AMRO Country Report
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ASEAN +3 MACROECONOMIC RESEARCH OFFICE

AMRO Annual Consultation Report

Indonesia - 2025

ASEAN+3 Macroeconomic Research Office (AMRO)

June 2025

Acknowledgements

1. This Annual Consultation Report on Indonesia has been prepared in accordance with the functions of AMRO to monitor and assess the macroeconomic status and financial soundness of its members; identify relevant risks and vulnerabilities; report these to member authorities; and if requested, assist them in mitigating these risks through the timely formulation of policy recommendations. This is being done in accordance with Article 3 (a) and (b) of the AMRO Agreement.

2. This Report is drafted on the basis of the Annual Consultation Visit (ACV) of AMRO to Indonesia, which was conducted in Jakarta, Indonesia, from February 3-14, 2025 (Article 5 (b) of the AMRO Agreement). The AMRO ACV team was headed by Dr Sumio Ishikawa, Group Head and Lead Economist. The ACV members were Dr Thi Kim Cuc Nguyen, Country Economist for Indonesia; Mr Akifumi Fujii, Economist; Ms Wanwisa (May) Vorranikulkij, Senior Economist; Mr Ginanjar Wibowo, Economist; Dr Vu Thanh Trung, Associate Economist; Mr Thai Yangsingkham, Associate; and Mr Kittiya Manivong, Associate. Former AMRO Director Dr Kouqing Li and former Chief Economist Dr Hoe Ee Khor participated in key policy meetings with the authorities. The AMRO Annual Consultation Report on Indonesia for 2025 was peer-reviewed by a group of economists from AMRO's Country Surveillance, Financial Surveillance and Fiscal Surveillance teams; endorsed by the Policy and Review Group; and approved by Chief Economist Dr Dong He.

3. The analysis in this Report is based on data and information available up to April 14, 2025.

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

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

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Executive Summary

1. The Indonesian economy remains robust. Indonesia's economy grew by 5 percent in 2024, supported by resilient household consumption, higher government spending and investment. The recovery in exports was supported by rebounding goods exports to several key markets and increased international tourist arrivals. Domestic demand is expected to strengthen, reflecting the implementation of growth-fostering policies, including new government priority programs, to support the economy amid a challenging external environment in 2025. Inflation moderated to 1.6 percent at the end of 2024, averaging 2.3 percent for the whole year. Inflation is likely to remain anchored within the target corridor of 2.5±1 percent in 2025, underpinned by close policy synergy between Bank Indonesia (BI) and the government to control inflation.

2. Sustained trade surpluses and foreign investment inflows underpinned a resilient external position. The external sector has weathered capital outflows and exchange rate pressures since Q4 2024 amid heightened global uncertainty and market concerns over the domestic economic outlook. Foreign reserves increased from USD146.4 billion at end-2023 to USD155.7 billion at end-2024, and further to USD157.1 billion in March 2025. These reserves are sufficient to cover 6.7 months of imports of goods and services, and equivalent to about 190 percent of short-term external debt by remaining maturities.

3. BI strengthened its policy mix to safeguard stability and support growth. A prudent interest rate policy, coupled with judicious foreign exchange interventions and pro-market monetary operations, supported inflation control and stabilized the rupiah exchange rate in 2024. BI lowered the policy rate to 5.75 percent in early 2025 to support the economy as inflation was expected to stay low and the rupiah exchange rate was consistent with fundamentals. With banks remaining sound, BI strengthened the effectiveness of the liquidity incentive policy related to the reserve requirement ratio (KLM) to encourage bank lending to micro, small and medium enterprises (MSMEs) and targeted sectors that support growth and job creation. The central bank also enhanced efforts to improve payment systems efficiency and promote local currency transactions (LCTs).

4. Bank lending continued to grow robustly in 2024, supported by ample liquidity on the back of BI's accommodative macroprudential policies. Credit growth sustained robust growth to support investment and household consumption, amid a slowdown in loan growth to MSMEs. Following the phase-out of forbearance measures related to COVID-19, banks remained highly capitalized and reported stable non-performing loan ratios. As banks have passed on some of the higher funding costs to lending rates, net interest margins narrowed but remained strong, supporting banks' return on assets.

5. The fiscal stance has turned expansionary to support the economy. The budget deficit widened to 2.3 percent of GDP in 2024, driven in part by increased expenditure to stimulate the economy and accelerate strategic infrastructure projects. The budget deficit may increase further in 2025 as higher expenditure related to new priority programs including a free nutritious meal program for children, pregnant women, and breastfeeding mothers, and additional subsidies to low-income households, is expected to exceed the additional revenue from a higher value-added-tax (VAT) rate of 12 percent on luxury goods. The launch of a new Core Tax Administration System is expected to enhance tax administration effectiveness and efficiency, as well as boost taxpayer compliance.

6. Indonesia's near-term outlook is susceptible to external spillovers. Like other emerging markets, Indonesia's growth outlook faces risks and challenges stemming from more protectionist trade policy of the new U.S. government and global trade tensions that raise growth uncertainties in major trading partners, notably China, the U.S., and Europe. Risks of capital flow volatility and elevated borrowing costs persist against the backdrop of plausible global financial tightening. It may be challenging to achieve the medium-term fiscal target with budget deficits expected to widen due to rising spending needs from the new priority programs.

7. Over the longer term, Indonesia faces challenges that may hinder the achievement of high-income status, and inclusive and sustainable growth. Economic growth has stabilized at 5 percent – solid but still below the 7 percent target needed to reach high income status by 2045. The country has seen significant opportunities in economic diversification and moving up the value chain, notably via resource-based downstreaming initiatives. At the same time, such efforts are facing global trade headwinds and domestic challenges. Meanwhile, despite fiscal decentralization and industrialization efforts, regional income disparities persist, reflecting gaps in infrastructure development and local government capacity. Challenges related to climate change mitigation and adaptation, and limited financing options could affect the pursuit of sustainable growth.

8. The central bank should recalibrate its policy mix flexibly amid evolving external uncertainties and changes in domestic conditions. As inflation is expected to remain subdued, further rate cuts could be considered to support the economy in line with global economic and financial developments, provided the rupiah exchange rate is in line with fundamentals and volatility is not excessive. Continued efforts to deepen the money and financial markets will build up resilience against capital flow volatility risks. Ongoing policies to improve payment systems and promote LCTs to facilitate regional trade and investment, and contribute to regional exchange rate stability are commendable.

9. Accommodative macroprudential policies should be continued while MSME support programs should focus more on underserved viable borrowers. As MSMEs continue to face difficulties with credit access, maintaining KLM liquidity incentives for MSME lending would promote bank credit to these enterprises. To boost financial inclusion, the authorities should strengthen the targeting of current MSME support programs, including the interest subsidy and credit guarantee program known as KUR, to underserved borrowers. To boost financial inclusion, both public (OJK's SLIK Credit Information System and BI's Open Banking) and private (Innovative Credit Scoring) initiatives have improved banks' access to borrower's financial data. Continued efforts to enhance MSME bookkeeping and tax filing are essential and should remain a priority. Lowering borrowing costs would require expanding non-bank funding, deepening capital markets, improving credit infrastructure and enhancing bank-regulator dialogue, and strengthening credit risk assessments.

10. The government should step up efforts to enhance revenue mobilization, and rationalize and re-prioritize budget spending to foster economic growth. The government should move forward with revenue-enhancing measures via tax policy and administration reforms. Authorities should broaden coverage of the 12 percent VAT rate beyond luxury goods and streamline VAT exemptions. AMRO welcomes initiatives to streamline non-essential expenditures and strengthen the targeting of subsidy policies in order to channel budget allocations to infrastructure and human capital development, and climate change mitigation. The planned debt switch for government bonds issued to BI during the pandemic is a positive step. AMRO welcome the authorities' commitment to conduct it in line with prudent fiscal and monetary policy principles, while upholding market disciplines and integrity to avoid market disruptions. Efforts should be strengthened vis-à-vis bond investor engagement and bond market deepening.

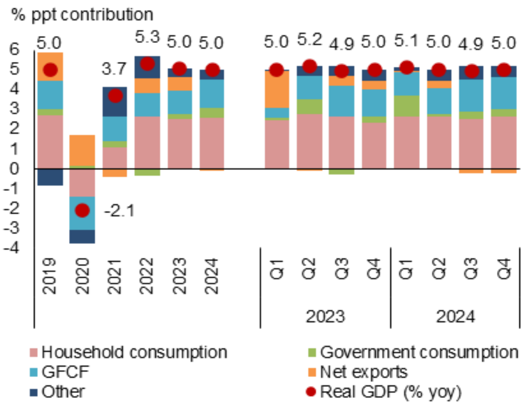
11. Structural reforms need to be accelerated. Besides resource-based downstreaming efforts, it is crucial to increase productivity and create jobs in agriculture, manufacturing, and services, notably tourism. Enhancing fiscal capacity and quality of expenditure will help local governments to provide tailor-made policies to boost regional growth and narrow income disparities. The central government launched the Daya Anagata Nusantara Investment Management Agency (Danantara) in 2025, aimed at mobilizing funding and directing investment to high-growth sectors. A clear and credible investment plan is essential to strengthen investor confidence and help Danantara fulfill its mandate to drive economic growth. To attract investment, especially foreign direct investment, critical steps to take are fostering local supply chains, upskilling the workforce, strengthening infrastructure, and ensuring a conducive regulatory environment.

A. Recent Developments and Outlook

A.1 Real Sector Developments and Outlook

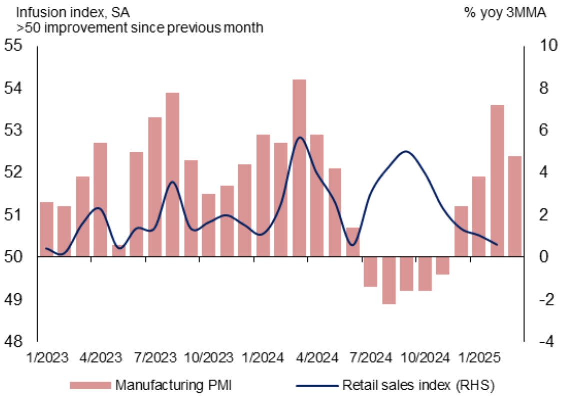
1. The Indonesian economy's growth remains robust. Economic activity sustained a 5.0 percent growth in 2024, underpinned by higher fiscal expenditure and election-related spending, and a pick-up in investment[1] (Figure 1). Household consumption recovered gradually on the back of the weak purchasing power of low to middle-income segments. While exports of manufactured goods, comprising mostly furniture, garments, and footwear, to the United States and European markets rebounded, commodity exports remained subdued on the back of weak demand from China[2] and lower production of several commodities.[3] At the same time, international tourist arrivals continued to recover to pre-pandemic levels.[4] High-frequency data indicate domestic activity remained resilient into 2025 amid a challenging external environment (Figure 2). Moving forward, the sustainability of growth momentum is contingent on the effective implementation of growth-supporting policies, including new government priority programs. The economy is expected to grow by about 5 percent in 2025 in the baseline scenario.

Figure 1. Contribution to Real GDP Growth



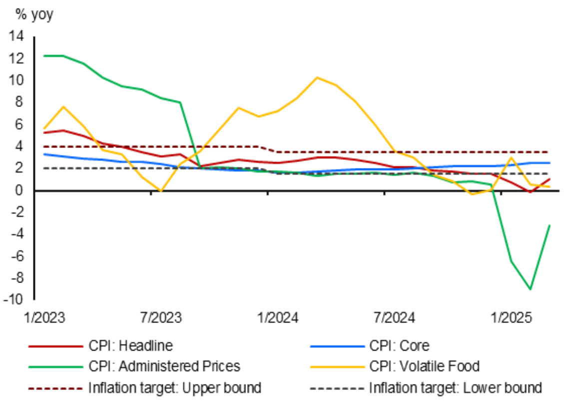
Source: Statistics Indonesia; CEIC; AMRO staff calculations

Figure 2. Retail Sales Index and Manufacturing Purchasing Managers' Index (PMI)



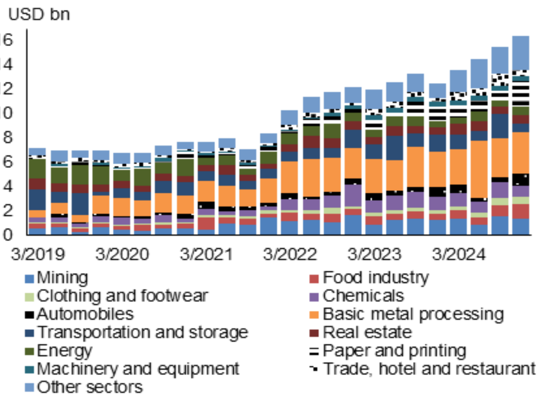
Source: Statistics Indonesia; S&P Global; CEIC; AMRO staff calculations
Note: Monthly data are up to February 2025 for retail sales, and March 2025 for PMI.

Figure 3. Consumer Price Index (CPI) Inflation



Source: Statistics Indonesia; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

Figure 4. FDI Realization



Source: Investment Ministry; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

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[1] Investment picked up pace along with the implementation of national strategic projects (PSN) and increased foreign direct investment (FDI) flows, particularly into metal mining and processing industries.
[2] Notably, exports of iron and stainless steel to China slowed in 2024.
[3] Domestic production of oil and gas, and palm oil contracted in 2024.
[4] International tourist arrivals totaled 13.9 million in 2024, recovering to about 87 percent of pre-pandemic levels.

2. Inflation is well anchored and under control. In 2024, headline inflation averaged 2.3 percent and moderated to 1.6 percent in December, close to the lower bound of the 2.5±1 percent target corridor, underpinned by policy synergy between the government and Bank Indonesia (BI) (Figure 3). The government continued to provide both energy and non-energy subsidies, ramped up the stock of necessity goods, especially food, and strengthened interregional distribution to counter the uneven impacts of El Niño weather on production. Core inflation was also low, reflecting the central bank's commitment to containing inflationary expectations. Continued policy coordination is expected to anchor headline inflation in 2025 within the target corridor of 2.5±1 percent[5], amid possible inflationary pressures arising from the implementation of priority programs, notably the Free Nutritious Meal program begun in January 2025[6]. Indeed, headline inflation declined sharply in early 2025, driven by the implementation of an electricity tariff discount policy.[7]

3. Indonesia has achieved remarkable progress in its natural resource downstreaming policy, leveraging its vast nickel reserves. Following the introduction of incentives and supporting policies[8], investment has increased rapidly, especially FDI, in nickel-based processing industries (Figure 4). Nickel-related exports have also surged (Box A). Regions such as Sulawesi and North Maluku have emerged as critical hubs of nickel processing, particularly producing ferronickel (FeNi) and nickel pig iron (NPI), essential components for stainless steel manufacturing. More recently, the Indonesian government has started prioritizing the development of a nickel-related battery manufacturing chain and domestic electric vehicles (EVs). Efforts are underway to switch from ferronickel and NPI production to products of higher-value, such as nickel sulfate ($NiSO_4$) and mixed hydroxide precipitate (MHP), crucial for EV batteries. The establishment of the Indonesian Battery Corporation (IBC) exemplifies this initiative, with strategic partnerships recently inked with global electric battery producers.

[5] AMRO staff projects headline CPI averages about 2.2 percent year-on-year in 2025.

[6] The Free Nutritious Meal program requires procuring key food ingredients in large volumes, especially if it is to be scaled up rapidly to reach the full coverage of 83 million recipients, up from originally planned 18 million recipients. This procurement need is expected to put upward pressures on food prices if a corresponding ramp up in supply is absent.

[7] The government provided a 50 percent electricity tariff discount to households consuming up to 2,200 volt-amperes (VA) in the two months of January and February 2025. Against this backdrop, headline CPI moderated to 0.8 percent year on year in January and contracted slightly by 0.1 percent in February, before rebounded to 1.0 percent in March 2025.

[8] Fiscal incentives include tax holidays and allowances for investments in pioneer industries, exemptions from import duties on capital goods during construction, and super tax deductions for certain research and development activities in Indonesia and for companies conducting vocational training and apprenticeships. Beyond fiscal measures, non-fiscal incentives such as a 2014 export ban on raw nickel ore have played a role in encouraging domestic processing. Streamlined business licensing through one-stop services and land procurement support has further eased administrative barriers for key investors and attracted FDI. Additionally, macroprudential policies, such as reserve requirement reductions for banks providing credit to downstream industries and favourable loan-to-value (LTV) ratios for green property and electric car purchases, have been introduced for the past few years. To support the EV industry, direct subsidies of IDR7 million per electric motorcycle and VAT cuts of 10 percent on vehicles with local content of more than 40 percent, and 5 percent on vehicles with 20-40 percent local content, have been introduced to boost domestic demand.

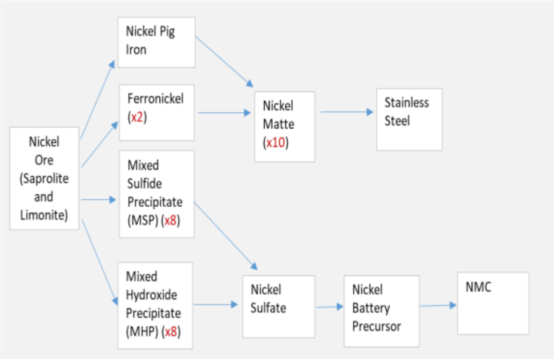
Box A. Indonesia's Downstreaming in Nickel Industry[9]

Downstream development in the Indonesian nickel industry has made significant achievements in recent years. This box reviews these achievements and explores the industry's prospects.

Achievements

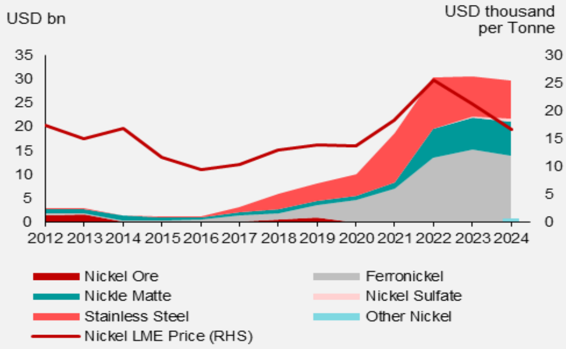
Strategic downstream development in the nickel industry has significantly boosted Indonesia's export capacity. Following nickel ore export bans in 2014 and 2020,[10] Indonesia has increased its capacity to export processed nickel products, generating substantially higher export value. For example, products such as nickel matte, stainless steel, nickel sulfate, and mixed hydroxide precipitate (MHP), which are essential to the manufacturing of electric vehicle (EV) batteries, can bring higher values compared with nickel ore (Figure A1). The country's nickel-related exports have also grown substantially since 2019, increasing by almost four times to about USD30.8 billion in 2024 from USD8.2 billion in 2019 (Figure A2).

Figure A1. Higher Export Values of Nickel-processed Products



Source: IHS GTA; AMRO staff calculations and compilation

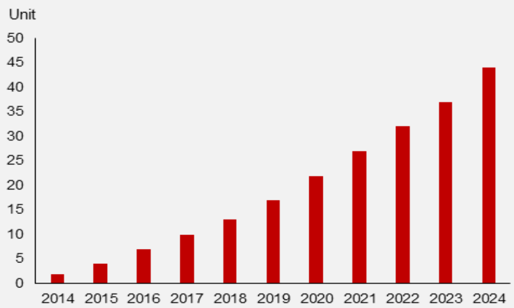
Figure A2. Export of Nickel-related Products



Source: IHS GTA and London Metal Exchange via CEIC
Note: Export data for each product is categorized under general Harmonized System (HS) codes at four digits or six digits. Specific HS codes for MHP exports are not available.

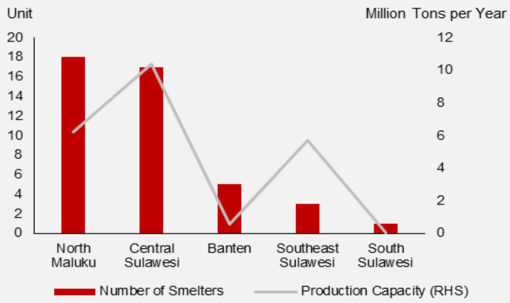
Indonesia's progress in nickel processing has been driven by a significant expansion of smelter operations. Targeted government policies designed to attract foreign investment and advanced technologies[11] have led to an expansion of Indonesia's nickel processing industry, accelerating the development of smelters essential for producing battery-grade nickel compounds. As a result, the number of smelters increased from just two in 2014 to 44 in 2024, mainly located in Maluku and Sulawesi (Figures A3, A4).

Figure A3. Smelters in Indonesia



Source: Ministry of Energy and Mineral Resources

Figure A4. Smelters by Region, 2024



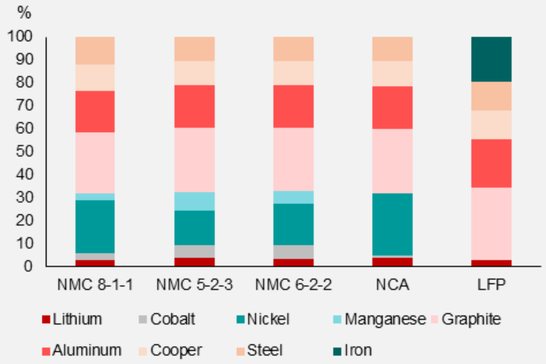
Source: Ministry of Energy and Mineral Resources

[9] Prepared by Trung Thanh Vu, Associate Economist
[10] In January 2014, Indonesia implemented the 'Law No. 4/2009 on Minerals and Coal Mining, which banned exports of unprocessed nickel ore. This initiative was reinforced with the Ministry of Energy and Mineral Resources 'Regulation No. 11/2019', effective January 1, 2020. The regulation prohibited the export of nickel ore with less than 1.7 percent nickel content, ensuring that such resources were processed domestically to enhance value-added production and meet burgeoning demand from the EV battery sector.
[11] For example, high-pressure acid leach (HPAL) technology has been adopted in Indonesia to process nickel ore into products of higher value, such as MHP, which is a precursor to EV battery cathodes.

Prospects

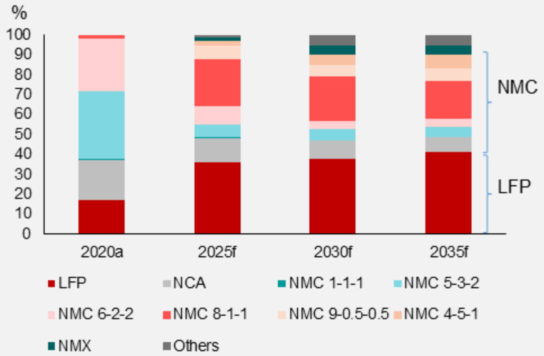
Indonesia stands to benefit from its production of nickel-based batteries, which are expected to sustain a larger market share despite the emerging popularity of alternative battery technologies. Nickel continues to be a major component in many types of batteries (Figure A5). Furthermore, despite the rise of lithium iron phosphate (LFP) batteries, nickel-based batteries, particularly the nickel manganese cobalt oxide (NMC) batteries, are expected to maintain a larger market share than the LFP (Figure A6). NMC and LFP serve different segments of the EV market. EVs with high energy density requirements, preferred by European, Korean and U.S. automakers, typically use NMC batteries. In contrast, EVs with less energy density requirements, such as those in China, often use LFP batteries.

Figure A5. Battery Components



Source: European Federation for Transport and Environment

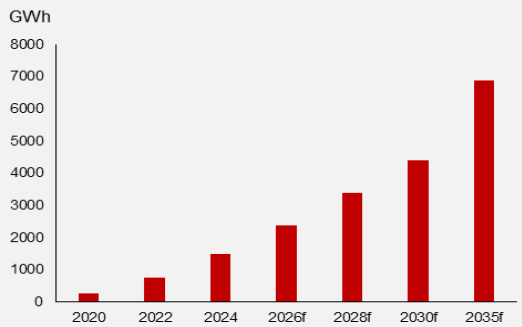
Figure A6. Global Market Share of Batteries



Source: Cairn ERA Battery Forecast; IBC expert opinion

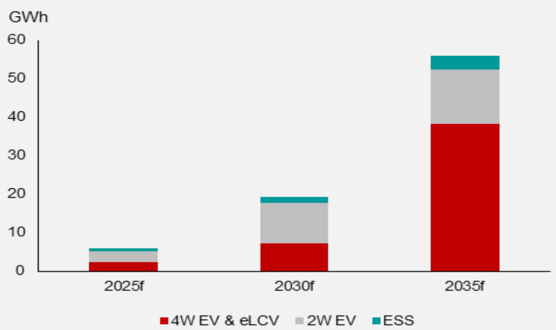
Indonesia's downstreaming efforts in nickel production align with global trends. By 2035, global demand for EV batteries is expected to rise dramatically (Figure A7) alongside substantial domestic growth of EV battery demand (Figure A8), driven by increasing environmental awareness, regulatory policies and advancements in battery technology (IEA 2024). Indonesia is now actively developing a comprehensive domestic EV battery supply chain. Particularly, the Indonesia Battery Corporation (IBC) has outlined a detailed road map to establish a fully integrated EV battery supply chain. Key milestones set by the IBC include initiating smelting operations by 2026, progressing to refining and cathode material production by 2027, and simultaneously developing cell and battery pack manufacturing. Furthermore, IBC is enhancing the infrastructure for battery swaps for both two-wheelers (E2Ws) and four-wheelers (E4Ws), which will significantly facilitate EV adoption and improve user convenience in Indonesia.

