, respectively.
[55] Analysis using the Oxford Global Economics Model shows that a one-time 10 percent depreciation in USD/MYR during Q2 to Q4 2024 would lift 2024 export growth by 1.1 percentage points and add 0.8 percentage points to GDP growth.

to inflation has been subdued, with core inflation falling from 4.1 percent at end-2022 to 1.9 percent in April 2024 despite a 6.5 percent depreciation of the ringgit over the same period.[56] Nevertheless, the ERPT could be larger without fuel subsidies.

45. Although the level of exchange rate should be market-determined, FX interventions may be necessary at times to address excessive volatility; to this end, BNM is encouraged to accumulate foreign reserves when opportunities arise. Judicious FX interventions may be needed from time to time to smooth exchange rate movements and avoid disruptive exchange rate volatilities, especially fluctuations that are excessive and not justified by economic fundamentals. To be effective, interventions should be backed up by strong foreign reserve buffers. Notwithstanding the unique role of "decentralized reserves" or external assets held by quasi-public institutions and corporates that can be called upon in stress periods, these assets may not be as liquid or immediately usable as in the case of central bank reserves, and repatriations may at times conflict with the entities' own mandates. In addition, the large share of reserves that is derived from FX deposits and short forward positions may be subject to rollover risks when U.S. dollar liquidity is tight. Thus, BNM is encouraged to continue building its holdings of foreign reserves when market conditions allow, such as during periods of ringgit appreciation and/or strong capital inflows. In doing so, a gradual and opportunistic approach is recommended, bearing in mind potential carry costs associated with holding reserves.[57]

46. BNM should continue to employ market-friendly measures to support ringgit stability. Recent efforts to encourage GLCs and GLICs to repatriate foreign investment earnings in a more timely and consistent manner are well-received by market participants. Such efforts should be temporary and used only sparingly to support the currency. Once depreciation pressures recede, these entities shall continue with their investment frameworks based on risk and return considerations, to optimize long-term savings of the Malaysian public. BNM's pilot fast-track pre-approval framework, Qualified Resident Investor (QRI) programme, demonstrates the central bank's commitment to exchange rate market liberalization and preference for market-friendly approaches to safeguarding financial market stability. Such policy consistency will not only benefit market confidence in the short term, but also foster a conducive environment for foreign investment in the longer term (see Selected Issue 1).

47. BNM should continue to ensure that interbank funding conditions remain appropriate to facilitate effective intermediation. While the still-elevated KLIBOR-OPR spread suggests remaining tightness in interbank funding conditions, the suggested tightness is concentrated in the short-term interbank market and has not led to a broader increase in bank lending or deposit rates. Nevertheless, because the interbank market is a key channel of monetary policy transmission, there is a risk that the tightness may lead to an unintended rise in funding costs for banks and the economy. Thus, BNM should monitor the impact of interbank market tightness closely and, if necessary, provide more liquidity

[56] A BNM study in 2022 found that the estimated average one-year effect of a 5 percent depreciation in the USD/MYR to core inflation is 0.2 percentage points (i.e., across the full historical sample). However, restricting the sample to depreciation episodes would yield a 0.4 percentage point ERPT.
[57] Generally, holding reserves can incur a carry cost if the return earned on reserves is less than the cost of sterilization through open market operations. FX losses may also be incurred when the ringgit strengthens against foreign currencies. Furthermore, frequent and large-scale purchases of reserves can be deemed as an attempt to keep the local currency weak in order to boost exports, which can trigger retaliation by trading partners. Such a practice can also lead to resource misallocation and delay in structural adjustments.

through well-targeted open market operations to maintain effective monetary policy transmission.

48. AMRO staff welcomes BNM's efforts to enhance the banking system's resilience to liquidity risk. Among the key developments are the issuance of an Exposure Draft on Liquidity Risk that codifies BNM's expectations surrounding sound liquidity management standards (including by addressing emerging risks such as online withdrawals, negative publicity on social media, and sectoral concentration), and the strengthening of BNM's operational readiness as lender-of-last-resort. To complement these developments, BNM should continue to promote more liquid secured interbank markets, including the Islamic repo market. Deep and liquid interbank markets can serve as a first line of defence in times of liquidity stress. Emphasis should be placed on establishing common standards for both conventional and Islamic repo markets (see Box B).

49. AMRO staff commends the authorities' initiatives in strengthening financial supervision, especially of non-bank financial institutions (NBFIs). The Consumer Credit Oversight Board (CCOB), with support from the BNM, MOF, and Securities Commission, has drafted the Consumer Credit Act (CCA) to establish consumer protection standards on non-bank credit providers that are currently unregulated.[58] In addition, the BNM and CCOB are establishing data sharing and coordination arrangements which are key to an effective surveillance of financial stability risks surrounding these NBFIs. Once the regulatory framework is in place, non-bank lenders should be subject to prudential rules which are comparable to banks, thereby minimizing regulatory arbitrage. BNM's review of contagion risks from NBFI activities is also welcome, as the source and likelihood of risks may develop quickly in a fast-changing financial landscape. Finally, BNM should continue to monitor pockets of vulnerabilities among low-income households and SMEs to ensure that early signs of financial distress do not develop into a systemic problem, especially amid the downside risks to growth.

Authorities' Views

50. BNM emphasized that a large part of Malaysia's decentralized reserves is available and usable. The liquid portion of corporations and financial institutions' external assets amounted to MYR941.4 billion (USD199.7 billion) as of end-Q2 2024, which can be drawn upon to meet their short-term external debt obligations of MYR564.0 billion (USD119.6 billion) without posing a claim on BNM's reserves. Banks also maintain foreign currency liquid assets that are sufficient to cover more than twice their external debt at risk. That said, BNM acknowledges the need to build reserve buffers when opportunities arise, considering the costs and benefits of doing so.

51. BNM pointed out that its coordination with GLCs and GLICs to encourage repatriation and conversion to support the ringgit focuses on income and revenue earned and does not undermine their long-term investment mandate. BNM is mindful that the use of such coordination measures should not affect the long-term risk and reward considerations or the overall mandate of the respective GLCs and GLICs in optimizing long-term savings of the Malaysian public.

[58] These include buy-now-pay-later providers, non-bank factoring and leasing companies, impaired loan buyers, and debt collection agencies.

52. BNM is of the view that the still-elevated KLIBOR-OPR spread reflects prevailing market conditions. BNM explains that the spread is higher than the historical average due to two main factors: banks' preference for unsecured financing to manage risks surrounding liability composition; and changes in domestic ringgit liquidity conditions resulting from capital outflows. BNM also highlighted that the perceived tightening has not affected financing as loan growth and new funds raised in the capital market remain robust. In addition, BNM has a reverse repo lending facility that allows banks to borrow liquidity from BNM as needed to ensure sufficient liquidity in the banking system to enable effective financial intermediation and orderly functioning of the interbank markets.

C.4 Accelerating Structural Reforms for Industrial Upgrading

53. Effective implementation, strong stakeholder buy-in, and a robust monitoring mechanism are vital to the success of NIMP 2030. Unlike previous national industrial master plans that adopted a sectoral-based approach, NIMP 2030 takes a mission-based approach with shared goals and cross-cutting strategies. As such, effective communication and collaboration among federal government agencies, state government, and government-linked and private sector players is imperative to ensure alignment and timeliness of implementation. In this regard, AMRO staff are encouraged that the NIMP 2030 document devotes an entire chapter to implementation, with the highest level of government oversight, private-sector representation, and a dedicated delivery management unit. NIMP 2030 also relies heavily on the private sector to finance the estimated MYR95 billion of investments. The government's push to draw more venture capital and private equity firms will play a key part in spurring the development of promising tech companies.

54. The government is focusing on taking the semiconductor industry upstream into chip design and wafer fabrication, but should also further explore opportunities at the back end of the value chain as well as nascent innovations. Semiconductors are a key focus of NIMP 2030, with specific mission-based projects to nurture homegrown integrated circuit (IC) design firms to become global champions and to attract a leading foundry company to establish mid-range (28 to 40 nanometer process node, classified as "mature") wafer fabrication plant in Malaysia.[59] IC design is a promising area, with several local firms already providing design services for advanced chips. In April 2024, the government announced plans to build an IC design park and offer incentives, such as tax breaks and subsidies. Wafer fabrication, on the other hand, is more challenging because of the massive costs involved in setting up a foundry and the lack of local talent. Moreover, China is expected to rapidly increase chip capacity for mature nodes in the next few years, which adds to overcapacity risks. There are emerging opportunities in the semiconductor value chain that Malaysia can further tap into, such as advanced packaging[60], compound semiconductor materials[61], specialty chemicals and gases, optical components[62], and R&D

[59] IC design and wafer fabrication are front-end activities in the semiconductor value chain, with higher profit margins than ATP. Chip technology is often defined by the capability for miniaturization. Smaller process nodes allow more transistors to be packed in a single chip, making it more powerful and efficient. Industry leaders Taiwan Semiconductor Manufacturing Company (TSMC) and Samsung are now producing 3nm chips.
[60] In contrast to traditional packaging techniques, advanced packaging stacks multiple chips closer together and thus provides higher data-transfer rates and better performance. Intel is investing USD7 billion in a new advanced packaging facility in Penang.
[61] Compared to their silicon-based counterparts, compound semiconductor materials such as silicon carbide (SiC) and gallium nitride (GaN) are well suited for applications requiring both high power and frequency (e.g., electric vehicle inverters) due to higher efficiency, better thermal management, and lower system cost. Infineon is investing EUR5 billion to build a SiC power fab in Kulim.
[62] Malaysia has potential to further develop the supply chain of raw materials and inputs used in semiconductor manufacturing, such as specialty chemicals for etching and bonding and optical components used in manufacturing equipment.

in graphene applications[63] (see Selected Issue 3). The National Semiconductor Strategic Taskforce was set up in January this year to review incentives, talent, and the ecosystem, and a strategic plan for the semiconductor industry was unveiled in May.[64] Given intensifying global competition for chip investments and skilled talent, a renewed sense of urgency is indeed necessary.

55. Greater resource allocation to R&D and coordination of research activities can strengthen domestic innovation capability, which is essential to exploiting opportunities in high-tech and high-value-add industries. Although Malaysia's R&D spending has gradually increased to around 1 percent of GDP, it is still much lower than regional peers.[65] At the same time, Malaysia's R&D capital is dispersed across different and unrelated areas of research, and the linkage between academic research and commercialization is limited. This is reflected in the low number of U.S. patents granted to Malaysian entities.[66] Likewise, patents granted in Malaysia are mostly to foreign residents, while indigenous Malaysian firms have produced little innovation. Better alignment of R&D focus among industry players, government research institutes, and universities on priority sectors, such as electronics and chemicals, can enhance innovation capacity and improve chances of achieving technological breakthroughs. Tangible results will in turn reinforce the importance of higher spending on R&D.

56. Strong collaboration among industry players, government, and academia is needed to address the shortage of skilled talent. Despite an increase in the size of the tertiary-educated workforce, there is a scarcity of skilled talents in some industries.[67] More broadly, declining interest in science, technology, engineering, and mathematics (STEM) education among Malaysian students, a social stigma against technical and vocational education and training (TVET) education, a drop in Program for International Student Assessment (PISA) scores[68], and high failure rates in mathematics among high school students[69], will add to the nation's future talent woes. Tripartite collaboration will be required to foster talent development.[70] A good example of this is the Penang Chip Design Academy, established in June to develop talent through academic training and hands-on experience.[71] A revamp of the education system, including curriculum reform that encourages critical thinking and innovation, consolidating the different TVET curriculums and unifying accreditation standards, as well as creating greater awareness about the importance of

[63] Innovation has caught up with the physical limitations of silicon, the primary material used in the semiconductor industry. Graphene's excellent properties could be a game changer in the industry, especially after a technical breakthrough with the creation of the first functional semiconductor early this year. It could take several decades of R&D and commercialization for graphene to replace silicon, but this is a nascent area to follow closely. Local company Graphjet went public on Nasdaq in March, aiming to be the leading source of graphite and graphene in the U.S.
[64] The government committed MYR25 billion (USD5.3 billion) in fiscal support, including training 60,000 high-skilled engineers.
[65] R&D spending as a share of GDP in 2022: Korea 4.9 percent, Taiwan Province of China 3.8 percent, Japan 3.3 percent, China 2.4 percent.
[66] The bulk of the U.S. patents are granted to multinational corporations located in Malaysia, largely associated with the semiconductor industry.
[67] According to the Small and Medium Enterprises Association of Malaysia (Samenta), Penang faces a shortage of 50,000 engineers to meet semiconductor industry demand, which is a major setback in developing the knowledge-intensive IC design sector. A study by Khazanah Research Institute finds that a significant number of E&E graduates are underutilized, suggesting untapped opportunities for improved job matching and industry-driven skills and training programs.
[68] Malaysia's PISA scores for mathematics dropped from 440 in 2018 to 409 in 2022. Reading scores fell from 415 to 388 while scores for science declined from 438 to 435.
[69] Mathematics has the highest fail rate among Sijil Pelajaran Malaysia (SPM) subjects. 25.9 percent and 23.2 percent of students failed additional mathematics and mathematics, respectively, in the 2023 SPM examination, similar to that of the previous year (26.2 percent and 24.3 percent, respectively).
[70] For instance, industry players can work with tertiary institutions to set up centers of excellence for chip design and develop internship programs to expose students to industry-standard design projects. The government can support universities and technical institutes by providing advanced electronic design automation (EDA) tools.
[71] The academy will be spearheaded by the Penang Skills Development Center (PSDC) in collaboration with InvestPenang, industry players, EDA tool providers, and academia.

specialized talent for jobs requiring STEM may be necessary to improve education quality and increase student enrolment in STEM-related fields of study at the tertiary level.

57. Concerted efforts to address relatively low salaries for skilled workers and engineers in Malaysia, among other pull and push factors, are required to stem the high levels of talent outflows. According to the Ministry of Human Resources, Malaysia's brain drain rate of 5.5 percent is higher than the 3.3 percent global average. Low salaries for skilled workers and engineers in Malaysia, compounded by recent declines in the ringgit's value, weigh heavily as a driver pushing Malaysians to work in developed and high-income countries like Singapore. Cognizant of stagnant real wages in Malaysia, the government has set ambitious targets to more than double median monthly manufacturing wages from less than MYR2,000 in 2022 to MYR4,510 in 2030, and to increase the labor income share of GDP from 32.4 percent in 2022 to 45 percent within a decade. The planned progressive wage policy and revision of minimum wages can help to lift wages but only partially close the wage gap with Singapore. As such, firms may need to offer other benefits such as health insurance and employee wellness to retain talent. Furthermore, talent outflows are not alleviated by compensating inflows, since migration to Malaysia involves mostly low-skilled workers with primary education. A more targeted immigration policy for highly skilled expatriates, including relaxation of long-term pass requirements, can help to ease skill and talent shortages.

58. Major reforms are needed to improve the coverage, adequacy, and fiscal sustainability of retirement schemes. Following four rounds of early EPF withdrawals during the pandemic, several initiatives have been taken to rebuild retirement savings.[72] In May this year, the EPF restructured members' accounts by introducing a new Account 3, to strike a balance between increasing long-term financial security through higher allocations to the retirement account, and meeting members' short-term needs via flexible withdrawals to alleviate short-term or emergency cash flow issues.[73] For the civil service, funding the rising pension bill will be increasingly unsustainable due to growth in the public-sector workforce amid a trend decline in tax revenue. The government is proposing to scrap pension for new civil service hires and instead place them on the EPF scheme, which will reduce the fiscal burden. But the shift to the EPF still raises questions about coverage and adequacy at the national level. Mandatory retirement schemes cover less than 60 percent of the labor force, significantly lower than the global average of 68 percent. Furthermore, 85 percent of older people currently do not receive contributory nor social pensions.[74] A more comprehensive reform is therefore needed, such as establishing a universal social pension as a first pillar of social protection and extending EPF coverage beyond formal employment. Meanwhile, to increase retirement savings adequacy, the authorities are encouraged to consider reviewing the official retirement age, replacing or capping lump-sum withdrawals and introducing annuity payouts, and addressing structural challenges such as low wages and low financial literacy.[75]

[72] EPF members with less than MYR10,000 in savings received a one-off top-up of MYR500 in January this year. The EPF has also continued to encourage voluntary contributions through the i-Saraan scheme for self-employed individuals and gig economy workers, including by raising the voluntary contribution limit, while the government has raised its matching contribution to i-Saraan.
[73] 10 percent of new contributions will be allocated to Account 3 (Akaun Fleksibel). Meanwhile, contributions to Account 1 (Akaun Persaraan) have been raised to 75 percent from 70 percent, and contributions to Account 2 (Akaun Sejahtera) reduced to 15 percent from 30 percent. Account 1 can only be withdrawn at age 55; Account 2 can be used for housing, education, and medical needs; and Account 3 can be withdrawn at any time and for any purpose.
[74] See ADB (2024) Ageing Well in Asia.
[75] These are discussed more comprehensively in a Selected Issue in AMRO's Annual Consultation Report on Malaysia 2023.

59. AMRO staff welcomes the various initiatives to embrace a greener and more sustainable energy future. The NETR marks an important transformational change in Malaysia's economy to a low-carbon future and, at the same time, recognizes the need to generate new sources of growth and new jobs. The ambitious roadmap opens massive investment opportunities to the tune of MYR1.3 trillion by 2050 in areas such as renewable energy, green mobility ecosystems, and energy storage.[76] On the markets front, a voluntary platform called the Bursa Carbon Exchange (BCX), launched in December 2022, held its inaugural carbon credit auction in March 2023 and began trading carbon credits in September 2023. BCX carried out its first renewable energy certificates auction in June this year and held its first auction of local carbon credits in July. The voluntary market is a first step for Malaysia to move toward implementing carbon pricing instruments in the medium to long term.

Authorities' Views

60. The authorities are committed to addressing the long-term challenges facing Malaysia. To enable industrial upgrading and meet the ambitious plans outlined in NIMP2030, NETR, and other national strategies, the authorities acknowledge the need to address talent and skill shortages, particularly in the electrical and electronics (E&E) sector; encourage greater collaboration among industry, government, and academia; and increase spending on R&D and innovation. In addition, the government is committed to raising productivity and wages, strengthening social protection, and pushing ahead with climate policy development.

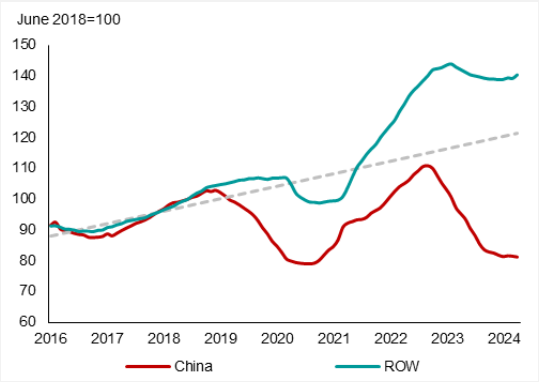
[76] Among the planned catalyst projects are a 1GW hybrid solar photovoltaic power plant integrated with a renewable energy industrial park and the development of a hydrogen hub in Sarawak.

Box A. The Changing Geographical Composition of U.S. Imports[77]

The United States has applied tariffs to an increasing number of goods imported from China since July 2018.[78] Consequently, U.S. imports from China have declined sharply, while imports from the rest of the world (ROW) have surged. Today, U.S. imports from China remain well below pre-trade war levels (Figure A1). China is now the source of only 12 percent of total U.S. imports, down from 22 percent before the trade war. By contrast, U.S. imports from ROW are 40 percent above pre-trade war levels and are even above trend.

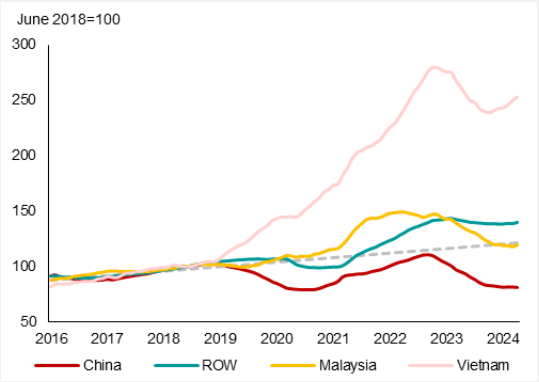
Vietnam has emerged as the biggest beneficiary of the U.S.-China trade war, while Malaysia's share of U.S. imports increased only during the COVID-19 pandemic. U.S. imports from Vietnam have risen 2.5-fold since the trade war began (Figure A2). In terms of the share of U.S. imports, Vietnam is up 2 percentage points, more than any other country. This indicates a pronounced shift in production relocation to Vietnam and, to some extent, suggests a rerouting of Chinese firms' production to circumvent U.S. tariffs. Imports from Malaysia, on the other hand, did not increase in 2018-2019 and did so only during the pandemic, but have returned to trend.

Figure A1. U.S. Goods Imports from China and Rest of the World (ROW)



Source: UN Comtrade; AMRO staff calculations

Figure A2. U.S. Goods Imports from Malaysia and Vietnam



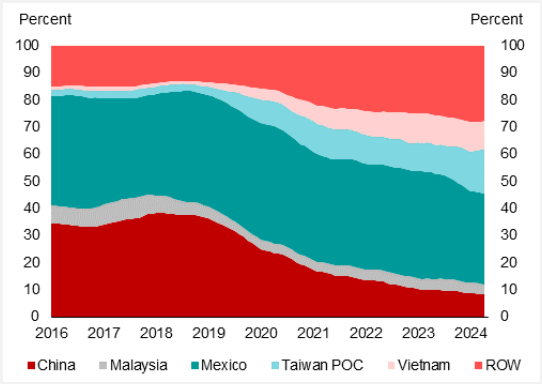
Source: UN Comtrade; AMRO staff calculations

Chinese share of U.S. imports that are hit with the highest tariffs appear to be decoupling from ROW share of U.S. imports. For instance, selected IT hardware and consumer electronics imports from China, such as routers and wireless headphones, have tanked after being slapped with 25 percent tariffs (Figure A3). Instead, the U.S. has increased its sourcing from Taiwan POC and Vietnam. Likewise, furniture imports have seen a shift, with Vietnam and ROW replacing China's share (Figure A4). China's share of auto parts imports, on the other hand, has declined only slightly, in part due to production disruptions in the North American auto supply chain during the pandemic (Figure A5). Malaysia has barely benefited from these shifts, although its share of U.S. furniture imports increased from 1.5 percent in June 2018 to a peak of 3.1 percent during the pandemic, but has fallen to 2.1 percent as of April 2024.

Although Malaysia remains the largest source of U.S. semiconductor imports, its share has dropped since 2022. Malaysia's share of U.S. semiconductor imports had fallen from a peak of 39 percent in 2019 to 19 percent as of April 2024 (Figure A6). China's share also fell sharply, from around 11 percent to 3 percent. Meanwhile, Taiwan POC, Thailand, and Vietnam have increased their shares from 7 percent, 3 percent, and 5 percent to 12 percent, 5 percent, and 9 percent, respectively, over the same period. The shifts could reflect U.S. efforts to ramp up semiconductor imports and diversification of its supply chain. This intention is evident from the higher U.S. imports of semiconductors since 2021 (Figure A7). At the same time, Malaysia's exports to the U.S. have also risen but could fill only a smaller portion of the higher U.S. demand (Figure A8).