Figure A7. Global Demand for EV Batteries



Source: Roland Berger; IBC

Figure A8. Indonesia's Demand for Batteries



Source: Boston Consulting Group Analysis for IBC
Note: "4W EV & eLCV" refers to four-wheeled electric vehicles and electric light commercial vehicles; "2W EV" refers to two-wheeled electric vehicles; and "ESS" refers to energy storage systems.

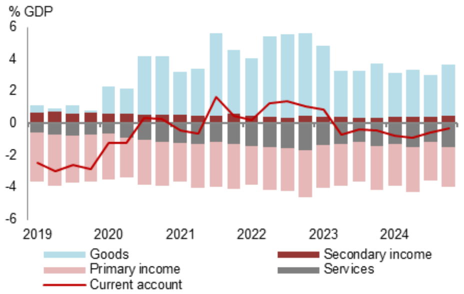
References

IEA. 2024. "Global EV Outlook 2024: Moving towards increased affordability", *International Energy Agency* 2024.

A.2 External Sector and the Balance of Payments

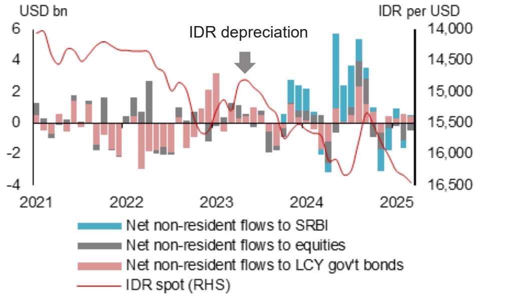
4. The external position is resilient. In 2024, sustained trade surpluses, underpinned by positive goods export and import growth, helped contain the current account deficit amid persistent primary income deficits (Figure 5). Domestic capital markets received inflows during most of 2024, except for Q4 2024 when outflows were observed against a strengthened U.S. dollar and elevated U.S. Treasury yields amid renewed uncertainty over the Federal Reserve's funds rate trajectory (Figure 6). Outflows associated with residents acquiring assets overseas paused in the same quarter (Figure 7).[12] On a related note, the government tightened foreign exchange repatriation regulations in early 2025, requiring exporters of natural resources to keep FX proceeds onshore for at least 12 months.[13] Resilient FDI and portfolio inflows supported the capital and financial account and reserve accumulation in 2024 (Figures 8,9). Beyond external uncertainty, domestic policy shifts, subdued fiscal performance, and layoffs[14] dampened investor sentiment and pressured the rupiah in early 2025.[15] Foreign reserves rose from USD146.4 billion at end-2023 to USD155.7 billion at end-2024, and further to USD157.1 billion in March 2025. The latest reserve position is equivalent to 6.7 months of imports of goods and services, and sufficient to cover about 190 percent of short-term external debt by remaining maturities.[16]

Figure 5. Current Account Balance



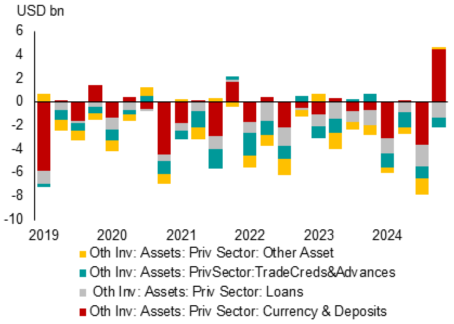
Source: Bank Indonesia; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

Figure 6. Non-resident Flows and IDR Spot Rate



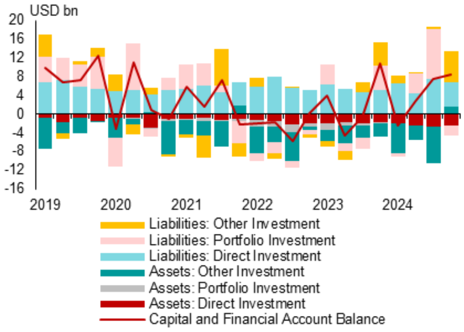
Source: BI; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025 (as of mid-March).

Figure 7. "Other Investment" Assets



Source: Ministry of Finance; BI; CEIC; AMRO staff calculations
Note: A negative value indicates an increase in residents' overseas assets and BOP outflows. Quarterly data obtained up to Q4 2024.

Figure 8. Capital and Financial Account



Source: Bank Indonesia; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

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[12] BI launched FCY term deposits with market-competitive interest rates to attract FX proceeds from exporters of natural resources. Most exporters use their special account to fulfil their obligation, followed by FX deposits and BI's FX term deposits. The total outstanding since November 2023 has remained stable at around USD12.7 billion on average.

[13] Starting March 1, 2025, the Government has implemented Regulation 8/2025 which amends Government Regulation 36/2023. Regulation 8/2025 now imposes an obligation to retain 100 percent of export proceeds (DHE) domestically for a full year from the date of receipt. The only exception is for export proceeds from oil and gas which still follows the obligation stipulated in Government Regulation 36/2023 (i.e. to retain at least 30 percent of export proceeds for a minimum period of thee months).

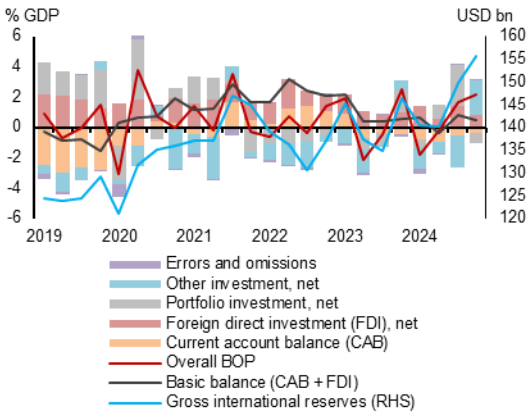
[14] Several major companies in labor-intensive industries, particularly textiles, garments, and footwear, implemented large-scale layoffs. Notably, leading garment manufacturer Sritex declared bankruptcy in 2024, resulting in the loss of approximately 10,000 jobs. (Source: Indonesia Business Post; Jakarta Globe)

[15] Post U.S. elections, the rupiah depreciated 2.8 percent against the U.S. dollar between November-December 2024, which was broadly in line with other ASEAN currencies (MYR: -2.2 percent; SGD: -2.7 percent; THB: -1.0 percent). The rupiah continued to depreciate 2.6 percent between January-March 2025, while most currencies strengthened during the same period (MYR: +1.0 percent; SGD: +1.6 percent; THB: +0.8 percent).

[16] AMRO staff estimates. To be updated upon the release of external debt data for March 2025.

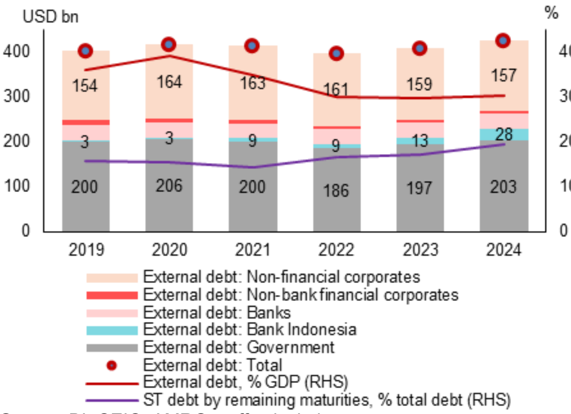
5. External debt remains contained. External debt increased to USD425.9 billion at end-2024, or about 30.4 percent of GDP, slightly up from the USD408.5 billion recorded at end-2023, equivalent to 29.8 percent of GDP. The higher debt level in 2024 was driven by increased borrowings by the public sector, namely, the government and BI.[17] Meanwhile, external borrowings by the (private) corporate sector continued to moderate. The debt structure remained sound, with short-term debts by remaining maturities, accounting for less than 20 percent of total debts (Figure 10).

Figure 9. Overall BOP and Foreign Reserves



Source: BI; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

Figure 10. External Debt



Source: BI; CEIC; AMRO staff calculations
Note: Data are as of year-end.

A.3 Monetary Conditions and Banking Sector

6. Bank Indonesia has been strengthening its policy mix to strike a balance between maintaining stability and supporting economic growth amid shifting global dynamics.

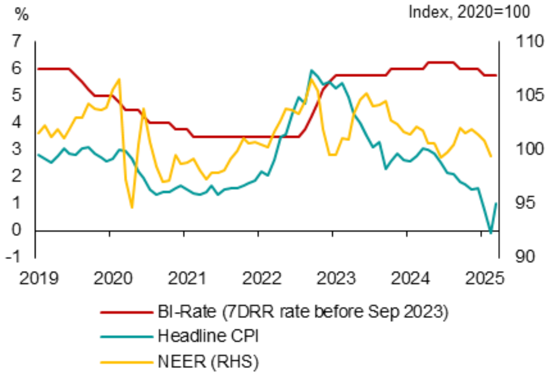
a. **Interest rate policy.** In 2024, BI maintained a prudent interest rate policy to achieve inflation target and stabilize the rupiah exchange rate.[18] The central bank reduced the policy rate from 6.0 percent to 5.75 percent in early 2025 to support the economy as inflation was expected to remain low and the exchange rate was consistent with fundamentals (Figure 11).[19]

b. **FX intervention policy.** BI has continued its triple intervention policy, meaning intervention in the spot FX, domestic non-deliverable forward (DNDF) and secondary government bond markets, to maintain the stability of the rupiah exchange rate.

c. **Financial deepening policy.** Since September 2023, the central bank has issued Bank Indonesia rupiah securities (SRBI), a rupiah-denominated financial instrument with government bonds held by BI as the underlying asset (Figures 12). The issuance of SRBI aims at deepening the money market and attracting capital inflows into the domestic market. Indeed, SBRI outstanding stock increased significantly and non-resident inflows were observed in most of 2024 (Figure 13).[20]

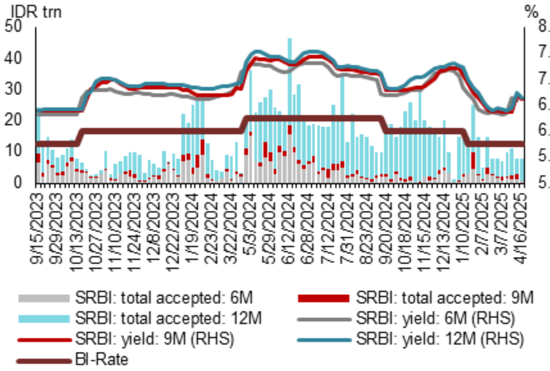
[17] BI's external debt increased from USD13.4 billion at end-2023 to USD27.6 billion in December 2024, likely reflecting nonresident inflows, mostly into the central bank's rupiah-denominated short-term securities (SRBI).
[18] BI raised its policy rate BI-Rate, formerly known as the seven-day reverse repo rate, by a total of 275 basis points between August 2022 and August 2024 to 6.25 percent. In September 2024, BI lowered the rate by 25 basis points to 6.0 percent.
[19] BI press release dated January 15, 2025, available at https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_270825.aspx.
[20] The increase in secondary market transactions since May 2024 is attributed to the implementation of a primary dealers (PD) system along with repurchase agreement (repo) transactions among market players (BI press release dated December 19, 2024, available at https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_2627524.aspx). Indeed, total SRBI outstanding increased from IDR71.5 trillion in September 2023 to IDR891.1 trillion at the end of March 2025, about 26.3 percent of which, or around IDR234.2 trillion (USD14.1 billion), were held by nonresidents. In addition to SRBI, the central bank had issued foreign currency-denominated conventional and sharia-compliant notes, known as SVBI and SUVBI, with outstanding amounts of USD2.2 billion and USD315 million, respectively, at the end of March 2025.

Figure 11. Headline CPI, BI Policy Rate, and Nominal Effective Exchange Rate (NEER)



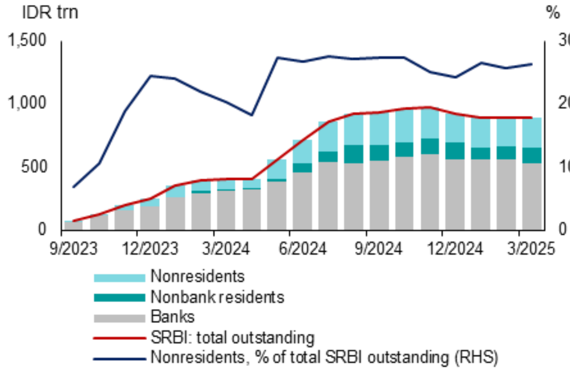
Source: BPS; BI; Bank for International Settlements (BIS); CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025 for the policy rate and CPI inflation, and up to February 2025 for NEER.

Figure 12. SRBI Auctions: Awarded Amounts and Yields by Tenors



Source: BI; CEIC; AMRO staff calculations

Figure 13. SRBI Outstanding and Nonresident Holding



Source: BI; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

d. **Macroprudential policy.** To ensure sufficient funds to support the economy, BI has maintained accommodative macroprudential policies. While the primary reserve requirement ratio (RRR) has remained at 9 percent since 2022, banks which meet BI's criteria for lending to targeted sectors and businesses have been able to enjoy a maximum RRR reduction of 400 basis points since October 2023, known as the Macroprudential Liquidity Incentive (KLM) policy.[21] BI enhanced coverage of the KLM policy in June 2024[22] and further in January 2025 to targeted sectors that supported growth and job creation, including MSMEs and green sectors. Effective April 2025, BI increased the maximum RRR reduction to 500 basis points, aiming at channeling additional funds to public housing credit to support the government's program to build three million houses a year.[23] Other accommodative macroprudential policies, such as a 100-percent loan-to-value (LTV) ratio for mortgage loans and zero down payment policy on vehicle loans, have been also extended until end-2025.

e. **Payment system policy.** Payment system policies have focused on accelerating digitalization to support sustainable economic growth in accordance with the Indonesia

[21] Before the KLM policy became effective, BI had provided macroprudential incentives to banks that lend to resilient sectors, growth drivers, slow starters, and MSMEs. The maximum discount on the RRR was initially set at 200 basis points in 2022, and later increased to 280 basis points in April 2023. According to the KLM policy, effective October 2023, banks that meet BI's criteria for lending to priority sectors and MSMEs were allowed to maintain an RRR as low as 5 percent compared to the 9 percent standard, or enjoy RRR discounts up to 400 basis points.
[22] From June 2024, BI enhanced the coverage of KLM policy from downstream mineral and coal mining, agriculture, tourism, housing, MSMEs and green sectors, to include the creative economy, trade and other growth-driving sectors, such as the automative, electricity, gas and water supply sectors.
[23] BI press release dated February 19, 2025, available at https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_273625.aspx.

Payment System Blueprint 2030.[24] For domestic payment systems, BI strengthened its retail payment infrastructure, Bank Indonesia Fast Payment (BI-FAST), in 2024 by expanding its services to include bulk transfers, requests for payment and direct debit.[25] In addition, BI has elevated the Quick Response Indonesia Standard (QRIS) system to reach out to more individual users and merchants. The volume of retail transactions processed through BI-FAST and QRIS registered impressive growth in 2024.[26] BI has continued to strengthen cooperation with other central banks in the region to promote the use of local currency transactions (LCTs) in a broader range of bilateral transactions, aiming to facilitate cross-border payment initiatives.[27] Indonesia has also launched cross-border QRIS payment linkages with ASEAN neighbors (Malaysia, Singapore, and Thailand) and plan to set up similar arrangements with other countries including India and Japan. On cross-border payment, BI is cooperating with other ASEAN central banks and several other important economic partners to implement the Regional Payment Connectivity (RPC) initiative. BI also continues to develop the digital rupiah through Project Garuda to ensure the rupiah remains the sole legal tender in Indonesia in the digital era.

7. **Banking regulations were introduced in 2024 to support targeted MSMEs and strengthen the banking sector's soundness**.

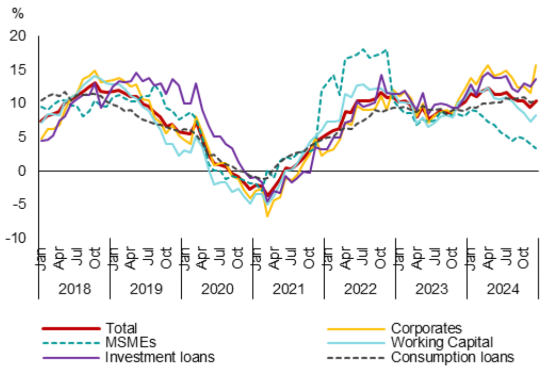
a. **Credit support.** Following the conclusion of a COVID-19 loan restructuring program in March 2024, the government introduced a new loan forgiveness initiative which applies to all MSME borrowers who meet the established eligibility criteria including those in agriculture, fisheries, plantation sectors, and recipients of subsidized housing credits. This initiative was implemented and effective from November 2024 to April 2025. This program enabled state-owned banks and nonbank financial institutions to stop collecting debt from and write off non-performing MSME loans that had been uncollectible for at least five years.[28] The program also adjusted the borrowers' repayment status in the credit information system (Sistem Layanan Informasi Keuangan: SLIK)[29] of the Financial Services Authority (OJK) to "paid as per government program", allowing the borrowers to have renewed access to bank loans. It aimed to alleviate the financial burdens of MSMEs, which had suffered from the pandemics, natural disasters or economic downturns. MSMEs with bad debts of up to IDR500 million and individual borrowers with bad debts of up to IDR300 million, were eligible for this program.

[24] The Indonesia Payment System Blueprint 2030 is a continuation of the 2025 Blueprint to develop a resilient payment system within a consolidative structure in response to the fast changing environment.
[25] Direct debit is a financial transaction in which one party can collect payment from another party's bank account. This method is often used for recurring payments, such as utility bills, subscriptions, or loan repayments. Bulk credit refers to a payment process that handles multiple individual credit transactions simultaneously or in a single batch. It is commonly used for the payment of salaries, dividends, and vendor purchases. Request for payment services involve one party initiating a payment to another party, typically in the context of invoicing or bill payment.
[26] Retail transactions processed by BI-FAST increased 70 percent year on year to 338.6 million transactions as of November 2024. QRIS transactions grew by an even faster pace of 186 percent to 689.1 million transactions, with QRIS users and merchants totaling 55.02 million and 35.1 million, respectively, as of November 2024.
[27] BI has established local currency swap lines with Australia, China, Japan, Korea, Malaysia, and Singapore. The central bank has also established local currency settlement frameworks (LCSFs) with China, Japan, Malaysia, the Philippines and Thailand, and signed memoranda of understanding for establishing LCSFs with Korea, Singapore and, most recently, India. See Selected Issue 2 on Indonesia's Efforts in Promoting Cross-border Local Currency Transactions in AMRO Annual Consultation Report on Indonesia (2023).
[28] This measure is regulated in Government Regulation (PP) No. 47 of 2024 Concerning the Write-Off of Non-Performing Loans to Micro, Small, and Medium Enterprises ("PP No. 47 of 2024"). It provides legal foundation for state-owned banks to write-off MSME debt and ease collection efforts insofar as non-performing loans have undergone restructuring efforts and banks have made collection efforts. The losses incurred to state-owned banks do not constitute state financial losses as long as actions can be proven to have been taken in good faith.
[29] SLIK covers debtor data, fund provision facilities, collateral data, and other related information from all banks, used to assess the creditworthiness of potential borrowers. SLIK assigns credit scores based on a debtor's payment history, categorizing them into five collectability levels: Collectability 1 (Excellent) for timely payments of principal and interest; Collectability 2 (Special Mention) for payments of one to 90 days overdue; Collectability 3 (Substandard) for 91-120 days overdue; Collectability 4 (Doubtful) for 121-180 days overdue; and Collectability 5 (Loss) for more than 180 days overdue.

b. **Bank liquidity regulations.** OJK has strengthened regulations governing the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)[30] applicable to all banks by revising the components of high-quality liquid assets and the coverage of allowance for impairment losses in the calculation of required stable funding. These adjustments align the regulations more closely with Basel standards and enhance obligations related to the calculation and reporting of both ratios.

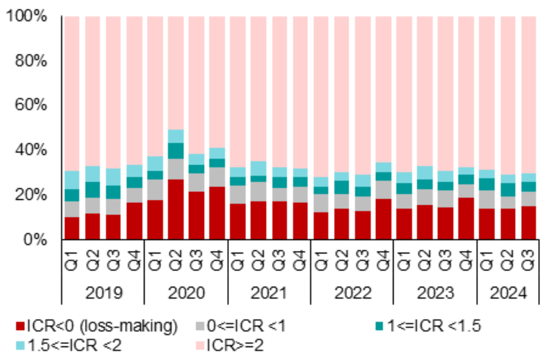
8. **Bank lending continues to grow robustly in 2024, bolstered by the economic recovery and Bank Indonesia (BI)'s accommodative macroprudential policies.** Liquidity conditions in the banking system have remained ample to facilitate lending activities, as evidenced by a loan-to-deposit ratio of 88.6 percent in December 2024, remaining well below 100 percent. Total loans grew by 10.4 percent (yoy) in December 2024, led by a 13.6 percent increase in investment loans and a steady acceleration of consumption loans[31], along with improving investment and sustained private consumption (Figure 14). Meanwhile, working capital loan growth has slowed down recently in line with improving corporate earnings and liquidity. The share of listed firms with an interest coverage ratio (ICR) below 2 declined steadily to 30.0 percent in Q3 2024 from 32.6 percent at end-2023 (Figure 15). Loans directed toward KLM targeted sectors showed strong growth while MSME loans grew moderately by 4.0 percent (yoy) in November 2024, amid economic challenges facing MSME business operations.

Figure 14. Bank Loan Growth by Loan Type



Source: OJK; BI; CEIC; AMRO staff calculations
Note: Monthly data obtained up to December 2024.

Figure 15. Composition of Listed Firms by ICR



Source: Bloomberg; AMRO staff calculations
Note: Interest coverage ratio (ICR) is calculated as the ratio of earnings before tax, depreciation and amortization (EBITDA) to total interest expenses. Quarterly data obtained up to Q3 2024.

9. **The banking sector has been stable and resilient.** As COVID-19 forbearance measures were phased out in March 2024, the non-performing loan (NPL) ratio of the banking sector stood at 2.1 percent at end-2024, slightly improving from 2.2 percent at end-2023. Loan-loss provisions were sufficient to cover about 192.0 percent of NPLs in December 2024. Banks are also well capitalized with the capital adequacy ratio standing at 26.7 percent in December 2024. Banks' liquidity was resilient with the liquid asset to third party fund ratio at 25.6 percent while LCR at 213.2 percent and the NSFR at 128.8 percent in December 2024. As banks have partially passed on higher funding costs to lending rates[32], net interest margins narrowed but

[30] The NSFR is defined as the amount of available stable funding relative to the amount of required stable funding. It obliges banks to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities. This ratio should be equal to at least 100 percent on an ongoing basis. The NFSR was set to become a global minimum standard by January 1, 2018 (Basel Committee on Banking Supervision, 2014). In Indonesia, the OJK implemented the NSFR framework from January 1, 2018, for all conventional commercial banks with Tier-1 capital from IDR5 trillion and above at that time, and for foreign banks operating in the country. The framework does not apply to sharia or rural banks.

[31] Household loan growth has rebounded to pre-pandemic levels after experiencing a slowdown during the COVID-19 crisis, driven by a broad-based recovery in housing (mostly affordable housing), auto, and personal loans.

[32] Interbank overnight rates and banks' one-month time deposit rates increased by about 330 basis points and 190 basis points, respectively, between August 2022 and September 2024, followed BI's policy rate hikes of 250 basis points in total. Banks' lending rates for investment loans and capital loans rose by about 70 basis points and 40 basis points, respectively, during the same period, while lending rates for consumption loans were kept broadly unchanged.

were still wide at 4.6 percent in December 2024. Likewise, banks' returns on assets remained high at 2.7 percent in December 2024, thanks to strong credit growth, improved asset quality, and higher non-interest income (Appendix 1, Figure 1.4).

A.4 Fiscal Sector

10. The fiscal stance was expansionary in 2024[33], reflecting measures to support the domestic economy amid ongoing external headwinds. Revenue collection was in line with the budget target, while the expenditure to GDP ratio is higher than the budget. Consequently, the fiscal deficit widened over the previous year, but remained below the fiscal rule ceiling of 3 percent of GDP.

a. **Revenue.** Revenue collection amounted to IDR2,842.5 trillion in 2024, 2.1 percent more than in 2023. This growth was primarily driven by a 7 percent increase in consumption-based tax,[34] which offset a decline in nontax revenue of 5.4 percent.[35] A significant rise in personal income tax[36] offset the decline in corporate income tax, leading to a slight increase in income-based tax revenue.[37] In percentage of GDP, revenue collection declined from 13.3 percent of GDP in 2023 to 12.8 percent in 2024.

b. **Expenditure.** Government expenditure in 2024 was raised to IDR3,350 trillion, or about 15.1 percent of GDP, up from 14.9 percent in 2023, to stimulate the economy and support the national priority agenda. Additional financial aid was given to low-income households in early 2024 to support their consumption against rising food prices.[38] An 8-percent increase in basic salary for civil servants and general election-related spending also increased government spending. At the same time, the government accelerated infrastructure development, notably the construction of Nusantara.[39]

c. **Fiscal balance.** The preliminary fiscal deficit for 2024 was IDR507.8 trillion, or about 2.3 percent of GDP (Figure 16). While the fiscal deficit widened in 2024, it was in line with the original 2024 Budget and lower than the government's mid-year estimate of 2.7 percent. Against this backdrop, the government recorded a financing surplus of IDR45.4 trillion,[40] which will be accumulated as the government's fiscal reserves.[41]

11. The fiscal deficit is projected to widen in 2025 as the government introduces new priority programs and provides more subsidies to low-income households amid the limited impact of existing revenue-enhancing measures.

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[33] In Indonesia's budget system, the fiscal year runs from January 1 to December 31. Data for the 2024 fiscal outturn is based on the preliminary realization numbers announced by the Minister of Finance in the press conference held on January 6 2025, which are available for public access.

[34] Consumption-based tax consists of value-added tax (VAT) and excise. The favorable performance of consumption-based tax revenue was due to an increase of 8.5 percent in VAT revenue, which was bolstered by robust domestic consumption.

[35] Although nontax revenue from state-owned enterprises (SOEs) and public service agencies increased moderately, total nontax revenue declined by 5.4 percent due to lower nontax revenue from natural resource activities.

[36] This includes tax revenue related to the compensation of employees such as wages, salaries and commissions known as PPh Pasal 21 (Article 21) in the Indonesian tax system.

[37] By sector, subdued business was behind the weak performance of corporate income tax, particularly in the mining industry, due to lower commodity prices compared with last year. Furthermore, the decline in corporate income tax was also affected by tax refunds, which significantly increased compared to the previous year.

[38] The government implemented additional measures to maintain the people's purchasing power, particularly for low-income households, including a new cash transfer program amounting to IDR11.3 trillion and targeting 18.8 million households, an additional food assistance program of IDR26.2 trillion for 23.4 million households, an expansion of beneficiaries in the Smart Indonesia program to 21.4 million students and an employment insurance program for 134.1 million workers.

[39] The accumulated government spending (2022-2024) on the Nusantara development was IDR75.8 trillion. According to government estimates, the total cost required to complete the new capital city will amount to IDR519 trillion, with the cost burden to be shared among the government budget (19.4 percent), private sector (26 percent) and public-private partnership (PPP) scheme (54.6 percent).

[40] The government's actual financing surpasses the necessary amount needed to cover the fiscal deficit.

[41] AMRO staff estimate that the accumulated fiscal reserves (SAL) by the end of 2024 would have reached IDR448.5 trillion, or 2 percent of GDP. The government used IDR56.4 trillion of the cash surplus in 2024 as a non-debt creation source in financing the fiscal deficit.

a. **Revenue.** The government has set the 2025 revenue target at IDR3,005 trillion, 5.7 percent higher than the 2024 outturn. However, this revenue target was originally set assuming that the VAT rate hike of 12 percent would be implemented broadly on all taxable goods and services. Although the government did increase the VAT rate from 11 percent to 12 percent in January 1, 2025, the new VAT rate is applied to luxury goods only, while the effective VAT rate on non-luxury goods and services remains at 11 percent.[42] To broaden the tax base, the government had initially planned to introduce an excise tax on sugar-sweetened beverages in mid-2025, however the implementation has been postponed.[43] Efforts to enhance tax administration efficiency and taxpayer compliance include the implementation of a new Core Tax Administration System (CTAS)[44] and ongoing integration of the tax identification number with the national ID system.[45]

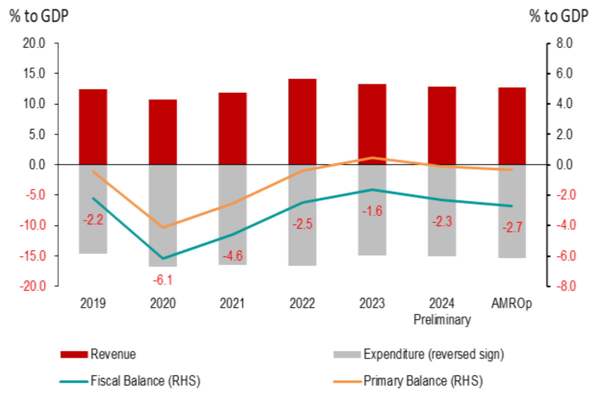
b. **Expenditure**. The government has allocated IDR3,621 trillion to the 2025 Budget, up 8.9 percent from the previous year. This increased budget is aimed at supporting the implementation of new priority programs amounting to IDR121 trillion, or about 0.5 percent of GDP (Table A1.1, Selected Issue 1), among which the notable initiative is the Free Nutritious Meal program (IDR71 trillion).[46] The government has also introduced a program to construct three million houses[47] annually to address the residential backlog of 9.9 million households that do not own a house, which make up about 13.6 percent of all Indonesian households. To improve spending efficiency, the government instructed line ministries and local authorities in early 2025 to reduce nonessential expenses[48] and reallocate the budget savings of up to IDR306.7 trillion,[49] or about 1.4 percent of GDP, to growth-oriented spending, including the Free Nutritious Meal program.

c. **Fiscal balance.** Since the current coverage of the VAT rate hike is different from the government's initial plan, the fiscal deficit is expected to be wider than initially budgeted. The budget recorded a deficit of IDR31 trillion, equivalent to 0.1 percent of GDP, in the first two months of 2025, marking the first deficit since 2021. The deficit was driven by a significant contraction in fiscal revenue.[50] AMRO staff projects the fiscal deficit in 2025 at 2.7 percent of GDP, compared with the budget target of 2.5 percent. The 2025 fiscal stance is assessed to be neutral and is deemed appropriate given that the output gap is close to zero (Figure 17). Considering that the budget deficit remains below the 3 percent of GDP ceiling, the government has the flexibility in the budget to respond to unforeseen

[42] The authorities estimated that the additional revenue due to this limited VAT rate hike was about IDR3.5 trillion, equivalent to 0.01 percent of GDP, while the broader VAT rate hike could generate an additional revenue of IDR75 trillion (0.3 percent of GDP).
[43] The implementation of an excise tax on sugary beverages from the second semester of 2025 is anticipated to generate additional revenue of IDR3.8 trillion (0.02 percent of GDP). This limited impact on revenue is due to the government's plan to impose a relatively low excise tax rate, which is still under discussion.
[44] The CTAS is an integrated and automated tax administration which is anticipated to enhance the capacity of tax authorities in areas such as data matching and risk management, ultimately facilitating improved tax compliance. AMRO staff estimate it could increase revenue collection by 0.5 percentage points of GDP cumulatively between 2025 and 2029.
[45] In January 2025, the integration of tax identification numbers (NPWP) with the national ID registration (NIK) was fully implemented, aims to support the tax revenue mobilisation This measure serves as one of key drivers for improving tax oversight such as through ease of tax administration, public service efficiency, and data security (pajak.go.id)
[46] The program initially targeted 17.9 million recipients in 2025 and 82.9 million recipients by 2029. The goal now is to speed up full coverage by September 2025 with an additional budget of IDR100 trillion.
[47] This program primarily targets low-income households with a monthly income below IDR8 million. The estimated 2025 budget is about IDR40.3 trillion, including IDR5.3 trillion allocated to the Ministry of Housing and Residential Area, IDR28.2 trillion from the Housing Financing Liquidity Facility (FLPP), IDR1.8 trillion from the Public Housing Savings Fund (TAPERA), and IDR5.5 trillion for subsidies on down payments and interest payments.
[48] According to Presidential Instruction 1/2025 dated January 22, 2025, spending efficiency initiatives encompass office stationery, ceremonial events, meetings and seminars, honoraria, travel expenses, maintenance, utilities, and reprioritization of infrastructure spending. The savings from this budget efficiency drive will be reallocated to support other priority programs, including an anticipated additional IDR100 trillion for the Free Nutritious Meals program.
[49] The budget savings comprise IDR256.1 trillion from the central government spending and IDR50.6 trillion from regional transfers.
[50] Revenue collection in January-February 2025 contracted 21 percent year-on-year, driven by a sharp decline in both income tax and VAT collection. The drop in income tax revenue was likely a result of increased tax refunds as falling global commodity prices, including crude oil, LNG, coal, and nickel, weighed on corporate earnings in 2024. Meanwhile, due to technical problems in the newly implemented core tax system, the authorities allowed VAT payment delays until early March 2025, affecting the VAT collection in the first two months of 2025.

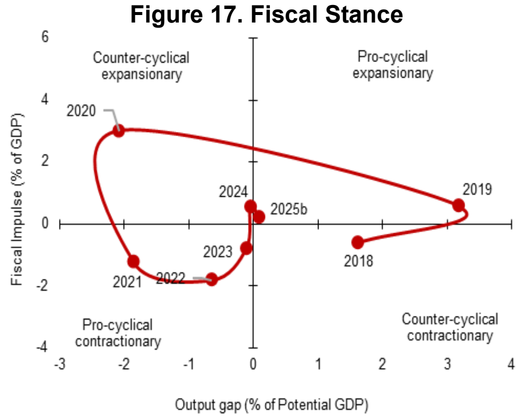
challenges, or to provide tax incentives to support businesses, particularly MSMEs, or additional social assistance if necessary. The government currently has provided fiscal support particularly in strengthening MSMEs recovery post-pandemic, including interest subsidies, tax incentives and credit guarantees.

Figure 16. Overall Budget Performance



Source: Ministry of Finance; CEIC; AMRO staff projections

Figure 17. Fiscal Stance



Source: Ministry of Finance; CEIC; AMRO staff calculations

12. The government has continued to strengthen fiscal decentralization efforts. Fiscal decentralization started in the aftermath of the Asian financial crisis, with local governments (LGs) given more authority to collect revenue[51] besides receiving transfers from the central government[52] to meet their increased spending needs. The share of LGs' own revenue in total LG revenue has climbed from below 15 percent in 2000 to nearly 30 percent in recent years. Total LG revenue rose from less than 3 percent of GDP in 2000 to 8.1 percent in 2016, before moderating to 5.7 percent in 2023. Over the years, LG expenditure has been concentrated on recurrent spending, particularly personnel expenditure, and purchase of goods and services, while growth-enhancing spending remained modest, at less than 20 percent of the total LG budget. Efforts to improve LGs' fiscal capacity and align their budget priorities with regional growth-enhancing spending have been strengthened, notably with the implementation of Law 1/2022 on financial relations between the central and local governments, effective 2022. The Law mandates LGs to allocate at least 40 percent of their total expenditure to infrastructure spending for public services while capping personnel spending at 30 percent, with a five-year transition period from 2022 onward. LGs are also required to fulfil the budget allocation for mandatory spending, including education and infrastructure. In so doing, LG performance indicators have been included in the formula to allocate central government transfers to LGs and determine LGs' flexibility in using such transfers.[53]

13. The government is committed to medium-term fiscal consolidation. The government aims at gradually reducing the fiscal deficit from 2.5 percent of GDP in 2025 to 2.1-2.3 percent of GDP by 2029. This objective is supported by the implementation of the CTAS and ongoing reforms in both tax and nontax revenue administration. The government projects total revenue to be 12.7-13.7 percent of GDP by 2029. Regarding expenditure, the government is committed to channeling more resources to growth-enhancing spending, such as human capital development, food self-sufficiency and renewable energy, and to improving subsidy spending

[51] Several revenue items which were once concentrated within the central government have been redefined as LGs' own revenue, such as vehicle registration tax and land and building tax (PBB-P2). The central government has also shared several national taxes and revenues with LGs.
[52] The central government has provided regional transfers via general allocation funds (DAU), revenue sharing funds (DBH), special allocation funds (DAK), special autonomy funds, a privilege fund for Yogyakarta province, fiscal incentives, and village funds.
[53] For example, the allocation of DAU, which aims to reduce horizontal imbalances due to different fiscal capacities among regions, is calculated based on certain formulas to measure LG fiscal gaps, which are differences between fiscal capacities and fiscal needs. Law 1/2022 now requires the DAU allocation formula to include LG performance indicators, such as years of schooling, life expectancy, electrification ratio, the condition of regional roads, and access to piped water. LGs with good public service delivery and performance will be allowed to use the DAU as a block grant. Those with lower performance will receive DAU as a specific grant earmarked for specific purposes.

efficiency[54]. The government aims to keep its debt below 40 percent of GDP in the medium term.[55] However, these medium-term fiscal targets have not yet incorporated initiatives introduced by the new Prabowo administration. AMRO staff estimate that the government debt over the medium term could reach 42 percent of GDP, driven by larger primary deficits and higher borrowing costs offsetting the robust economic growth.

14. The government's gross financing needs are projected to remain elevated in the medium term, and will likely increase further if the new administration fully implements its proposed expenditure programs. The elevated gross financing needs are partly attributable to short-term government bonds privately placed with BI during the pandemic, known as SKB bonds (Appendix 6).[56,57] These bonds will start to mature in 2025, with the repayment burden expected to peak in 2027 and 2028. The government has made efforts to flatten future gross financing needs through debt switches, whereby the government, BI, the Indonesia Deposit Insurance Corporation (LPS), and other bondholders have agreed to extend the maturity of outstanding government bonds.[58] Notably, BI and the Ministry of Finance have agreed to conduct a bilateral debt switch for SKB bonds maturing in 2025.[59] Despite these efforts, the government's financing needs could still increase if the new administration fully implements its proposed expenditure programs, unless they are matched by greater revenue collection.

15. Large-scale infrastructure development has been a national priority over the past decade and continues to be the case. By end-2024, a total of 225 national strategic projects (PSNs)[60] have been completed, attracting investments totaling IDR1,990 trillion. This has led to increased electrification, expanded road and rail networks, and more ports and airports across the country,[61] which have in turn improved Indonesia's business environment and enhanced its economic competitiveness.[62] The latest PSN list, having been taken over by the current administration, consists of 228 projects and 16 programs with total estimated investment needs of IDR6,480 trillion.[63] The government plans to source about 70 percent of PSN investments from the private sector, and the remaining amount from SOEs and the state

[54] The government plans to reduce the price-based subsidy and use the budget savings to provide additional cash transfers to low-income households. However, the policy options are still under discussion and no clear implementation timeline has yet been announced.
[55] The Ministry of Finance projected that government debt would moderate from an estimated 39.3 percent of GDP in 2024 to 36.3-37.5 percent by 2029. The ministry will revisit its medium-term projection to reflect current fiscal policy directions and macroeconomic developments.
[56] BI and the Ministry of Finance entered into unprecedented agreements known as SKB II in 2020 and SKB III in 2021, whereby BI bought government bonds in the primary market to fund pandemic-related budget spending. The size of BI's bond purchase via private placement was IDR397.6 trillion, IDR215.0 trillion and IDR224.0 trillion in 2020, 2021 and 2022, respectively. These bonds have tenors ranging between five and eight years, and are scheduled to mature from 2025 onwards.
[57] BI's holding of government bonds increased from IDR271 trillion as of end-2019 to IDR1,454 trillion at end-2022, mainly because of SKB II and III bonds. At end-2024, BI's holding of government bonds totaled IDR1,487 trillion, about 24.6 percent of total government bonds outstanding.
[58] Debt-switching transactions aim to lengthen the government bond maturity profile by switching bonds that are near maturity (source bonds) with new bonds that have longer maturities (destination bonds). The government conducted bond switches with BI for IDR10 trillion in October 2021, and for IDR20 trillion in December 2022, lengthening the bond maturities from one to two years to 10-20 years. In 2023, the government conducted a debt switch with LPS for IDR15 trillion. It also conducted several debt switches with other investors via auctions. At a debt switch auction held in September 2024, investors offered IDR2.4 trillion of source bonds that would mature in 2025-2028, while the government awarded IDR1.5 trillion of destination bonds that would mature in 2030-2054.
[59] According to a joint press release by BI and Ministry of Finance, this debt switch arrangement will exchange maturing bonds with regular, tradable bonds at prevailing market prices. The destination bonds will have a longer tenor in line with the needs of the central bank's monetary operations and the government's fiscal sustainability. The size of SKB II bonds maturing in 2025 is about IDR100 trillion.
[60] PSNs are projects and programs that have a strategic objective to increase equitable growth, listed in the appendix to the presidential regulation which is renewed from time to time. The PSN list includes both infrastructure, such as power plants, toll roads and railroads, and non-infrastructure projects, like smelters, industrial estates and tourism, and can be amended based on a study conducted by the Committee for the Acceleration of Provision of Priority Infrastructure (KPPIP). Key infrastructure projects include the Trans-Java toll road, the Trans-Sumatra toll road, the Jakarta-Bandung high-speed railroad, and Nusantara.
[61] For instance, the nationwide electrification ratio was increased from 84.35 percent in 2014 to 99.63 percent in 2022, according to the Ministry of National Development Planning (Bappenas).
[62] Indonesia's position on the IMD World Competitiveness Ranking improved from 37th in 2014 to 27th in 2024.
[63] Based on Coordinating Minister Regulation 12/2024.

budget, although it could lower spending on infrastructure development in 2025 due to budget reallocation to new priority programs. The financial performance of infrastructure and construction SOEs is showing signs of improvement as the effects of the pandemic continue to diminish (Appendix 5).[64] That said, the government continues to inject capital into SOEs that have defaulted on debt repayments.[65] Law 1/2022, mandating LGs to allocate at least 40 percent of their expenditure to infrastructure spending for public services, is a positive step, underscoring the growing role of LGs in infrastructure development.

16. Indonesia continues with climate change mitigation and adaptation initiatives. The country has committed to reducing greenhouse gas (GHG) emissions by 31.9 percent unconditionally, and by 43.2 percent conditionally, by 2030,[66] and to achieving net-zero emissions by 2060. While the government has lowered the renewable energy target for 2025,[67] it remains committed to tackling climate change and making the transition to renewable energy, planning to retire all coal and fossil fuel power plants in the next 15 years and replace them with renewable energy capacity (Appendix 7).[68] The Asian Development Bank (ADB) in 2024 approved a USD500 million policy-based loan to assist Indonesia's energy transition.[69] BP and its partners have also made a USD7 billion investment in a carbon capture and gas field development project in Papua, marking BP's inaugural attempt at enhanced gas recovery via carbon capture, utilization, and storage.[70] Following the launch of voluntary carbon trading, the Indonesia Carbon Exchange (IDX Carbon) had registered 110 participants as of February 2025, up from 62 in May 2024, with total trading volume reaching about 1.5 million tonnes of CO_2 equivalent (tCO_2e) and total trading value of IDR77.2 billion.[71]

B. Risks, Vulnerabilities and Challenges

B.1 Near-term Risks

17. Heightened uncertainties in the global outlook weigh on Indonesia's short-term economic prospects. The recent recovery in exports was mostly due to rebounding exports of manufactured goods to the U.S. market (Figure 19). However, commodity exports remained subdued, driven by lower growth in exports of iron and steel to China, and decreased exports of palm oil on the back of declining domestic production and output (Figure 20). The outlook for Indonesia's exports is influenced by the economic strength of its major trading partners, namely, China, the U.S., Japan, and European markets (Figures 18,21). AMRO staff expect Indonesia's export growth to moderate but remain resilient in 2025. That said, in a scenario where the global economy slows significantly, due to aggressive protectionist policies by the new U.S. administration, global demand could weaken and adversely affect Indonesia's

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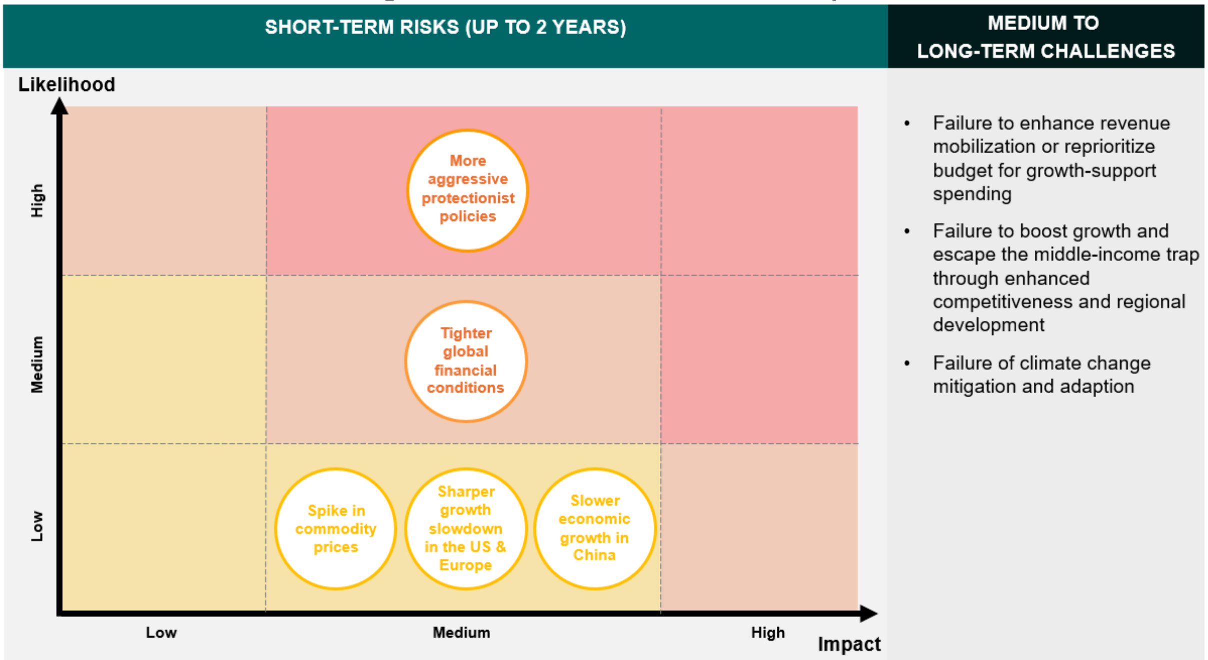
[64] For an analysis of those SOEs' performance after the pandemic, see Selected Issue 1 on "Financial Performance of Infrastructure/Construction SOEs and Implications" in AMRO Annual Consultation Report on Indonesia (2023), pages 44-47. An overview of SOEs before the pandemic, with discussions on infrastructure and construction SOEs, is available in Selected Issue 3 on "SOEs in Indonesia: Recent Developments" in AMRO Annual Consultation Report on Indonesia (2018), pages 36-37.
[65] For instance, the government injected IDR6 trillion into one of the defaulting SOEs in 2024 to help it complete PSNs.
[66] The GHG commitment was made in accordance with Indonesia's Enhanced Nationally Determined Contribution (ENDC), submitted to the United Nations in 2022. The government is set to submit its second NDC in early 2025, which will be implemented throughout 2030-2035 and align with the 2025-2045 National Long-term Development Plan (Antara News).
[67] According to the Revised National Energy Policy, the renewable energy target for 2025 was revised down to 17-19 percent from the previous 23 percent (Institute for Essential Services Reform).
[68] Office of the President's press release dated November 20, 2024
[69] The loan supports the Affordable and Sustainable Energy Transition Program, which aims to help Indonesia achieve its ENDC and net-zero power emission targets by 2050. The program focuses on establishing a strong policy and regulatory framework for clean energy transition, enhancing sector governance and financial sustainability, and ensuring a just and inclusive transition. A key component is the development of a Comprehensive Investment and Policy Plan (CIPP), supported by JETP Indonesia, which identifies investment needs and opportunities for a just energy transition (ADB).
[70] Production is due to start in 2028 (BP).
[71] The daily trading volume and value increased almost tenfold to 19,860 tCO_2e and IDR716.1 million, respectively, in February 2025, compared with 2,000 tCO_2e and IDR81.3 million in May 2024 (IDX carbon monthly report May 2024 and February 2025).

exports and growth.[72] At the same time, potential spikes in global commodity prices would exert upward pressures on inflation and constrain the authorities' policy options to support the economy under this downside global scenario. On the upside, a commodity price boom could lead to favorable terms of trade and a revenue windfall for Indonesia.

Figure 18. Indonesia's Downside Risk Map

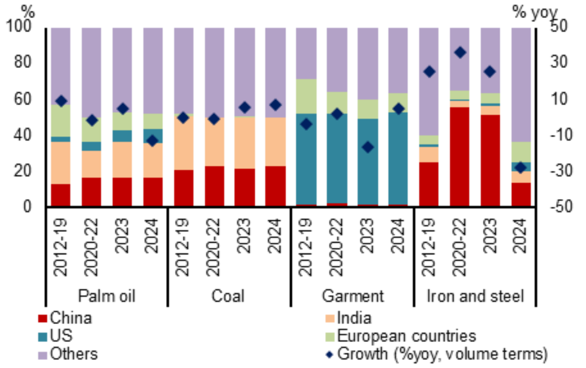


Source: AMRO

18. Risks of capital flow volatility and elevated borrowing costs persist against plausible global financial tightening. Indonesian financial markets have experienced outflows since Q4 2024 as market sentiments shifted in favor of the U.S. financial assets in expectation of protectionist measures by the new U.S. administration. Moving forward, a resurgence of inflation in the U.S. could lead to the Federal Reserve (Fed) funds rate remaining high for an extended period, sustaining overall tighter global financial conditions. This will likely spill over to EMs, including Indonesia, with domestic interest rates, including government bond yields, compelled to rise or remain heightened, in response to capital outflows and exchange rate depreciations. Such increases in government bond yields would lift the government's interest payment burden, which is already elevated at 17.2 percent of total revenue in 2024, equivalent to 2.2 percent of GDP (Figures 22,23).