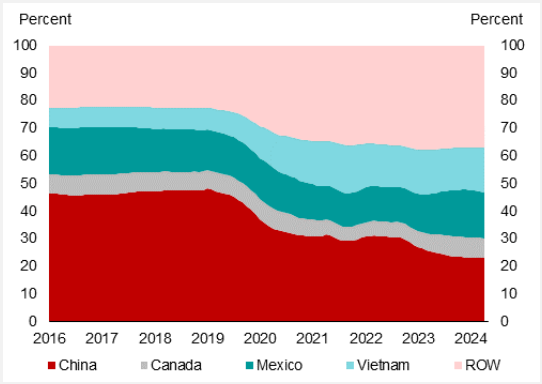
[77] Prepared by Wee Chian Koh.
[78] The Trump administration imposed tariffs of 25 percent on USD34 billion of Chinese products in July 2018 (List 1), USD16 billion in August 2018 (List 2), 10 percent on an additional USD200 billion of imports in September 2018 (List 3) and increasing the duties to 25 percent in June 2019, and another USD102 billion with 15 percent tariff in September 2019 (List 4A) and then reducing them to 7.5 percent in February 2020 after the Phase One agreement. The Biden administration has kept most of Trump's tariffs, and in May 2024 announced tariff hikes on an additional USD18 billion of Chinese goods.

Figure A3. Share of U.S. Imports of Selected IT Hardware and Consumer Electronics



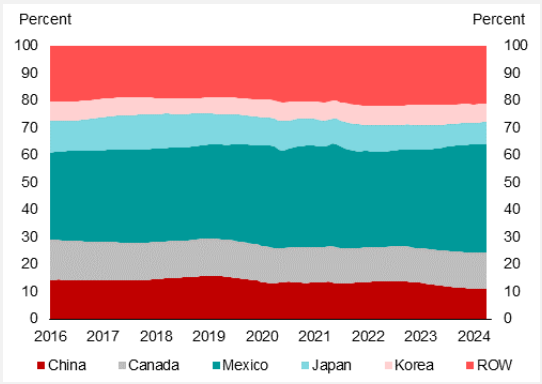
Source: UN Comtrade; AMRO staff calculations

Figure A4. Share of U.S. Imports of Furniture



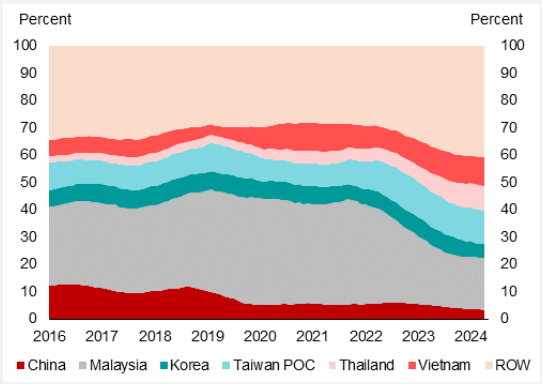
Source: UN Comtrade; AMRO staff calculations

Figure A5. Share of U.S. Imports of Auto Parts



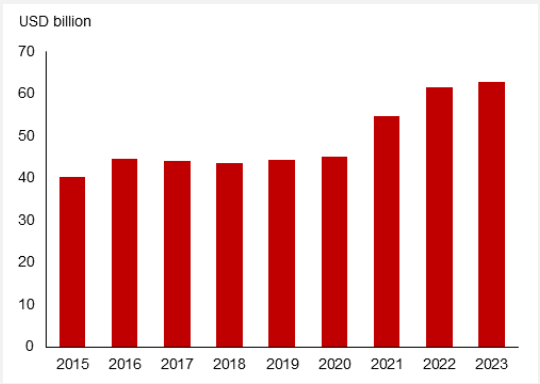
Source: UN Comtrade; AMRO staff calculations

Figure A6. Share of U.S. Imports of Semiconductors



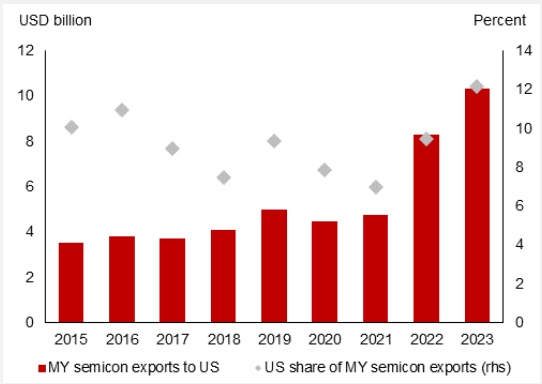
Source: UN Comtrade; AMRO staff calculations

Figure A7. Total U.S. Semiconductor Imports



Source: UN Comtrade: AMRO staff calculations

Figure A8. Malaysia Semiconductor Exports to U.S.

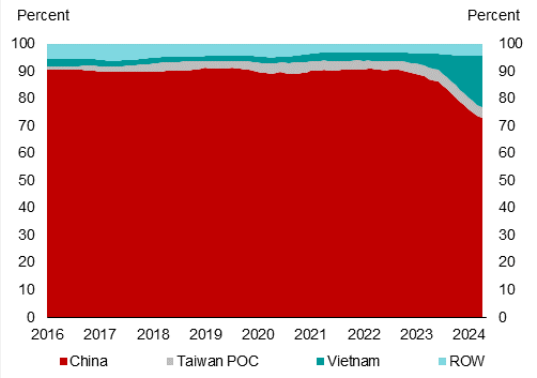


Source: UN Comtrade; AMRO staff calculations

As expected, China's share of U.S. imports without U.S. tariffs or subject to lower tariffs have been more resilient. The Trump administration did not apply tariffs to certain products, such as laptops, smartphones, video game consoles, or toys. U.S. imports of these goods have grown rapidly, especially during the COVID-19 lockdowns, with China's share staying broadly unchanged until after the pandemic (Figures A9 to A12). Again, Vietnam is the clear winner, but Malaysia's share in U.S. imports of video game consoles also increased, from a mere 0.1 percent in 2018 to more than 4 percent in early 2024.

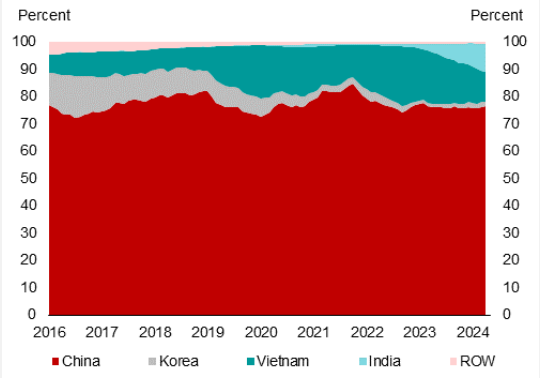
Malaysia's share of U.S. imports of personal protection equipment (PPE) surged during the COVID-19 pandemic, but its share has been displaced by Vietnam post-pandemic. U.S. imports of PPE, such as rubber gloves, face masks, and gowns, rose sharply during the pandemic, with China and Malaysia making up most of the increased supply (Figure A13). However, post-COVID, imports from Malaysia have fallen below pre-pandemic levels (Figure A14). Meanwhile, Vietnam's share of U.S. imports has increased, while China's share remains unchanged.

Figure A9. Share of U.S. Imports of Laptops



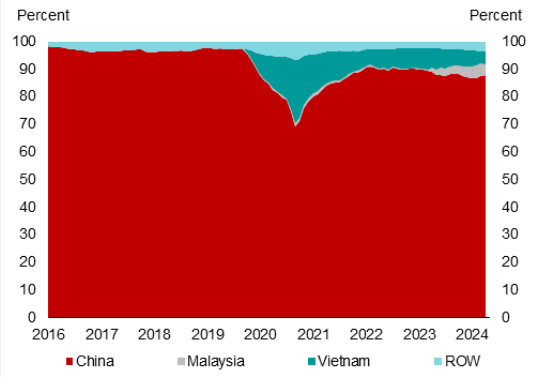
Source: UN Comtrade; AMRO staff calculations

Figure A10. Share of U.S. Imports of Phones



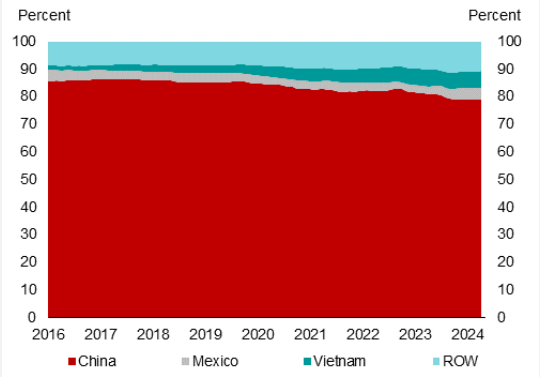
Source: UN Comtrade; AMRO staff calculations

Figure A11. Share of U.S. Imports of Game Consoles



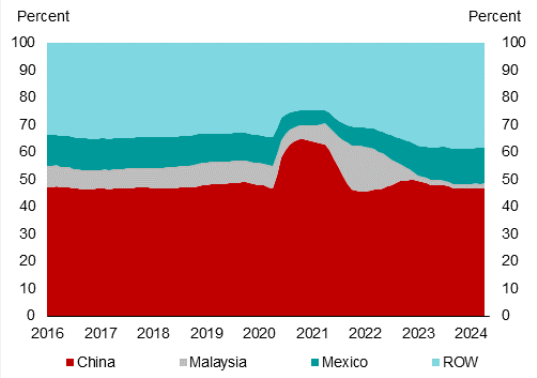
Source: UN Comtrade; AMRO staff calculations

Figure A12. Share of U.S. Imports of Toys



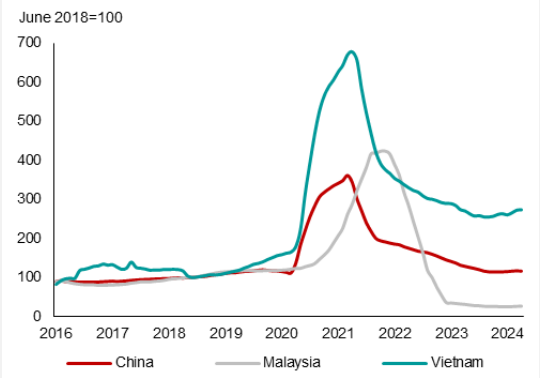
Source: UN Comtrade; AMRO staff calculations

Figure A13. Share of U.S. Imports of Personal Protection Equipment (PPE)



Source: UN Comtrade; AMRO staff calculations

Figure A14. U.S. Imports of Personal Protection Equipment (PPE)



Source: UN Comtrade; AMRO staff calculations

The new U.S. tariff hikes imposed on China by the Biden administration, and any additional tariffs by the next Administration, will also cause greater global supply chain reconfigurations. The latest tariff hikes announced in May 2024 include semiconductors (from 25 percent to 50 percent in 2024) and rubber gloves (from 7.5 percent to 25 percent in 2026), generating opportunities for Malaysia if it can adapt to the corresponding supply chain shifts. Trump's threat to impose a blanket 10 percent tariff on all U.S. imports accompanied by 60 percent tariff on all imports from China adds further uncertainty to how supply chains would be shaped. Malaysia's gains are by no means guaranteed, although the spike in approved investments in recent years, in part owing to a well-established manufacturing ecosystem, greater political stability, a more reform-minded government and strategic neutrality, provides optimism that the country will be a beneficiary of U.S.-China tensions.

Box B. Islamic Finance in Malaysia[79]

The authorities aim to position Malaysia as the global gateway of Islamic finance and further deepen the domestic Islamic finance ecosystem. Malaysia's initiatives to develop Islamic finance have been led by BNM and the Securities Commission (SC). Islamic Finance in Malaysia can be traced as far back as 1963 when the Hajj Pilgrims Savings Corporation was established. The development of Islamic Finance in Malaysia can be divided into different phases.[80] In the first phase of development, the country's first Islamic bank, Bank Islam Malaysia Berhad (Bank Islam), and the first takaful operator, Syarikat Takaful Malaysia Berhad, were founded in 1983 and 1984, respectively, to serve the need for Shariah-compliant financial services. In the phase that follows, the Islamic Capital Market (ICM) was developed with the issuance of the first sukuk, the Shell MDS sukuk, in 1990, the introduction of Islamic Interbank Money Market in 1994, as well as the establishment of the Shariah Advisory Councils of the SC and BNM in 1996 and 1997, respectively. Later in 2006, Malaysia as an Islamic Financial Centre (MIFC) agenda was launched with the aim to position Malaysia as the center for the offering of Islamic financial products and services in international currencies, at both the global and domestic levels. The development of Islamic financial system infrastructure and products, as well as the regulatory and Shariah frameworks, have been embedded in Malaysia Financial Sector Blueprints and Capital Market Masterplans.

The long-term strategic planning has paid off and Malaysia is widely recognized as one of the global leaders in Islamic finance. In 2023, Malaysia was the world's top issuer of Sukuk while its Islamic banking assets and Takaful assets were ranked third after Iran and Saudi Arabia, according to the ICD-LSEG Islamic Finance Development Report. Malaysia's Islamic finance is also perceived as the most developed as Malaysia has been ranked first in the Islamic Finance Development Indicator for the eleventh consecutive year in 2023. In addition, the country's Islamic liquidity management framework is among the most advanced with a broad spectrum of instruments. BNM also conducts Islamic money market operations using separate Islamic accounts to ensure Shariah compliance, a practice that is unique to Malaysia. Furthermore, the central bank has used Shariah-compliant instruments to manage liquidity in the Islamic money market such as Commodity Murabahah Programme (CMP) and Islamic BNM notes (BNMN-i).

On the domestic front, the Islamic First strategy has served Malaysia well by facilitating robust growth in Islamic banking, while the launch of the country's first Islamic digital bank can better enable financial access by the underserved. In 2023, Islamic banking made up 45.6 percent of total financing with an annual average loan growth rate of 7.7 percent compared with 3.4 percent for conventional banking services, according to BNM. The rapid growth in Islamic banking is partly driven by the Islamic First strategy implemented by many Malaysian banks, which prioritized Islamic banking products to serve customer needs. This year also marked a milestone for Shariah-compliant digital banking with the establishment of Malaysia's first Islamic digital bank, Aeon Bank, which began operations in May.

Malaysia's Islamic capital market is well developed. The country's Sukuk (Shariah principles certificate of investment/financial instrument) market is among the largest in the world. The government has provided strong support to develop the Sukuk market through its regular issuances of Malaysian Islamic Treasury Bills (MITBs) and the Malaysian Government Investment Issue (MGII) alongside conventional treasury bills and government bonds. According to the BIX quarterly report, as of March 2024, conventional government bonds and Sukuk recorded outstanding amounts of MYR618.36 billion and MYR573.80 billion, respectively. The corporate sector also played an active role in developing the Sukuk market, with outstanding corporate Sukuk at MYR395.07 billion compared with MYR113.01 billion for conventional corporate bonds. Furthermore, to encourage investments in green and sustainable projects, Malaysia was also the pioneer in green Sukuk. Homegrown company Tadau Energy issued the world's first green Sukuk in 2017 to finance a solar project. Meanwhile, the government issued the first global sustainability sukuk in 2021.

While opportunities abound, challenges remain. Islamic finance can be seen as the growth area of the Malaysian financial system to support social finance and growing halal industries. At the same

[79] Prepared by Runchana Pongsaparn.
[80] Malaysia International Islamic Financial Center (MIFC) Leadership Council Position Paper (2024), 'Establishing Islah through Islamic Finance'

time, advancement of financial technology and increasing demand for environmental, social and governance (ESG) financial products to support Malaysia's transition to net zero also provide opportunities for Islamic finance to expand further at home and abroad. That said, further progress can be subject to impending challenges both at the domestic and global levels:

- **Domestic level – funding challenges.** According to S&P Global Ratings[81], Islamic banks in Malaysia have a weaker funding profile than conventional banks due to their greater reliance on term deposits which leads to higher cost of funding. Furthermore, a study by Moody's[82] indicated that Islamic banks had increased their exposure to mortgages on affordable housing. While the affordable housing may include exposures to lower income group, the impairment ratio of Islamic banks house financing exposures to this group (earnings below MYR5,000) stood at 1.3 percent, which is lower than conventional at 1.5 percent. Despite the funding challenges, immediate risks are mitigated as Islamic banks have been well buffered with their liquidity coverage ratio (LCR) at 158 percent and total capital ratio at 18.1 percent.

- **Global level – cross-border standardization issues.** In the process of Islamic finance development, each jurisdiction may have its own practice based on different interpretation of Shariah, leading to different speeds of development. The differences in Shariah practices are attributable to differences in scholarly opinions and to account for the practicality and implementation of Shariah rulings in addressing specific needs and interest of a particular society. Nonetheless, the lack of cross-border consensus on some key financial products, such as Islamic repos, has delayed the establishment of cross-border repo facilities, which could be tapped on during times of stress. While the absence of global standards poses challenges, adopting a new global standard which differs from existing practices can also cause fragmentation and market disruptions.[83]

Several efforts and initiatives have been made to address cross-border standardization issues.[84] For instance, an international standard-setting body—Islamic Financial Services Board (IFSB) was established in and headquartered in Malaysia. BNM also established the Centralised Shariah Authorities Forum (CSAF)[85] in 2018, which serves as an international networking platform among the central Shariah boards of various jurisdictions to deliberate current and emerging Shariah issues. Progress has also been made on the exploration and operationalization of Islamic repo, namely sell and buy back (SBBA) and collateralized commodity murabahah (CCM) instruments, to create an Islamic repo that is acceptable to Shariah councils, GMRA standards, global regulators and market players.

Malaysia's Islamic finance journey serves as a good example for successful long-term policy planning. Long-term commitment and clear strategic directions combined with effective implementation and active stakeholder participation are key ingredients which have helped Malaysia become one of the global leaders in Islamic finance. The country's high level of development in Islamic finance will allow it to take the leading role in innovative practices and sound regulatory frameworks, which can help shape the global Islamic finance landscape going forward.

[81] S&P Global Ratings (2024), 'Asia-Pacific Islamic Banks and Sukuk Market'
[82] Moody's Investors Service (2024), 'Islamic banks – Malaysia: Credit impairment in retail books mildly higher, a credit negative'
[83] A good example of this is a potential adoption of the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI)'s Shariah standard 62, currently in the process of soliciting industry feedback. The standard in its current form will require the ownership and risks related to the underlying assets to be transferred to Sukuk holders, at the same time, Shariah should be the governing law of Sukuk instead of English law, which is commonly used at present.
[84] BNM Annual Report 2022 and the Malaysian Islamic Financial Market Report (2023).
[85] Formerly known as Centralised Shariah Advisory Authorities in Islamic Finance (CSAA).

Box C. Johor-Singapore Special Economic Zone[86]

The signing of a memorandum of understanding (MOU) on the Johor-Singapore Special Economic Zone (JS-SEZ) in January 2024 has ignited hope for closer cooperation on economic and industrial developments between Malaysia and Singapore. The JS-SEZ aims to create a region where capital, knowledge, and skills can flow freely. It offers a compelling value proposition in attracting foreign direct investment (FDI) by leveraging Singapore's financial, logistical, and advanced manufacturing capabilities and Johor's favorable operating costs and land availability. The idea of a special economic zone in Malaysia is not novel. The country has five economic corridors—a type of SEZ—launched in 2006 to foster economic growth driven by FDIs through various measures such as tax breaks, investment incentives, regulatory flexibility, trade facilitation, and infrastructure support. In fact, Johor is the only state to host two economic corridors: Iskandar Malaysia and East Coast Economic Region. However, these economic corridors have had limited success in lifting Johor's economy.

The influx of investments into Johor in recent years, especially in data centers and cloud services, has instilled renewed optimism. Johor emerged as the top investment destination in Malaysia in 2022 and came in fourth last year, after Penang, Kuala Lumpur, and Selangor. Most of these investments are in services. Johor has become a key hyperscale data center hub for large technology firms, thanks to lower construction costs, cheaper utility tariffs, and ample land. It has also benefited from Singapore's decision in 2019 to enforce a moratorium on building new data centers due to energy sustainability concerns. The vast network of data centers in Johor will serve as a platform for the growing market for cloud services and artificial intelligence (AI) applications. Notable investments in Johor include AirTrunk, Bridge Data Centres, Equinix, GDS Holdings, Princeton Digital Group, Yondr Group, YTL Power (a partnership with Nvidia), and Microsoft.

The JS-SEZ can be a game changer if connectivity issues are addressed effectively. More than 350,000 Malaysians commute to Singapore daily. The massive traffic congestion at the Johor-Singapore Causeway—one of the busiest border crossings in the world—must be resolved for the JS-SEZ to succeed. The Johor Bahru-Singapore Rapid Transit System (RTS) Link, which is expected to be operational by end 2026, coupled with a passport-free QR code system to expedite immigration clearance, is expected to alleviate congestion at the border. However, the poor connectivity in and around southern Johor also needs to be tackled. The state government's plan to integrate the RTS with Johor Bahru Light Rail Transit (LRT) network and the recently resurrected Kuala Lumpur-Singapore High Speed Rail (HSR)—both still at the proposal stage, will be central to improving connectivity in the JS-SEZ. The participation of the state government and local authorities is vital as they oversee the planning, coordination, and approval process for most aspects of development at the local level, including land administration, construction, utilities, and transport.

Singapore firms have highlighted significant challenges to overcome, including investment facilitation and manpower gaps in Johor. A survey by the Singapore Business Federation reported that businesses faced significant obstacles in obtaining the necessary permits and licenses. The establishment of a one-stop business and investment service center in Johor to facilitate the application process for Singapore firms to establish themselves in the JS-SEZ will be necessary. Another challenge to overcome is in talent shortage, particularly technical and skilled workers. With the anticipated increase in tech-related investments in Johor, concrete measures to retain or attract talent back to the state should be in place.

Johor has the potential to replicate the success of the Chinese city of Shenzhen with the establishment of the JS-SEZ. The realization of this ambition requires more than mere rhetoric. Beyond addressing challenges on connectivity and talent, strategic planning, and coordinated implementation, an unwavering commitment from the local authorities and the governments of Malaysia and Singapore will be required to unlock Johor's economic potential and make the "Shenzhen vision" a reality.

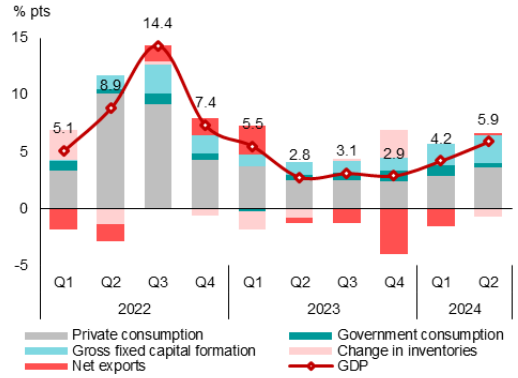
[86] Prepared by Wee Chian Koh.

Appendices

Appendix 1. Selected Figures for Major Economic Indicators

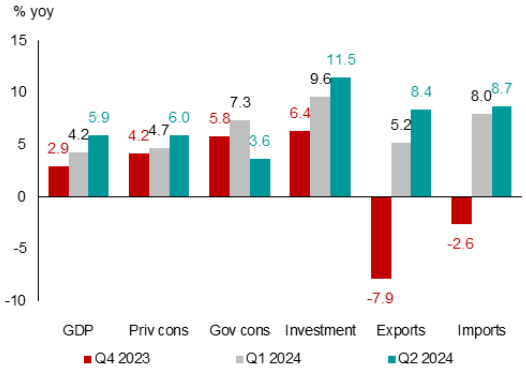
Figure 1.1. Real Sector

Growth moderated to 3.6 percent in 2023, dragged down by weak external demand, but improved in H1 2024.



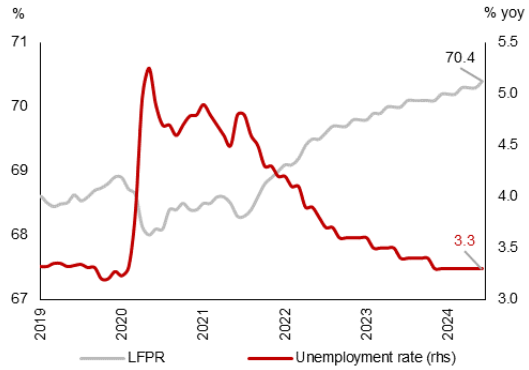
Source: Department of Statistics Malaysia (DOSM); AMRO staff calculations

The improvement in H1 2024 was underpinned by higher consumption, stronger investment, and a recovery in exports.



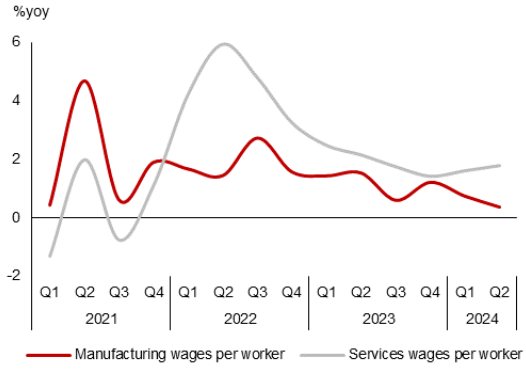
Source: DOSM; AMRO staff calculations

Labor market conditions continued to improve, with the unemployment rate returning to pre-pandemic levels while labor force participation reached a record high.



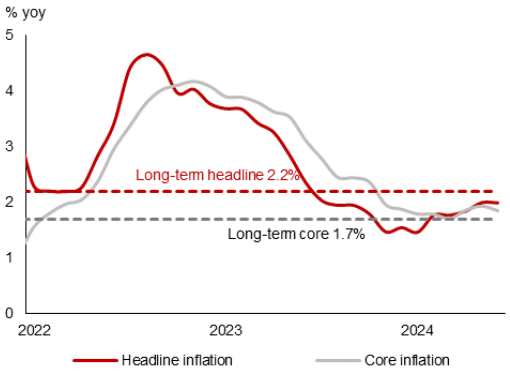
Source: DOSM

Nominal wage growth in manufacturing and services slowed.



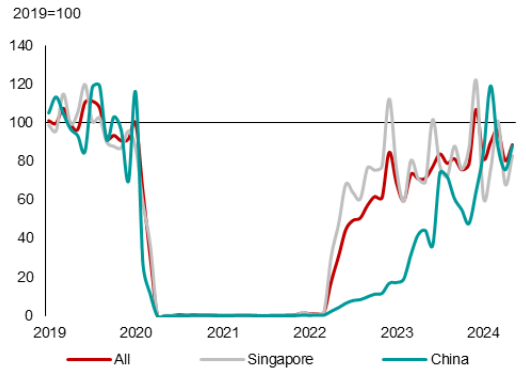
Source: DOSM; AMRO staff calculations

Both headline and core inflation trended lower.



Source: DOSM; AMRO staff calculations

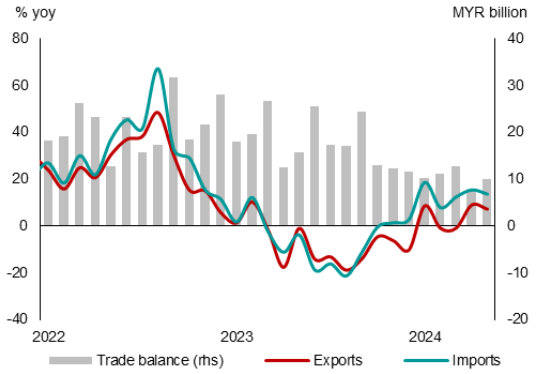
Inbound tourism surpassed pre-pandemic levels in December 2023.



Source: Tourism Malaysia; AMRO staff calculations

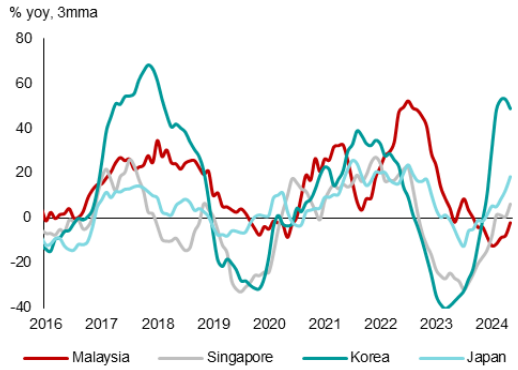
Figure 1.2. External Sector

Exports declined sharply in 2023 due to weak external demand, but are starting to turn around.



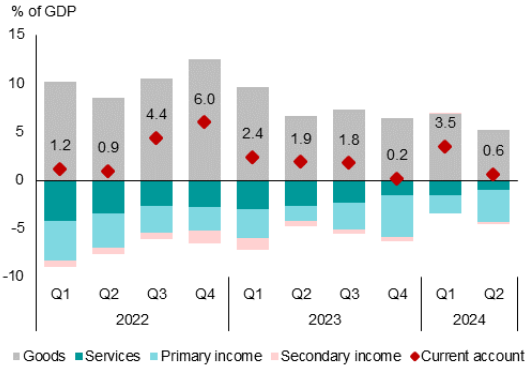
Source: DOSM; AMRO staff calculations

Semiconductor exports are recovering but lags regional peers, reflecting Malaysia's position in the back end of the semiconductor supply chain.



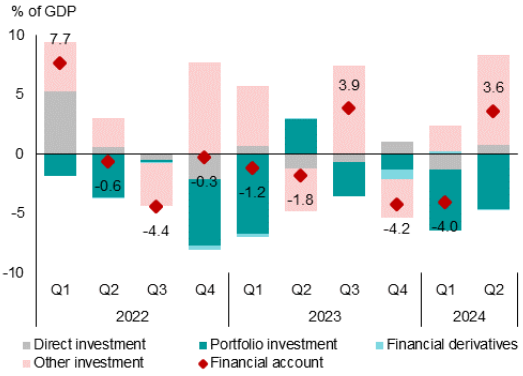
Source: DOSM; Haver Analytics; AMRO staff calculations

The current account surplus narrowed sharply in Q4 2023 but improved in H1 2024 thanks to improvements in the services and income accounts.



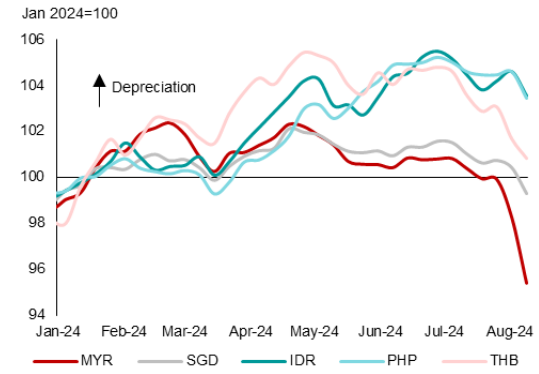
Source: BNM; DOSM; AMRO staff calculations

The financial account turned to a net outflow in 2023, partly due to portfolio investment outflows by resident investors, but switched to a net inflow in H1 2024.



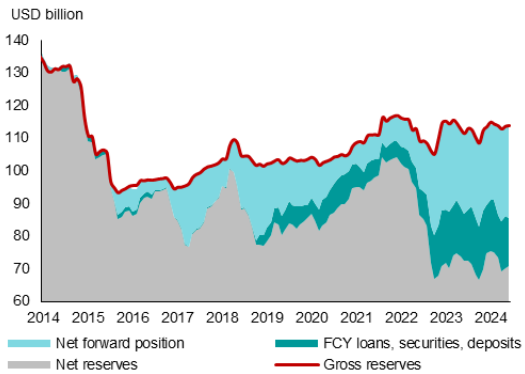
Source: BNM; DOSM; AMRO staff calculations

The ringgit faced renewed depreciation pressures in early 2024, but has strengthened after efforts to encourage repatriation of foreign income and conversion to ringgit.



Source: BNM; DOSM; AMRO staff calculations

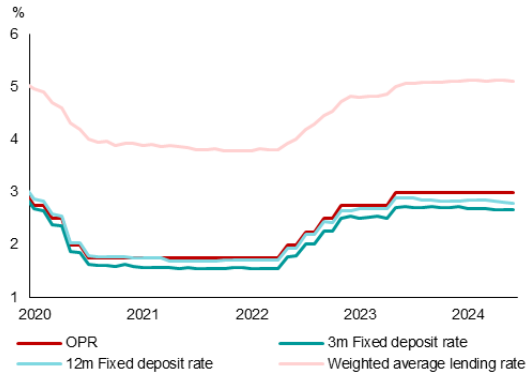
BNM's international reserves remain adequate to cover short-term external debt, while the net short forward position increased.



Source: BNM; AMRO staff calculations

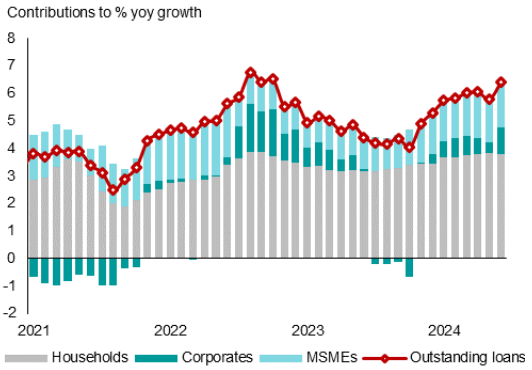
Figure 1.3. Financial Sector

Policy rate hikes since May 2022 were quickly transmitted to deposit and lending rates.



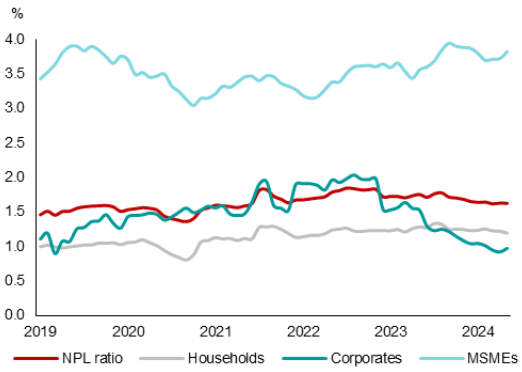
Source: BNM

Despite the increase in lending rates, credit growth remained robust to support loan demand.



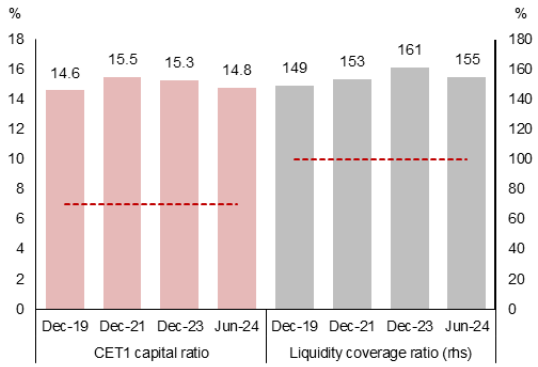
Source: BNM; AMRO staff calculations

Loan impairments have posted only a slight uptick after loan moratoriums expired.



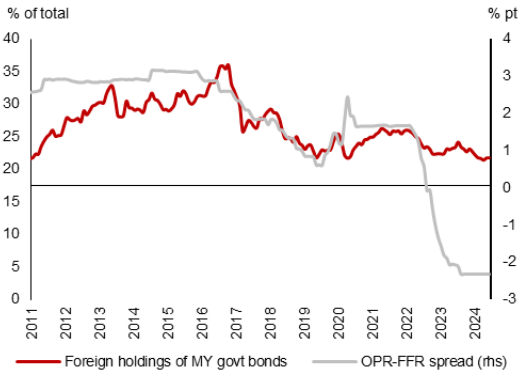
Source: BNM; AMRO staff calculations

The banking system has sufficient capital and liquidity buffers to withstand higher credit and interest rate risks.



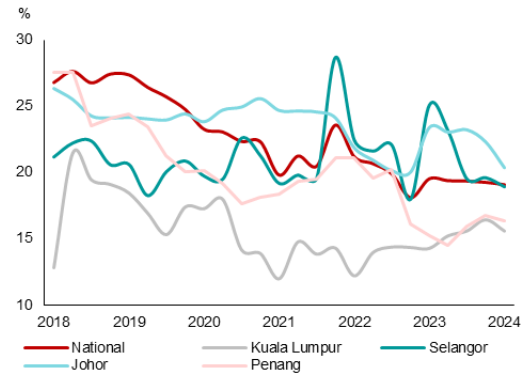
Source: BNM
Note: The red-dashed lines refer to regulatory minimum ratios. For CET1 the minimum is 7.0 percent (inclusive of the 2.5 percent capital conservation buffer), while for LCR the minimum is 100 percent.

Non-resident holdings of domestic government bonds have remained broadly stable despite a sharp narrowing of the OPR-Fed funds rate spread.



Source: BNM; Federal Reserve Bank of St. Louis; AMRO staff calculations

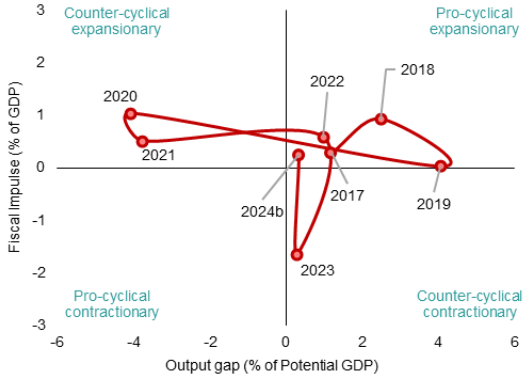
Residential property overhang rates have trended lower across most states.



Source: National Property Information Centre; AMRO staff estimates
Note: Overhang refers to units that are completed but remain unsold for more than nine months after launch.

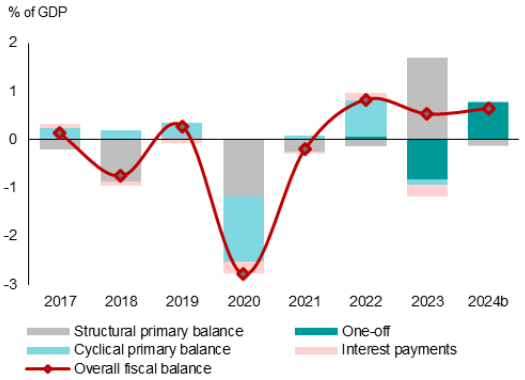
Figure 1.4. Fiscal Sector

Fiscal stance is assessed as neutral in 2024, from contractionary stance in 2023



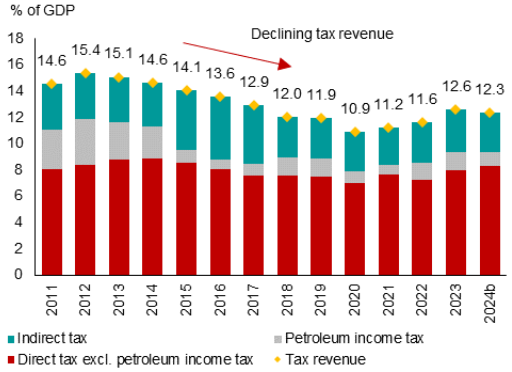
Source: DOSM; MOF; AMRO staff calculations

Improvement in headline fiscal deficit is primarily attributed to one-off base effect arising from 1MDB debt repayments in 2023.



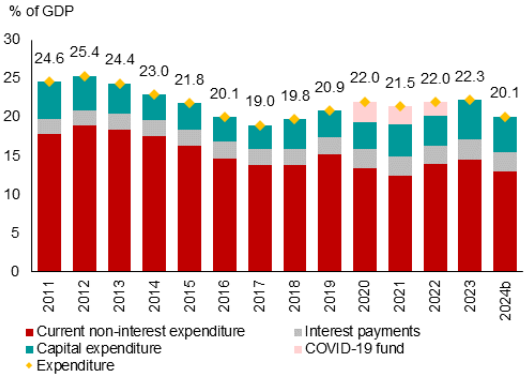
Source: DOSM; MOF; AMRO staff calculations

Higher revenue collections were recorded in 2023, but the revenue base needs to be broadened to arrest the trend decline in the tax ratio.



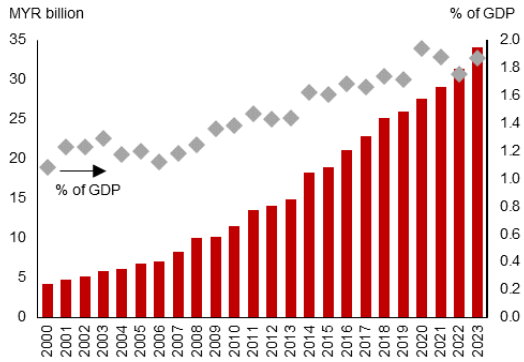
Source: DOSM; MOF; AMRO staff calculations

Prolonged decline revenue trend has resulted in a declining trend in public expenditure.



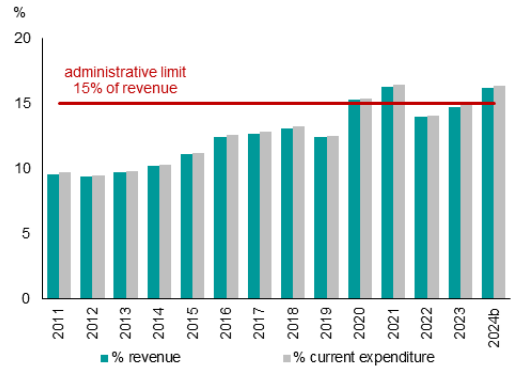
Source: MOF; AMRO staff calculations

Moreover, pensions will continue to make up a large share of the budget as civil servants retire.



Source: DOSM; MOF; AMRO staff calculations

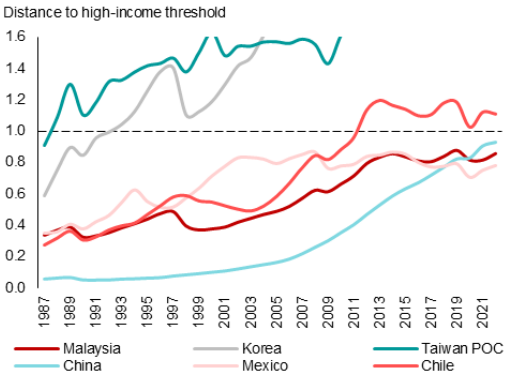
Interest expenditure is projected to exceed the administrative limit of 15 percent of revenue in 2024.



Source: DOSM; MOF; AMRO staff calculations

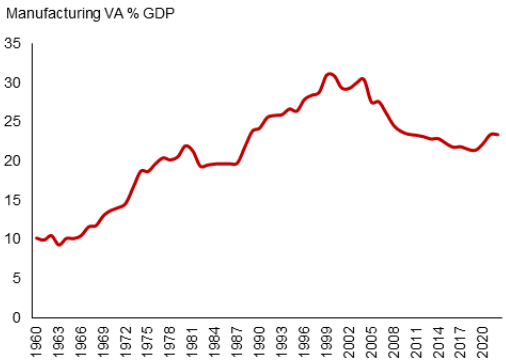
Figure 1.5. Structural Issues

Malaysia has remained in middle-income status for decades.



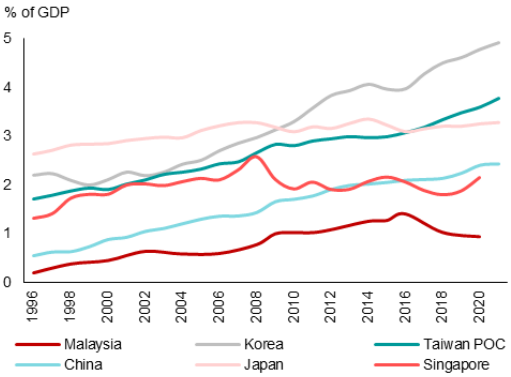
Source: CEIC; World Bank; AMRO staff calculations

Manufacturing's share of GDP peaked at 31 percent in 2000 and fell to 21 percent in 2019 before recovering slightly during the pandemic.



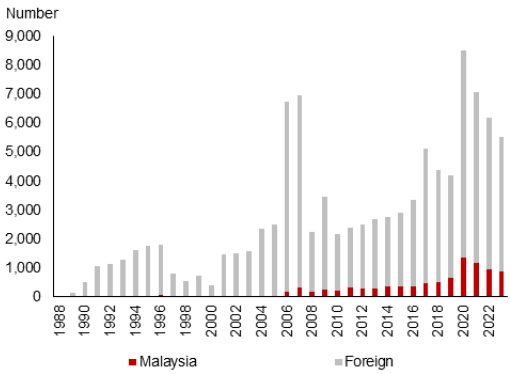
Source: DOSM; AMRO staff calculations

Malaysia's R&D spending has increased to around 1 percent of GDP but remains low compared with peers.



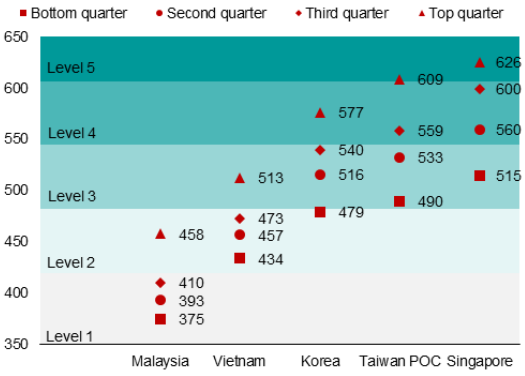
Source: CEIC; World Bank; AMRO staff calculations

Most patents granted in Malaysia are to foreign entities as locals undertake little R&D.



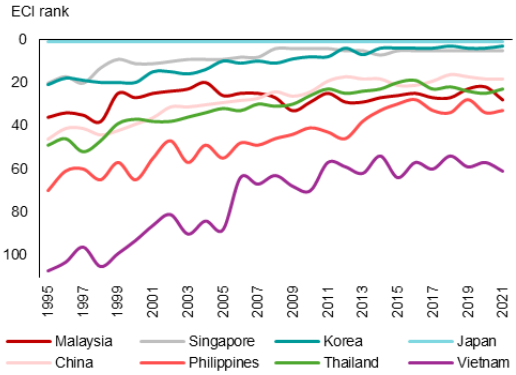
Source: Intellectual Property Corporation of Malaysia; AMRO staff calculations

Malaysia's PISA Mathematics scores are relatively weak.



Source: OECD; AMRO staff calculations

Malaysia has seen only marginal improvements in economic complexity in the past two decades.