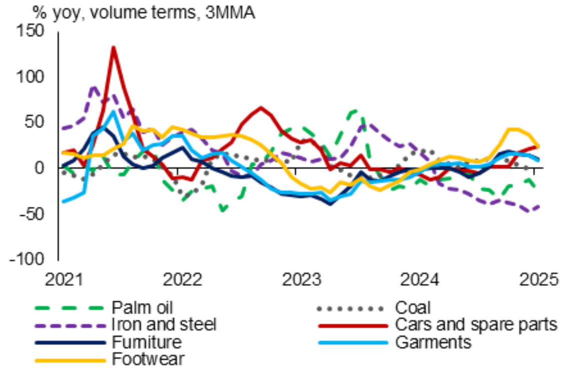
[72] In 2024, Indonesia's exports to the U.S. totaled USD26.3 billion (9.9 percent of total exports), mainly consumer goods (garments, footwear, seafood, furniture, electronics), intermediate goods (plastics, rubber, chemicals), and capital goods (machinery, equipment). Imports from the U.S. reached USD12.0 billion, resulting in a USD14.3 billion trade surplus—the highest among Indonesia's partners (46 percent of its overall surplus). On April 2, 2025, the U.S. announced a 32 percent reciprocal tariff on Indonesian imports, compared to a 10 percent baseline tariff. The reciprocal tariff policy was effective briefly on April 9, 2025, but has been since paused for 90 days for negotiations. (The 10-percent baseline tariff has been instead applicable across all countries except for China.) The impact of these tariffs includes direct effects—slower exports to the U.S. depending on final tariff rates and demand elasticity—and indirect effects, particularly through plausible growth slowdown in China (24.6 percent of Indonesia's 2024 exports), Japan (7.8 percent), and Europe (7.4 percent). A 1 percent drop in China's growth has historically led to a 0.1-0.2% decline in Indonesia's GDP (Rafiq S., 2016, When China Sneezes Does ASEAN Catch a Cold?), though recent trade ties suggest a stronger impact today.

Figure 19. Key Exports: Market Composition and Growth



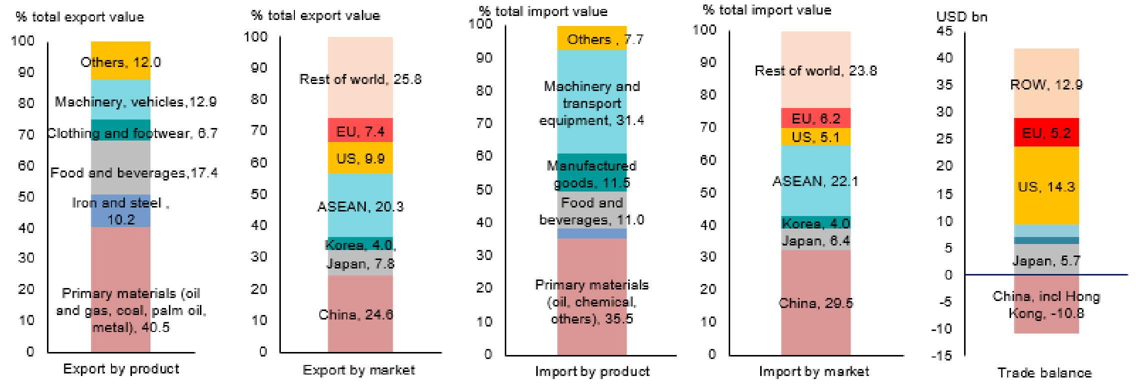
Source: BPS; CEIC; AMRO staff calculations Note: The data gives the average of each period.

Figure 20. Export Growth in Volume



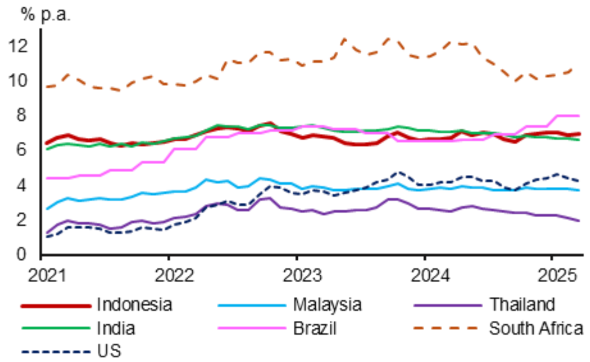
Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to January 2025.

Figure 21. External Trade Composition by Products and Markets, and Trade Balance: 2024 Snapshot



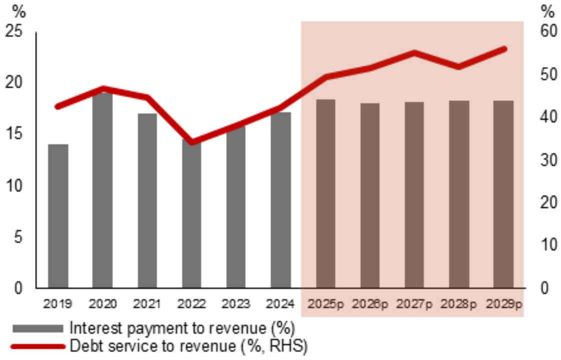
Source: BPS; CEIC; AMRO staff calculations

Figure 22. 10-year Government Bond Yields



Source: National authorities; CEIC; AMRO staff calculations
Note: 2025 data has been obtained up to March 2025.

Figure 23. Government Debt Service Burden



Source: Ministry of Finance; CEIC; AMRO staff calculations
Note: Data for 2025-2029 is projected by AMRO staff.

B.2 Medium to Long-term Challenges

19. It may be challenging to achieve the government's medium term fiscal target. Despite the tax reform measures, including the normalization of a 12 percent VAT rate on non-luxury goods and services[73], AMRO staff estimate that the revenue collection will likely remain limited to 12.8 percent of GDP by 2029. On the expenditure side, the anticipated expansion of new priority programs is expected to increase government expenditure to 16.0 percent of GDP. This could lead to higher fiscal deficits than the government's medium-term target and its debt could surpass 40 percent of GDP (Selected Issue 1). Additionally, the compensation

[73] AMRO staff projections find that the VAT rate reform would lead to an increase in VAT revenue collection of 0.3 percentage points to 4.0 percent of GDP by 2029.

provided to SOEs responsible for fuel (Pertamina) and electricity (PLN) distribution combined with an unclear timeline for subsidy reforms, present significant fiscal risks that may undermine budget sustainability. The increasing burden of interest payments also constrains the government's flexibility to allocate expenditures toward growth-enhancing initiatives.

20. Over the longer term, Indonesia faces challenges that may hinder the achievement of high-income status, and inclusive and sustainable growth. Economic growth has stabilized at 5 percent over the past decade, which is solid but remains below the 7-percent target needed to reach high income by 2045.[74] In recent years, the country has benefited from economic diversification and moving up the value chain, notably via resource-based downstreaming initiatives. At the same time, such efforts are facing global trade headwinds and domestic challenges. Despite fiscal decentralization and industrialization efforts, regional income disparities persist, reflecting gaps in infrastructure development and weak implementation capacity of LGs. Challenges related to climate change mitigation and adaptation, and limited financing options could affect the pursuit of sustainable growth.

a. **Indonesia's downstreaming efforts in the nickel-related battery and EV industry face global trade headwinds and competition, in addition to domestic challenges.** While the country's reliance on foreign technology and investment is strategically necessary at this stage, it may expose the industry to shifts in geopolitical relations or changes in global trade policies.[75] Cheaper alternatives like lithium iron phosphate (LFP) batteries may reduce demand for nickel-based batteries, challenging Indonesia's competitiveness.[76] On the domestic side, a lack of interlinkages between upstream, midstream and downstream companies in the electric battery supply chain in terms of material specification, infrastructure, and technology, may lead to fragmentation and inefficiencies. High costs, insufficient charging stations, and a lack of production by major automakers have hindered the EV adoption rate in the domestic market (Box B).[77]

b. **Regional income disparities, albeit narrowing, remain significant.** An empirical analysis by AMRO staff finds that regional economic growth can be boosted by public and private capital investments (Selected Issue 2). Other drivers include increased manufacturing activities and higher employment growth. That said, the income gap remains large with about 90 percent of Indonesia's economic wealth being created in manufacturing and (financial) services hubs in Java and resource-rich provinces in Sumatra and Kalimantan.[78] Although the government has actively rolled out policy measures to narrow the income gap, such as fiscal decentralization and establishment of economic zones, their impact on regional growth has been modest. LG spending remains low with significantly smaller amount allocated to capital spending (Figure 24). Despite the increasing number of industrial estates and special economic zones, their occupancy rates

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[74] Indonesia aims to achieve high-income country status by 2045 in its **Golden Indonesia 2045 Vision,** released in 2023. To that end, national economic growth should be raised from the current 5 percent to the range of 6-7 percent by 2045. President Prabowo Subianto aspires to achieve an even higher economic growth of 8 percent in his five-year term, which started in October 2024.

[75] Currently, Indonesia relies on foreign companies' technology and investment. For example, Chinese and Korean companies such as CATL and LG are significantly involved in key nickel-related processing steps such as constructing smelting facilities, refining plants, and battery manufacturing setups.

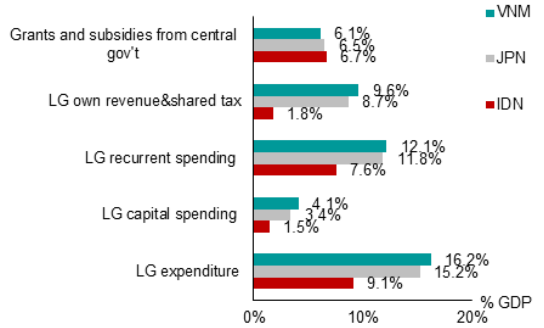
[76] Among EV battery technologies, Indonesia's production capabilities align best with nickel-rich lithium-ion batteries (such as NMC and lithium nickel cobalt aluminum oxide-NCA) due to the country's vast nickel reserves. NMC batteries offer better performance, making them ideal for long-range and performance-focused EVs. However, they are more costly and have shorter lifespans. In contrast, LFP batteries are safer, more affordable, and have longer cycles, but their lower energy density limits their use in high-performance vehicles.

[77] According to the Association of Indonesia Automotive Industries (Gaikindo), the share of EVs to total vehicles in Indonesia was 1.7 percent in 2023, compared with 7 percent in the U.S., 10.1 percent in Thailand and 25 percent in China. In addition, difficulties in reselling EVs on the secondary market and concerns over the safety and lifespan of batteries contribute to lower domestic demand for EVs.

[78] For instance, per capita income of the top 10 percent richest provinces is about sevenfold of the bottom 10 percent poorest provinces in Indonesia. That ratio is about four times in Vietnam, and 1.6 times in Japan. Besides, only about 20 percent of provinces in Indonesia have per capita income above the national average, compared with about 30 percent in both Japan and Vietnam.

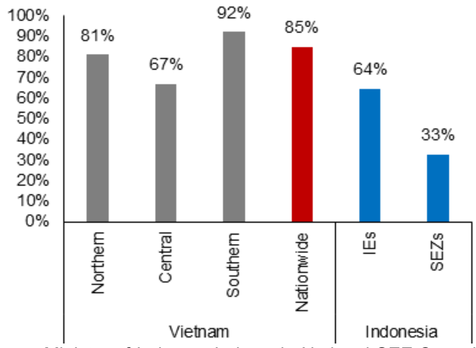
are modest (Figure 25) and the share of manufacturing in GDP dropped to 18 percent in 2022 from 27 percent in 1997.

Figure 24. LG Expenditure and Revenue (2020)



Source: SNG-WOFI fiscal database (https://www.sng-wofi.org/country-profiles/)Note: Data for Japan is as of 2019. LGs comprise provinces, regencies and cities, and villages in Indonesia, prefectures and municipalities in Japan, and provinces and centrally run cities, districts and communes in Vietnam.

Figure 25. Economic Zone Occupancy Ratio (2023)



Source: Ministry of Industry; Indonesia National SEZ Council; Du Long Vietnam Industrial Park; AMRO staff calculations

c. **Indonesia faces challenges in financing its transition to a low-carbon economy**. Required investments to meet the NDC's 2030 targets are estimated at IDR4,002 trillion (about USD281 billion) in total from 2018-2030, or IDR308 trillion (about USD21.6 billion) annually. The annual state budget allocated only IDR77.8 trillion (about USD5.4 billion) on average from 2018-2023.[79] To finance budget spending related to climate change, the government issued green sukuk bonds totaling USD9.6 billion from 2018 to 2023, and an additional USD600 million in 2024.[80] Indonesia also secured funding commitments amounting to about USD20 billion from developed countries through the Just Energy Transition Partnership (JETP) to support coal-fired power plant retirement and enhance renewable energy infrastructure. That said, challenges remain in achieving effective stakeholder coordination and timely fund disbursement against the complex backdrop of making a sustainable and equitable transition to cleaner energy.

d. **Indonesia continues to face challenges in expanding financing options amid moderate financial inclusion and deepening.** Data from the World Bank in 2021 revealed that Indonesia had the fourth largest unbanked population globally, with about 48 percent of adults lacking a bank account. The country reported the lowest ratio of private-sector credit to GDP among ASEAN peers.[81] Insufficient bank access is notable among low-income households and MSMEs, likely due to a lack of stable cash flows, reliable financial statements or credit history, and adequate collateral. MSMEs' access to credit deteriorated in 2024 as banks curtailed lending, primarily due to heightened credit risk perceptions and reflecting the scarring effects of the pandemic. An empirical study by AMRO staff finds that banks are facing high funding and operating costs,[82] along with a significant degree of market concentration associated with high lending rates and net interest margins among Indonesian banks compared with ASEAN peers, constraining financial intermediation (Selected Issue 3). Nonbank financing options are also limited because the capital market is still small and underpinned by a narrow institutional investor base.[83]

[79] Green Policy "Indonesia's Climate Resilience: Strong Commitment, Bright Future," December 2024
[80] Out of the USD9.6 billion, the value of global green sukuk is USD6 billion, domestic retail green sukuk IDR30.7 trillion (USD2.1 billion), and domestic wholesale green sukuk IDR22.2 trillion (USD1.5 billion) (2024 Green Sukuk Allocation and Impact Report**).**
[81] The ratio of credit to GDP is at a stable level of about 30 percent of GDP in Indonesia. In contrast, the ratio stood at above 100 percent in Malaysia, Thailand and Vietnam, and hovered around 50 percent in the Philippines.
[82] High operating costs are in part due to Indonesia's archipelagic conditions.
[83] The size of stock market in Indonesia stood at 55.8 percent of GDP in 2023, higher than Vietnam (44.6 percent) but lower than the Philippines (68.8 percent), Malaysia (92.9 percent) and Thailand (104.2 percent). The size of domestic bond market was

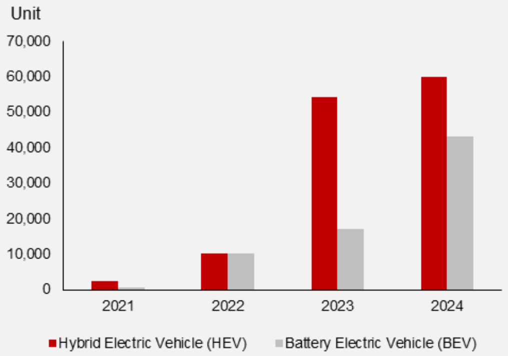
Box B. Indonesia's Electric Vehicle Adoption: Opportunities and Challenges[84]

The government has made a strong commitment to the electric vehicle (EV) transition, setting ambitious goals[85]. This box examines the opportunities and challenges of Indonesia's EV adoption.

Opportunities

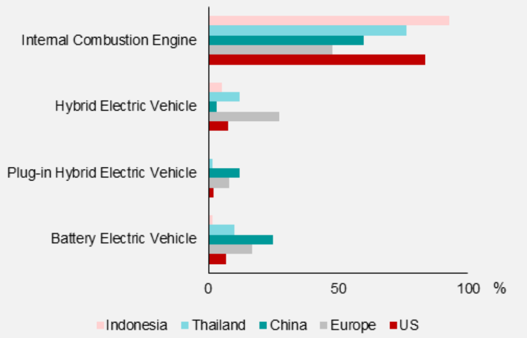
Indonesia presents several opportunities for EV adoption. The country has seen significant growth in EV sales in recent years, increasing from 687 units in 2021 to 43,188 units in 2024 (Figure B1). The EV market in Indonesia remains relatively untapped compared with other countries (Figure B2), indicating potential for further expansion. The vehicle ownership ratio also highlights this potential. Indonesia's ratio, lower than other countries,[86] suggests that many Indonesians have yet to own vehicles, which presents an opportunity for the EV sector to fill this gap and expand market penetration. Current efforts to establish an EV battery ecosystem, with support from the domestic nickel industry, are expected to increase EV battery manufacturing capacity in Indonesia (Box A). This strategic move will boost the local supply of high-quality, cost-effective batteries, thereby supporting domestic manufacturing of EVs. To achieve such a strategy, the government has proactively introduced Presidential Regulation No. 55/2019 to outline comprehensive road maps for enhancing EV and EV battery production capabilities. Additionally, the government provides incentives such as tax reductions for EV purchases, creating a supportive environment for EV adoption.

Figure B1. EV Sales in Indonesia



Source: Association of Indonesia Automotive Industries (Gaikindo)

Figure B2. Market Share of Vehicles by Economy



Source: Gaikindo

Challenges

One of the key challenges is to ensure sufficient charging infrastructure.

- **Accessibility.** Most EV charging stations are now concentrated in selected urban areas, with 88 percent located in Jakarta and Bali (IESR 2023a). The uneven distribution presents accessibility challenges to users outside these regions.
- **Coverage.** The increase in EVs must be matched by an expansion in charging stations. The government aims to install 31,859 public EV charging stations by 2030 to support a projected EV increase to 2.19 million units by 2030 (Figure B3), meaning 69 EVs per charging point. However, this projected ratio is far higher than the ratios in other countries. For example, the ratio is 25 in Norway, 15-30 in the U.S., and about 10 in China[87] (IESR 2023b).

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about 30 percent of GDP as at end-2023, of which 27.8 percent were government bonds and 2.2 percent were corporate bonds. To compare, the size of the bond market was 33.5 percent of GDP in the Philippines, 79.5 percent in Thailand, and 126.9 percent in Malaysia. While the bond holding by Indonesian long-term institutional investors, notably pension funds and insurance companies, has increased in recent years, it accounts for less than 20 percent of total bonds outstanding, compared to 35 percent for Malaysia and 45 percent for Thailand.

[84] Prepared by Trung Thanh Vu, Associate Economist

[85] For example, the Coordinating Ministry for Maritime and Investment Affairs aims to have 15 million EVs on the roads by 2030, of which 13 million would be two-wheeled (E2W) and two million, four-wheeled (E4W).

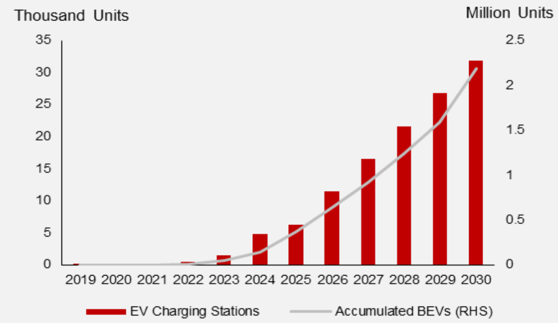
[86] According to studies by Gaikindo, Indonesia's vehicle ownership ratio is 99 vehicles per 1,000 people, compared with 211 in Singapore, 275 in Thailand, and 490 in Malaysia. In fact, Indonesia's relatively low vehicle ownership ratio highlights a market opportunity for EV expansion but underscores underlying challenges, such as affordability and charging infrastructure, which could influence consumer readiness and demand.

[87] While the ratio of EVs per charging points in advanced countries is a useful benchmark, Indonesia can consider the experiences of its ASEAN peers and its own stage of EV adoption to develop flexible and suitable charging point strategies.

- **Costs.** Achieving adequate public charging points will require substantial investment. Charging infrastructure can be categorized into normal-speed and high-speed stations. The installation of high-speed stations is costly. For instance, a high-speed station can cost anywhere from USD50,000 to more than USD100,000. Governments and private investors need to invest in charging facilities to cater to different needs and situations,[88] balancing cost with service provision.

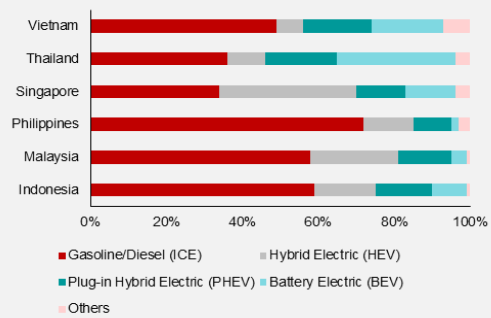
- **Electricity supply capacity**. The integration of EV charging stations significantly increases demand for the local power grid. Urban planners and utility providers must work together to ensure that the grid can handle this additional load without causing power outages or reducing the quality of service.

Figure B3. Projected Charging Stations



Source: Ministry of Energy and Mineral Resources; Gaikindo

Figure B4. Vehicle Preferences



Source: Deloitte 2023

Price consideration and customer awareness pose additional challenges to EV adoption in Indonesia.

- **Affordability.** A segment of the population is hesitant about the costs of EVs, including the purchase price, maintenance, and spare parts. For example, according to Gaikindo, most Indonesian consumers prefer vehicles priced below IDR300 million. However, many EV models exceed this threshold, while hybrid EVs or internal combustion engine (ICE) models remain at or below it. This EV price sensitivity is compounded by concerns over resale values, as the resale price of EVs can be much lower than traditional gasoline vehicles.

- **Perceptions and incentives.** Hybrid EVs seem to represent a less drastic shift from traditional gasoline vehicles. The popularity of ICE and hybrid EVs over fully electric vehicles was evident as their preferences outstripped those of EVs (Figure B4). In addition, most EV owners in Indonesia are female (60 percent), averaging 42 years old and living in major cities (PwC 2024), suggesting that only a specific segment of customers is currently interested in EVs. Adoption can be a perception issue, and enhanced government incentives[89] can shift perceptions, making EVs a viable option.

- **Batteries.** Concerns over batteries also affect consumer decisions, causing another challenge to EV adoption. The affordability of the battery, its lifespan, its charging time, and the driving range of the vehicle are critical factors influencing consumer acceptance and the broader adoption of EVs.

References

Deloitte. 2023. “2023 Global Automotive Consumer Study”, *Deloitte* March 2023.
PwC. 2024. “The Road Ahead: Indonesia’s Electric Vehicle Readiness and Consumer Insights 2024”, *PwC* November 2024.
IESR. 2023a. “Indonesia Electric Vehicle Outlook 2023”, *Institute for Essential Service Reform* (2023).
IESR. 2023b. “Global EV Outlook 2023: Trends in charging infrastructure”, *Institute for Essential Service Reform* (2023).

[88] For example, while urban charging solutions may require fast-charging capabilities to serve residents and commuters, highway charging solutions may focus on high-power charging and are conveniently located along major highways. Residential charging solutions, especially in suburban areas, may focus on providing home charging installation.

[89] The Indonesian government’s current incentives, while substantial, can be extended to bridge the affordability gap for the average consumer. Global EV incentives vary significantly: China provides tax exemptions of up to RMB30,000, reduced to RMB15,000 by 2027. The U.S. offers up to USD7,500 in federal tax credits, with additional state-specific incentives. Germany provides up to EUR9,000 for EVs. Japan has increased its EV subsidies to about JPY6,500 to bolster domestic production. Korea offers up to KRW5.8 million for larger EVs, with extra support for young and multi-child families.

C. Policy Discussions and Recommendations

C.1 Continuing Policy Synergy

21. The central bank should conduct its policy mix nimbly amid rapidly evolving external uncertainties and shifts in domestic conditions.

a. **Interest rate policy.** As domestic inflation is expected to remain low, BI could consider lowering the BI-Rate further to support economic activities against looming downside risks to the growth outlook.[90] The decision should align with global and domestic conditions, ensuring the rupiah exchange rate is consistent with fundamentals and minimizing the risk of imported inflation.

b. **Exchange rate policy.** BI's triple interventions should be judiciously implemented to avoid excessive exchange rate movements while maintaining exchange rate flexibility to absorb external shocks.

c. **Financial deepening policy.** The implementation of pro-market monetary operations increased money market transactions and attracted capital inflows in 2024. To reduce capital flow volatility triggered by ongoing external uncertainties, policy efforts to provide cost-effective FX hedging instruments to help investors manage exchange rate risks are commendable and should continue.[91]

d. **Payment system policy.** The authorities should continue efforts to enhance efficient, seamless payment systems and promote LCTs to facilitate regional trade and investment, as well as to contribute to the stability of regional exchange rates.

22. Accommodative macroprudential policies should continue while MSME support programs should focus more on underserved viable borrowers. As MSMEs still face difficulties in business operations and credit access - evidenced by a persistent slowdown in bank lending to MSMEs - maintaining KLM liquidity incentives for MSME lending would promote bank credit to these enterprises. AMRO commends ongoing efforts to enhance MSMEs' access to finance via the People's Business Credit (KUR) program[92] and, more recently, the Ultra Microcredit (UMi) initiative.[93] As most previous KUR recipients are already capable of accessing bank loans[94], AMRO supports the government's consideration to adjust the program criteria to better target underserved, viable businesses.[95] Likewise, as the loan forgiveness policy aims to restore MSME access to bank loans, it is essential that new loans be granted to only viable borrowers or those with feasible business plans. Banks should closely monitor the credit quality of these borrowers throughout the loan cycle to prevent recurring defaults.