Source: Atlas of Economic Complexity

Appendix 2. Selected Economic Indicators for Malaysia

	2020	2021	2022	2023	Projections	
					2024	2025
Real sector and prices	(in percent change, unless specified)					
Real GDP	-5.5	3.3	8.9	3.6	4.7	4.9
Private consumption	-3.9	1.8	11.3	4.7	5.0	5.4
Government consumption	4.1	5.8	5.1	3.3	3.9	3.0
Gross fixed capital formation	-14.4	-0.7	6.8	5.5	8.4	5.1
Exports of goods and services	-8.6	18.5	14.5	-8.1	7.7	6.4
Imports of goods and services	-7.9	21.2	16.0	-7.4	8.5	6.6
Labor market	(in percent, annual average)					
Unemployment rate	4.5	4.6	3.9	3.4	3.3	3.3
Prices	(in percent change, unless specified)					
Consumer price inflation (period average)	-1.2	2.5	3.3	2.5	2.3	3.6
Core inflation (period average)	1.1	0.7	3.0	3.0	2.0	2.5
GDP deflator	-0.8	5.7	6.4	-1.9	2.5	3.2
External sector	(in billions of U.S. dollars, unless specified)					
Current account balance	14.1	14.5	13.0	6.2	8.3	9.8
(in percent of GDP)	4.2	3.9	3.2	1.5	2.0	2.1
Goods balance	32.7	42.9	42.6	29.9	25.9	27.2
Exports	185.7	242.8	281.1	231.4	244.0	262.1
Imports	153.0	199.9	238.6	201.5	218.1	234.9
Services balance	-11.2	-15.8	-13.2	-9.5	-9.1	-8.4
Receipts	22.1	21.3	32.1	42.8	45.9	47.8
Payments	33.3	37.1	45.4	52.2	55.0	56.2
Primary income, net	-6.8	-10.2	-12.9	-11.6	-7.5	-7.9
Secondary income, net	-0.6	-2.3	-3.4	-2.6	-1.0	-1.2
Financial account balance	-18.4	3.9	1.9	-3.4	-2.1	-0.1
Direct investment, net	0.7	7.5	2.9	0.0	2.3	3.5
Direct investment assets	-3.3	-12.8	-12.2	-8.0	-10.3	-10.3
Direct investment liabilities	4.0	20.3	15.0	7.9	12.6	13.8
Portfolio investment, net	-11.8	4.5	-11.4	-8.0	-4.4	-3.6
Portfolio investment assets	-14.4	-8.6	-6.9	-10.2	-10.7	-11.3
Portfolio investment liabilities	2.6	13.2	-4.5	2.2	4.5	6.7
Other investment, net	-7.5	-7.6	11.0	5.5	1.8	0.9
Overall balance	-4.6	11.0	12.1	-4.5	1.5	2.7
Official reserves asset (end-period)	107.6	116.9	114.6	113.5	115.0	117.7
(in months of goods & services imports)	6.6	6.1	5.2	5.4	5.1	4.9
Total external debt (in percent of GDP)	67.6	69.8	63.8	68.2	67.0	66.0
Short-term external debt (percent of total)	38.3	37.4	42.1	41.7	41.0	40.0
Short-term external debt (ratio to international reserves)	1.2	1.2	1.0	1.0	1.0	1.0
Fiscal sector (National Government)	(in percent of GDP)					
Government revenue	15.9	15.1	16.4	17.3	15.7	15.0
Government expenditure	22.1	21.5	22.0	22.3	20.1	19.1
Fiscal balance	-6.2	-6.4	-5.6	-5.0	-4.4	-4.1
Primary balance	-3.7	-3.9	-3.2	-2.5	-1.8	-1.6
Government debt	62.0	63.3	60.2	64.3	64.4	63.7
			.			
Monetary sector	(in percent change, end-period unless specified)					
Broad money	4.0	6.4	4.3	6.0	4.9	4.3
Private sector credit	4.2	4.2	4.7	4.8	5.1	4.9
Loans	3.7	4.2	4.7	5.0	5.6	5.1
Securities	6.3	4.2	4.6	4.2	3.4	4.1
Memorandum items:						
Exchange rate (MYR per USD, average)	4.20	4.14	4.40	4.56	-	-
Exchange rate (MYR per USD, eop)	4.01	4.18	4.41	4.59	-	-
Nominal GDP (in billions of ringgit)	1,418.5	1,548.7	1,793.9	1,822.9	1,955.4	2,116.7
Nominal GDP (in billions of U.S. dollar)	337.5	373.8	407.6	399.7	415.4	457.8
GDP per capita (in U.S. dollar)	10,309.0	11,474.1	12,465.7	12,039.3	12,217.9	13,072.4
Brent crude oil price (U.S. dollar per barrel)	42.3	70.4	99.8	82.6	81.5	76.2

Source: National authorities, AMRO staff estimates and projections

Appendix 3. Balance of Payments

	2017	2018	2019	2020	2021	2022	2023
	(in billions of ringgit, unless specified)						
Current account balance (I)	38.3	32.3	52.9	59.1	60.2	57.2	28.2
Goods balance	117.1	114.6	124.7	137.5	177.6	187.3	136.2
Exports, f.o.b.	801.4	830.1	817.3	780.5	1,005.8	1,237.2	1,055.2
Imports, f.o.b.	684.3	715.5	692.5	643.0	828.2	1,050.0	919.0
Services balance	-22.9	-17.5	-10.9	-47.2	-65.7	-58.2	-43.2
Receipts	159.4	162.4	170.2	93.0	88.1	141.4	195.0
Payments	182.2	179.9	181.1	140.1	153.7	199.6	238.2
Primary income, net	-38.7	-45.1	-39.5	-28.5	-42.2	-56.9	-52.9
Secondary income, net	-17.3	-19.7	-21.4	-2.7	-9.6	-14.9	-11.8
Capital account (II)	0.0	-0.1	0.4	-0.4	-0.5	-0.5	-0.3
Financial account (III) (+ indicates net inflows)	-4.7	11.4	-38.0	-77.4	16.2	8.5	-15.5
Direct investment, net	16.2	10.1	6.6	3.1	31.1	12.6	-0.2
Overseas direct investment	-24.2	-23.4	-31.2	-13.8	-53.2	-53.6	-36.3
Foreign direct investment	40.4	33.5	37.7	16.9	84.3	66.2	36.1
Portfolio investment, net	-15.4	-49.4	-32.4	-49.6	18.8	-50.1	-36.4
Portfolio investment assets	-19.4	-12.0	-46.9	-60.7	-35.8	-30.5	-46.6
Portfolio investment liabilities	4.1	-37.4	14.5	11.1	54.6	-19.7	10.3
Financial derivatives, net	-0.2	1.0	-0.5	0.4	-2.3	-2.2	-3.9
Other investment, net	-5.3	49.7	-11.7	-31.3	-31.4	48.3	25.0
Net errors and omission (IV)	-17.1	-35.9	-6.8	-0.6	-30.3	-11.9	-33.0
Overall balance (= I + II +III + IV)	16.4	7.8	8.4	-19.3	45.7	53.4	-20.5
Change in Reserve Assets	-16.4	-7.8	-8.4	19.3	-45.7	-53.4	20.5
Memorandum items:							
Current account balance (in percent of GDP)	2.8	2.2	3.5	4.2	3.9	3.2	1.5
Official reserve assets (in billions of U.S. dollar)	102.4	101.4	103.6	107.6	116.9	114.6	113.5
In months of goods & services imports	5.7	5.6	5.8	6.6	6.1	5.2	5.4
Changes in official reserve assets (in billions of U.S. dollar)	7.9	-1.0	2.2	4.0	9.3	-2.2	-1.2
Exchange rate (MYR per USD, average)	4.30	4.04	4.14	4.20	4.14	4.40	4.56
Nominal GDP (in billions of U.S. dollar)	319.1	358.8	365.2	337.4	373.8	407.6	399.7

Source: BNM, DOSM, AMRO staff calculations

Appendix 4. Federal Government Budget

	2017	2018	2019	2020	2021	2022	2023
Federal government	(in billions of ringgit, unless specified)						
Revenue (I)	220.4	232.9	264.4	225.1	233.8	294.4	315.0
Tax revenue	177.7	174.1	180.6	154.4	173.7	208.8	229.2
Direct	116.0	130.0	134.7	112.5	130.1	153.5	171.3
Direct: Income	105.2	119.2	123.2	101.8	118.4	139.3	155.6
Companies	64.5	66.5	63.8	50.1	79.8	82.1	91.7
Petroleum	11.8	20.1	20.8	12.8	11.6	23.4	26.1
Individuals	28.9	32.6	38.7	39.0	27.1	33.8	37.8
Direct: Others	10.9	10.9	11.5	10.7	11.7	14.1	15.7
Stamp duty	5.7	5.9	6.2	5.5	6.3	8.0	9.6
Others	5.2	4.9	5.3	5.2	5.3	6.1	6.1
Indirect	61.6	44.0	45.8	41.9	43.6	55.3	57.8
Export duties	1.4	1.7	1.1	0.7	2.1	2.6	2.0
Import duties	2.8	2.9	2.7	2.3	2.6	3.2	3.0
Excise duties	10.1	10.8	10.5	9.9	10.2	12.6	13.1
Goods and services tax (GST)	44.3	20.2	0.0	0.0	0.0	0.0	0.0
Sales tax	0.0	4.0	15.4	14.8	13.6	16.3	18.4
Service tax	0.0	1.5	12.3	12.0	12.0	15.1	17.1
Others	3.0	2.9	3.8	2.2	3.0	5.6	4.2
Non-tax revenue	39.5	51.1	79.8	62.0	51.1	79.6	79.0
Petroleum royalty	4.4	5.2	5.8	4.2	3.7	6.0	6.8
Investment interest and returns	21.6	31.9	60.1	46.1	35.0	58.2	55.8
PETRONAS dividend	16.0	26.0	54.0	34.0	25.0	50.0	40.0
Non-revenue receipts	3.2	7.7	4.0	8.6	8.9	6.0	6.7
Expenditure (II = III + V - VI + VII)	260.7	286.3	315.9	312.7	332.5	393.8	406.4
Current expenditure (III)	217.7	231.0	263.3	224.6	231.5	292.7	311.3
Emoluments	77.0	80.0	80.5	83.0	85.9	87.8	91.9
Retirement charges	22.8	25.2	25.9	27.5	29.1	31.4	34.1
Debt service charges (IV)	27.9	30.5	32.9	34.5	38.1	41.3	46.3
Domestic	27.2	29.9	32.2	33.8	37.3	40.6	45.6
External	0.7	0.7	0.7	0.7	0.8	0.7	0.7
Supplies and services	34.7	35.3	31.5	29.3	24.9	34.7	35.9
Subsidies	22.4	27.5	23.9	19.8	23.0	67.4	71.9
Asset acquisition	0.5	0.4	0.8	0.6	0.6	0.8	1.0
Others	32.4	32.0	67.8	29.8	29.9	29.4	30.2
Development expenditure (V)	44.9	56.1	54.2	51.4	64.3	71.6	96.1
Defence and security	5.3	4.9	5.6	5.8	7.5	8.2	11.4
Economic services	24.2	36.1	31.3	28.7	31.3	39.1	57.2
Social services	12.4	12.9	14.5	13.8	22.6	21.1	24.2
General administration	2.9	2.2	2.8	3.0	2.9	3.1	3.2
Loan recovery (VI)	1.9	0.8	1.6	1.3	1.0	1.4	1.0
COVID-19 Fund (VII)				38.0	37.7	31.0	
Current balance (I - III)	2.7	1.9	1.1	0.5	2.2	1.7	3.7
In percent of GDP	*0.2*	*0.1*	*0.1*	*0.0*	*0.1*	*0.1*	*0.2*
Overall balance (I - II)	-40.3	-53.4	-51.5	-87.6	-98.8	-99.5	-91.4
In percent of GDP	*-2.9*	*-3.7*	*-3.4*	*-6.2*	*-6.4*	*-5.5*	*-5.0*
Primary balance (I - II + IV)	-12.5	-22.8	-18.6	-53.1	-60.7	-58.2	-45.1
In percent of GDP	*-0.9*	*-1.6*	*-1.2*	*-3.7*	*-3.9*	*-3.2*	*-2.5*
Memorandum item:							
Oil and gas-related revenue (in percent of total revenue)	15.7	23.4	31.7	24.9	18.4	28.0	24.1
Brent crude oil price (U.S. dollar per barrel)	54.4	71.1	64.0	42.3	70.4	99.8	82.6
Nominal GDP (in billions of ringgit)	1,372.3	1,447.8	1,512.7	1,418.5	1,548.7	1,793.9	1,822.9

Source: DOSM, MOF, AMRO staff calculations

Appendix 5. Climate Clipboard—Risks, Responses, and Opportunities[87]

A. Physical risks

Exposure/ Sources of risk	Potential macro-financial impacts
• Floods (acute, chronic) • Droughts (acute) • Tropical cyclones (acute)	• Estimated losses amounting to 0.3–0.4 percent of GDP due to flooding, via damages to public assets and infrastructure, residential property, vehicles, manufacturing and business premises, and agriculture • Lower palm oil yields due to droughts, resulting in a weaker external position (palm oil exports accounted for more than 20 percent of the goods trade surplus in 2018–2021) • Higher subsidies and social assistance to mitigate economic losses, thereby holding back fiscal consolidation and rebuilding of fiscal buffers

B. Transition risks

Sources of risk	Potential macro-financial impacts
• Removal of blanket energy subsidies • Establishment of domestic carbon pricing instruments • Phasing out of coal-fired power plants to shift to cleaner energy sources • Imposition of carbon border tax by advanced economies	• Increased inflation from subsidy rationalization, with transport accounting for 14.6 percent of the consumer price index • Reduction in fiscal revenue from lower fossil fuel-related exports (petroleum revenue accounts for more than 20 percent of total fiscal revenue) • Weakened external position owing to loss in competitiveness of fossil fuel exporters (oil and gas exports account for 23 percent of goods trade surplus) • Lower growth prospects owing to increased inflation and weaker exports • Potential weakness in financial system soundness owing to heightened credit risks from weaker growth and increased incidence of stranded assets

C. Adaptation response framework and strategies

Adaptation framework	Key initiatives/strategies	Estimated financing need and sources	
• National Adaptation Plan (NAP) (under development, and may be completed within the next 1-2 years) • NAP is meant to ensure climate change adaptation is mainstreamed and incorporated into Malaysia's development plan.	• Implementation of climate change adaptation in Malaysia focuses managing water resources and security, coastal resources, agriculture and food supply, urban and infrastructure resilience, public health, forestry, biodiversity, and key adaptation cross-sectoral areas Latest initiatives: • MYR15 billion Flood Mitigation Plan until 2030 • The Ecological Fiscal Transfer to state governments for biodiversity conservation has increased to MYR200 million in 2024, up from MYR150 million in 2023 and MYR70 million in 2022 • MYR150 million allocation for National Disaster Management Agency in 2023	• USD2.155 billion between 2020 and 2059 under a scenario of very high GHG emissions (ESCAP)	
		Domestic	**External**
		• Annual budgets	• Global Environment Facility • MOF is engaging with UN Green Climate Fund for funding support

D. Mitigation response framework and strategies

Nationally Determined Contribution (NDC)	National framework/strategies	Estimated financing and sources
• Unconditional reduction of economy-wide GHG emission intensity (per unit of GDP) of 45 percent in 2030 relative to 2005 level (Jul 30, 2021) • The above target consists of a 10 percent increase from the earlier submission in 2015, where unconditional GHG reduction was 35 percent and another 10 percent was conditional on receiving climate finance, technology transfer and capacity building from developed countries • The above target also expands GHG coverage from 3 to 7—in addition to carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O), the target covers hydrofluorocarbons (HFCs), perfluorocarbon (PFCs), sulfur hexafluoride (SF6) and nitrogen trifluoride (NF3)	• NDC Roadmap (to be released in 2024) ➢ Roadmap sets out the pathway to NDC target by 2030 • Long-term Low Emission Development Strategies (LT-LEDS) (to be released in 2024) ➢ LT-LEDS outlines strategies and actions that will mitigate GHGs, particularly for main economic sectors, and be the basis to reach net-zero as early as 2050 (Economic Outlook 2023, published in Oct 2022)	• USD 3 billion (1 percent of GDP) of yearly investment to achieve net zero by 2050 (BCG, WWF) • Low Carbon Nation Aspiration 2040 indicates total investments of MYR9.2 billion per year, of which MYR4.3 billion will be borne by the government • Expanding renewable energy capacity requires USD375 billion-USD415 billion of investment through 2050 (IRENA)
Long-term commitment • Achieve net zero emissions by 2050, at the earliest	**Sources of GHG emissions in Gg CO_2 eq**	

Sector	2019	% of total
Energy	259,326.11	78.5
Main activity electricity and heat production	109,768.85	33.2
Transport	64,973.10	20.0
Manufacturing and construction	33,578.18	10.2
Industrial Processes and Product Use (IPPU)	32,853.80	9.9
Agriculture, Forestry and Other Land Use (AFOLU) – Agriculture	9,921.71	3.0
Waste	28,256.59	8.6
Total	**330,358.21**	**100.0**
AFOLU – Land Use, Land Use Change and Forestry (LULUCF)	-214,714.54	-65.0
Total (including LULUCF)	**115,643.68**	**35.0**

Source: Malaysia Fourth Biennial Update Report (Dec 2022)

Key sectoral strategies and initiatives

- National Energy Policy 2022-2040 (Sep 2022)
  - ➢ Aims to move towards a cleaner energy mix by encouraging development, commercialization, and adoption of green technologies
  - ➢ Under the national energy policy, the Low Carbon Nation Aspiration 2040 targets a higher level of urban public transport modal share and electric vehicle penetration (38 percent by 2040 from <1 percent in 2018), increased share of alternative low carbon fuels in heavy vehicles and

[87] Prepared by Yin Fai Ho.

	marine transport, and enhanced energy efficiency in industrial, commercial, and residential sectors ➢ Aspiration 2040 also entails greater renewable energy (RE) penetration, from 7.6 gigawatts (GW) in installed RE capacity in 2018 to 18.4 GW by 2040, implying an increase in RE share from 25 percent in 2022 (8.7GW) to 40 percent (18.0GW) in 2035 • National Energy Transition Roadmap (NETR) (Aug 2023) ➢ Aims to guide and accelerate shift from traditional fossil fuel-based market to high-value green economy ➢ Outlines 10 flagship projects covering six energy transition levers: energy efficiency (EE); RE; hydrogen; bioenergy; green mobility; and carbon capture, utilization and storage (CCUS) ➢ Expected to reduce GHG emissions of energy sector by 32 percent compared with 2019 baseline, lift GDP value to MYR220 billion, and generate 310,000 jobs by 2050	

E. Enabling regulations for climate resilience

E.1. Legal framework

- Legal framework serves as foundation for Climate Change Act (expected to be tabled in 2025)
- Twelfth Malaysia Plan, 2021-2025 (Sep 2021) indicates formulation of climate change legislation to increase coordination and enhance effectiveness of climate actions at all levels

E.2. GHG accounting framework

- National GHG accounting framework (to be determined)
  - ➢ Framework provides consistent approach to assess GHG emissions across entities and sectors, and at the national level
  - ➢ Development of country-specific GHG emission factors for key sectors is being considered, to provide a basis for the nationwide GHG accounting framework
- Measurement of emissions at the country level follows guidelines by Intergovernmental Panel on Climate Change (IPCC), but accounting frameworks vary at the entity level

E.3. Carbon pricing frameworks

- Conducting feasibility study on carbon pricing, such as carbon tax and an Emission Trading Scheme (Twelfth Malaysia Plan, 2021-2025)
- Launched Bursa Carbon Exchange (BCX) in December 2022, to grow Malaysia's voluntary carbon market (VCM) ecosystem
  - ➢ Inaugural auction on March 16, 2023 of nature-based and technology-based carbon credits from Cambodia and China, respectively, saw 14 successful bidders from local companies
  - ➢ Government announced MYR10 million seed funding to encourage domestic issuance of carbon credits in BCX on March 8, 2023
  - ➢ Key initiatives in 2023 included deployment of a platform for spot trading and clearing of off-market transactions (2023 Q3), and development of VCM Handbook to promote domestic development of carbon projects (Oct 5)

E.4. Sustainable finance frameworks

- Sustainable and Responsible Investment Sukuk Framework (Aug 2014)
  - ➢ Aims to facilitate creation of ecosystem that promotes sustainable and responsible investing (SRI), while leveraging Malaysia's developed sukuk market; SRI sukuks have a broader reach and are accessible to both conventional and non-Islamic investors
- Sustainable and Responsible Investment-linked (SRI-linked) Sukuk Framework (Jun 2022)
- ASEAN Green Bond Standards (Nov 2017); ASEAN Sustainability Bond Standards (Oct 2018); ASEAN Social Bond Standards (Oct 2018); ASEAN Sustainability-linked Bond Standards (Oct 2022)
  - ➢ USD14.2 billion of outstanding green, social, sustainable, and sustainability-linked bonds of June 2024; local currency issuance accounted for 82 percent of total, equivalent to 2.7 percent of the local currency bond market (AsianBondsOnline)
  - ➢ No transition bond framework, with its development contingent on release of global transition bond principles by International Capital Market Association (ICMA)

E.5. Financial system

Initiatives	Guidelines	Status
1. Taxonomy	• Financial institutions (FIs): Climate Change and Principle-based Taxonomy (CCPT) (Apr 2021) • Capital market: Principles-Based Sustainable and Responsible Investment Taxonomy for the Malaysian Capital Market (Dec 2022)	• Submission of half-yearly reports by FIs to BNM since July 2022 Summary of latest report: ➢ FIs were able to classify 94.5 percent of total new loans approved in H2 2022, and 70.5 percent of outstanding loans as at end-2022. ➢ In H2 2022, 56 percent of new loans were classified in climate-transitioning categories, less than 10 percent were climate supporting, and the balance fell into watchlist categories. ➢ Taxonomy for capital market is aligned with CCPT but is voluntary. Instead, disclosure of climate-related financial information would be mandatory.
2. Risk management assessments	• Climate Risk Management and Scenario Analysis (Nov 2022) • 2024 Climate Risk Stress Testing Exercise: Discussion Paper (Jun 2022)	• Industry-wide climate risk stress testing (CRST) exercise to be made mandatory in 2024
3. Climate-related financial disclosures	• Task Force on Climate-related Financial Disclosures (TCFD) Application Guide for Malaysian Financial Institutions (Jun 2022) • Simplified ESG Disclosure Guide (Oct 2023)	• Mandatory disclosure based on TCFD recommendations to commence in 2024
4. Data availability	• Published Climate Data Catalogue (Dec 2022) as a starting reference to address climate and environmental data needs of financial sector	• BNM is working with relevant parties to improve FI access to data that has been identified in the Data Catalogue
5. Capacity building	• Joint Committee on Climate Change (JC3) is leading various initiatives	• Ongoing pilot projects, such as greening SME value chains • Established SME Focus Group to increase awareness and help SMEs better manage transition to low carbon

F. Potential opportunities in transition to low carbon

- Carbon capture and storage
- Manufacturing of electric vehicles (EVs) and parts
- Investments in RE industry value chain

Source: National authorities, media reports, AMRO staff

Annexes: Selected Issues

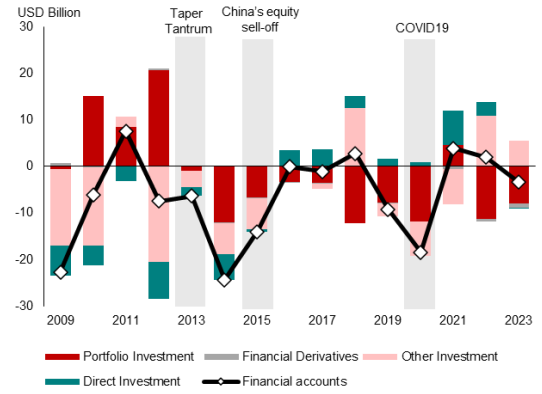
1. Taking the Pulse of Malaysia's Portfolio Investments[88]

Over the last decade, Malaysia has experienced net portfolio investment outflows amounting to USD8.5 billion or 1.9 percent of GDP on average in most years. The outflows not only carry implications for exchange rate movements, but also reflect underlying imbalances that might need to be addressed. This year, the trajectory of portfolio investments has returned to the spotlight, with interest rates in the United States remaining higher than in Malaysia and future U.S. interest rate path still uncertain. This selected issue takes a closer look at the drivers and outlook of Malaysia's portfolio investment trends. The findings suggest that the outflows have been dominated by resident investors, mainly through GLICs. Meanwhile, non-resident flows are more sensitive to relative returns. Successful structural reforms will support well-balanced flows going forward.

1. Resident investors are the main drivers of net portfolio investment outflows. In most periods, portfolio investment registered net outflows (Figure A1.1). Foreign portfolio investments by Malaysian residents have been rising persistently, surpassing USD110 billion on a cumulative basis between 2009 and 2023 (Figure A1.2). Meanwhile, cumulative non-resident portfolio investments over the same period have registered net inflows of USD80 billion – insufficient to offset the resident outflows.

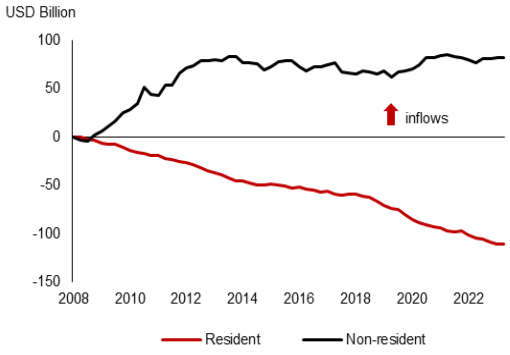
2. However, the growth in residents' foreign investment is not unique to Malaysia. ASEAN peers such as Indonesia, the Philippines and Thailand have experienced a similar trend, albeit to a lesser extent. The same is true of many emerging economies outside ASEAN.[89] The growth in residents' foreign investment is in part a natural result of persistent current account surplus, rising per capita income, and deepening financial sector development in the country. The growth in assets of pension funds and sovereign wealth funds also contributes to the trend (IMF, 2016). Malaysia is relatively advanced on these fronts compared with ASEAN peers (Figures A1.3, A1.4).