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[90] With inflation averaging 0.6 percent yoy in January-March 2025, the policy rate in real terms stood at about 5 percent compared with a neutral rate estimated at about 2 percent, implying room for the central bank to ease its monetary policy stance.
[91] Foreign investors of SRBI have often held the bills until maturity and hedged against rupiah exchange rate risks using three or six-month swap agreements or other hedging instruments, including DNDFs.
[92] The government launched the KUR program in 2007 to provide interest and guarantee subsidies for MSME loans based on their maximum credit limit: super micro loans were less than IDR10 million; micro loans ranged from IDR10 million to less than IDR100 million; and small loans from IDR100 million to IDR500 million. The government increased KUR interest subsidies and the total size of eligible loans (the KUR quota) in 2020-2022 to step up MSME support during the pandemic. In 2023, the government redesigned KUR by raising the interest subsidy to super micro loans while lowering it for micro and small loans. It also lowered the KUR quota from the peak of IDR373 trillion in 2022 to IDR297 trillion in 2023, and IDR300 trillion for 2024 and 2025.
[93] Launched in 2017, UMi focuses specifically on unbankable ultra micro enterprises by providing loans up to IDR10 million at interest rates of 2-4 percent. The program aims to address the barrier of collateral, which has long kept many micro businesses, particularly those run by women, from accessing bank lending. More information on UMi can be found here.
[94] Current KUR recipients tend to be larger-sized MSMEs with assets like land and/or houses which can be used as collaterals.
[95] According to one estimate by the largest lender to MSMEs, Bank Rakyat Indonesia, about 30 million micro businesses in 2020 had no access to formal banking, of which 18 million were without financing at all, five million borrowed from shadow banking at very high interest rates, and seven million sourced financing from family or friends.

23. Concerted efforts are crucial to boost financial inclusion and bank intermediation. To increase financial inclusion, the authorities have promoted financial technology and partnership between commercial banks and rural banks or fintech companies to bridge the financing gap left by traditional bank lending. They have also provided credit support programs such as KUR and UMi. As banks continue to face difficulties in accurately assessing borrowers' creditworthiness, efforts to enhance credit information sharing through SLIK, the Innovative Credit Scoring[96] initiative, and BI's Open Banking (Open API) are commendable. However, given the growing use of financial digitalization and technology, more advanced cybersecurity and consumer protection regulations are increasingly vital. Additionally, efforts to enhance MSME bookkeeping and tax filing are also important to improve their access to bank lending and should remain a policy priority. The high costs of financial intermediation highlight the need for comprehensive policy action beyond enhancing financial regulatory frameworks and development strategies. Elevated lending costs could be reduced by expanding the role of non-bank funding in the credit market, deepening the capital market, and further improving physical and credit infrastructure. Further dialogues between banks and regulatory authorities are essential to gain a deeper understanding of their cost structures and lending practices, aiming at improving efficiency of credit infrastructures. Moreover, adequate capital buffers and loan loss reserves allow banks to explore new markets with higher risk profiles and lower interest margins. Continued enhancements in banks' credit risk monitoring and assessment could lessen the need for banks to maintain high lending rates as a precaution against risk premiums.

C.2 Enhancing Policy Space

24. The government should step up efforts to mobilize fiscal revenue to support its growing spending needs. Tax reform measures implemented in the aftermath of the pandemic have led to an increase in tax revenue.[97] That said, at 10.1 percent of GDP in the 2024 outturn, tax revenue in Indonesia remains low compared with regional peers and the government's target of 18 percent by 2045. The volatility of commodity prices has significantly affected fiscal revenue, highlighting the need to reduce reliance on revenue from natural resources and to raise more revenue from households and firms and non-resource income sources.

a. While the current environment of low commodity prices and inflation might have supported a broad-based VAT rate hike, the government has decided to apply the higher VAT rate of 12 percent only to luxury goods to minimize the negative impact on household consumption. However, doing so is estimated to result in a revenue loss of about IDR70 trillion, or 0.3 percent of GDP, in 2025. The implementation of a complex VAT regime is also likely to increase compliance costs for businesses and lead to tax avoidance. Hence, it is important for the government to eventually apply the 12 percent VAT rate across all goods and services, and communicate a clear implementation time frame to provide certainty for businesses. VAT collection efficiency could be enhanced by lowering the VAT registration threshold and reassessing the list of VAT-exempted goods and services, which is currently generous relative to several ASEAN peers (Box A1.2, Selected Issue 1).[98]

[96] Due to the poor quality of financial statements from low-income households and MSMEs, Innovative Credit Scoring was created to use non-traditional data, such as statistics from telecommunication companies or e-commerce platforms, to estimate a borrower's creditworthiness.
[97] On average, tax revenue grew by 19.3 percent per year during 2021-2023. Notable policy measures implemented after the pandemic include a broad VAT rate increase from 10 percent to 11 percent in 2022, expansion of personal income tax brackets from four layers to five, introduction of a higher top tax rate of 35 percent, a voluntary disclosure program from January-June 2022 to broaden the tax base, and a new excise tax on e-cigarettes.
[98] The government estimates that total tax expenditures in 22025 will reach IDR445.5 trillion, equivalent to 1.83 percent of GDP. This figure includes VAT incentives on exempted goods and services, such as basic necessities, health and educational services, art and entertainment services, and public transport, amounting to IDR265 trillion. The total tax incentives in 2025 are higher than the previous year, which totaled IDR399.9 trillion, or 1.77 percent of GDP.

b. The government should also consider reforming the personal income tax system by introducing more income brackets between the second highest and highest income categories, given their current wide gap.[99]

c. AMRO welcomes the government's efforts in strengthening tax administration. Notably, effective implementation of the new CTAS is expected to enhance tax administration efficiency and taxpayer compliance (Box A1.1, Selected Issue 1). To complement these efforts, the government is encouraged to continue raising taxpayer awareness through public outreach. Furthermore, the integration of tax identification numbers with the national ID can be optimized to support tax enforcement.[100] The government should continue equipping tax officers with advanced technology and enforcing strict financial penalties on tax evasion, such as imposing a penalty rate for late payments and seizing bank accounts.

25. Reprioritizing budget allocations toward growth-enhancing expenditure coupled with improving expenditure efficiency is necessary to foster economic growth. Given its ambitious economic growth targets, the government must allocate more resources to infrastructure investment[101] and human capital development, and to mitigating climate change. Meanwhile, the elevated debt levels have contributed to rising interest payments,[102] potentially constraining the government's ability to allot budgetary resources to growth-enhancing initiatives. To address these challenges, the government should continuously streamline nonessential spending, such as travel expenses, honoraria, meeting packages and ceremonial events. AMRO welcomes the government's initiatives to enhance spending efficiency in 2025. It is crucial for the government to ensure that budget savings are redirected toward growth-enhancing expenditures. The government also needs to phase out general subsidies, particularly energy subsidies, and move to targeted subsidy programs. It should also periodically revise nonsubsidized fuel prices and electricity tariffs to reduce budget compensation to state-owned oil and gas company Pertamina and electricity company PLN.[103] Energy subsidy reforms should be aligned with the plan to adopt a carbon tax under a cap-and-tax emission trading scheme to foster climate change mitigation and adaptation.[104] The government must continue to enhance the efficiency of social assistance programs by improving the accuracy of beneficiary targeting, as households with higher incomes have also been receiving these benefits.

26. To meet the increasing financing needs, the government must strengthen its engagement with bond investors and deepen the financial market. The government's gross financing needs are projected to remain elevated in the medium term due to the maturity of SKB bonds and potentially wider fiscal deficits to accommodate spending for the new

[99] At present, the highest income tax rate of 35 percent is applicable to individuals with an annual income exceeding IDR5 billion (about USD25,700 per month). This is about 10 times higher than the second highest income bracket, of at least IDR500 million per year (USD2,570 per month), which is subject to a 30 percent tax rate.

[100] For example, taxpayers who do not fulfil their tax obligations could be temporarily restricted from accessing certain public services, such as driving licenses, loan approvals from financial institutions, or land or building ownership certificates. .

[101] In addition to budget allocation, the government has provided guarantees for infrastructure development which involves SOEs and/or PPP. As of September 2024, committed government guarantees totaled USD22.59 billion, or 1.6 percent of GDP. On top of this commitment, the government can issue new guarantees up to 0.6 percent of GDP per year between 2024 and 2027, which will help contain the overall size of contingent liabilities in the medium term. Regarding the fiscal risks related to SOEs, AMRO provided a policy recommendation in the Annual Consultation Report on Indonesia – 2023.

[102] Interest payments are estimated at 2.2 percent of GDP in 2024, up from 1.7 percent in 2019. The interest payment burden accounted for about 17.2 percent of total revenue in 2024, and is expected to be elevated to 19.6 percent by 2029, which is high among emerging markets with similar sovereign ratings, that of investment grade.

[103] Although the government does not provide a price subsidy for Pertalite (RON90) and for households with installed electricity beyond 900VA, the pricing set by SOEs is regulated, and compensation (implicit subsidy) has been provided to the assigned SOEs, Pertamina and PLN, since 2019 to offset operational costs that arise from discrepancies between market prices and regulated fuel and electricity rates. This compensation policy has posed significant fiscal risks due to volatile budgetary transfers underpinned by commodity price fluctuations, and could become unsustainable for the government's fiscal capacity over time. The compensation mechanism also creates challenges for the SOEs by putting pressure on their cash flow and balance sheets, as payments are made every quarter.

[104] Law 7/2021 (Tax Harmonization Law) introduces a carbon tax with a rate of IDR30/kg of CO_2e; however, its effectiveness is still pending the issuance of implementing regulations by the government and Minister of Finance Regulations. Meanwhile, Implementation of carbon trading started in September 2023.

programs. In this context, the planned debt switch for SKB bonds maturing in 2025 is a positive move. AMRO commends the authorities' commitment to conduct the debt switch in accordance with prudent fiscal and monetary policy principles, while upholding market discipline and integrity to avoid market disruptions. The government has issued bonds with long tenors of up to 40 years to meet the needs of institutional investors, such as insurance firms and pension funds. The availability of diverse investment options, along with efforts to broaden the investor base through the development of retirement savings institutions and mutual funds, will help deepen the domestic financial market. Efforts to attract foreign investors through sound macroeconomic management will also be crucial.[105] Measures should be strengthened to improve the fiscal balance via reviewing spending priorities and enhancing revenue.

C.3 Accelerating Structural Reforms

27. Strategic investments in technology, infrastructure and the workforce are essential for developing a robust nickel-related battery and EV production ecosystem. Indonesia should enhance domestic technological capabilities, particularly beyond nickel extraction, by promoting investment in research and development (R&D) and partnerships with global firms. In this regard, AMRO welcomes the government's policy to lower local content requirements on companies that meet a specified R&D investment threshold. The government can continue to provide more targeted incentives[106] to companies that invest in advanced technology, particularly those involved in producing high-value-added battery components such as cathodes. The establishment of a task force in early 2025 to accelerate downstreaming and national energy security affirms the government's commitment to speed up downstreaming efforts.[107] It is recommended that the task force standardize regulations, streamline processes and strengthen integration among upstream, midstream and downstream battery companies. The government can support projects for battery recycling and swaps to improve the sustainable use of batteries. Furthermore, as Indonesia ramps up nickel extraction and downstreaming, balancing industrial growth with environmental sustainability, such as addressing deforestation, will be crucial for the industry's long-term success. Lastly, the development of EV charging infrastructure could be accelerated via a more robust public private partnership approach, while establishing vocational training centers in collaboration with industry players focused on nickel processing and battery technology can address skill mismatches and build a pipeline of skilled workers.

28. A diversified nickel-based downstreaming strategy will help mitigate risks associated with global trade uncertainties. The government should strengthen policies to expand partnerships with various investors to ensure broader market access.[108] Additionally, promoting alternative battery technologies such as a blend of sodium-ion batteries with NMC, which requires fewer critical materials, can help Indonesia adapt to evolving market trends.

[105] Foreign holdings of rupiah-denominated government bonds have stabilized at about 14.5 percent of total bonds outstanding in recent years, after falling significantly during the pandemic from 38.6 percent in 2019.
[106] Indonesia has provided tax incentives for research and development (R&D) activities through super tax deductions, allowing eligible businesses to claim deductions of up to 300% of qualified R&D expenses.
[107] According to Presidential Decree 1/2025, the task force is chaired by the Minister of Energy and Mineral Resources. It aims to enhance national energy security and accelerate the downstreaming process across various sectors, such as energy, forestry and agriculture. The task force will also explore diverse financing options, prioritizing private-sector involvement over state budget use, to ensure sustainable implementation of downstream projects.
[108] Collaborations with European and U.S. companies which have invested in Indonesia's nickel and battery sectors could open up new export opportunities. For example, Volkswagen and Ford are interested in forming partnerships in Indonesia to secure critical raw materials and diversify their EV supply chains. Volkswagen is collaborating with Vale, Ford and Huayou to build an EV battery ecosystem, while Ford has invested USD4.5 billion in a nickel processing plant in southeast Sulawesi. These investments reflect the efforts of the said companies to reduce reliance on Chinese input and align with regulations such as the U.S. Inflation Reduction Act, which encourages sourcing from non-Chinese partners.

Interconnected regional cooperation in areas of raw material sourcing, component production and market integration can help the country create a resilient ecosystem.[109]

29. Boosting domestic regional economies is key to narrowing the income gap and lifting nationwide economic growth. While Indonesia's archipelagic nature may require a tailored approach to regional development, the experience of other countries implies that income convergence can be promoted through the development of multiple economic hubs and connecting infrastructure, along with the industrial transformation such as manufacturing with FDI support.[110] In this regard, besides efforts to develop resource-related downstreaming industries, it is equally vital to raise productivity in agriculture,[111] manufacturing and services, especially tourism, in Indonesian archipelago.[112] Additional drivers to regional economic growth include fiscal decentralization with enhanced LG capacity. To that end, the central government should provide sufficient and timely transfers to LGs, or encourage LGs to increase their own-source revenues. In this context, financial deepening is important to improve the government's access to long-term and affordable financing. Law 1/2022, requiring LGs to allocate at least 40 percent of their budget to infrastructure development by 2027, is expected to support regional growth. Technical assistance to enhance LGs' budget execution capacity is commendable and should continue. Effective fiscal decentralization will also enable LGs to provide tailor-made support to develop infrastructure, the living environment and skill training centers within and around economic zones, raising their occupancy ratio and boosting their contribution to regional economies. Efforts to integrate subregions could unlock the potential of isolated areas by expanding market size and production base, improving connectivity across provinces, and removing nontariff barriers through harmonized regulatory frameworks.[113]

30. The government should step up efforts to improve the overall investment climate and lower the cost of doing business. To promote investment in growth-supporting sectors, the government has established the Indonesia Investment Authority (INA)[114] and, more recently, the Daya Anagata Nusantara Investment Management Agency (Danantara).[115] A clear and credible investment plan is essential to strengthen investor confidence and help

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[109] For example, Indonesia can leverage ASEAN mineral cooperation to strengthen its supply chain resilience.

[110] See AMRO's forthcoming analytical note, "Regional Income Convergence in Indonesia." The experience of Japan highlights the central government's role in developing an economic development master plan that incorporates greater participation from LGs in the form of capital spending, and the importance of securing long-term financial sources to fund infrastructure development. The experience of Vietnam underscores the role of fiscal decentralization in boosting economic growth in provinces with good governance and narrowing their income gap with richer provinces.

[111] The government launched a new food barn program in 22025 to achieve Indonesian food self-sufficiency by raising the productivity and yields of key staples, namely rice, corn, soybean and cassava.

[112] In light of the experiences of China and other countries where agriculture is, like in Indonesia, a leading sector, the United Nations Development Programme (UNDP) suggests that Indonesia promote rural industrialization in phases – starting with the modernization of agriculture that will lead to the emergence of rural manufacturing, improved labor productivity and reduced informal activities.

[113] For instance, the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) has been trying to stimulate economic development in 32 of the less developed states and provinces in these three countries, including 10 provinces in Sumatra, Indonesia, since its inception in 1993.

[114] INA was established in 2020 under the Omnibus Law on Job Creation and started operations in 2021 as a strategic development sovereign wealth fund. With an initial capital injection equivalent to USD5 billion from the government, INA's total assets under management with co-investors reached USD10.5 billion in 2024. It has secured investment commitments from both global and local investors, with a cumulative value of more than USD25 billion, of which about USD3.2 billion has been disbursed. INA's key investment areas include infrastructure, digital infrastructure, health care and green energy (https://www.ina.go.id/).

[115] Created in early 2025, Danantara is the second sovereign wealth fund after INA, with initial funding of about USD20 billion. As an investment vehicle designed to accelerate economic transformation and enhance the global competitiveness of Indonesian SOEs, Danantara is expected to eventually take hold of all SOEs, including the top seven largest in the financial, energy and mining, and telecommunication sectors, reaching total assets under management of up to USD900 billion (Asean Briefing; The Straits Times). Market concerns have emerged over Danantara's transparency, investment strategy, and governance. The shift of SOE dividends from budget revenue to Danantara raises questions about short-term fiscal stability, while potential bond issuances and financing activities could heighten fiscal risks if performance falls short. To strengthen credibility, the government has appointed an advisory board featuring high-profile figures, including former Indonesian presidents Joko Widodo and Susilo Bambang Yudhoyono, economist Jeffrey Sachs, hedge fund manager Ray Dalio, and former Thai Prime Minister Thaksin Shinawatra. This move aims to reassure investors of the fund's professional and transparent management. To mitigate fiscal risks, the government has implemented a spending efficiency program, cutting non-essential expenditures and reallocating funds to priority initiatives, including Danantara's initial capital injection.

Danantara fulfill its mandate to drive economic growth. The authorities have simplified business registration procedures with the launch of a risk-based Online Single Submission (OSS) platform, which benefits MSMEs significantly.[116] Firms in high-risk sectors, nevertheless, still report difficulties in meeting land acquisition and site clearance requirements due to legal uncertainty about land ownership and high acquisition costs, and in obtaining spatial and environmental permits.[117] Those challenges could be amplified by LG regulations that are inconsistent with central government policy.[118] Removal of these constraints requires strong collaboration among LGs and relevant line ministries. LGs, by taking a proactive role, will also facilitate land acquisition negotiations between investors and local communities, and help with investors' business registration process.[119] The implementation of industrial policies such as local content requirements, known as TKDN policy,[120] should be accompanied by local supply chains, relevant labor skills, adequate infrastructure, and a conducive regulatory framework.

Authorities' Views

31. The authorities regarded AMRO staff's assessment of Indonesia's economy to be balanced and consistent with their own assessment, albeit with a more cautious outlook. They also elaborated on ongoing policy efforts to support the economy while safeguarding stability amid shifting global dynamics.

a. **BI's policy mix.** Consistent and prudent interest rate policies, supported by FX market intervention, pro-market monetary operation strategies, and adequate FX reserves helped control inflation and stabilize the rupiah exchange rate in 2024. The policy rate cut to 5.75 percent in early 2025 was consistent with the central bank's low inflation projection in 2025 and 2026 of within the 2.5±1 percent target band, a stable rupiah exchange rate in line with economic fundamentals, and the need to support economic growth.

b. **Long-term prospects**. The authorities shared their view that Indonesia has opportunities to achieve higher and more sustainable growth by increasing the contribution of capital, labor, and productivity. Broad-based synergy in the government's national economic transformation policy is required to achieve high growth without triggering instability.

c. **Debt switch plan for 2025.** The authorities emphasized their commitment that the Ministry of Finance's issuance and the central bank's purchase of government bonds will be based on prudent fiscal and monetary policy principles while maintaining market discipline. BI's purchases of government bonds will be conducted with market players in the secondary market and via a bilateral debt switch with the government. Bilateral debt switches with the government will be applied to bonds issued under joint agreements between the Ministry of Finance and BI in 2020 (SKB II), which will mature in 2025. The debt switch mechanism involves exchanging maturing bonds with regular and tradable bonds at prevailing market

[116] Low-risk companies and MSMEs now take about half an hour to complete the business registration procedures online and a maximum of five days to get licensed and/or start business.

[117] Notably, the delay in getting spatial permits is likely due to slow progress in preparing regional spatial plans, known as Integrated Detailed Spatial Plans (RDTR),[117] and integrating them into the OSS system. RDTR is prepared by LGs and approved by the Ministry of Agrarian and Spatial Planning and the National Land Agency, upon which the plan is included in the OSS as the basis to process investment permit applications. As of end-2023, the government had completed 413 such plans against the target of 2,000 set by the 2020-2024 National Medium-Term Development Plan. Only 203 plans have been integrated into the OSS (Investor.id).

[118] For example, some LGs add more procedures to the business registration regulations stipulated by the central government, lengthening the timeline for firms to get licensed.

[119] The central government has established a land acquisition support fund called LMAN, but its size is apparently modest.

[120] The government has imposed the TKDN policy across various sectors, including the electronics, automotive, telecommunications and renewable energy industries, with the overarching goal of fostering local industries, creating jobs, and attracting foreign investment in manufacturing, in addition to reducing reliance on imports. For smartphones, this requirement is set at 40 percent, compelling companies to source a significant portion of their components locally. To enforce the policy, Indonesia banned Apple and Google from selling certain mobile phone models in 2024, prompting Apple to commit to investing USD1 billion in the country, up from the initial offer of USD10 million and the revised USD100 million. The funds will be used to establish a plant manufacturing components for Apple products, ensuring compliance with the 40 percent local content requirement and regaining access to Indonesia's large domestic market (ASEAN briefing, December 2024).

prices, in accordance with market mechanisms. The destination bonds will have longer tenors that meet the needs of BI's monetary operations and the government's fiscal sustainability. The authorities added that bilateral debt switches between the Ministry of Finance and BI were already implemented in 2021 and 2022.

d. **Fiscal prudence.** While the introduction of new priority programs for human capital development was a key fiscal policy in the 2025 Budget, the government aims to implement these initiatives through budget reallocation and refocusing. As a result, the overall fiscal deficit is expected to remain at 2.5 percent of GDP in 2025, rather than widen further, despite the limited impact of revenue-enhancing measures.

e. **Tax reform.** The 2021 Harmonized Tax Law stipulates a 12 percent VAT rate on all taxable goods and services starting January 1, 2025. However, due to Indonesia's current economic and political climate, the proposal has faced criticism and resistance from various stakeholders. In response, the government has decided to limit implementation to luxury goods for now, viewing an expansion to non-luxury goods as unfeasible in the near term. The authorities will continue to monitor conditions and reassess the original plan as needed. The government is also considering expert advice to lower the current VAT registration turnover threshold and is holding internal discussions on the matter. Regarding AMRO's suggestion to introduce additional tax brackets between the top two income tiers, we agree that this could enhance the progressivity and fairness of the tax system. It may also serve as a populist measure, signaling support for lower-income groups. However, such a proposal requires comprehensive study and must weigh both political and economic considerations. Any amendment to the income tax law would also require parliamentary approval.

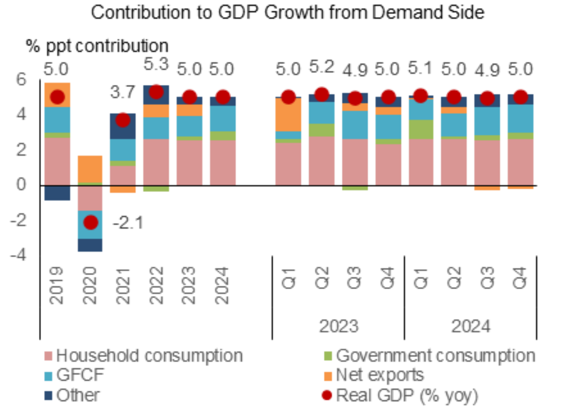
f. **Fiscal support for MSMEs.** The authorities informed that they are currently amending Government Regulation No. 55/2022 on income tax adjustments as part of the upcoming economic stimulus package. The amendment aims to safeguard MSME taxpayers amid emerging economic challenges.

Appendices

Appendix 1. Selected Figures for Major Economic Indicators

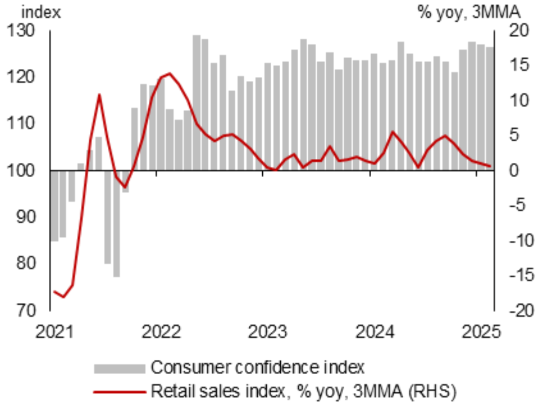
Figure 1.1. Real Sector

Resilient consumption, election-related spending and strengthened investment supported growth in 2024.



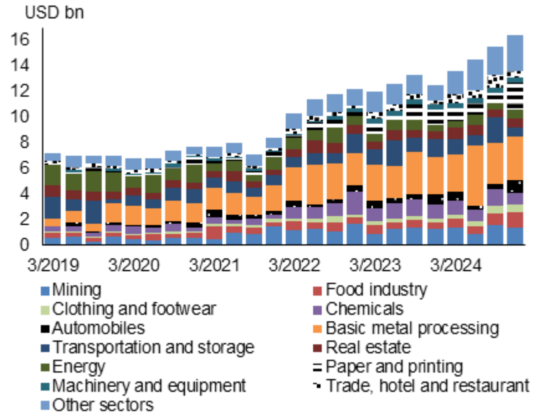
Source: Statistics Indonesia (BPS); CEIC; AMRO staff calculations

Consumption remained firm, backed by sustained consumer confidence.