Figure A1.1. Malaysia's Financial Account



Source: BNM; CEIC; AMRO staff calculations.

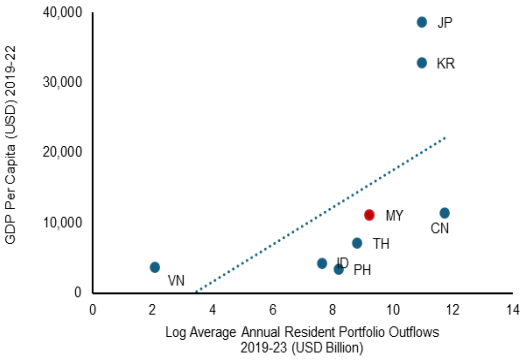
Figure A1.2. Malaysia Cumulative Portfolio Investment



Source: BNM; CEIC; AMRO staff calculations.

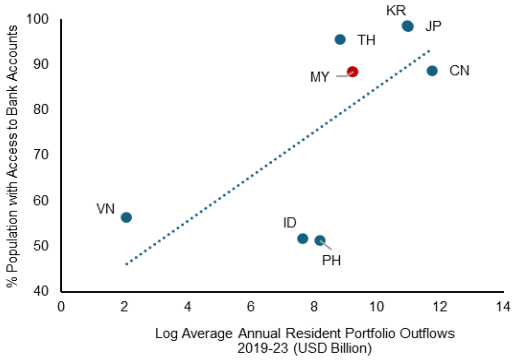
[88] Prepared by Pim-orn Wacharaprapapong.
[89] Between 2019–2023, resident portfolio investment outflows were observed in Russia, Mexico, South Africa, Turkey, Brazil, Israel, and India, among others.

Figure A1.3. Resident Portfolio Flows and Per Capita Income



Source: CEIC; Haver Analytics; IMF; World Bank; AMRO staff calculations.
Note: CN = China; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = Philippines; TH = Thailand; and VN = Vietnam.

Figure A1.4. Resident Portfolio Flows and % of Population with Access to Bank Accounts

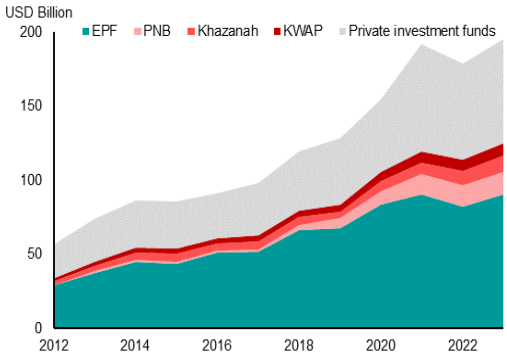


Source: CEIC; Haver Analytics; IMF; World Bank; AMRO staff calculations.
Note: Vertical axis is the share of population aged >15 years old with accounts at financial institutions or mobile money service providers. CN = China; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = Philippines; TH = Thailand; and VN = Vietnam.

Residents' portfolio flows: trends and determinants

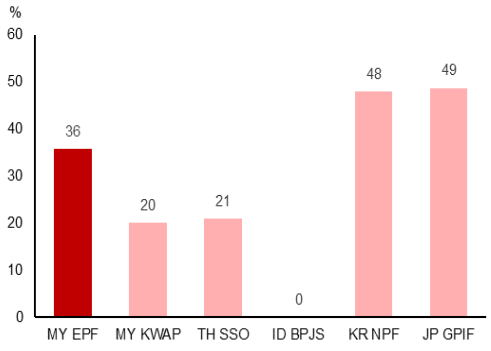
3. Government-linked pension and investment funds were the main vehicles for residents' outward investment. Around two-thirds of residents' foreign portfolio investment assets are invested through government-linked investment companies (GLICs), notably the Employees Provident Fund (EPF), Permodalan Nasional Berhad (PNB)[90], and Khazanah Nasional (Figure A1.5). These funds' foreign investments have been growing steadily over the past decade in line with their long-term diversification strategy to ensure resilient investment returns amid uncertain market conditions. The EPF, for example, has been diversifying its investments to foreign assets since 2006, given its large investment size in relation to the domestic market. In 2022, foreign investment totaled 36 percent of its total portfolio (EPF, 2022).[91] Likewise, PNB doubled its foreign exposure from 9 percent to 19 percent between 2019 and 2022 (PNB, 2022). Under prudent risk management frameworks in line with their respective investment objectives, well-diversified GLIC funds contribute to securing retirement savings for the Malaysian population.

Figure A1.5. Foreign Asset Holdings by Investment Funds



Source: BNM; CEIC; EPF; IMF; KWAP; PNB; SC; AMRO staff calculations

Figure A1.6. Share of Foreign Investment by Public Pension Funds



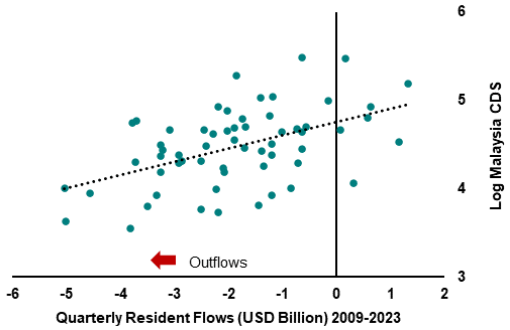
Source: Public pension funds websites; AMRO staff calculations.
Note: Data as of 2022. ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; TH = Thailand.

[90] PNB is set up by the government as a fund management company with a mandate to enhance the economic wealth of the Bumiputera community and all Malaysians.
[91] In 2022, Return on Investment (ROI) of foreign assets was 8.7%, compared to 4.8% for domestic assets.

4. The share of foreign investment by Malaysia's pension funds does not stand out compared with developed markets, though it is higher than some ASEAN peers. The EPF's share of foreign investment stood at 36 percent in 2022, while KWAP's was 20 percent in 2021. They are higher compared with Thailand's Social Security Fund (SSO) or Indonesia's BPJS (Figure A1.6).[92] However, public pension funds in Japan and Korea invest close to half of their assets abroad, and pension funds based in OECD countries invest on average 62.4 percent of their total investments abroad (OECD, 2022). The optimal foreign asset allocations should be determined by the individual GLIC's investment objectives and risk appetite. Consequently, the call for more EPF investment in domestic assets must be weighed against the fund's overall risk-return profile.

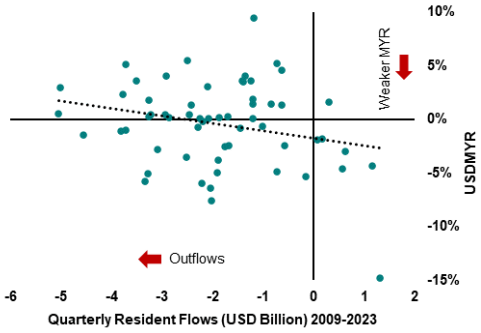
5. Despite persistent outflows, there is evidence that GLICs display some counter-balancing flows during stress periods. Although resident portfolio investments recorded net outflows in most quarters, the outflows tended to moderate or turn into inflows during periods of heightened risks in Malaysia, as indicated by higher credit default swaps (CDS) price and ringgit depreciations. This pattern, as shown in Figures A1.7 and A1.8, reveals that GLICs, possibly taking the opportunities to buy selected oversold investment assets during stress periods, provide some counter-balancing flows in the domestic market. For example, after news of the 1MDB scandal broke in Q3 2015, Malaysia's CDS rose to the highest level since the Global Financial Crisis (GFC) and the ringgit depreciated 11 percent on an NEER basis from the previous quarter. In that quarter, resident portfolio investment reverted to net inflows, cushioning the impacts from non-resident outflows.

Figure A1.7. Resident Flows vs. Malaysia CDS



Source: BNM; CEIC; AMRO staff calculations

Figure A1.8. Resident Flows vs. USDMYR



Source: BNM; CEIC; AMRO staff calculations

6. A regression analysis confirms this pattern. AMRO staff estimated the relationship between resident portfolio investment flows and a set of determinants that represent relative returns and risks of investment in Malaysia compared to foreign investment. We found that larger resident investment inflows are positively correlated with a higher CDS and a weaker ringgit, after controlling for other factors (Table A1.1). In addition, the regression did not find a statistically significant relationship between contemporaneous relative returns and resident flows, an expected result given that resident outflows are driven in large part by the long-term diversification strategy of a few GLICs. Based on this result, resident outflows are not expected to gather speed amid elevated U.S. interest rates.

[92] BPJS does not have a mandate to invest in foreign asset.

The following equation is estimated using OLS, with quarterly data between Q1 2009 and Q4 2023.

$$Y_t = \beta X_t + c$$

Y_t is resident or non-resident portfolio flows (USD billion)

X_t represents a set of independent variables that includes

- GDP difference between Malaysia and U.S.
- Return differentials between KLCI index and global stock indices
- Ringgit value (USDMYR and forecast, NEER)
- Real interest differentials between MY and U.S.
- Risk sentiments (VIX and Malaysia's CDS)

Table A1.1. Regression Results on Resident Portfolio Flows

Explanatory Variables	Specifications				
	1	2	3	4	5
GDP differential MY-US	0.00		0.00	0.00	0.00
GDP forecast MY		0.07			
Real policy rate diff MY-US	0.12	0.13		0.11	0.1
Real 10Y yield diff MY-US			0.12		
KLCI - SPX diff	0.01	0.01	0.01	0.01	0.01
Log(VIX)	-1.00*	-0.87	-1.05*	-2.13*	-0.96*
Log(Malaysia CDS)	2.14***	2.04**	2.23***	2.31***	2.18***
USDMYR(-1)	0.71*	0.76**	0.51		
USDMYR forecast				0.55*	
Log(NEER(-1))					-5.22**
Constant	-11.42**	-11.8**	-10.84**	-13.50*	4.35
Adjusted R^2	0.25	0.27	0.25	0.26	0.25

Note: To avoid the endogeneity problem, the first lags of USDMYR and NEER, and Bloomberg median forecast for one-quarter-ahead USDMYR values are used to capture the impact of ringgit values on portfolio flows. Standard errors are homoscedastic, and no serial correlations are found.
***, **, and * denote statistical significance at 1 percent, 5 percent, and 10 percent confidence levels, respectively.

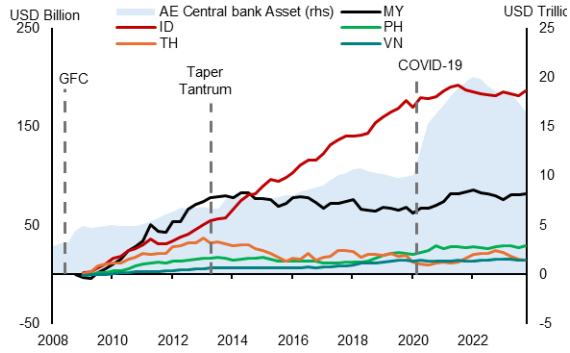
Non-residents' portfolio flows: trends and determinants

7. On the non-resident side, portfolio inflows rose sharply in the aftermath of the Global Financial Crisis (GFC) but have moderated in recent years. Non-resident portfolio flows accelerated during 2009-2013 when the GFC prompted advanced economies' central banks to cut policy rates to record lows and resorted to quantitative easing by injecting liquidity into the market through asset purchase programs. As a result, the global markets were flushed with liquidity and a significant part of the liquidity flowed into emerging market economies, including Malaysia, in search of higher returns. Cumulative inflows to Malaysia had totaled USD80 billion by the end of 2013, ahead of ASEAN-5 peers (Figure A1.9). After 2013, however, unconventional monetary policy easing was scaled back, and the global oil price experienced a sharp decline. These developments triggered an unwinding of the carry trade in Malaysia. This period also coincided with the 1MDB scandal and the ensuing political uncertainties in the country that weighed on investors' confidence in Malaysian assets.

8. Malaysia saw a milder wave of non-resident inflows following the COVID-19 pandemic. The global pandemic prompted even larger quantitative easing programs from the central banks of both advanced and emerging economies' central banks. Nevertheless, compared with the GFC, a smaller share of global liquidity flowed into emerging market assets during 2020-2023. Data from global investment funds showed that during the pandemic, investors favored ultra-safe assets, such as U.S. money market funds, over emerging market assets, not only due to the high uncertainties of the situation, but also because emerging markets were vulnerable to the disruptions in global trade (Figure

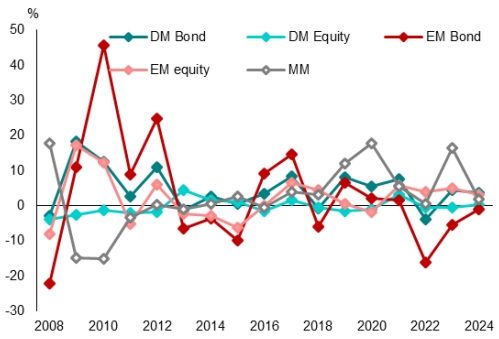
A1.10). The cautious global investment trend amid the pandemic, followed by the forceful global monetary policy tightening to combat inflation from 2022 onwards, contributed to the moderation in non-resident inflows to Malaysia.

Figure A1.9. Cumulative Non-Resident Portfolio Flows



Source: Central banks; CEIC; AMRO staff calculations.

Figure A1.10. Growth in Global Funds Size



Source: EPFR; AMRO staff calculations.

9. In addition to global investment trends, the regression results suggest that lower relative returns in Malaysia could help explain the subdued non-resident inflows of the post-pandemic years. Based on a regression analysis similar to that of resident flows, larger non-resident portfolio inflows are associated with higher relative interest in Malaysia, higher KLCI returns, positive global risk appetite, lower Malaysia CDS and a stronger ringgit (Table A1.2). Unlike resident investors, foreign investors appear to be more sensitive to risk and return variables. Moreover, the elevated U.S. interest rates and strong U.S. dollar can weigh on foreign inflows.

Table A1.2. Regression Results on Non-Resident Portfolio Flows

Explanatory Variables	Specifications				
	1	2	3	4	5
GDP differential MY-US	-0.17		-0.22	-0.17	-0.18
GDP forecast Malaysia		-0.08			
Real policy rate diff MY-US	**0.98*** **	**0.98*** **		**1.03*** **	**0.92*** **
Real 10Y yield diff MY-US			**0.69** **		
KLCI - SPX diff (-1)	**0.14*** **	**0.12** **	**0.13** **	**0.14*** **	**0.12** **
Log(VIX)	**-4.52*** **	**-4.40*** **	**-4.56*** **	**-4.56*** **	**-4.50*** **
Log(Malaysia CDS)	**-3.48** **	**-3.70** **	**-3.39** **	**-3.57** **	**-3.39** **
USDMYR (-1)	-1.74	-1.79	**-3.24** **		
USDMYR forecast					**-2.35** **
Log(NEER(-1))				12.84	
Constant	**36.10*** **	**36.69*** **	**42.36*** **	-30.00	**38.02*** **
Adjusted R^2	**0.38**	**0.37**	**0.33**	**0.38**	**0.4**

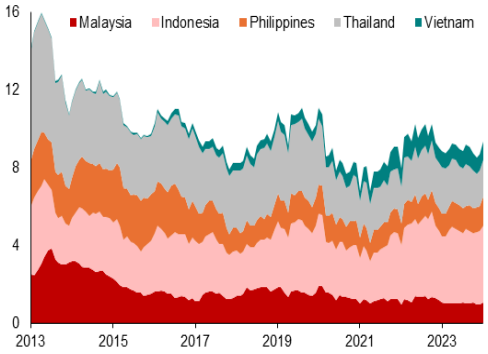
Note: To avoid the potential endogeneity problem, the first lags of USDMYR and NEER, and Bloomberg median forecast for 1-quarter-ahead USDMYR are used to capture the impact of ringgit values on portfolio flows. The same applies for the KLCI-SPX return differentials. Standard errors are homoscedastic, and no serial correlations are found.
***, **, and * denote statistical significance at 1 percent, 5 percent, and 10 percent confidence levels, respectively.

10. The relatively weak performance of the Malaysian equity market contributed to subdued non-resident inflows. The domestic equity market has consistently underperformed the bond market in attracting foreign investors. Since 2009, equities have received only 15 percent of cumulative foreign inflows into Malaysia. Moreover, investment allocation data from global investment funds show that among Asia ex-Japan regional equity funds, the allocation to Malaysia has been declining gradually from 3.1 percent at end-2013 to 0.9 percent at end-2023. Meanwhile, the proportions of investment in

Indonesian and Vietnamese equities have been on the rise. The declining attractiveness of Malaysia's equity market reflects its relatively low returns. Annual returns of the KLCI averaged 0.4 percent during 2013-2019 and fell to 0.1 percent during 2020-2023, putting it among the worst performers in the region (Figure A.1.12). The low profitability of listed companies, predominance of defensive or low-growth sectors such as banks and utility companies, and political uncertainties also contributed to the weak performance.

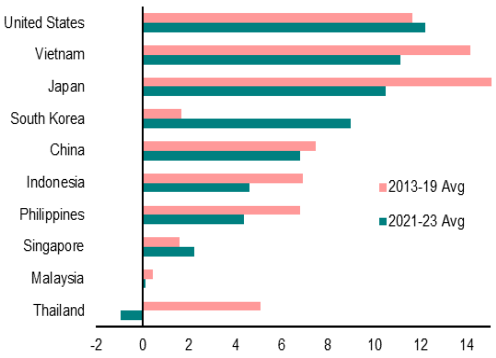
11. However, Malaysia's equity market is set for a strong recovery if structural reforms give rise to enhanced competitiveness. The KLCI has been improving since H2 2023, supported by not only the strong global equity performance, but also confidence on the domestic front from the government's commitments to key reforms, including the New Industrial Master Plan (NIMP) 2030 and the National Energy Transition Roadmap (NETR). If these reforms are successfully implemented, they will foster an ecosystem of competitive and innovative firms that revitalize the local capital market. At the same time, the Securities Commission's commitment to enable funding access for companies in the early growth stage and broaden investors' participation are timely initiatives to promote a more vibrant and attractive capital market.

Figure A1.11. Allocations of Asia Ex-Japan Regional Equity Funds to ASEAN-5 Markets



Source: EPFR; AMRO staff calculations.
Note: Shares do not add up to 100 as some countries' are not shown, such as China, India, and Korea.

Figure A1.12. Average Annual Stock Index Returns



Source: Bloomberg; CEIC; AMRO staff calculations.

12. In conclusion, the deep dive into Malaysia's portfolio investments finds the risks to external stability to be manageable. Moreover, successful structural reforms will support well-balanced flows going forward. Resident portfolio outflows are expected to continue in an orderly manner with the expansion of GLICs' assets. The growing outward investment is a natural and welcome trend, as it boosts the long-term savings of the Malaysian public. Meanwhile, non-resident inflows may remain subdued in the short run due to higher interest rates abroad. However, in the medium to long term, if structural reforms gain traction and political stability is maintained, Malaysia's investment appeal will gradually improve. Such positive developments will lead to sustainable and well-balanced investment inflows into the country.

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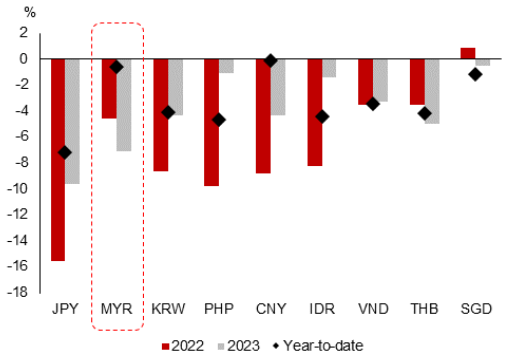
2. Decomposing Drivers of the Ringgit[93]

The Malaysian ringgit has depreciated against the U.S. dollar alongside other regional currencies since the beginning of the U.S. Federal Reserve's rate hike, but was one of the worst performing currencies in the region in 2023. This selected issue examines key drivers of the ringgit movements and identifies potential factors that could have contributed to the recent underperformance of the ringgit. The findings suggest that while external factors may have played an important role during the depreciation episodes, domestic fundamentals are vital in supporting the recovery of the ringgit over the longer term.

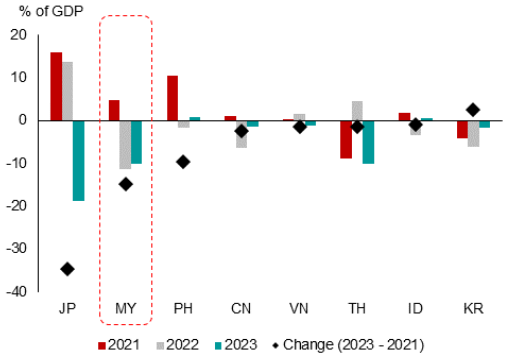
1. Since the start of monetary policy normalization by the U.S. Federal Reserve in early 2022, the Malaysian ringgit has weakened against the U.S. dollar along with other regional currencies, but was one of the worst performers in 2023. The ringgit depreciated by 5.1 percent against the U.S. dollar in 2022, followed by a further 7.1 percent decline that resulted to its underperformance against most regional currencies in 2023 (Figure A2.1). In line with the weakening of the ringgit, Malaysia experienced larger net portfolio outflows relative to its GDP compared with other regional economies in both 2022 and 2023 (Figure A2.2). In response, foreign exchange interventions have been deployed to slow down the pace of depreciation. Coordinated efforts by BNM and the government in early 2024, including to encourage government-linked companies (GLCs) and government-linked investment companies (GLICs) to repatriate and convert their foreign investment income in a more consistent and timely manner, have resulted in the ringgit's stabilization since March 2024.

Figure A2.1. Changes in Selected ASEAN+3 Currencies Against U.S. Dollar



Source: National authorities via Haver Analytics; AMRO staff calculations
Note: Returns computed for year-to-date are based on data up to June 2024. CNY = Chinese yuan; IDR = Indonesian rupiah; JPY = Japanese yen; KRW = Korean won; MYR = Malaysian ringgit; PHP = Philippine peso; SGD = Singaporean dollar; THB = Thai baht; VND = Vietnamese dong.

Figure A2.2. Net Portfolio Flows of Selected ASEAN+3 Economies



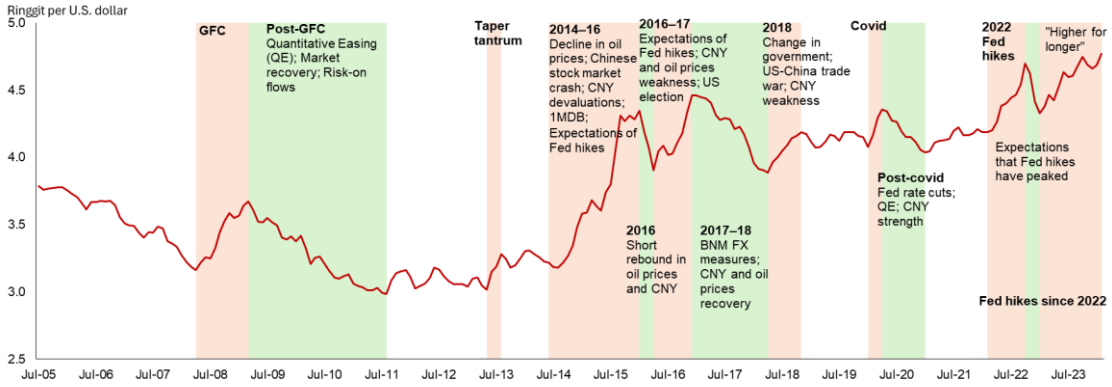
Source: National authorities via Haver Analytics; AMRO staff calculations
Note: CN = China; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = the Philippines; TH = Thailand; VN = Vietnam.

2. The underperformance of the ringgit reflects the importance of understanding the dynamics of ringgit fluctuations and the underlying drivers. An examination of ringgit movements from a historical perspective allows the identification of sharp depreciation and appreciation episodes since July 2005, which are determined based on defined thresholds, including the most recent episode of ringgit depreciation in 2022–2023

[93] Prepared by Yin Fai Ho.

(Figure A2.3).[94] An analysis focusing on these episodes can provide valuable insights into the primary drivers behind them.

Figure A2.3. Evolution of USD/MYR Exchange Rate



Source: BNM
Note: The pink area represents a period of sustained depreciation while the green area represents a period of sustained appreciation. Identified depreciation episodes are the GFC, Taper tantrum, 2014–16, 2016–17, 2018, COVID-19 and 2022 Fed hikes. Identified appreciation episodes are post-GFC, 2016, 2017–18 and post-COVID. A broader depreciation episode looking at Fed hikes since 2022 (March 2022 to March 2024) is included in the analysis to better understand the drivers of the recent ringgit weakness.

3. A rolling-window vector autoregression (VAR) model is deployed to estimate the impact of each factor on ringgit movements across time. Potential drivers included in the model are separated into external and domestic factors:

- **External factors** include (i) changes in the logarithm of CBOE's volatility index (VIX) as a proxy for global risk sentiment, (ii) changes in the logarithm of Brent oil prices, (iii) five-year interest rate differentials between the U.S. and Malaysia[95], and (iv) changes in the logarithm of the yuan-dollar exchange rate.
- **Domestic factors** include (i) differences in the CDS spreads between Malaysia and the U.S. as a proxy of country risk premium, and (ii) one-year ahead mean growth consensus forecasts as a proxy for Malaysia's growth prospects.
- Following Brunnermeier and others (2008) and Han and Westelius (2019), the VAR model can be written as

$$Y_t = \beta_0 + \sum_{j=1}^{J} A_j Z_{t-j} + \varepsilon_t,$$

where Y_t is a vector of endogenous variables, including the abovementioned factors and the changes in the logarithm of the ringgit-dollar exchange rate. The shocks are identified via Cholesky decomposition following the order of variables as enumerated above. The VAR model is estimated on a five-year rolling window basis[96] to account for the evolution of ringgit drivers over time, using monthly data from July 2005 to March 2024, with a lag order of one based on the Akaike Information Criterion.

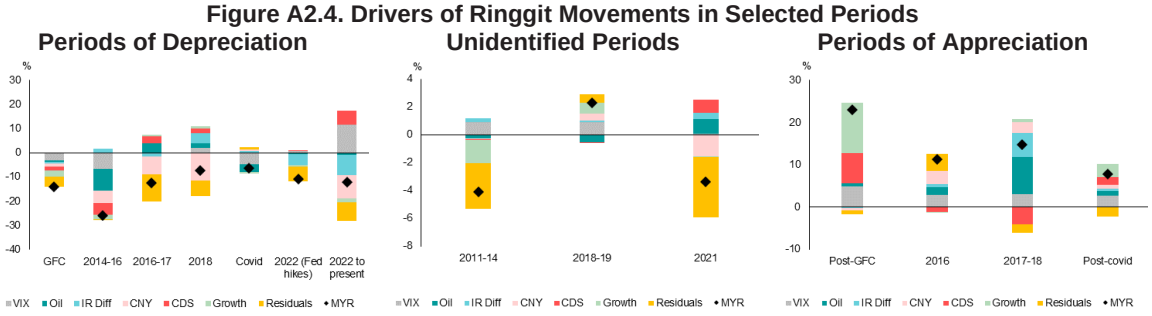
4. A historical decomposition based on the estimated VAR model is used to identify significant contributors of ringgit fluctuations during each episode of

[94] Depreciation episodes are defined as a sustained depreciation of either at least 3.9 percent within a quarter, 5.2 percent within six months, or 8 percent within a year. Appreciation episodes are defined as a sustained appreciation of either at least 3.5 percent within a quarter, 4.4 percent within six months, or 6.4 percent within a year. The thresholds are computed based on one standard deviation from mean returns of selected frequency.
[95] The interest rate differential is defined as the U.S. interest rate minus Malaysia's interest rate. The model is also estimated using two-year, three-year and 10-year interest rate differentials, but the five-year interest rate differential is selected because of its higher significance.
[96] The five-year rolling window is selected because it can capture the recent dynamics of interest rate differentials on the ringgit better than longer-horizon windows, given that the relationship between interest rate differentials and the ringgit has been historically weak.

depreciation or appreciation. Based on the decomposition results, several patterns can be observed:

- **Depreciation episodes of the ringgit are typically driven by external factors** (Figure A2.4). Ringgit depreciation during the GFC and the pandemic episode was driven partly by deterioration in global risk sentiment. The 2014–16 episode was led by a combination of lower risk appetite in global investors, sharp decline in oil prices, and the massive sell-off in China's stock markets. Meanwhile, the lackluster yuan contributed significantly to the ringgit's weakness during the depreciation episodes between 2016 and 2019.
- **Periods of appreciation generally succeed depreciation episodes and can be led by both domestic and external factors.** Ringgit appreciation in post-recovery periods following the GFC and the pandemic were mainly led by improvement in Malaysia's growth prospects and risk premium, as well as the amelioration of global risk sentiment.
- **The results suggest that large fluctuations in the ringgit are mostly driven by external factors and events**. Moreover, the markets tend to behave asymmetrically during risk-off and risk-on periods. Investors appear to be undiscerning and indifferent toward domestic fundamentals when uncertainty is heightened, withdrawing their funds from emerging markets (EMs), leading to depreciation pressure on EM currencies including the ringgit. On the other hand, domestic fundamentals become more meaningful to investors when market sentiment improves, as they are more selective in their allocation of funds to economies with stronger upside potential. Domestic factors play an important role in driving ringgit movements during periods which are absent of large ringgit movements as well.

Figure A2.4. Drivers of Ringgit Movements in Selected Periods



Source: National authorities via Haver Analytics; AMRO staff estimates
Note: The contribution of residuals can be explained by both the persistence of ringgit movements and unobserved variables such as current account balance and FX policy measures.

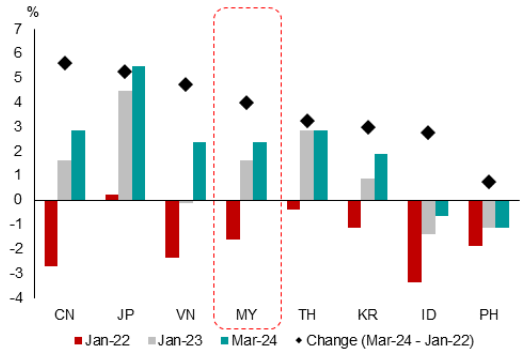
5. The recent decline in the ringgit was driven by both rising interest rate differentials and yuan weakness. Based on the model findings, the widening interest rate differentials vis-à-vis the U.S. since 2022 and depreciation in the yuan amid China's weaker-than-expected reopening in 2023 have largely contributed to the recent episode of ringgit depreciation. To illustrate how these factors contribute to the relative underperformance of the ringgit in the region, a comparison is conducted to see how interest rate differentials and the domestic currency's association with the Chinese yuan vary across the region:

- **Larger increase in interest rate differentials.** The weakness in the ringgit has been partly attributed to the widening interest rate differentials between the U.S. and Malaysia amid BNM's more gradual pace of monetary policy normalization. The policy rate spread between the two countries rose significantly from -163 basis

points in January 2022 to +238 basis points in March 2024, relatively large compared with regional peers (Figure A2.5). This has contributed to the persistent net portfolio outflows since 2022, weighing on the ringgit.

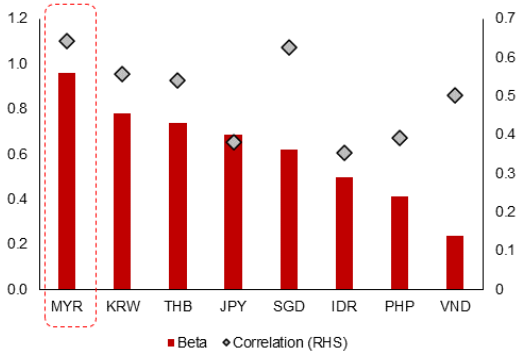
- **Stronger association with the yuan.** The ringgit has a comparatively higher sensitivity and correlation to the movements of the yuan historically compared with peer currencies in the region (Figure A2.6). Markets often view the ringgit, along with the won, as proxy currencies for the yuan, given their stronger trade linkages with China. Malaysia's domestic valued-added exports to China's final demand as a proportion of GDP has been one of the largest among regional peers and has further increased sharply in recent years, pointing to China's increasing importance as a source of demand for Malaysia's exports (Figure A2.7). Additionally, the ringgit-yuan connection could be further strengthened by markets' expectations that have built up over the years, on the back of the historically tight co-movements between the pair since the devaluation of the yuan in 2015. Such perceptions have resulted in a larger influence of the recent yuan weakness on the ringgit, contributing to the Malaysian's currency underperformance in the region.

Figure A2.5. Policy Rate Differentials in Selected ASEAN+3 Economies



Source: National authorities via Haver Analytics; AMRO staff calculations
Note: CN = China; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = the Philippines; TH = Thailand; VN = Vietnam.

Figure A2.6. Sensitivity and Correlation of Selected ASEAN+3 Currencies with USD/CNY Movements



Source: National authorities via Haver Analytics; AMRO staff estimates
Note: The betas and correlations are computed using monthly data from January 2015 to March 2024. CNY = Chinese Yuan; IDR = Indonesian rupiah; JPY = Japanese yen; KRW = Korean won; MYR = Malaysian ringgit; PHP = Philippine peso; SGD = Singaporean dollar; THB = Thai baht; VND = Vietnamese dong.

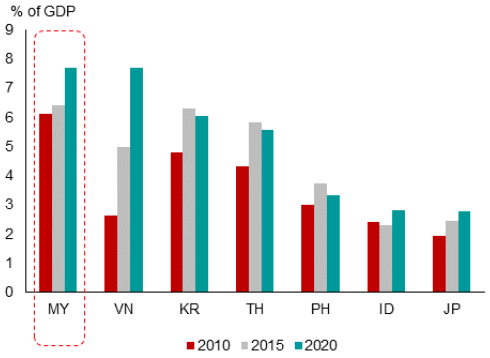
6. The underperformance of the ringgit can be explained by other potential drivers as well. Apart from the factors mentioned by the model above, an examination across regional peers shows that the ringgit's underperformance in the region can also be explained by the following factors:

- **Current account weakness.** Among regional peers, Malaysia experienced the largest deterioration in its current account balance in 2023 (Figure A2.8). Malaysia's current account balance declined sharply from 3.2 percent of GDP in 2022 to 1.5 percent in 2023 amid weaker exports.
- **Sensitivity of the ringgit.** A sensitivity analysis of regional currencies reveals that the ringgit is particularly sensitive to movements in regional currencies, especially during periods of broad depreciation (Figure A2.9).[97] The ringgit tends to decline

[97] The sensitivity of a currency to regional currencies' movements is the coefficient (beta) obtained from regressing the log returns of a currency on the average log returns of the regional currencies. The sensitivity indicates the magnitude of returns of a currency that is associated to the broad returns of regional currencies.

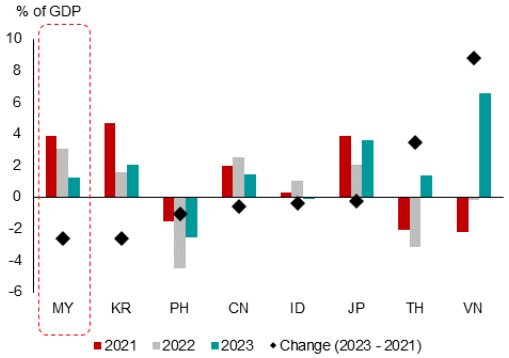
more compared with regional currencies on average, even surpassing currencies in the region that are traditionally perceived as "high-beta", such as the won and the baht. Nonetheless, the ringgit also exhibits a relatively high sensitivity during periods of appreciation, albeit to a smaller extent. The variations in sensitivity among regional currencies can be partly explained by the flexibility of the exchange rate regime of each currency (Figure A2.10). Unsurprisingly, currencies under more flexible exchange rate regimes tend to appreciate or depreciate by a bigger magnitude, likely due to fewer FX interventions and capital control measures. According to the exchange rate regime classification by Ilzetzki and others (2019), the ringgit is managed under one of the more flexible exchange rate regimes in the region, which could partly explain its structurally larger movements among regional currencies during periods of broad appreciation or depreciation.[98]

Figure A2.7. Domestic Value-added Exports to China's Final Demand by Selected ASEAN+3 Economies



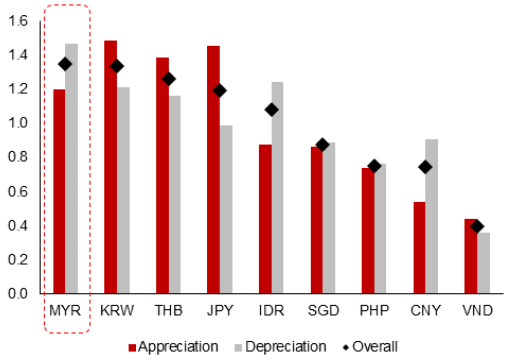
Source: OECD TiVA; AMRO staff calculations
Note: ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = the Philippines; TH = Thailand; VN = Vietnam.

Figure A2.8. Current Account Balance of Selected ASEAN+3 Economies



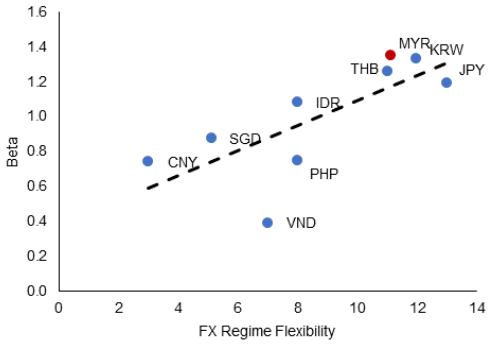
Source: National authorities via Haver Analytics; AMRO staff calculations
Note: CN = China; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = the Philippines; TH = Thailand; VN = Vietnam.

Figure A2.9. Sensitivity of Selected ASEAN+3 Currencies with Regional Average Movements



Source: National authorities via Haver Analytics; AMRO staff estimates
Note: The betas and correlation are computed using monthly data from January 2015 to March 2024. CNY = Chinese yuan; IDR = Indonesian rupiah; JPY = Japanese yen; KRW = Korean won; MYR = Malaysian ringgit; PHP = Philippine peso; SGD = Singaporean dollar; THB = Thai baht; VND = Vietnamese dong.

Figure A2.10. Sensitivity and Regime Flexibility of Selected ASEAN+3 Currencies



Source: National authorities via Haver Analytics; Ilzetzki and others (2019); AMRO staff estimates
Note: The betas are computed using monthly data from January 2015 to March 2024. Exchange rate regime flexibility is computed using the average exchange rate arrangement classification between January 2015 and December 2019. CNY = Chinese yuan; IDR = Indonesian rupiah; JPY = Japanese yen; KRW = Korean won; MYR = Malaysian ringgit; PHP = Philippine peso; SGD = Singaporean dollar; THB = Thai baht; VND = Vietnamese dong.

[98] The flexibility of an exchange rate regime is determined based on the classification by Ilzetzki and others (2019), which includes the measurement of currency volatility and narrative assessment of central bank practices.

7. While recent measures have been effective in supporting the ringgit, policies focusing on strengthening domestic fundamentals will provide enduring support over the medium term. Existing FX measures, such as coordination with GLCs and GLICs to repatriate foreign exchange, are useful in softening excessive pressure on the ringgit, especially during periods of sharp depreciation that are typically driven by external factors. However, domestic fundamentals are vital in supporting the recovery of the ringgit once market sentiments improve and over the longer term. In this regard, authorities are encouraged to continue their work in the following aspects:

- **Structural and institutional reforms.** Policies focusing on enhancing growth potential, such as the New Industrial Master Plan 2030 and encouraging higher R&D spending, can improve Malaysia's growth prospects over the medium term. At the same time, reforms that strengthen the robustness of institutional frameworks and encourage discipline in governance, such as the Government Procurement Act and the Public Finance and Fiscal Responsibility Act, can lower Malaysia's country risk premium and bolster global investors' confidence. Such developments increase the attractiveness of domestic assets and provide support to the ringgit in the medium term.
- **Diversification of trade and investments.** While in the process of expanding its trade networks and attracting foreign investments, Malaysia should place importance on ensuring that its trade and investments remain diversified across sources and sectors to reduce outsized influence of any one economy or sector on the domestic economy and the ringgit. This can help to minimize the risk of excessive ringgit volatility arising from negative developments in a single economy or sector.
- **Active and well-coordinated communication with the markets.** Regular engagement with market participants can help authorities understand the reasoning behind prevailing market perceptions of the ringgit. Such interactions provide an opportunity for BNM to explain or clarify any recent developments that affect the currency as well as to address issues with regard to the movements in the ringgit. This proactive approach can foster a more stable and transparent market environment.

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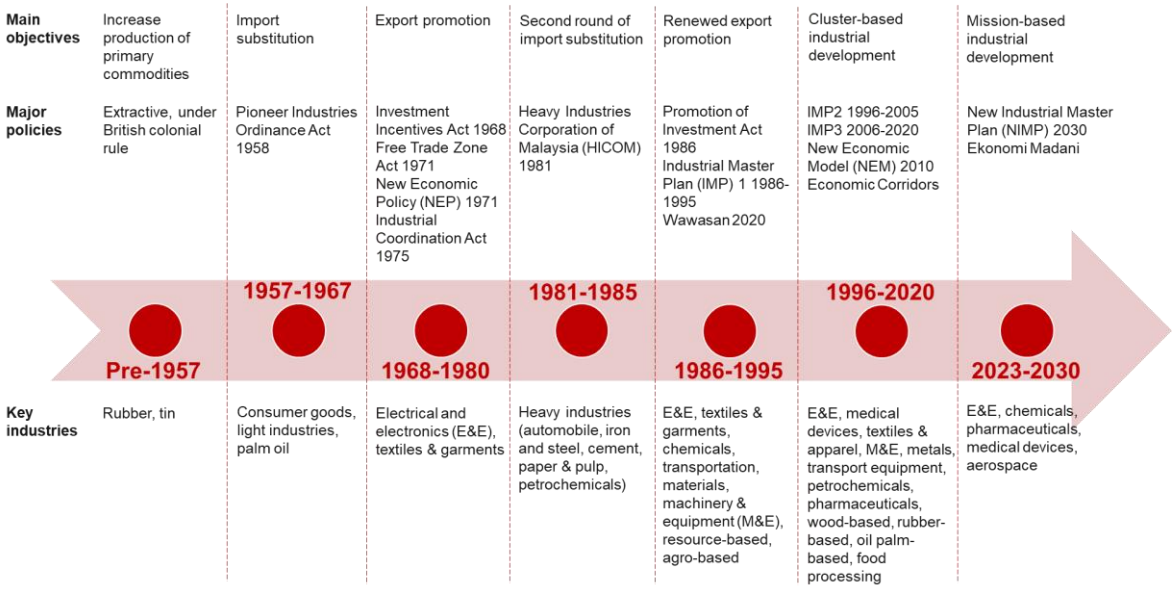
Ilzetzki, Ethan, Carmen M. Reinhart, and Kenneth S. Rogoff. 2019. "Exchange Arrangements Entering the 21st Century: Which Anchor Will Hold?" *Quarterly Journal of Economics* 134 (2): 599–646.

3. NIMP 2030 and Semiconductors[99]

A mission of the New Industrial Master Plan (NIMP) 2030 is to advance economic complexity. Semiconductors are a key focus, particularly chip design and fabrication. There are also other product areas that are of high economic complexity and yet related to existing know-how, such as certain specialty chemicals and gases, components, and equipment. Additionally, investment in new and emerging technologies, such as advanced packaging, compound semiconductors, and graphene-based semiconductors, could yield large economic payoffs.

1. Malaysia has undergone substantial industrial transformation in just six decades, shifting from a resource-based economy to a diversified industrialized economy. This transformation largely reflects the evolution of Malaysia's industrial policy, from extractive policies under British colonial rule to import-substituting industrialization and export-oriented industrialization after independence (Figure A3.1). These changes were manifested in a shift in the export composition—heavy concentration in rubber and tin before 1980, and gradually expanding the product mix to manufactured goods (especially electrical and electronics), oil and gas, and palm oil (Figure A3.2). The key incentives that enabled rapid structural change included free trade zones, tariff protection, tax holidays, investment tax credits, and more liberal foreign equity participation to attract FDIs.

Figure A3.1. Shifts in Malaysia's Industrial Policy



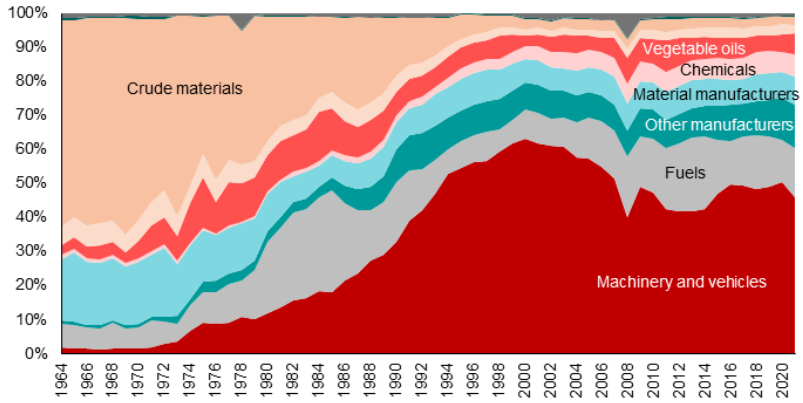
Source: Various national plans; AMRO staff illustrations

2. However, Malaysia appeared to have faced premature deindustrialization in the aftermath of the Asian Financial Crisis (AFC), but the pace of decline in the output share of manufacturing has slowed since the early 2010s. Manufacturing's share of GDP at current prices peaked at around 31 percent in 2000 and fell to 21 percent in 2019 before recovering slightly during the COVID-19 pandemic. While manufacturing typically shrinks as economies develop, Malaysia's deindustrialization had occurred at a much lower level of income compared with developed economies' past experiences (Figure A3.3). This raises concern that Malaysia may not be able to reap the rewards of industrial-led productivity growth, which could reduce potential growth and its ability to advance to a high-income status. In fact, Malaysia has remained as a middle-income country for several

[99] Prepared by Wee Chian Koh.

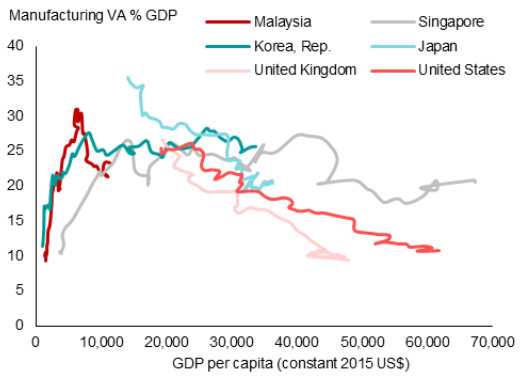
decades (Figure A3.4). The causes of premature deindustrialization are multi-faceted, but likely reflect China's rapid industrialization which resulted in a loss of competitiveness for Malaysia in many labor-intensive manufacturing industries, as well as slow progress in industrial upgrading to high-value added segments of the manufacturing value chain.