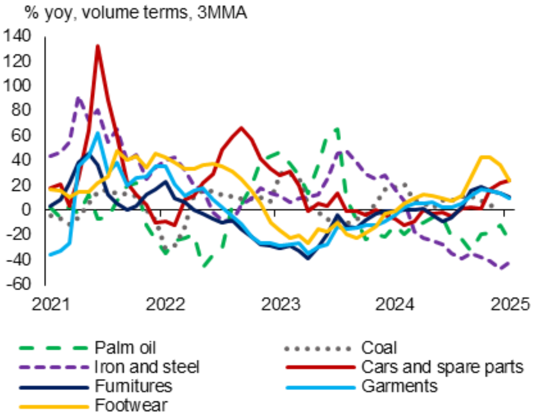
Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to February 2025.

FDI inflows to resource-based sectors continued to gain traction.



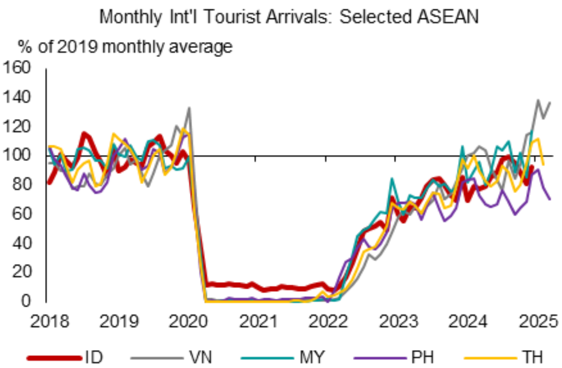
Source: Investment Ministry; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

Manufactured goods exports gradually recovered while commodity exports remained subdued.



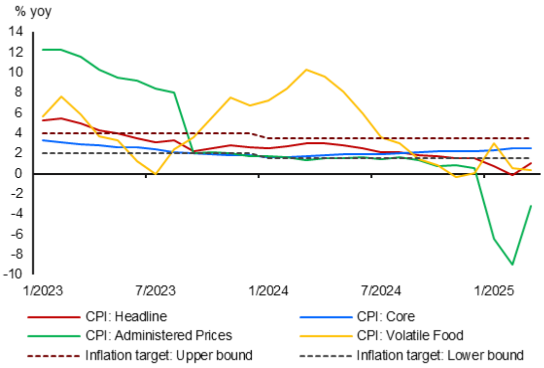
Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to January 2025.

Foreign arrivals continued to increase, approaching pre-pandemic levels.



Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025 for Vietnam and the Philippines, February 2025 for Thailand, and December 2024 for Indonesia and Malaysia.

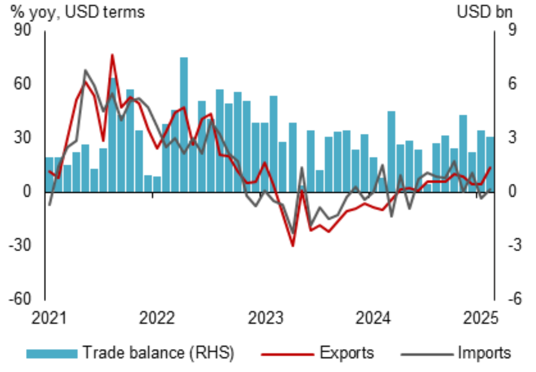
One-time electricity tariff discounts drove headline inflation down in early 2025; core inflation remained well anchored.



Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

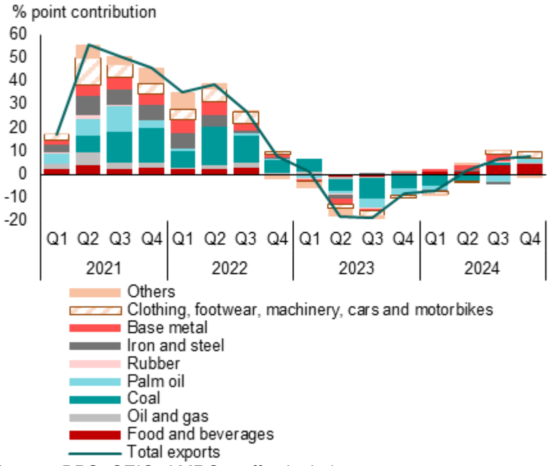
Figure 1.2. External Trade

Both exports and imports rebounded in value terms in 2024; trade surpluses were sustained.



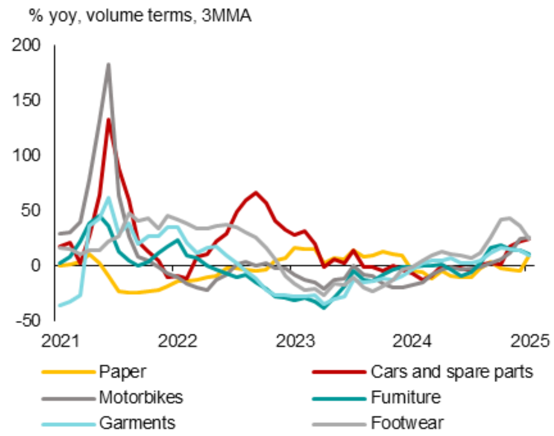
Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to February 2025.

The recovery of exports was supported by increased exports of food and beverages...



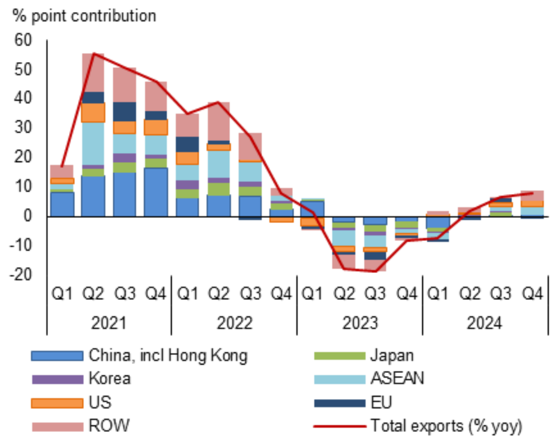
Source: BPS; CEIC; AMRO staff calculations

… and a recovery in manufactured goods exports...



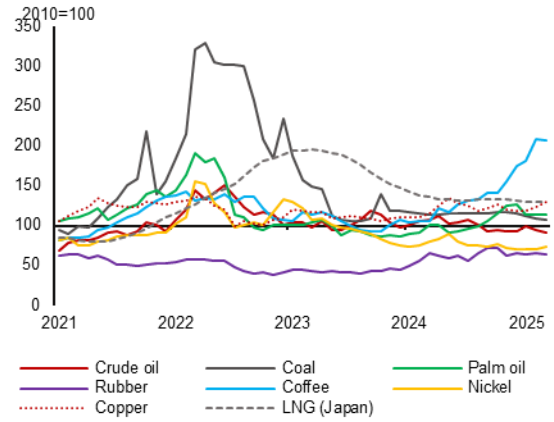
Source: BPS; CEIC; AMRO staff calculations
Note: Monthly data obtained up to January 2025.

… mainly to US, ASEAN and European markets.



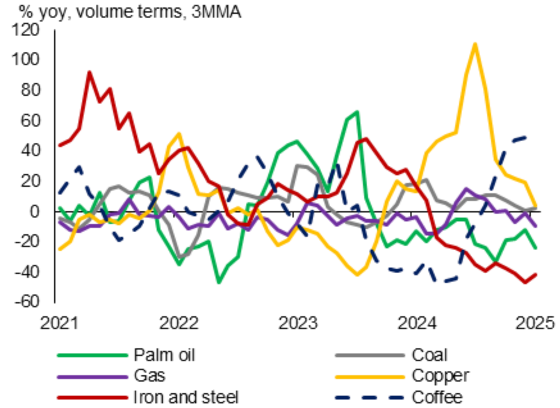
Source: BPS; CEIC; AMRO staff calculations

Commodity exports remained subdued despite improving prices of copper, coffee and palm oil…



Source: World Bank; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025. LNG stands for liquefied natural gas.

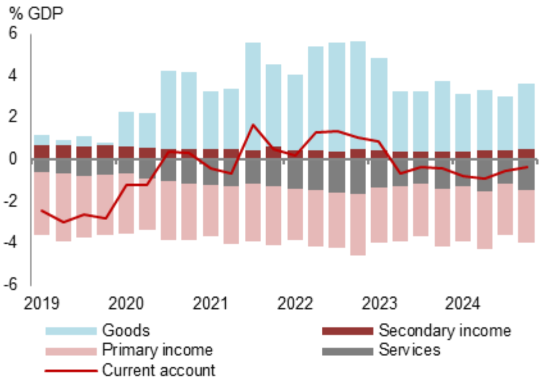
… and higher export volumes of copper and coffee.



Source: BPS; CEIC: AMRO staff calculations
Note: Monthly data obtained up to January 2025.

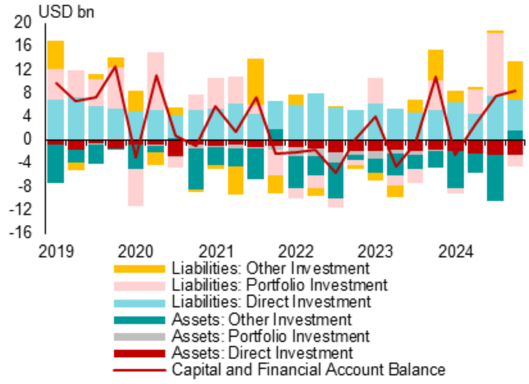
Figure 1.3. External Sector

Sustained trade surpluses helped contain current account deficits in 2024.



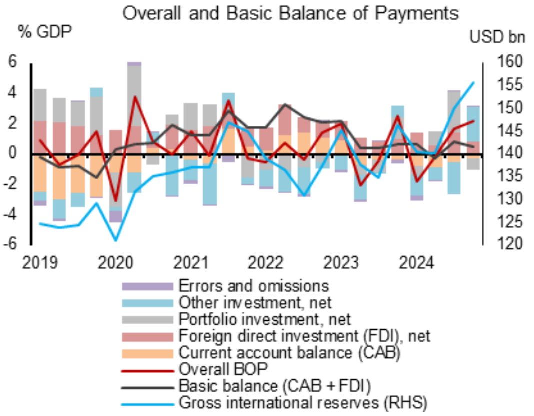
Source: BI; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

Resilient FDI and portfolio inflows supported the capital and financial accounts…



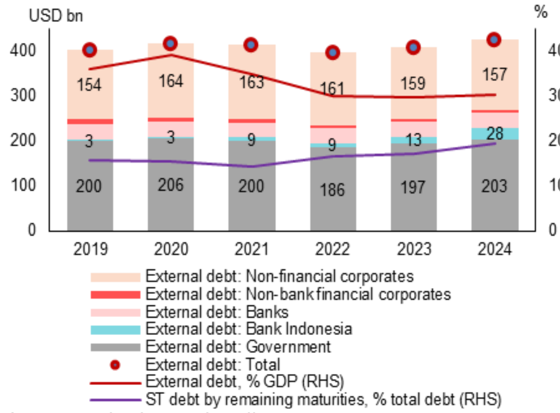
Source: BI; CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

… contributing to overall balance of payments surpluses and reserve accumulation in 2024.



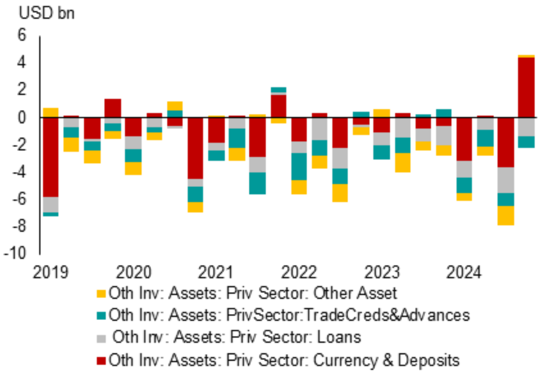
Source: BI; CEIC; AMRO staff calculations.
Note: Quarterly data obtained up to Q4 2024.

External debt rose in 2024 due to inflows to BI's short-term instruments and government borrowings.



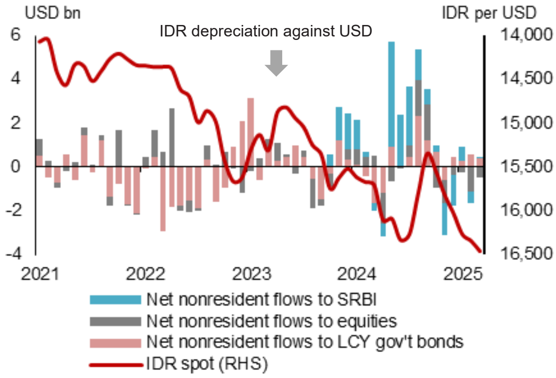
Source: BI; CEIC; AMRO staff calculations

While outflows related to residents acquiring assets overseas reversed in Q4 2024…



Source: Ministry of Finance; BI, CEIC; AMRO staff calculations
Note: Quarterly data obtained up to Q4 2024.

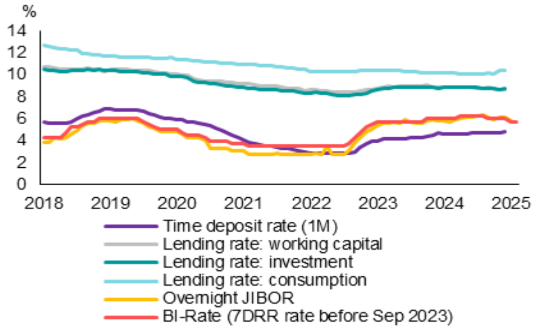
… domestic financial markets experienced outflows and downward pressures on the rupiah.



Source: BI; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

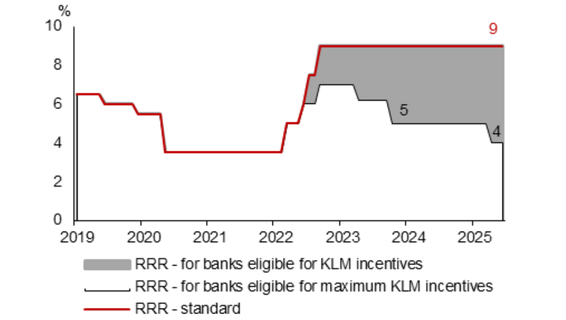
Figure 1.4. Monetary and Banking Sector

BI lowered the policy rate in early 2025 to support the economy…



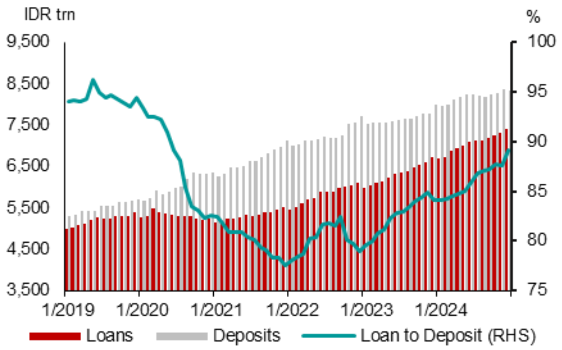
Source: BI; CEIC
Note: Monthly data is obtained up to February 2025 for the BI-Rate, up to January 2025 for overnight interbank (JIBOR) and time deposit rates, and up to December 2024 for lending rates.

… and increased RRR-related liquidity incentives in its KLM policy...



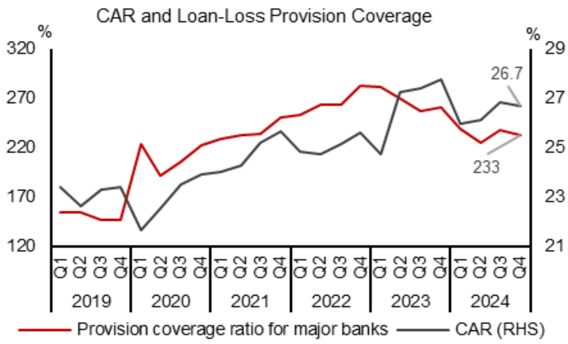
Source: BI; CEIC
Note: According to the KLM policy, effective October 2023, banks that meet all BI criteria for lending to priority sectors and MSMEs are allowed to maintain an RRR as low as 5 percent compared with the standard 9 percent, or enjoy RRR discounts up to 400 basis points. From June 2024, BI expanded KLM coverage from downstream industries (mining, coal, agriculture), housing and tourism, to include the creative economy, trade, green economy and other growth-driving sectors. Maximum RRR discounts will rise to 500 basis points from April 2025, with the additional liquidity expected to be channelled to public housing credit.

… to boost bank lending to the economy.



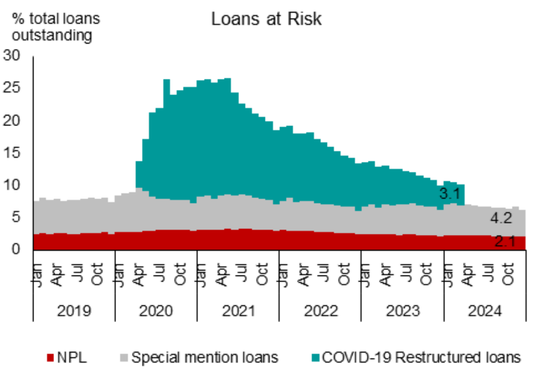
Source: Financial Services Authority (OJK); CEIC; AMRO staff calculations
Note: Monthly data obtained up to December 2024.

Banks maintained strong capital buffers while reducing loan-loss provision coverage…



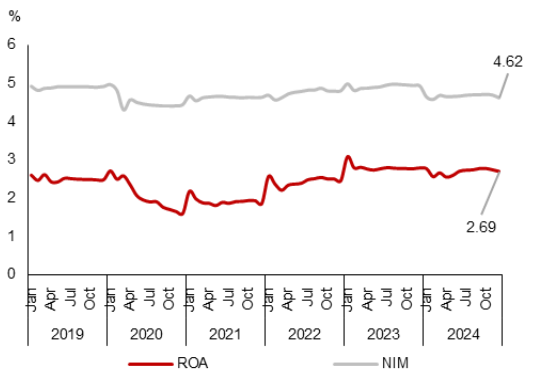
Source: BI; OJK; bank financial reports; Moody's Analytics; AMRO staff calculations.
Note: Loan-loss provision coverage is calculated using data on Bank Mandiri, BRI, BNI, BCA, Bank CIMB Niaga and Bank Danamon.

… as regulatory forbearance measures related to COVID-hit loans were phased out by March 2024.



Source: OJK; CEIC; AMRO staff calculations
Note: Data for COVID-19 restructured loans is obtained up to March 2024, whereas data on special mention loans and NPLs is obtained up to December 2024.

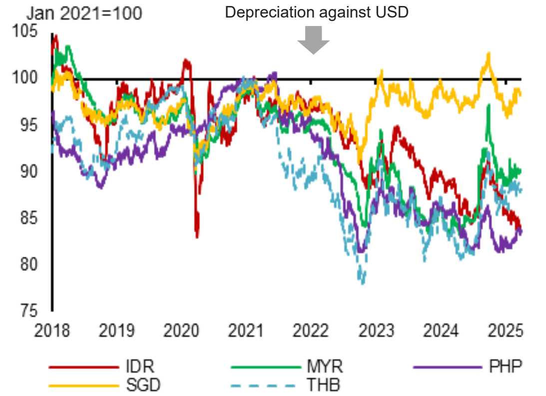
Strong loan growth, improved asset quality and higher noninterest income supported bank profits.



Source: OJK; CEIC; AMRO staff calculations
Note: Monthly data obtained up to December 2024. ROA stands for returns on assets and NIM stands for net interest margin.

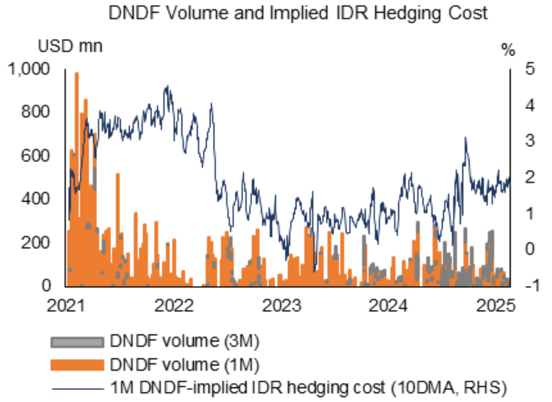
Figure 1.5. Forex and Financial Markets

Renewed global uncertainty post U.S. elections and domestic developments underscored increased rupiah volatility in early 2025.



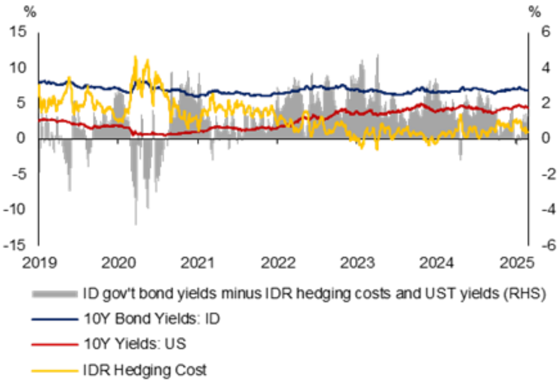
Source: CEIC; AMRO staff calculations
Note: Daily data obtained up to end-March 2025.

BI continued interventions in the domestic non-deliverable forward (DNDF) market to contain rupiah hedging costs …



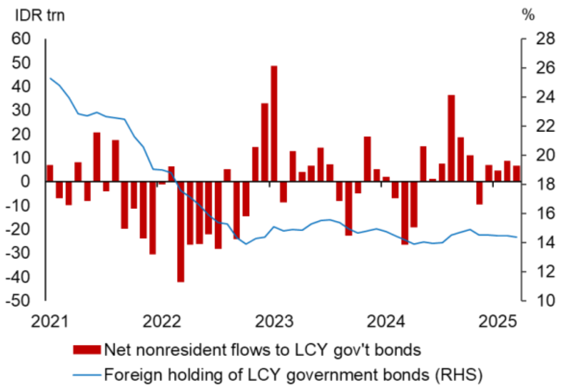
Source: Haver Analytics; BI; CEIC; AMRO staff calculations
Note: Daily data obtained up to end-February 2025.

… maintaining the attractiveness of rupiah-denominated government bonds…



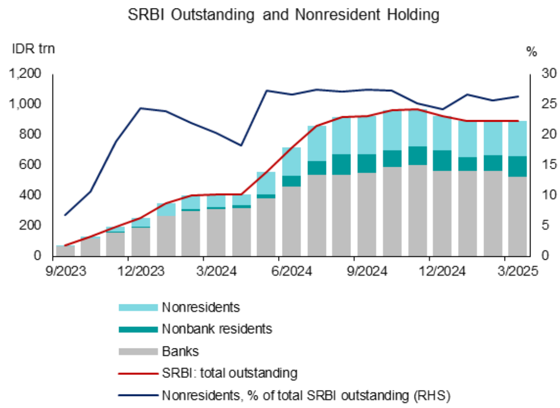
Source: Bloomberg; Ministry of Finance; CEIC; AMRO staff calculations
Note: Daily data obtained up to late February 2025. The rupiah hedging cost is calculated as the three-month offshore NDF-implied interest rate.

… which saw net inflows in most of 2024 and early 2025.



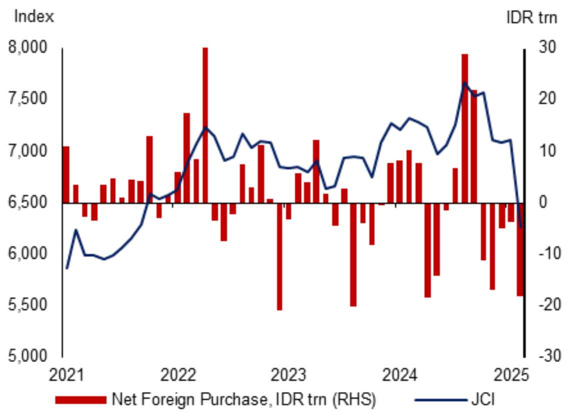
Source: BI; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

Nonresident outflows have been observed in SRBI markets…



Source: BI; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

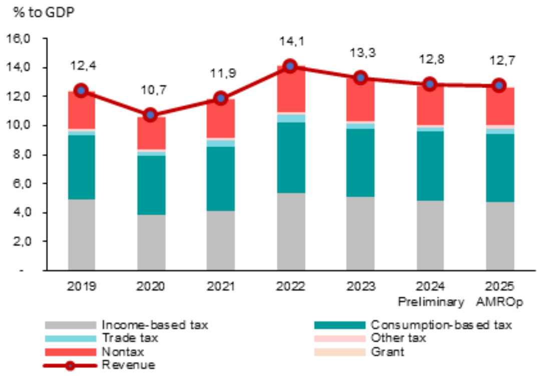
… and equity markets since Q4 2024.



Source: Jakarta Stock Exchange; CEIC; AMRO staff calculations
Note: Monthly data obtained up to February 2025.

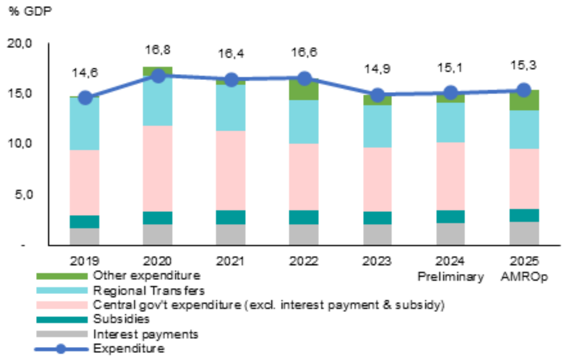
Figure 1.6. Fiscal Sector

Revenue to GDP moderated in 2024 and will likely remain low in 2025.



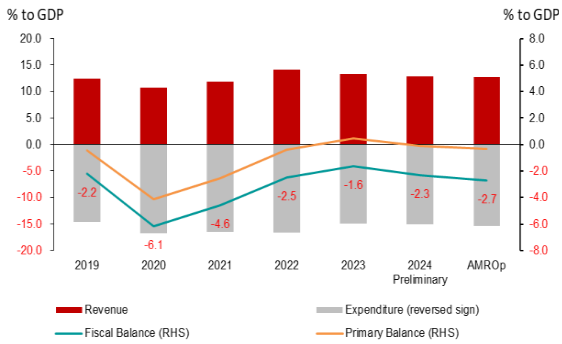
Source: Ministry of Finance; CEIC; AMRO staff calculations
Note: 2024 preliminary realization is data announced by the Ministry of Finance. AMROp stands for AMRO staff projections.

Expenditures are expected to rise to support new government priority agendas.



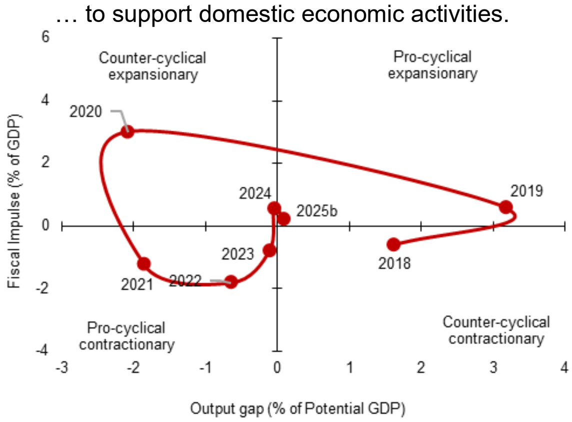
Source: Ministry of Finance; CEIC; AMRO staff calculations
Note: 2024 preliminary realization is data announced by the Ministry of Finance. AMROp stands for AMRO staff projections.

The fiscal deficit is hence expected to widen…



Source: Ministry of Finance; CEIC; AMRO staff projections
Note: 2024 preliminary realization is data announced by the Ministry of Finance. AMROp stands for AMRO staff projections.

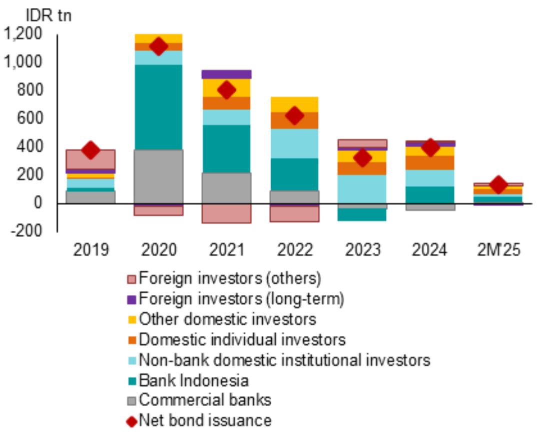
… to support domestic economic activities.



Source: Ministry of Finance; CEIC; AMRO staff calculations
Note: 2025b stands for 2025 Budget data announced by the Ministry of Finance

Net bond issuances in 2024 were absorbed by BI, nonbank domestic investors and nonresidents.

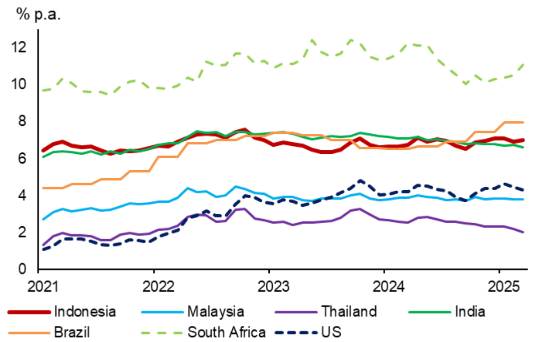
Net Bond Issuance Absorption by Investors



Source: Ministry of Finance; BI; CEIC; AMRO staff calculations

Indonesian government bond yields edged up at end-2024 but moderated in early 2025.

10y government bond yields



Source: National authorities; CEIC; AMRO staff calculations
Note: Monthly data obtained up to March 2025.

Appendix 2. Selected Economic Indicators for Indonesia

	2021	2022	2023	2024*	2025**	2026**
Real GDP (percentage change yoy)	3.7	5.3	5.0	5.0	5.0	5.1
Household consumption	2.0	4.9	4.8	4.9	5.0	5.1
Government consumption	4.2	-4.5	3.0	6.6	7.8	5.1
Gross fixed capital formation	3.8	3.9	3.8	4.6	5.6	6.5
Exports	18.0	16.3	1.3	6.5	4.3	3.6
Imports	24.9	14.7	-1.6	7.9	4.9	5.4
Balance of payments (percentage of GDP)						
Current account balance	0.3	1.0	-0.1	-0.6	-0.8	-1.3
Goods trade balance	3.7	4.8	3.4	2.9	2.7	2.2
Service trade balance	-1.2	-1.5	-1.3	-1.3	-1.2	-1.2
Primary income balance	-2.7	-2.7	-2.6	-2.6	-2.6	-2.7
Secondary income balance	0.5	0.4	0.4	0.4	0.4	0.3
Financial account balance	1.1	-0.7	0.7	1.2	1.2	1.4
Direct investment (net)	1.5	1.4	1.1	1.0	1.1	1.3
Portfolio investment (net)	0.4	-0.9	0.2	0.6	0.6	0.6
Other investment (net)	-0.9	-1.2	-0.5	-0.5	-0.5	-0.5
Overall balance	1.1	0.3	0.5	0.5	0.4	0.0
Central government (percentage of GDP)*						
Revenues and grants	11.8	13.5	13.3	12.8	12.7	12.8
Expenditure	16.4	15.8	14.9	15.1	15.4	15.5
Budget balance	-4.5	-2.4	-1.6	-2.3	-2.7	-2.7
Central government debt	40.7	39.7	39.2	39.8	40.7	41.1
Money and credit (percentage change yoy)						
Broad money	14.0	8.4	3.5	4.4	6.3	7.4
Private-sector credit	6.7	9.9	10.7	8.5	6.7	7.5
Memorandum items						
Headline inflation (yoy, end of period)	1.9	5.5	2.6	1.6	2.7	2.3
Headline inflation (yoy, period average)	1.6	4.2	3.7	2.3	2.2	2.7
BI Policy Rate	3.50	5.50	6.00	6.00	5.75	-
Exchange rate (IDR/USD, period avg)	14,308	14,850	15,237	15,855	-	-
Exchange rate (IDR/USD, end of year)	14,269	15,731	15,416	16,162	-	-
Gross foreign reserves (USD bn)	144.9	137.2	146.4	155.7	161.1	161.6
External debt (percentage of GDP)	34.9	30.1	29.8	30.4	29.1	27.8
Nominal GDP (USD bn)	1,187	1,319	1,371	1,396	1,496	1,604
Nominal GDP (IDR trn)	16,977	19,588	20,892	22,139	23,536	25,214

Source: BPS; BI; Ministry of Finance; CEIC; AMRO staff calculations
Note: */ Data for 2024 constitutes actual statistics except for the fiscal sector, which comes from AMRO staff estimates. **/ Data for 2025-2026 comes from AMRO staff projections except for the 2025 BI policy rate, which is the actual rate as of March 2025.

Appendix 3. Balance of Payments

	2020	2021	2022	2023	2024
Balance of Payments (USD mn)					
Current account	**-4,433**	**3,511**	**13,215**	**-2,042**	**-8,856**
Goods	28,301	43,806	62,672	46,269	39,926
Exports	163,402	232,835	292,538	257,681	261,813
Oil and gas	8,480	13,201	17,039	14,840	15,004
Non oil and gas	154,921	219,635	275,499	242,841	246,810
Imports	135,101	189,029	229,866	211,411	221,887
Oil and gas	13,867	26,166	41,817	34,575	34,654
Non oil and gas	121,234	162,864	188,049	176,654	187,232
Services	-9,755	-14,599	-19,957	-17,676	-18,667
Receipts	15,016	13,951	23,208	33,607	38,998
o/w travel	3,382	521	6,781	14,001	16,706
Payments	24,771	28,550	43,165	51,283	57,666
o/w travel	1,748	472	6,418	11,683	13,456
Primary income	-28,911	-31,961	-35,303	-36,015	-36,092
Receipts	5,222	6,739	7,530	7,906	10,009
Payments	-34,133	-38,699	-42,833	-43,920	-46,101
Secondary income	5,932	6,264	5,803	5,380	5,977
Receipts	10,624	10,804	13,938	15,264	16,848
Payments	-4,692	-4,540	-8,135	-9,884	-10,870
Capital account	**37**	**80**	**476**	**28**	**28**
Financial account; net borrowing (+) / net lending (-)	**7,885**	**12,492**	**-9,157**	**9,846**	**16,356**
Direct investment	14,142	17,286	18,067	14,417	14,509
Net acquisition of assets	-5,033	-3,927	-6,635	-7,126	-9,158
Net incurrence of liabilities	19,175	21,213	24,702	21,543	23,667
Portfolio investment	3,369	5,086	-11,631	2,208	8,221
Net acquisition of assets	-1,199	-1,778	-5,045	-2,897	-3,991
Net incurrence of liabilities	4,567	6,863	-6,585	5,104	12,212
Other investment	-9,645	-10,212	-15,642	-6,946	-6,665
Net Acquisition of assets	-11,908	-9,486	-15,884	-11,316	-15,908
Net incurrence of liabilities	2,264	-726	242	4,370	9,243
Net Errors and Omissions	-891	-2,622	-535	-1,531	-319
Overall Balance	2,597	13,461	3,999	6,301	7,210
Balance of Payments (as percent of GDP)					
Current account balance	-0.4	0.3	1.0	-0.1	-0.6
Trade balance (goods and services)	1.8	2.5	3.2	2.1	1.4
Services	-0.9	-1.2	-1.5	-1.3	-1.3
Receipts	1.4	1.2	1.8	2.5	2.8
o/w travel	0.3	0.0	0.5	1.0	1.2
Payments	2.3	2.4	3.3	3.7	4.1
o/w travel	0.2	0.0	0.5	0.9	1.0
Primary income	-2.7	-2.7	-2.7	-2.6	-2.6
Secondary income	0.6	0.5	0.4	0.4	0.4
Financial account balance	0.7	1.1	-0.7	0.7	1.2
Direct investment, net	1.3	1.5	1.4	1.1	1.0
Portfolio investment, net	0.3	0.4	-0.9	0.2	0.6
Other investment, net	-0.9	-0.9	-1.2	-0.5	-0.5
Net errors and omissions	-0.1	-0.2	0.0	-0.1	0.0
Overall balance	0.2	1.1	0.3	0.5	0.5
Memorandum items					
Reserves, in USD mn	135,897	144,905	137,233	146,384	155,719
Nominal GDP, in IDR trillion	15,443	16,977	19,588	20,892	22,139
Nominal GDP, in USD mn	1,059,055	1,186,510	1,319,101	1,371,169	1,396,300
Exchange rate, nat. curr. per US dollar, period average	14,582	14,308	14,850	15,237	15,855
Exchange rate, nat. curr. per US dollar, end-of-period	14,105	14,269	15,731	15,416	16,162
Real Effective Exchange Rate (BIS, 2005 = 100)	113.0	111.3	114.6	115.0	115.3

Source: BI; BPS; CEIC; AMRO staff calculations

Appendix 4. Central Government Budget Performance and Budget Financing

in IDR trillion, unless otherwise indicated	2019	2020	2021	2022	2023	2024
	Act	Act	Act	Act	Act	Prelim
Revenues	**1,961**	**1,648**	**2,011**	**2,636**	**2,784**	**2,842**
% yoy	*0.9*	*-16.0*	*22.1*	*31.1*	*5.6*	*2.1*
Tax revenues	1,546	1,285	1,548	2,035	2,154	2,233
% yoy	*1.8*	*-16.9*	*20.4*	*31.4*	*5.9*	*3.6*
Income tax	772	594	697	998	1,061	1,063
% yoy	*4.4*	*-23.1*	*17.3*	*43.3*	*6.3*	*0.1*
VAT	532	450	552	688	764	829
% yoy	*-1.1*	*-15.3*	*22.6*	*24.6*	*11.1*	*8.5*
Non-tax revenues	409	344	459	596	613	580
% yoy	*-0.1*	*-15.9*	*33.4*	*29.9*	*2.8*	*-5.4*
o/w: Non-tax revenues from natural resources	155	97	150	269	254	229
% yoy	*-14.2*	*-37.2*	*53.8*	*79.8*	*-5.4*	*-9.8*
Profits transferred from SOEs	81	66	31	41	82	86
% yoy	*79.2*	*-18.1*	*-53.8*	*33.1*	*102.1*	*5.3*
Expenditure	**2,309**	**2,595**	**2,786**	**3,096**	**3,121**	**3,350**
% yoy	*4.3*	*12.4*	*7.4*	*11.1*	*0.8*	*7.3*
Central government expenditure	1,496	1,833	2,001	2,280	2,240	2,487
% yoy	*2.8*	*22.5*	*9.2*	*14.0*	*-1.8*	*11.0*
Personnel	376	381	388	402	413	465
% yoy	*8.4*	*1.2*	*1.9*	*3.8*	*2.6*	*12.6*
Material	334	422	530	426	433	518
% yoy	*-3.8*	*26.3*	*25.5*	*-19.6*	*1.5*	*19.6*
Capital spending	178	191	240	241	303	353
% yoy	*-3.4*	*7.4*	*25.5*	*0.4*	*26.0*	*16.3*
Interest payment	276	314	344	386	440	488
% yoy	*6.8*	*14.0*	*9.4*	*12.5*	*13.9*	*11.0*
Social assistance	112	203	174	162	157	155
% yoy	*33.4*	*80.1*	*-14.2*	*-7.0*	*-3.0*	*-1.0*
Subsidies	202	196	242	253	270	292
Regional transfers	813	763	786	816	881	864
% yoy	*7.28*	*-6.20*	*3.04*	*3.89*	*7.99*	*-2.03*
Budget deficit (-)/surplus (+)	**-349**	**-948**	**-775**	**-460**	**-337**	**-508**
% of GDP	*-2.2*	*-6.1*	*-4.6*	*-2.4*	*-1.6*	*-2.3*
Budget financing	402	1,192	872	591	357	508
Financing surplus (+)/deficit (-)	53	245	97	131	19	45
Fiscal reserves (SAL) outstanding	213	388	338	479	459	308
Gross financing needs	**955**	**1,509**	**1,368**	**1,087**	**1,051**	**1,280**
Principal repayment	562	457	450	520	624	712
Interest payments	276	314	344	386	440	488
Primary deficit	73	634	432	74	-103	19
Investment financing	44	105	143	107	90	60
Gross bond issuance	**902**	**1,532**	**1,302**	**1,054**	**836**	**1,075**
Gross IDR bonds	**753**	**1,373**	**1,144**	**941**	**745**	**944**
Auctions	681	761	797	585	580	701
Average bond issuance per two weeks	*28*	*32*	*33*	*24*	*28*	*29*
Retail bonds	48	77	97	107	148	225
Private placement	24	535	250	248	18	18
o/w with central bank	*0*	*398*	*215*	*224*	*0*	*0*
Gross FCY bonds	**149**	**159**	**158**	**112**	**90**	**131**
Loan (gross)	**78**	**145**	**77**	**118**	**180**	**172**

Source: Ministry of Finance; CEIC; AMRO staff calculations
Note: */ 2024 budget realization data is preliminary.

Appendix 5. Financial Performance of Selected Infrastructure SOEs

Revenues (IDR trillion)	2018	2019	2020	2021	2022	2023
Waskita Karya	48.79	31.39	16.19	12.22	15.30	10.95
Wijaya Karya	31.16	27.21	16.54	17.81	21.48	22.53
Hutama Karya	26.75	26.39	21.64	20.48	24.08	26.93
Adhi Karya	15.66	15.31	10.83	11.53	13.55	20.07
Jasa Marga	36.97	26.35	13.70	15.17	12.44	13.95
Net Profit (IDR trillion)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Waskita Karya	4.62	1.03	(9.29)	(1.84)	(1.67)	(4.02)
Wijaya Karya	2.07	2.62	0.32	0.21	0.01	(7.82)
Hutama Karya	2.28	2.02	(2.06)	(2.41)	(0.45)	1.87
Adhi Karya	0.65	0.67	0.02	0.09	0.18	0.29
Jasa Marga	2.04	2.07	(0.04)	0.87	2.32	6.75
Debt-to-Equity Ratio (times)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Waskita Karya	3.31	3.97	7.82	5.70	5.90	7.24
Wijaya Karya	2.44	2.23	3.09	2.98	3.29	5.89
Hutama Karya	5.08	2.99	2.49	1.43	0.82	0.46
Adhi Karya	3.79	4.34	5.83	6.05	3.53	3.39
Jasa Marga	3.08	3.30	3.20	2.97	2.56	2.32
Current Ratio (times)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Waskita Karya	1.18	0.99	0.59	1.56	1.58	0.99
Wijaya Karya	1.62	1.39	1.09	1.01	1.10	0.80
Hutama Karya	0.87	1.01	0.62	1.06	2.05	2.27
Adhi Karya	1.34	1.23	1.11	1.02	1.20	1.14
Jasa Marga	0.37	0.28	0.72	0.86	1.02	0.35
Interest Coverage Ratio (times)	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Waskita Karya	3.25	1.37	(0.85)	0.78	0.71	0.15
Wijaya Karya	3.43	4.15	1.25	1.17	1.13	(1.42)
Hutama Karya	9.17	3.68	0.25	0.29	0.90	2.05
Adhi Karya	2.24	2.22	1.05	1.11	1.68	2.03
Jasa Marga	2.75	2.27	1.19	1.46	1.96	3.21

Source: SOE financial statements; AMRO staff calculations

Appendix 6. Debt Sustainability Analysis[121]

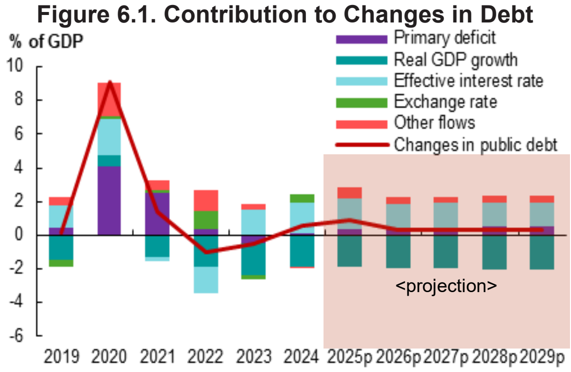
Indonesia's government debt-to-GDP ratio and gross financing needs (GFNs) are projected to increase over the medium term. According to AMRO staff's baseline scenario, the debt-to-GDP ratio is projected to reach 42.0 percent of GDP by 2029, yet remain well below the fiscal rule of 60 percent[122] (Table 6.1). This increase is driven by larger primary deficits and higher borrowing costs[123] offsetting the anticipated robust economic growth over the medium term (Figure 6.1). The projected average economic growth rate for 2025-2029 is 5.1 percent, which broadly aligns with the potential growth path. The effective interest rate is expected to decline gradually, assuming the policy rate cuts pass through to sovereign bond yields. The primary deficit is projected to climb due to higher spending in the medium term, led by an expansion of new programs introduced in 2025. Meanwhile, medium-term revenue collection is projected to fall short of the government's target from the VAT rate hike in 2025, as the higher VAT rate only effectively applies to luxury goods and services, deviating from the initial government plan in setting the MTFF. Although GFNs are still lower than the peak recorded during the pandemic, these needs are forecast to rise from 5.5 percent of GDP in 2024 to 7.6 percent by 2029 (Figure 6.2). This increase is primarily due to the amortization of government bonds with short tenors privately placed at BI during 2020-2022 to finance pandemic-related spending.[124]

Table 6.1. Macroeconomic and Fiscal Indicators

	2019	2020	2021	2022	2023	2024	2025p	2026p	2027p	2028p	2029p
Macroeconomic indicators (%)											
Real GDP growth	5.0	-2.1	3.7	5.3	5.0	5.0	5.0	5.1	5.2	5.2	5.2
GDP deflator	1.6	-0.4	6.0	9.6	1.5	0.9	1.7	2.0	2.1	2.2	2.2
Effective interest rate	6.2	6.6	5.7	5.6	5.7	6.0	6.3	6.1	6.1	6.0	6.0
Fiscal Indicators (% GDP)											
Revenue	12.4	10.7	11.8	13.5	13.3	12.8	12.7	12.7	12.7	12.8	13.0
Expenditure	14.6	16.8	16.4	15.8	14.9	15.1	15.3	15.3	15.4	15.6	15.8
Fiscal Balance	-2.2	-6.1	-4.5	-2.3	-1.6	-2.3	-2.7	-2.7	-2.7	-2.8	-2.9
Primary Balance	-0.4	-4.1	-2.5	-0.3	0.5	-0.1	-0.3	-0.3	-0.4	-0.5	-0.6
Public debt	30.2	39.4	40.7	39.7	39.2	39.8	40.7	41.1	41.4	41.7	42.0
Gross financing needs	5.8	9.1	7.9	5.0	4.6	5.5	6.2	6.8	7.2	7.0	7.6

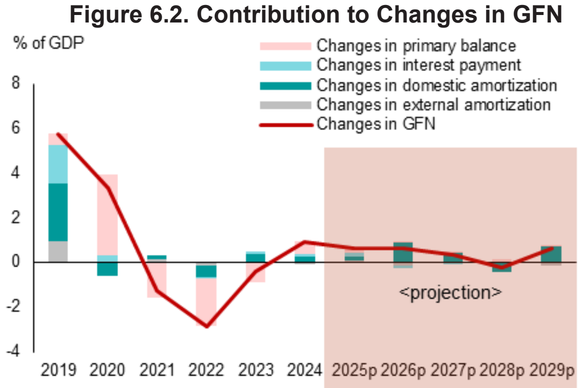
Source: BI; BPS; IMOF; CEIC; AMRO staff projection

Figure 6.1. Contribution to Changes in Debt



Source: Ministry of Finance; AMRO staff projections
Note: Other debt-creating flows consist mainly of investment financing and excess budget financing (SiLPA) that is accumulated in fiscal reserves, netting out fiscal reserve (SAL) usage and proceeds from SOE privatization and other state asset sales

Figure 6.2. Contribution to Changes in GFN



Source: Ministry of Finance; AMRO staff projections

[121] Prepared by Ginanjar Wibowo, Economist.
[122] According to Law 17/2003, concerning State Finances, the threshold for government debt is set at 60 percent of GDP. Meanwhile, according to the IMF's benchmark, the threshold for emerging economies is 70 percent of GDP.
[123] Although interest payments have moderated from their pandemic peak, the burden remains elevated and higher than the pre-pandemic levels.
[124] Those bonds start to mature in 2025 and are expected to peak in 2029. That said, the planned debt switch between BI and the government for bonds maturing in 2025 is expected to help alleviate GFNs in 2025.