Figure A3.2. Shifts in Malaysia's Export Composition



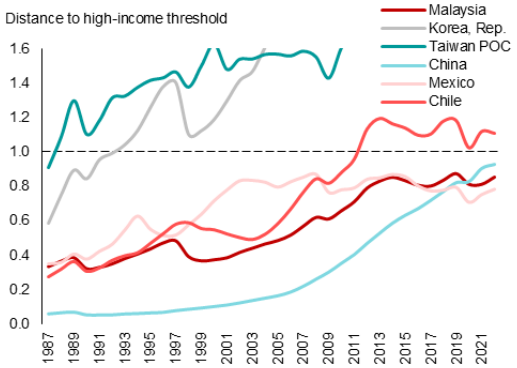
Source: Atlas of Economic Complexity

Figure A3.3. Manufacturing Share of GDP and Per Capita GDP



Source: World Bank; AMRO staff calculations

Figure A3.4. Distance to High-Income Status



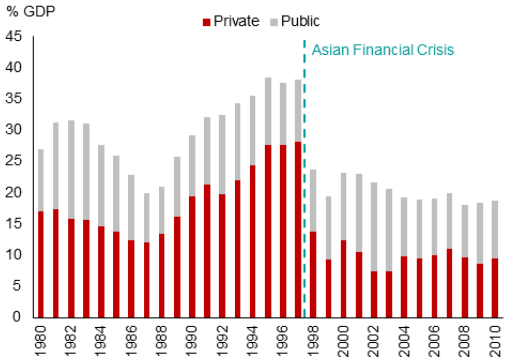
Source: CEIC; World Bank; AMRO staff calculations
Note: High-income threshold based on World Bank's country income classification that is adjusted annually.

3. Hurdles to industrial upgrading include inadequate private investment, limited backward linkages, low spending on research and development (R&D), and a lack of skilled talent. Private investment, including FDIs, has been the main engine of Malaysia's manufacturing expansion until the AFC, when it fell sharply from an average of 24 percent of GDP in 1990-1997 to less than 10 percent in 1998-2010 (Figure A3.5). At the same time, efforts to deepen manufacturing development have not succeeded in nurturing a critical mass of domestic firms capable of producing indigenous innovation; instead, industrialization continues to be dependent on imported capital and technology with limited backward linkages, especially in the E&E sector (Tham and Loke 2011). A culture that is lacking innovation is also reflected in the low level of R&D spending, number of researchers, and patents granted (Figure A3.6).[100] Moreover, R&D capital is dispersed across different and unrelated areas of research.[101] The skill shortages, persisting despite an increasing supply of new graduates from tertiary education institutions, pose a major concern.

[100] The number of U.S. patents granted to Malaysian entities is predictably low, with approvals received by multinational corporations that are largely associated with the semiconductor industry. Likewise, patents granted in Malaysia are mostly to foreign residents.
[101] In the private sector, R&D expenditure is mainly spent on automotive technology, electronic components, and consumer electronics. R&D outlays in government research institutes mostly go to agriculture-related areas and ICT applications. Meanwhile, R&D spending in universities is varied, ranging from biochemistry and engineering to education and communications, and mostly supports basic research aimed at journal publications rather than practical research that target commercialization.

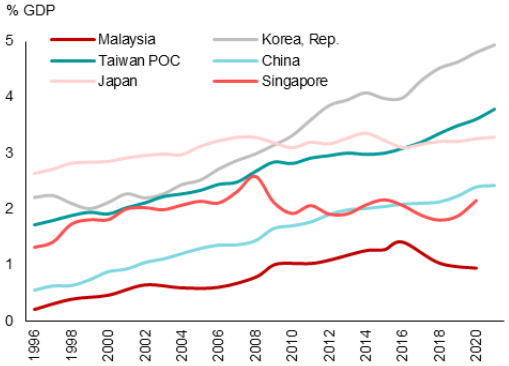
Importantly, the declining interest in science, technology, engineering, and mathematics (STEM) education among Malaysian students, low Program for International Student Assessment (PISA) scores, and high failure rates in the national exam for Mathematics subjects will add to future talent woes (Figures A3.7, A3.8).

Figure A3.5. Private and Public Investment



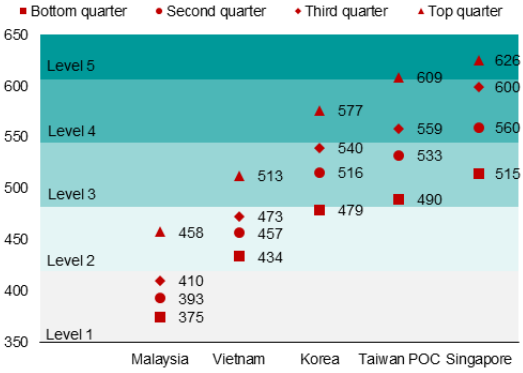
Source: Department of Statistics Malaysia (DOSM); AMRO staff calculations

Figure A3.6. R&D Spending



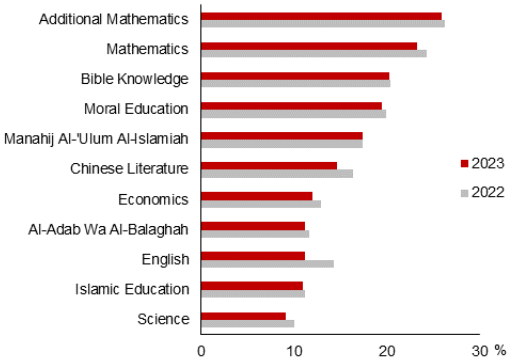
Source: CEIC, UNESCO Institute for Statistics; World Bank; AMRO staff calculations

Figure A3.7. PISA Mathematics Score by Socioeconomic Group



Source: OECD; AMRO staff calculations

Figure A3.8. Sijil Pelajaran Malaysia (SPM) Subject Failure Rate

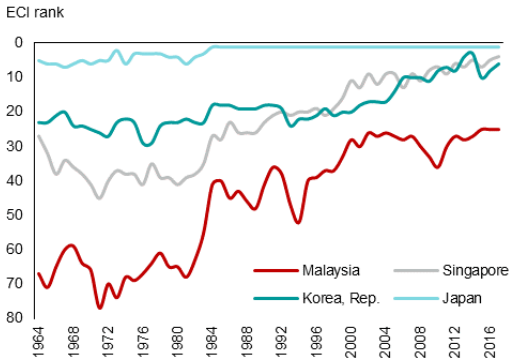


Source: Ministry of Education; AMRO staff calculations

4. Cognizant of these challenges, the government has sought to reinvigorate the manufacturing sector through various industrial policies. The latest instalment is the New Industrial Master Plan (NIMP) 2030 launched in September last year.[102] In line with its structural stagnation in manufacturing, Malaysia's global position in economic complexity has barely improved over the past two decades, after climbing rapidly from the 1960s to 2000 (Figure A3.9). A key mission of NIMP 2030 is therefore to advance economic complexity, that is, to innovate and produce more sophisticated products.[103] Specific attention is given to semiconductors, which have become the core pillar of the country's manufacturing sector. While the share of exports of machinery, office equipment, and telecommunications have either declined or stagnated, semiconductor exports surged from around 30 percent of total E&E exports in 2000 to 66 percent in 2023 (Figure A3.10). The government aims to further develop the semiconductor industry's capabilities by nurturing domestic firms in integrated circuit (IC) design to become global champions and by attracting a global semiconductor leader to establish wafer fabrication in Malaysia.

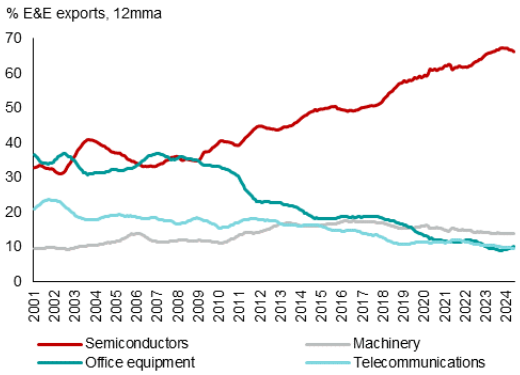
[102] Within seven years, NIMP 2030 aims to address some of the structural challenges by creating 700,000 high-skilled manufacturing jobs, raising median manufacturing monthly wages from under MYR2,000 to MYR4,500, increasing R&D expenditure from 1 percent to 3.5 percent, and doubling Malaysia's global market share in high-tech manufacturing exports to 6 percent.
[103] Economic complexity is a measure of the knowledge in a society embodied in its products. Countries that have sophisticated and unique capabilities and know-how can produce diverse and complex products that few other countries can make.

Figure A3.9. Economic Complexity Index Ranking



Source: Atlas of Economic Complexity

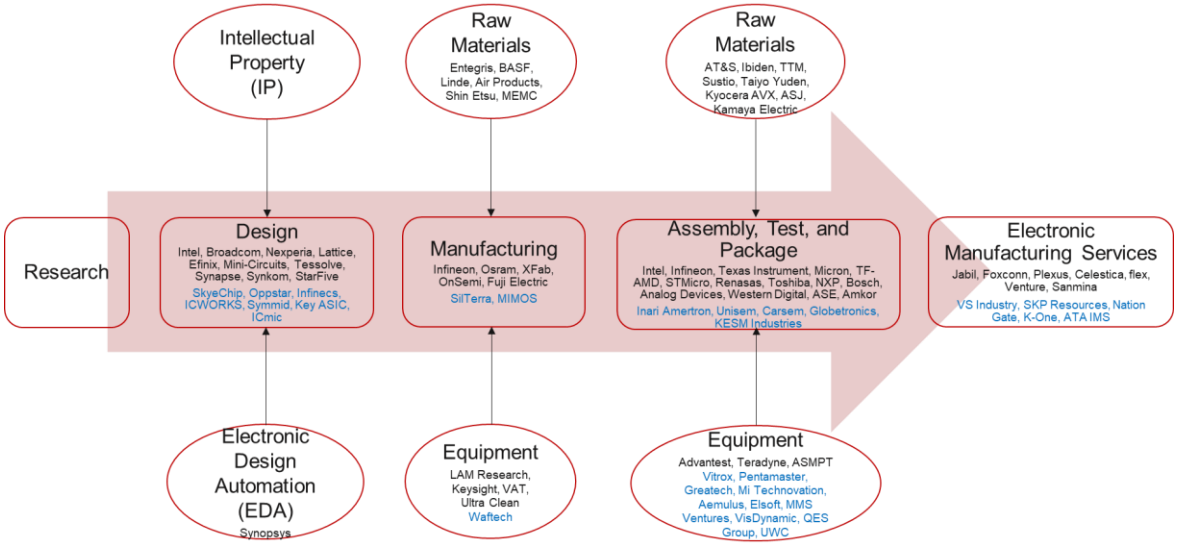
Figure A3.10. E&E Exports



Source: DOSM; AMRO staff calculations

5. Malaysia has a relatively extensive semiconductor value chain, with a notable presence of local firms in design, OSAT, and ATE. Semiconductor manufacturing involves three main processes: chip design, fabrication, and assembly, test, and packaging (ATP). Each of the processes has supporting value chains. Electronic design automation (EDA) software is used to design chips, while core intellectual property (IP) consists of reusable modular designs which allow design firms to license to others. The fabrication process is a complex and intricate series of steps that turns designs into chips, encompassing photolithography, deposition, doping, and etching, among others. Various manufacturing equipment and materials are used. ATP involves cutting a finished wafer into separate chips, mounting each chip on a frame with wires to connect it to external devices, enclosing it in a protective casing, and testing to ensure its operation. Figure A3.11 depicts Malaysia's semiconductor supply chain by identifying key foreign and local firms. Many multinational corporations have operations in Malaysia, but there is also a notable presence of local firms specializing in IC design, providing outsourced semiconductor assembly and test (OSAT) services, and supplying automated test equipment (ATE). However, there are relatively few firms in chip fabrication; fabs in Malaysia produce chips of older technology nodes. Firms specializing in R&D, EDA, and core IP are scarce as well.

Figure A3.11. Malaysia's Semiconductor Supply Chain



Source: InvestPenang; Malaysian Investment Development Authority (MIDA); Malaysia Semiconductor Industry Association (MSIA); AMRO staff's illustrations
Note: Firms are identified through industry contacts, desk research, and web searches, and are not exhaustive. Foreign firms are labelled in black and local firms in blue.

6. To benchmark Malaysia's semiconductor industry and identify opportunities to strengthen its supply chain, we conducted a mapping of the global semiconductor value chain using detailed trade data. The semiconductor supply chain is inherently complex with many interdependencies. As such, it is almost impossible to map the complete supply chain in detail from raw materials to finished product. Nonetheless, detailed trade statistics using Harmonized System (HS) codes at the six-digit level offer a good snapshot. Building on previous work by OECD (2019), we identified HS6 codes associated with key sub-processes in wafer production, chip fabrication, and ATP, including raw materials, inputs, and equipment. The results for exports are shown in Figure A3.12. A few caveats are in order. First, value chain steps such as R&D and design are not recorded in goods trade statistics. Second, some materials and equipment are captured under a broader category.[104] Third, the HS6 codes are not detailed enough to distinguish between frontier and mature technologies. Last, it is impossible to differentiate trade by domestic and foreign firms.

Figure A3.12. Export Mapping of Global Semiconductor Value Chain

Source: UN Comtrade; AMRO staff calculations
Note: CN = China; HK = Hong Kong, China; DE = Germany; IN = India; JP = Japan; KR = Korea; MY = Malaysia; NL = Netherlands; PH = the Philippines; SG = Singapore; TW = Taiwan, Province of China; TH = Thailand; UK = United Kingdom; US = United States of America; VN = Vietnam. Data for 2019-2022, normalized by product category. A darker shade represents a larger share of global exports.

7. Malaysia has a significant share of global exports only in final semiconductor output, certain manufacturing equipment, and high-purity silicon. In terms of materials used in wafer and chip fabrication, Germany and the U.S. have high market shares in high-purity silicon. China dominates in raw materials, such as germanium and silicon carbide.

[104] For instance, photomasks are included in a category of photographic plates and film (HS 370130). Similarly, germanium is under a combined category for germanium and zirconium (HS 284920). Certain semiconductor equipment used in fabrication and ATP is classified together under machines and apparatus for the manufacture of semiconductor devices or ICs (HS 848620).

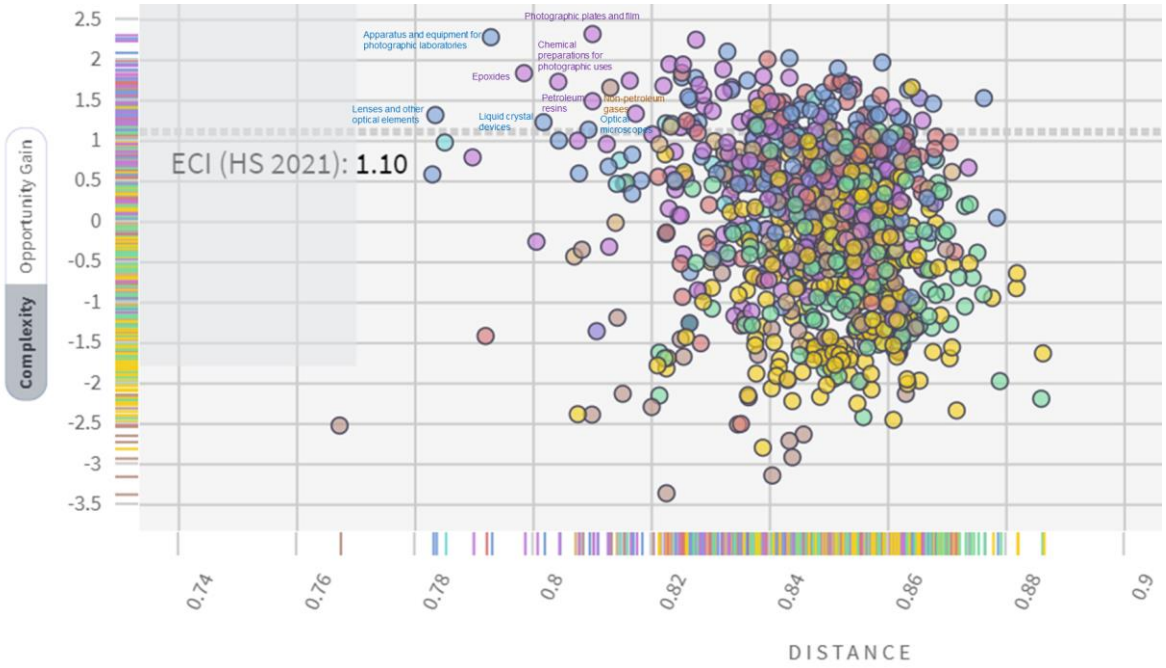
Japan and China, and to some extent Germany, the U.S., and Korea, are key exporters of silicon wafers, electronic gases, and wet chemicals.[105] Japan is the market leader in the production of photoresists.[106] Japan, the Netherlands, and the U.S. dominate in certain equipment, with Malaysia and Singapore also commanding respectable shares. [107] Packaging materials are mostly exported by China, Germany, Japan, and Taiwan POC. Despite the strong U.S. presence in most parts of the supply chain, the U.S. exports only a small share of global chip production. Instead, the bulk of exports are from Taiwan POC and China, including Hong Kong.[108] Malaysia's share of global chip exports is around 6 percent, the sixth largest globally. However, Malaysia imports a large proportion of intermediate inputs. In fact, other than high-purity silicon and certain manufacturing equipment, Malaysia is a net importer of all other fab and packaging materials, components, and equipment. This suggests ample opportunities for Malaysia to strengthen its supply chains, and hence forms a basis for a more targeted national semiconductor strategy.

8. Malaysia has high potential to advance economic complexity in organic chemicals and optical apparatus, which can also strengthen its semiconductor supply chain. The new product opportunities that can raise Malaysia's economic complexity and require related capabilities and know-how of existing products are mostly in the chemicals and machinery sectors (Figure A3.13). Potential new products include photographic plates and film, lenses and optical elements, optical apparatus and equipment, microscopes, epoxides, lubricants, and other chemical compounds. The possibility of diversifying into these low-hanging fruits bodes well for the semiconductor industry, since most of these inputs are now sourced from abroad.

9. In addition to the potential opportunities identified in NIMP 2030 and the product space, there are new and emerging technologies that Malaysia can further tap into. Next-generation power electronics will be based on compound semiconductor materials, such as SiC and gallium nitride (GaN), due to their significantly higher energy efficiency than normal silicon (McKinsey 2023). Infineon is investing EUR5 billion to build the world's largest 200-millimeter SiC power fab in Kulim to meet the rising demand for power semiconductors used in electric vehicles, data centers, and renewable energy. Advanced packaging allows multiple chips and components to be placed closer together, resulting in enhanced performance and functionality (BCG 2024). Leading chipmakers and OSAT firms are investing in new facilities to meet the growing demand for advanced packaging. Intel is investing USD7 billion to build its first overseas facility for advanced 3D chip packaging in Penang. Likewise, ASE, the world's largest OSAT company, is building its fourth and fifth assembly and test facilities in Penang. Packaging innovations can also create opportunities for other players in the value chain, such as ATE manufacturers and suppliers of materials and components. Although still at an infancy stage, graphene is touted as a potential game changer for semiconductors due to its exceptional properties, such as high flexibility, strength, and physical and chemical stability, making it suitable for a wide range of applications (McKinsey 2018). Graphjet Technology, headquartered in Kuala Lumpur and listed on NASDAQ, aims to be a global leader in supplying low-cost graphite and graphene for semiconductors and EV batteries.

[105] However, China has limited capabilities in producing high-tech (300mm) wafers. Leading firms in wafer production are Shin-Etsu and SUMCO (Japan), Siltronic (Germany), and SK Siltron (Korea). Firms in electronic gases are Merck and Linde (Germany), Entegris and Air Products (U.S.), and Showa Denka (Japan). Firms in wet chemicals include BASF (Germany), KMG Chemicals and Honeywell (U.S.), and Runma and JHM (China).
[106] Leading Japanese firms are JSR, Tokyo Ohka Kogyo, Shin-Etsu, and Fujifilm Electronic Materials.
[107] Leading firms include ASML (Netherlands), Canon, Nikon, Tokyo Electron, and Advantest (Japan), Applied Materials, KLA, Lam Research, and Teradyne (U.S.). Some of these MNCs have production facilities in Malaysia and Singapore.
[108] China's chip production is largely based on matured process node technologies, led by SMIC and Hua Hong. Advanced logic chips are mainly manufactured in Taiwan POC by TSMC and advanced memory chips in Korea by Samsung and SK Hynix.

Figure A3.13. Malaysia's Potential Growth Opportunities



Source: Atlas of Economic Complexity
Note: Distance is a measure of the ability to enter a specific product. A shorter distance can be interpreted as lower risk, since the new product requires related existing capabilities and know-how. The identified new products on the upper left have relatively shorter distances and higher economic complexity than the current average.

10. Looking forward, policymakers should continue to keep abreast of technological developments and carve out a long-term strategy for future economic leaps. Malaysia's economic foresight to proactively court global semiconductor players to relocate in Penang in the early 1970s has shaped the country's industrial structure and produced immense economic benefits. Thanks to its well-established E&E manufacturing ecosystem, Malaysia's semiconductor industry is now experiencing renewed investment interest due to the reconfiguration of the global chip supply chain amid increasing U.S.-China trade and technology tensions. Beyond chip design and fabrication, policymakers can consider adding the identified opportunities from Malaysia's semiconductor value chain mapping and next-generation technologies into the National Semiconductor Strategy (NSS) unveiled in May this year. Above all, addressing the structural impediments to industrial upgrading, especially skill shortages and limited R&D spending and industry-academia collaboration, is vital in positioning Malaysia as an important semiconductor hub and reviving its status as the Silicon Valley of the East.

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4. Debt Sustainability Analysis[109]

Malaysia faces a moderate debt sustainability risk. Under current policies, the debt ratio is expected to stabilize and decrease slightly over the medium term. Although the debt ratio and GFNs are projected to stay below the emerging market economies threshold, the debt ratio is projected to remain above the official debt ceiling until 2028. Large contingent liabilities in Malaysia increase fiscal risks. Malaysia should expedite subsidy rationalization and revenue mobilization to ensure that its debt ratio follows a firm downward trajectory, and strengthen fiscal management of contingent liabilities to mitigate risks.

Background

1. Public debt initially decreased under the shift to post-pandemic policy normalization but later rose sharply in 2023[110]. The shift to policy normalization led to a fall in public debt from 63.3 percent of GDP in 2021 to 60.2 percent in 2022. However, the decline was temporary, as public debt surged by 4.1 percent of GDP to 64.3 percent of GDP in 2023**.** The rise was primarily due to lower inflation and growth, despite the stable interest rate and the smaller primary deficit resulting from strong tax revenue collection in 2023.[111]

2. Gross financing needs (GFNs) have declined from the pandemic-era peak and remained stable. GFNs fell from the peak of 11.6 percent in 2021 to 9.7 percent in 2022 before stabilizing at 9.8 percent in 2023. The rise in domestic amortization by 0.6 percent of GDP and in interest payments by 0.2 percent in 2023 were nearly offset by the lower primary deficit of 0.7 percent of GDP, resulting in a net 0.1 percent of GDP increase in the GFN ratio.

3. Malaysia's public debt consists predominantly of ringgit-denominated bonds with long-term maturity, with a significant share held by nonresidents (Figure A4.1). By the end of 2023, LCY-denominated and long-term maturity public debt represented 97.5 percent and 58.2 percent of total outstanding public debt, respectively. Meanwhile, nonresident holdings of government securities comprised 24.0 percent of total outstanding public debt. Of public external debt, 91.1 percent was denominated in local currency, and 98.7 percent is of medium and long-term maturity (Figure A4.2).

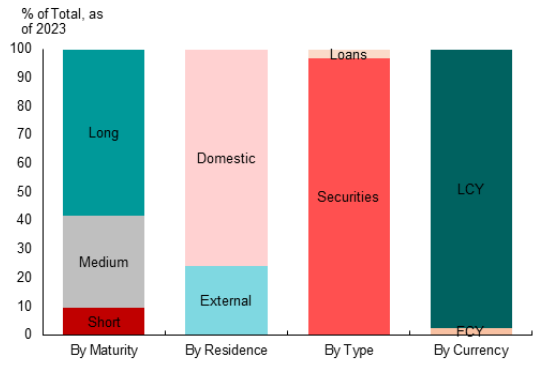
Macroeconomic and Fiscal Projections

4. Baseline assumptions are underpinned by a positive growth outlook resulting from sound policy and structural reform commitment. Growth is assumed to range between 4.6 and 4.9 percent in the medium term (2025-2028) on the back of sustained domestic demand, robust tourism recovery, a favorable export outlook and market-friendly policies as well as structural reforms aimed at improving the business environment and attracting foreign investment (Figure A4.3). Inflation is expected to pick up in the near term, assuming a hike in RON95 fuel prices from subsidy rationalization.[112]

[109] Prepared by Dek Joe Sum
[110] The public debt sustainability analysis (DSA) for Malaysia covers the federal or central government, in line with the data on government debt reported by the authorities. This definition encompasses more than 90 percent of general government debt. However, it excludes local and state governments, as well as statutory bodies, which typically receive explicit government guarantees. Malaysia's contingent liabilities include government loan guarantees (GGs) provided to non-financial, government-related entities to primarily carry out infrastructure and other strategic projects.
[111] The evolution of gross debt dynamics depends on the nominal interest rate, real growth rate, inflation, exchange rate and primary balance. In 2023, contributions to debt dynamics from the nominal interest rate, real growth rate, inflation, exchange rate and primary balance were 2.6 percent, -2.1 percent, 1.1 percent, 0.1 percent and 2.5 percent of GDP respectively, which resulted in a net increase of 4.1 percent of GDP in the debt-to-GDP ratio.
[112] See paragraphs 5 and 6 in the main report for more discussions on the macro-outlook.

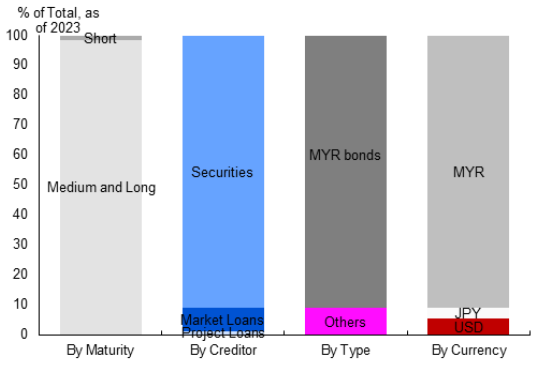
5. The expected lower primary deficit in the medium term is mainly attributed to spending-based consolidation. Fiscal deficit continued to narrow to 5.0 percent in 2023 from 5.5 percent in 2022, and the government has committed to further fiscal consolidation in the medium term. The current DSA makes baseline assumptions that include anticipated fiscal savings from the diesel subsidy retargeting launched in June 2024 and a proposed two-phase staggered implementation of RON95 subsidy retargeting.[113] The planned one-off civil service wage hike in 2025 has been incorporated. Additionally, a pre-pandemic tax elasticity of 0.9 is assumed in making revenue projections.[114]

Figure A4.1. Public Debt Structure



Source: Ministry of Finance (MOF); AMRO staff estimates
Note: Public debt encompasses central government securities denominated in LCY and FCY.

Figure A4.2. Public External Debt Structure



Source: MOF; AMRO staff estimates
Note: Public external debt is defined as government's offshore borrowings and non-resident holdings of MYR-denominated government securities.

Table A4.3. Macroeconomic and Fiscal Indicators

	2018	2019	2020	2021	2022	2023	2024p	2025p	2026p	2027p	2028p
Macroeconomic indicators (Percent)											
Real GDP growth	4.8	4.4	-5.5	3.3	8.9	3.6	4.7	4.9	4.6	4.7	4.7
GDP deflator	0.6	0.1	-0.8	5.7	6.4	-1.9	2.5	3.2	2.0	2.0	2.0
Effective interest rate	4.4	4.4	4.3	4.3	4.2	4.3	4.2	4.4	4.5	4.4	4.4
Fiscal indicators (Percent of GDP)	2018	2019	2020	2021	2022	2023	2024p	2025p	2026p	2027p	2028p
Revenue	16.1	17.5	15.9	15.1	16.4	17.3	15.7	15.0	14.6	14.3	14.0
Expenditure	19.8	20.9	22.0	21.5	22.0	22.3	20.1	19.1	18.3	17.7	17.1
Fiscal balance	-3.7	-3.4	-6.2	-6.4	-5.6	-5.0	-4.4	-4.1	-3.6	-3.4	-3.1
Primary balance	-1.6	-1.2	-3.7	-3.9	-3.2	-2.5	-1.8	-1.4	-1.0	-0.8	-0.5
Public debt	51.2	52.4	62.0	63.3	60.2	64.3	64.4	63.7	63.4	62.9	62.1
Gross financing needs	8.1	8.0	11.6	11.6	9.7	9.8	8.6	8.2	7.8	7.5	7.2

Source: MOF; AMRO staff estimates
Note: The macroeconomic and fiscal indicators for 2024-2028 are based on AMRO staff projections.

Baseline Debt and GFN Projections

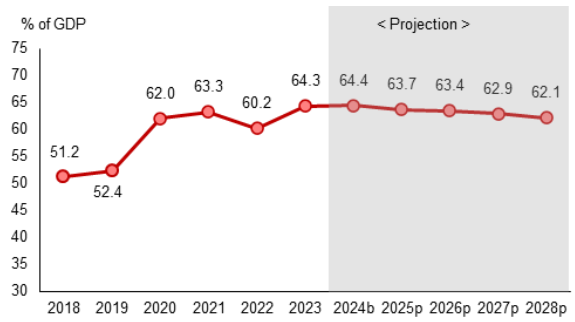
6. Under existing policies, the public debt-to-GDP ratio is projected to decline but fall short of the official desired medium-term targets and debt ceiling (Figure A4.4). The high share of rigid current spending is expected to undermine expenditure-based fiscal consolidation envisioned in the MTFF[115]and slow the decline in debt-to-GDP ratio. A phased implementation of RON95 subsidy retargeting based on AMRO's

[113] Diesel subsidy retargeting is expected to generate MYR4.1 billion, or 0.2 percent of GDP, in 2024, while a full-year implementation in 2025 will likely yield MYR5.6 billion, equivalent to 0.3 percent of GDP. A staggered two-phase RON95 subsidy retargeting is forecast to generate MYR2.8 billion (0.1 percent GDP) in 2024, followed by MYR10.4 billion (0.5 percent of GDP) in 2025. A full implementation of diesel and RON95 subsidy rationalization is expected to generate MYR18.7billion (1.0 percent of GDP) annually. The estimates reported have accounted for cash transfers to the bottom 40 percent of income earners. Assumptions on Brent crude oil for 2024 and 2025 are USD81.5 per barrel and USD76.2 per barrel respectively; exchange rate assumptions for 2024 and 2025 are USD/MYR 4.7 and USD/MYR 4.5 respectively. The assumptions on Brent crude oil price, real GDP growth, and fiscal consolidation pace in this DSA are different from the authorities in the 2024 Budget.
[114] See footnote 29 in the main report for more discussions on the new tax measures introduced in 2024. These measures are not expected to generate a substantial impact on tax revenue.
[115] In the 2024 three-year medium-term fiscal framework (MTFF), Malaysian authorities project the fiscal deficit to narrow to 3.5 percent of GDP in 2025 and 3.0 percent of GDP in 2026, a much quicker adjustment pace compared with AMRO estimates.

assessment is expected to generate positive fiscal savings in 2025, helping offset the one-time rise in civil service wage hike. Primary balance is expected to narrow but remains negative in the absence of new revenue measures. As a result, public debt ratio is projected to decline to 62.1 percent of GDP by 2028, but still above the 60 percent debt limit stipulated in the PFFRA. Fiscal savings from subsidy retargeting alone, is not sufficient to ensure fiscal consolidation at the authorities' desired pace amid a sizable rigid current expenditure and rising social expenditure needs. Hence, alternative sustainable revenue sources should be explored to put debt on a firm downward trend.

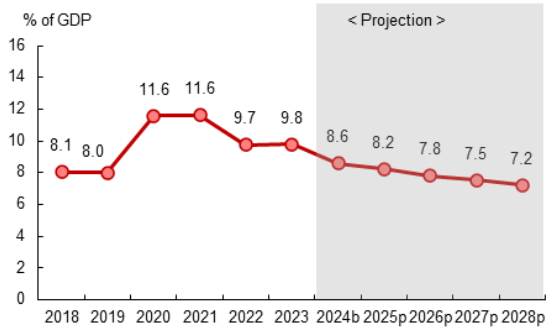
7. GFNs are expected to trend downwards in the medium term (Figure A4.5). GFN is expected to trend downward from 9.8 percent of GDP in 2023 to 7.2 percent in 2028. This can be attributable to a smaller primary deficit based on the government's commitment to fiscal consolidation in the medium term (Figure A4.7). Additional expenditures from the planned civil service wage hike in 2025 are expected to be fully offset by the fiscal savings from the diesel and RON95 subsidy rationalization, resulting in a smaller primary deficit in 2025 while holding all other factors constant.[116]

Figure A4.4. Public Debt



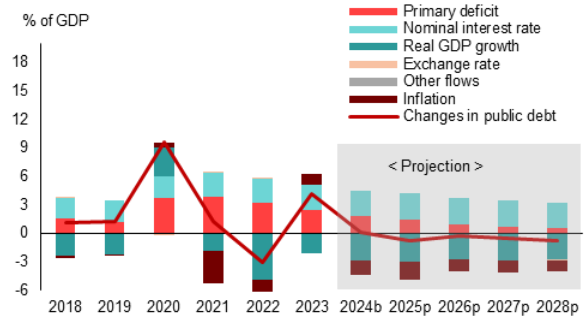
Source: MOF; AMRO staff estimates

Figure A4.5. Gross Financing Needs



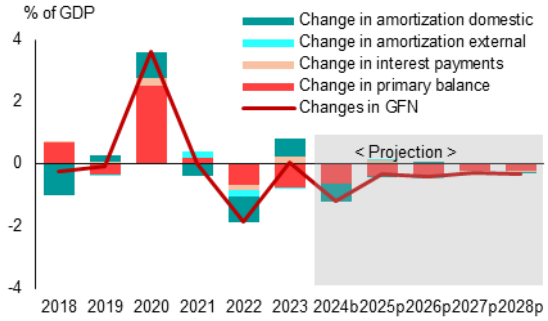
Source: MOF; AMRO staff estimates

Figure A4.6. Debt Dynamics



Source: MOF; AMRO staff estimates

Figure A4.7. Changes in GFN



Source: MOF; AMRO staff estimates

Macro-fiscal Risks—Stress Test

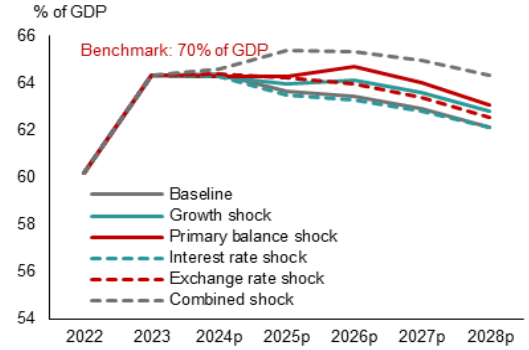
8. Stress test results indicate that public debt is most susceptible to a primary balance shock (Figure A4.8).[117] The primary balance may deteriorate if public expenditure reforms fail to gain support and lead to policy reversals or delayed implementation of the planned petrol subsidy rationalization. Setbacks in ongoing tax administrative reforms could

[116] AMRO estimates that the diesel and RON95 subsidy retargeting is expected to generate MYR16 billion fiscal savings, while the civil wage hike is estimated to incur MYR12 billion in additional expenditure.
[117] The scenarios for the stress test are as follows: 1) Real GDP growth shock: one standard deviation or a -1.0 percentage point shock to 2025 and 2026; 2) Primary balance shock: one standard deviation or a -1.5 percent of GDP shock to 2025 and 2026; 3) Interest rate shock: a +2 percentage point shock from 2025; 4) Exchange rate shock: a one-time +5 percentage point shock in 2025; 6) Combined shock: combination of growth (half size), primary balance (half size), interest rate and exchange rate shocks.

also stall the fiscal consolidation process. Downside risks to growth, such as a global economic slowdown, a fall in commodity prices or trade disruptions, could also derail the declining debt path. The stress tests show that exchange rate and interest rate shocks have relatively small impacts, in part due to Malaysia's favorable public debt profile.

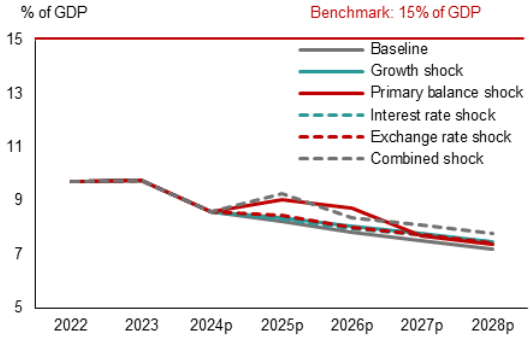
9. GFNs are most sensitive to a primary balance shock (Figure A4.9). A primary balance shock directly affects financing needs, while other shocks indirectly affect financing needs through the primary balance, interest payments, and amortization over time. Nevertheless, the GFN-to-GDP ratio remains firmly below the international threshold of 15 percent for emerging market economies despite the shocks.[118]

Figure A4.8. Public Debt



Source: MOF; AMRO staff estimates

Figure A4.9. Gross Financing Needs



Source: MOF; AMRO staff estimates

Country-specific Factors

10. A worst-case scenario of the government having to fulfill its committed guarantees can pose serious challenges to public debt sustainability. [119] The government's contingent liabilities are relatively large compared to regional peers, standing at 18.0 percent of GDP in 2023 (Figure A4.11). Assuming the government is required to fulfill all its committed guarantees[120] in 2025, the debt-to-GDP ratio is projected to surge to 75.6 percent in 2025 before gradually decreasing to 71.7 percent by 2028 (Figure A4.12). The GFN-to-GDP ratio is expected to spike to 10.1 percent in 2026, and average around 10.5 percent in 2027 and 2028 (Figure A.13). This represents the worst-case scenario among all shocks, surpassing the 70 precent debt threshold and the PFFRA debt ceiling.[121]

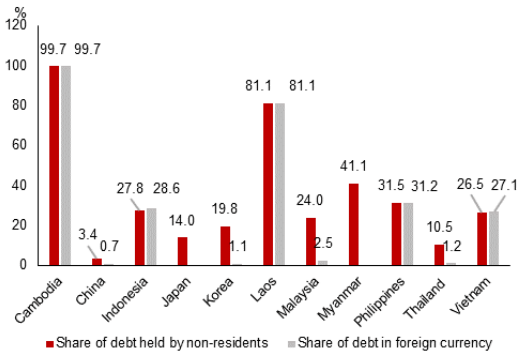
Debt Profile Vulnerabilities—Early Warning

11. Market perceptions of sovereign risk have remained low and have shown signs of improving further. The EMBI Global spread, which reflects the market perception of risk, has declined steadily by more than 20 bps since late 2023 (left panel in Figure A4.14). Low market perception of risk can be confirmed by the CDS spread, which showed similar movements to the EMBI Global spread. The narrowing spread is, in part, attributed to the structural reforms and market-friendly measures pledged by the authorities. Malaysia

[118] According to the IMF-WB DSA for Market Access Countries (MAC) (2013), the GFN threshold in percentage of GDP for emerging markets is 15 percent.
[119] Contingent liability shock is discussed differently due to Malaysia's large contingent liabilities and its significant impact on the country's debt sustainability. Contingent liability shock assumes the worst-case scenario of a one-off 18.0 percent of GDP shock materializing in 2025. An even amortization of principal and interest payments of committed guarantees over 10 years is assumed when calculating the medium-term GFNs.
[120] Contingent liabilities shock used in this DSA refers to committed guarantees provided under the Loans Guarantee (Bodies Corporate) Act 1965 [Act 96] and Section 14 of the Financial Procedure Act [Act 61]. Committed guarantee in Malaysia has a narrower scope compared to Government's contingent liabilities, which broadly includes financial obligations arising from committed guarantee, public-private partnership, and private finance initiative. The total size of contingent liabilities in 2023 amounts MYR 327.0 billion (18.0 percent GDP) while committed guarantees comprise about 67% of total contingent liabilities of MYR 221.4 billion (12.0 percent GDP).
[121] According to the IMF-WB DSA in MAC (2013), the threshold for the public debt-to-GDP ratio in emerging markets is 70 percent. The PFFRA requires public debt to be below 60 percent in the medium term, latest by 2028.

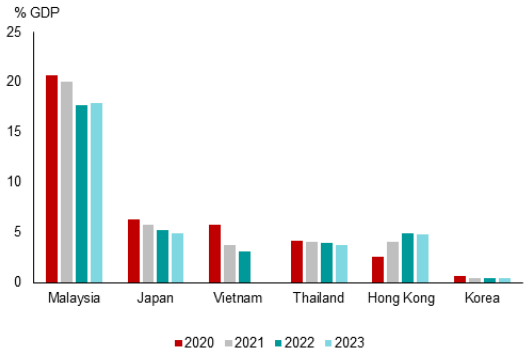
has also succeeded in maintaining the investment grade of sovereign credit ratings issued by major credit agencies.

Figure A4.10. External Public Debt



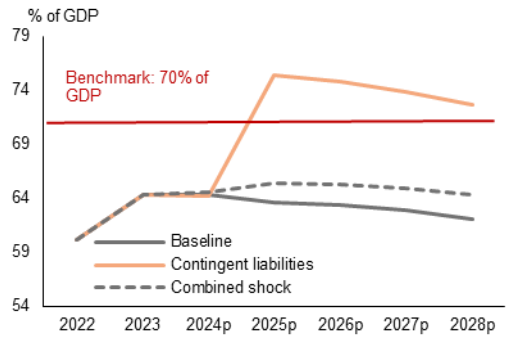
Source: CEIC; AMRO staff estimates
Note: Data is up to 2023. The share of debt denominated in foreign currency for Myanmar is not available.

Figure A4.11. Contingent Liabilities



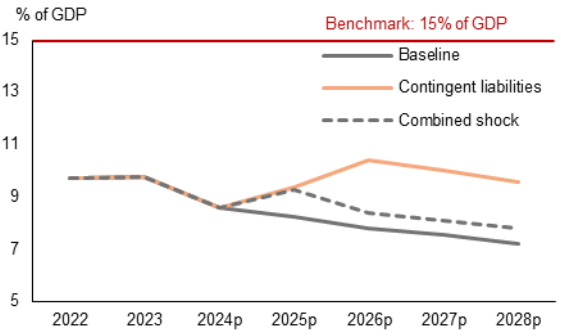
Source: CEIC; AMRO staff estimates
Note: Contingent liabilities here refer to publicly guaranteed debt by the government to allow cross-country comparison. The scope is different from the committed guarantee used in the DSA shock (refer to footnote 116).

Figure A4.12. Public Debt



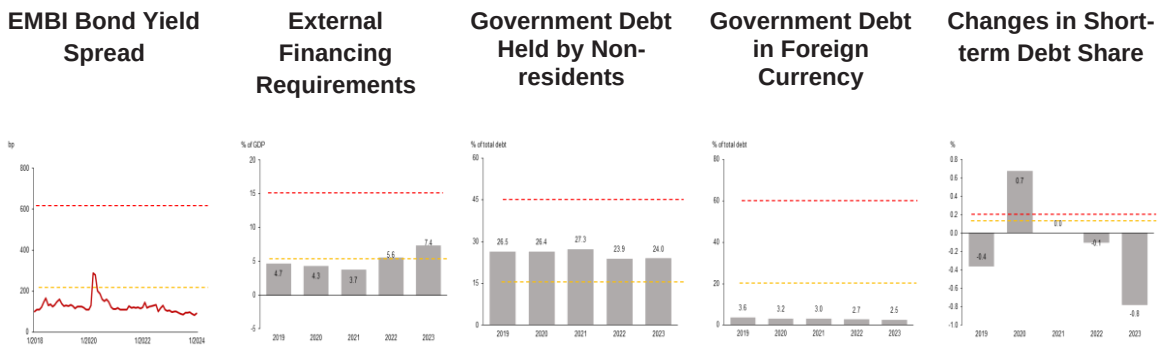
Source: MOF; AMRO staff estimates
Note: Combined shock does not include contingent liabilities shock.

Figure A4.13. Gross Financing Needs



Source: MOF; AMRO staff estimates
Note: Combined shock does not include contingent liabilities shock.

Figure A4.14. Debt Profile Vulnerabilities



Source: Haver Analytics; MOF; AMRO estimates
Note: 1) – – – Lower early warning (25 percent of the benchmark), – – – Upper early warning (75 percent of the benchmark). See IMF (2013) for a detailed discussion; 2) EMBI global spreads are computed by monthly average of daily spreads; 2) public debt denominated in non-local currency; 3) External financing requirements = current account deficit + amortization of public external debt + amortization of private external debt; 4) Public debt held by nonresidents is based on the jurisdiction of issuance; 5) Short-term debt is based on the original maturity.

12. Debt profile has been broadly sound (Figure A4.14). The share of short-term debt has been declining as the government moves to longer-term financing. The deep and

liquid domestic capital market as well as the broad investor base have enabled Malaysia to rely on debt denominated in the local currency, reducing currency risk. However, the share of debt held by nonresidents is between the lower and upper early warning thresholds, which have remained stable over the years, implying moderate vulnerability to rollover and interest rate risks. External financing requirements also exceeded the lower early warning threshold in 2022 and 2023, mainly due to higher external repayment obligations incurred by the private sector. However, the risk is mitigated by ample external assets held by resident institutions.[122]

Overall Assessment

13. The standard DSA results reveal the overall risk of public debt sustainability to be moderate (Figure A4.15). While public debt is projected to gradually flatten over the medium term and remain below the 70 percent threshold for emerging market economies, the baseline projection shows that public debt will remain above the official debt ceiling of 60 percent in the medium term. Malaysia's debt risk can be affected by a sudden materialization of contingent liabilities. The declining revenue trend, combined with rising social expenditure needs from health and education sectors, reflecting human capital development and population aging, are expected to increase fiscal risk.

14. Sustained fiscal reforms, with revenue mobilization measures, are required to maintain debt sustainability. Malaysia has implemented the diesel subsidy retargeting and should accelerate RON95 subsidy rationalization to improve public expenditure efficiency. Nonetheless, expenditure reprioritization alone is unable to meet medium-term fiscal targets set by the government. Additional major revenue sources should be explored, and in this regard, reintroducing GST can address the gap and put debt on a firm downward path. If policy risks materialize, such as policy withdrawals or a backlash from the fiscal reforms, these may push up the debt and GFN ratio, presenting a downside risk to debt sustainability. On the financing side, although GFNs are expected to decline steadily and remain broadly modest, a sudden shift in market sentiment or a rapid rise of financing costs could cause financing stress.

Figure A4.15. Heatmap of Public Debt Sustainability [123]

		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Public Debt											
Gross Financing Needs											
Debt Profile	Market Perception of Sovereign Risk										
	External Financing Requirement										
	Public Debt held by Non-residents										
	Public Debt in Foreign Currency										
	Change in Short-term Debt Share										

Source: AMRO staff estimates
Note: 1) For Public Debt and Gross Financing Needs, the cell is highlighted in green if the benchmark is not exceeded under any shocks or the baseline, yellow if it is exceeded under any specific shock but not the baseline, and red if it is exceeded under the baseline; 2) For Debt Profile, the cell is highlighted in green if the country value is less than the lower early warning benchmark, red if it exceeds the upper early warning benchmark, and yellow if it is between the lower and upper early warning benchmarks.

[122] See paragraph 45 in the main report for more discussion on external assets held by resident institutions.
[123] The change in short-term debt share exceeded the upper-warning threshold in 2020 (reflected as red) due to the increased issuance of short-term debt instruments to finance COVID-19 expenditures.

Address: 10 Shenton Way, #15-08
MAS Building, Singapore 079117
Website: www.amro-asia.org
Tel: +65 6323 9844
Email: enquiry@amro-asia.org
LinkedIn | **Twitter** | **Facebook** | **YouTube**