The standard Debt Sustainability Analysis (DSA) results indicate a moderate overall risk to public debt sustainability. The government debt-to-GDP ratio and GFNs are projected to stay well below the indicative benchmarks of 70 percent (Figure 6.3) and 15 percent of GDP (Figure 6.4), respectively, across all scenarios over the next five years. Several improvements in the government's debt profile have reduced vulnerabilities to future shocks (Figure 6.5, Table 6.2). In particular, the share of debt held by nonresidents and foreign currency-denominated debt has declined steadily from the pre-pandemic peak, mitigating exposure to exchange rate fluctuations and elevated U.S. dollar borrowing costs. Although the proportion of short-term debt in 2024 increased, it is still low and well below the threshold. Additionally, the market perception of sovereign risk remains low, as reflected in the declining Emerging Markets Bond Index (EMBI). The external financing requirement is also still far below the threshold. Considering the government's guarantee on infrastructure related to SOEs are expected to increase while their financial health still requires improvement, it is advisable for the government to monitor them closely to prevent the materialization of contingent liabilities.[125]

Figure 6.3. Stress Test for Government Debt

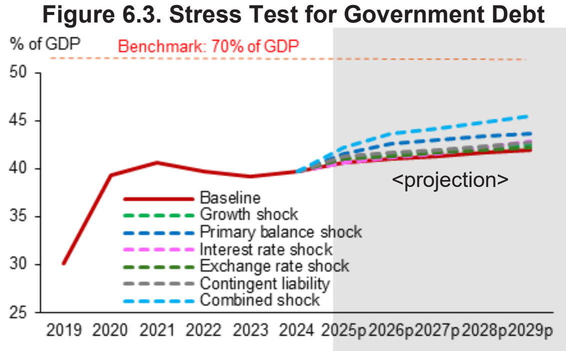
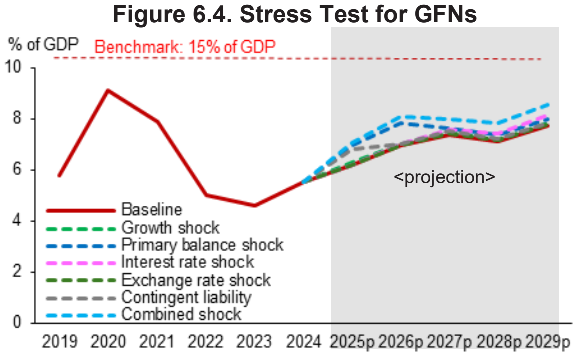


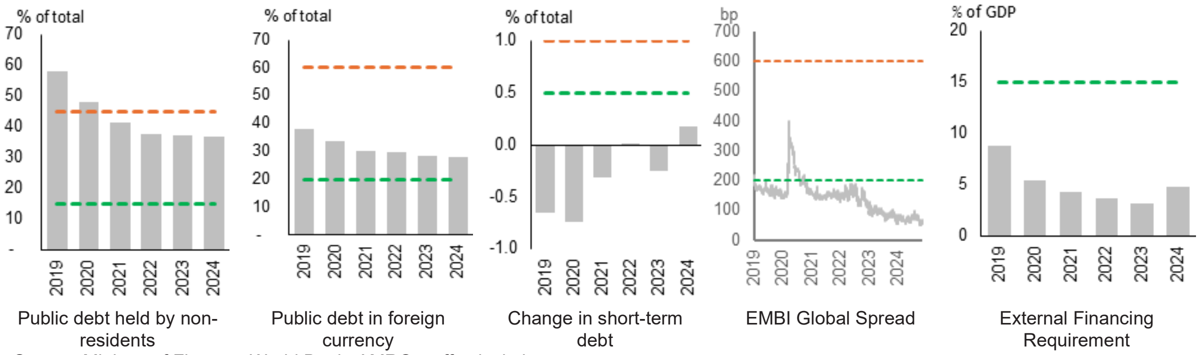
Figure 6.4. Stress Test for GFNs



Source: Ministry of Finance; AMRO staff calculation

Note: The scenarios for the stress test are as follows: 1) Real GDP growth shock: one standard deviation, or a -0,48 percentage point shock in 2025 and 2026; 2) Primary balance shock: one standard deviation, or a -0.8 percentage point shock in 2025 and 2026; 3) Interest rate shock: a +1.5 percentage point shock in 2025; 4) Exchange rate shock: a one-time +5 percentage point shock in 2025; 5) Contingent liability shock: a one-time shock of 3 percentage points of GDP in 2025; and 6) Combined shock: a combination of growth (half size), primary balance (half size), interest rate, and exchange rate shocks. The benchmarks used in this stress test are the IMF's benchmarks for emerging economies, which are 70 percent of GDP for the government debt and 15 percent of GDP for the GFN.

Figure 6.5. Debt Profile Vulnerabilities



Source: Ministry of Finance; World Bank; AMRO staff calculation

Note: 1) – – – Lower early warning (50 percent of benchmark), – – – upper early warning (75 percent of benchmark); 2) Short-term debt is based on the original maturity; 3) External financing requirements = current account deficit + amortization of public external debt + amortization of private external debt.

[125] The government's assessment on the fiscal risks related to contingency liabilities is incorporated in the annual budget proposal document. For example, please see chapter 6.2.3 in the Financial Notes of 2025 Budget (in Bahasa).

Table 6.2. Heatmap of Public Debt Sustainability

		2019	2020	2021	2022	2023	2024	2025p	2026p	2027p	2028p	2029p
Public Debt												
Gross Financing Needs												
Debt Profile	Public Debt Held by Non-residents											
	Public Debt in Foreign Currency											
	Change in Short-term Debt											
	Market Perception of Soverign Risk											

Source: AMRO staff projection
Note: For Public Debt and Gross Financing Needs, the cell is highlighted in green if the benchmark is not exceeded under any shock or the baseline, yellow if exceeded under a specific shock but not the baseline, and red if 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 lies between the lower and upper early warning benchmarks.

Appendix 7. Climate Change Policy Clipboard[126]

<table>
<tr><th>Item</th><th>Sub-item</th><th>Note</th></tr>
<tr><td rowspan="3">Nationally Determined Contribution (Enhanced NDC, Sep 2022)

The government is set to submit its second NDC in early 2025, which will be implemented throughout 2030-2035 and align with the 2025-2045 National Long-term Development Plan.</td><td>Emission reduction target</td><td>• 31.89% (unconditional) of business-as-usual (BAU) scenario by 2030
• 43.20% (conditional on international support) of BAU scenario by 2030</td></tr>
<tr><td>Emission reduction target by sector</td><td><table>
<tr><td rowspan="2">(Unit: ton of CO_2e or Mt-CO_2e[127])</td><td rowspan="2">2010</td><td colspan="3">2030</td></tr>
<tr><td>BAU</td><td>Unconditional</td><td>Conditional</td></tr>
<tr><td>Forestry and other land uses</td><td>647</td><td>714</td><td>214</td><td>-15</td></tr>
<tr><td>Energy</td><td>453</td><td>1,669</td><td>1,311</td><td>1,223</td></tr>
<tr><td>Agriculture</td><td>111</td><td>120</td><td>110</td><td>108</td></tr>
<tr><td>Waste</td><td>88</td><td>296</td><td>256</td><td>253</td></tr>
<tr><td>Industrial processes and product use</td><td>36</td><td>70</td><td>63</td><td>61</td></tr>
<tr><td>Total</td><td>1,335</td><td>2,868</td><td>1,954</td><td>1,630</td></tr>
</table></td></tr>
<tr><td>Energy mix target</td><td><table>
<tr><td></td><td>2025</td><td>2050</td></tr>
<tr><td>New and renewable energy</td><td>at least 17-19%</td><td>at least 31%</td></tr>
<tr><td>Oil</td><td>less than 25%</td><td>less than 20%</td></tr>
<tr><td>Coal</td><td>minimum 30%</td><td>minimum 25%</td></tr>
<tr><td>Gas</td><td>minimum 22%</td><td>minimum 24%</td></tr>
</table></td></tr>
<tr><td>Long-term commitments</td><td></td><td>• Long-term Strategy for Low Carbon and Climate Resilience 2050 (LTS-LCCR) sets the target of reaching peak GHG emissions in 2030, with a net sink in forestry and land uses, followed by rapid progress toward net-zero emissions in 2060 or sooner, during which coal-fired power plants (CFPPs) will be retired naturally.
• Presidential Regulation 112/2022 lays the groundwork for CFPPs to be retired earlier than their natural lifetime. It clearly instructs the Ministry of Energy and Mineral Resources to produce an early retirement road map, limiting all operating CFPPs up to 2050 while considering renewable energy to fill the void.
• The President said Indonesia would stop using fossil fuels in the next 15 years, by 2040</td></tr>
<tr><td>Energy transition initiatives</td><td></td><td>• Renewable energy: geothermal, hydro, solar, wind and biomass power.
• Electric vehicle (EV) adoption: target of 13 million electric two-wheelers and 2.2 million electric cars by 2030. Clean (biodiesel) mandate: mandatory biodiesel blending policy had increased the blend from 35% (B35) to 40% (B40) as of January 1, 2025, and is set to increase that blend to 50% (B50) next year.</td></tr>
<tr><td rowspan="5">Financing</td><td>Financing needs</td><td>• Indonesia needs at least IDR4,002 trillion (USD281 billion) cumulatively from 2018-2030, or IDR308 trillion annually, for mitigation actions so as to achieve the NDC target in 2030.
  ○ The government allocates around 3.9% of the State Budget, or IDR93.8 trillion annually, to address climate change (Oct 2023).
• Indonesia needs more than USD1,000 billion to achieve net-zero emissions by 2060 or earlier.</td></tr>
<tr><td rowspan="4">Available sources</td><td>[Government budget]
• The Ministry of Finance implements Climate Budget Tagging at national and regional levels to determine the budget's contribution to climate change issues.
• Annual government expenditure on climate change averaged IDR74.6 trillion between 2018 and 2023, accounting for 3.1% of total expenditure, slightly below the government's committed allocation of 3.9%.</td></tr>
<tr><td>[International support]
• Between 2016 and 2019, Indonesia received financial support of USD1.57 billion based on bilateral agreements, and USD1.53 billion based on multilateral agreements.</td></tr>
<tr><td>[Climate funds]
• Global Environment Facility (GEF): focuses on projects related to biodiversity, climate change and land degradation.
• Green Climate Fund (GCF): operates within the United Nations Framework Convention on Climate Change.
• Climate Investment Funds (CIF): allocates funds to energy and forestry sectors.
• Just Energy Transition Partnership for Indonesia: established on the sidelines of the G20 Summit in Bali, Indonesia, in 2022 between Indonesia and members of the International Partners Group (IPG), which included the governments of Japan and the U.S., focusing on renewable energy.</td></tr>
<tr><td>[Green bonds/sukuk]
• The government has issued sovereign green sukuk in the global market since 2018, and retail green sukuk in the domestic market since 2019.
• The private sector has issued project-based corporate green sukuk since 2022.</td></tr>
</table>

[126] This appendix was prepared by Thai Yangsingkham, Associate.
[127] Mt-CO2e: Metric tons of carbon dioxide equivalent.

Enabling framework for climate change financing	Taxonomy	• The Financial Services Authority (OJK) launched its first green taxonomy in early 2022, known as Indonesia Green Taxonomy Edition 1.0, to guide financial institutions on how to identify and classify activities that can be considered green. • OJK then updated its approach of Indonesia Green Taxonomy with the newly launched Indonesian Taxonomy for Sustainable Finance in February 2024 to acknowledge and accommodate the financing of transition activities which aligned with decarbonization goals.
Carbon pricing	Carbon tax	• The 2021 Harmonized Tax Law includes a carbon tax alongside mandatory emission trading under a cap-and-tax scheme, with a minimum tariff of IDR30,000 per Mt-CO_2e. Implementation was scheduled for April 2022 but has been postponed. • To prepare for the carbon tax, the government is drafting regulations on an implementation road map and carbon tariff imposition, which need parliamentary approval and consultation, respectively.
	Carbon trading	Under the cap-and-tax scheme, the government will first set a cap on the emissions of each emitter, then impose a tax when an emitter gives off more than allowed. It will offer a tax cut if an emitter buys carbon market allowances from another emitter's unused allowances or uses carbon offset certificates earned when the emitter invests in voluntary emission reduction projects. As carbon tax has not taken effect yet, an emitter who gives off more than allowed must buy carbon market allowances or earn carbon offset certificates to offset excessive emissions. Primary market • Mandatory carbon trading was launched in February 2023 among 99 (large) CFPPs, which accounted for 86% of national CFPP capacity. • The government decides the emission cap and allocates emission allowances, which are equivalent to 100% of the emission cap in the first year. CFPPs whose emissions exceed the cap can buy emission allowances from others with emissions below the cap, or use offset measures to achieve compliance. • As the carbon tax has yet to be implemented, to penalize noncompliance, the government will lower emission allowances given to CFPPs that exceed the emission cap but have not bought emission allowance offsets, to 75% of the emission cap from the second year onwards. • Mandatory carbon trading is expected to gradually expand to other sectors, depending on sector readiness. Secondary market • Carbon units that can be traded on the Indonesia Carbon Exchange are carbon credits (SPE-GRK) and emission allowances (PTBAE-PU). • Carbon units to be traded on the Indonesia Carbon Exchange must be registered with the National Registry under the Ministry of Environment and Forestry, and the Indonesia Carbon Exchange prior to trading. • Carbon trading through the Indonesia Carbon Exchange is under OJK supervision. • Voluntary carbon trading started in September 2023. As of February 2025, there were 110 registered participants with total trading volume of about 1.5 million tCO_2e and total trading value of IDR77.2 billion. Trading participants are renewable energy companies (suppliers/sellers), travel companies (airlines), banks, and nonbank financial institutions such as securities companies (buyers). Buying carbon credit is one way for these companies to achieve their commitment to reducing emissions and fulfilling environmental, social and governance (ESG) goals in line with thresholds provided by relevant ministries. To cut emissions in line with the government's threshold, sectors that are required to meet the NDC target get allowances to trade emissions.
Potential opportunities		• The Energy Transition Mechanism, which consists of phasing out or down CFPPs, for example, via carbon capture and storage, and investing in renewable energy and transmission • Manufacturing of EVs and parts

Source: OJK; Ministry of Finance; Indonesia Carbon Exchange; other sources

Annexes: Selected Issues

Annex 1. Medium-term Fiscal Framework[128]

Indonesia's government aims to achieve an ambitious economic growth target while maintaining fiscal consolidation over the medium term. Fresh initiatives introduced under the new administration poses challenges to achieving the target of a medium-term fiscal framework that was set by the government in 2024. This selected issue outlines policy reforms that can be implemented to enhance fiscal sustainability over the medium term.

Original Government Medium-term Fiscal Framework

1. As part of the 2025 budget process, the former government had formulated a Medium-term Fiscal Framework (MTFF) for 2025-2029 that targets gradual fiscal consolidation.[129] Under the MTFF, which was proposed to parliament in May 2024, the government aims for economic growth in the range of 5.8 percent to 6.6 percent in 2029.[130] It also aims to maintain the fiscal balance, with the fiscal deficit targeted to decline gradually from 2.5 percent of GDP in 2025 to between 2.1-2.3 percent of GDP by 2029. The manufacturing sector is expected to serve as the principal engine of economic growth in the medium term, particularly through initiatives aimed at enhancing downstream industries.

2. In terms of revenue, the government projected revenue to reach 12.7-13.7 percent of GDP by 2029, primarily through improved tax collection. The government estimates 2025 revenue at 12.4 percent of GDP. It expects that the implementation of a Core Tax Administration System (CTAS) from 2025 will reduce administrative costs for tax officers and increase taxpayer compliance, resulting in more tax revenue. A robust economic recovery fueled by strong domestic consumption is anticipated to contribute to rising VAT revenues as well. The government also anticipates the introduction of excise taxes on sweetened beverages and plastic usage to provide slightly higher revenue in the medium term.[131] Conversely, the ratio of the non-tax revenue to GDP will remain stable at 2.1- 2.2 percent of GDP by 2029, according to government forecasts, similar to the projected 2.1 percent for 2025.

3. On the expenditure front, the government targets spending to reach between 14.8 percent and 16.0 percent of GDP by 2029. The government's 2025 budget allocation amounts to 14.9 percent of GDP, higher than the 2024 budget outturn.[132] This increase in the expenditure-to-GDP ratio over the medium term is largely attributed to rising central government expenditures, while the regional transfers-to-GDP ratio is expected to remain relatively stable. The growing central government expenditure aligns with the government's commitment to enhancing human capital development and addressing poverty and income inequality.

[128] Prepared by Ginanjar Wibowo, Economist, and Kittiya Manivong, Associate.
[129] The MTFF is included in the annual budget proposal submitted by the central government for discussion with Parliament which approved the 2025 budget in September 2024.
[130] In contrast, the new administration, which took office in October 2024, is targeting to increase economic growth to 8.0 percent by 2029. (Source: Presidential Regulation 12/2025 dated February 10, 2025, concerning the 2025-2029 National Medium Term Development Plan).
[131] The government originally plans to introduce a new excise tax on sweetened beverages by mid-2025, but now is delayed. However, excise tax on plastic use remains under discussion and has no implementation timeline yet. The anticipated revenue impact from the sweetened beverage tax is expected to be limited, as the government plans to impose a relatively low tariff (the tariff that is still to be decided.
[132] Although the government has consistently formulated the MTFF as a reference for budget preparation, the actual budget outturn often deviated from the last medium-term targets. The government need to ensure better linkages between the annual budget with the medium-term fiscal targets to enhance budget consistency.

Box A1.1. The Core-Tax Administration System (CTAS) in Indonesia

Indonesian tax administration entered a new phase with the start of a Core Tax Administration System (CTAS) in January 2025. The CTAS has significantly transformed tax administration by integrating multiple business processes into a single, unified online platform. A total of 21 processes have been redesigned and incorporated into the CTAS, including taxpayer registration, payment, returns, audits, investigations, collection, and education services. It is expected to reduce taxpayer compliance costs by minimizing fragmented paperwork and enabling taxpayers to efficiently monitor their tax transactions. Additionally, it facilitates access to online tax services, allowing taxpayers to fulfill their obligations without visiting a tax office.

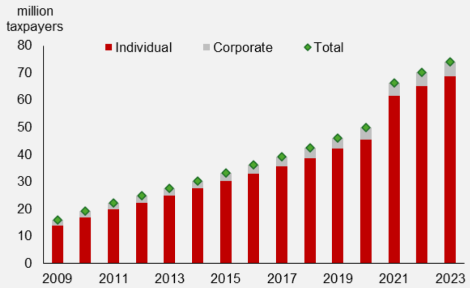
Table A1.1.1. Tax Services Provided in the CTAS

Type of Tax Services	Description
Administration	Covers taxpayer registration, profile updates, tax obligation notifications, tax payment, and information on administrative service products.
General Inquiries	Addresses inquiries from taxpayers and non-taxpayers, categorized into consultation, in which the helpdesk or contact center will provide information; affirmation, requiring a written explanation; and escalation, requiring a response from the relevant technical directorate.
Complaints, Suggestions and Appreciation	Handles taxpayer and non-taxpayer submissions, classified as tax service complaints, code of ethics and employee discipline complaints, tax crime complaints, suggestions, and appreciation.
Education	Enhances taxpayer knowledge, awareness, and voluntary compliance by providing information and guidance on tax rights and obligations through educational classes conducted by tax advisors and e-learning facilities.

Source: Ministry of Finance; AMRO staff compilation

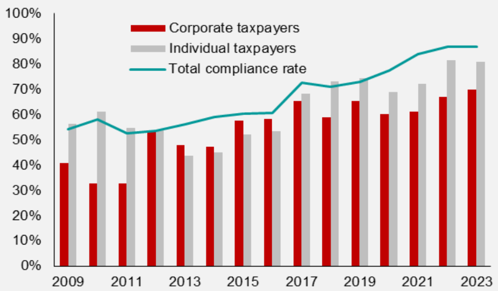
The first critical step of implementing the CTAS is the integration of personal tax identification numbers with national identification numbers. The 15-digit personal tax identification number previously issued by tax authorities has been replaced with a 16-digit national identification number issued and administered by the Ministry of Home Affairs. Consequently, individuals who meet tax administration criteria[133] are automatically registered as active taxpayers. This integration enhances taxpayer profiling by linking financial transactions, such as banking activities, online transactions and e-wallets, and asset purchases, to national identification numbers. The availability of more comprehensive taxpayer data is expected to expand the income tax base and improve tax collection.

Figure A1.1.1. Number of Registered Taxpayers



Source: Ministry of Finance; AMRO staff calculation

Figure A1.1.2. The Taxpayers' Compliance Rate



Source: Ministry of Finance; AMRO staff calculation

The inclusion of more people, particularly those in the informal sector, within the tax system is crucial to optimize revenue mobilization. Informal employment in Indonesia accounted for 57.9 percent of total employment as of August 2024, according to the National Statistics Agency. Although the number of registered individual taxpayers grew from 13.9 million in 2009 to 68.8 million in 2023, the 68.8 million represented only 36 percent of the total productive-age population (15-64 years) of 192.7 million. Furthermore, among the 68.8 million registered taxpayers, only 28 percent are required to file tax returns, while the remainder are exempt due to factors such as income below the taxable threshold, unemployment, or inactive businesses. Although non-compliant taxpayers are subject to financial penalties, the tax filing compliance rate in 2023 stood at 80.7 percent for personal income tax and 69.8 percent for corporate income tax, both lower than the OECD averages of 91.6 percent and 80.6 percent, respectively.

[133] Individuals earning less than IDR54 million annually are exempt from income tax. Married taxpayers and those with up to three dependent children qualify for a higher exemption threshold. Before Law No. 7/2021 (Tax Harmonization Law) was enacted, the income tax exemption threshold was significantly lower at IDR15.84 million.

4. On the expenditure front, the government targets spending to reach between 14.8 percent and 16.0 percent of GDP by 2029. The government's 2025 budget allocation amounts to 14.9 percent of GDP, higher than the 2024 budget outturn.[134] This increase in the expenditure-to-GDP ratio over the medium term is largely attributed to rising central government expenditures, while the regional transfers-to-GDP ratio is expected to remain relatively stable. The growing central government expenditure aligns with the government's commitment to enhancing human capital development and addressing poverty and income inequality.

AMRO's Assessment of the MTFF

5. Achieving the government's medium-term fiscal targets poses significant challenges. AMRO staff estimated that the fiscal deficit over the medium term may exceed the government's target. This is primarily due to lower than targeted revenue mobilization, coupled with projected expenditures that will surpass the initial medium-term target driven by the expansion of several new programs, which the new administration plans to begin in 2025. In formulating the 2025 budget,[135] the government originally wanted to implement a value-added tax (VAT) rate increase from 11 to 12 percent across all goods and services, similar to the increase in 2022. However, on December 31, 2024, the government decided that the VAT rate increase would effectively apply to only luxury goods, while the effective rate for non-luxury goods and services would remain at 11 percent.[136] This change in policy is expected to result in lower than anticipated VAT revenue collection in 2025. Over the medium term, the mobilization of VAT revenue will also be challenging as there is no definitive timeline to normalize the 12 percent VAT rate to include non-luxury goods and services. Additionally, the broad scope of VAT exemptions and relatively high VAT registration threshold may limit the government's ability to mobilize revenue effectively.

Box A1.2. Value-added Tax in Indonesia

Value-added tax comprises the second-highest share of tax revenue in Indonesia, accounting for 35.5 percent of tax revenue (on average from 2022 to 2024). In recent years, VAT revenue collection has shown an increasing trend from 3.4 percent of GDP in 2019 to 3.7 percent in the preliminary realization of 2024, supported by post-pandemic economic recovery and a VAT rate rise from 10 percent to 11 percent in April 2022. As mandated by the Tax Harmonization Law (Law 7/2021), the government imposed a new VAT rate of 12 percent in January 2025, yet this is applicable only to luxury goods, including private jets, yachts, luxury cars and motorcycles, and high-end properties. The VAT rate for non-luxury goods and services remains effective at 11 percent.

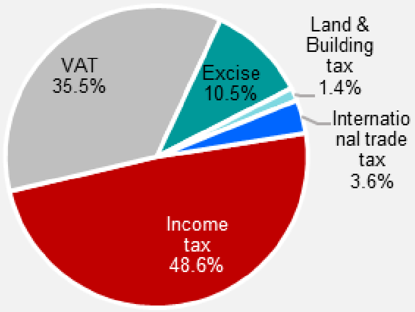
VAT for non-luxury goods and services $= VAT\ rate\ of\ 12\% * \frac{11}{12} * selling\ price$
VAT for luxury goods = *VAT rate of 12%* selling price*

Indonesia's VAT efficiency remains low compared with some neighboring countries, particularly due to broad exemptions on goods and services. One indicator to measure the efficiency of the VAT system is the C-efficiency, which computes the ratio of actual VAT revenues to potential VAT revenue defined as the product of the VAT statutory rate and final consumption. In Indonesia, C-efficiency declined from an average of 53.4 percent between 2014 and 2019 to 46.3 percent during the 2019 - 2020 pandemic. The rate began to rise again in 2021, driven by consumption recovery. However, it remains considerably lower compared with regional peers such

[134] Although the government has consistently formulated the MTFF as a reference for budget preparation, the actual budget outturn often deviated from the last medium-term targets. The government need to ensure better linkages between the annual budget with the medium-term fiscal targets to enhance budget consistency.
[135] Under Law No. 17/2023 (State Finance Law), the central government must submit a budget proposal for the following fiscal year to the House of Representatives in August of the current year. The House of Representatives must finalize the decision by October, at least two months before the budget year begins in January.
[136] According to Ministry of Finance Regulation No. 131/2024, dated December 31, 2024, the VAT rate has increased to 12 percent. However, this new rate applies only to luxury goods. For non-luxury goods and services, VAT is calculated based on an adjusted tax base—one-twelfth of the selling price—effectively maintaining a payable VAT rate of 11 percent. The calculation method applies the 12 percent VAT rate to one-twelfth of the selling price.

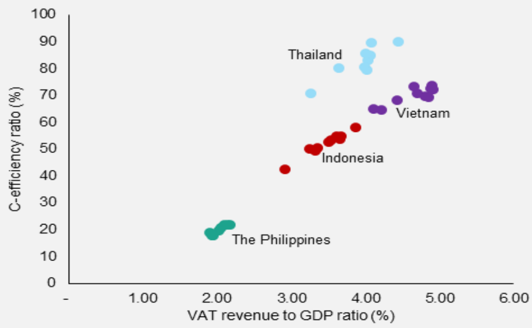
as Thailand and Vietnam. This is mainly due to the wide range of goods and services that are exempt despite the VAT rate already being higher than peer countries (Table B1). The lower C-efficiency also suggests that a significant portion of potential VAT revenue remains unutilized, likely due to tax exemptions or inefficiencies in the tax collection system. Additionally, the government grants incentives on corporate income tax in various sectors to stimulate economic development and attract investment. The Ministry of Finance estimates that 2025 tax expenditures will total 2IDR445.5 trillion, representing 1.83 percent of GDP, an 11.4 increase from IDR399.9 trillion in 2024. A large share of this tax expenditure is due to VAT incentives that will reach IDR265.6 trillion or 1 percent of GDP in 2025.

Figure A1.2.1. Composition of Tax Revenue



Source: Ministry of Finance; AMRO staff calculation
Note: Percentage of total tax revenue,
2022 - 2024 average

Figure A1.2.2. VAT C-efficiency (2014-2023)



Source: CEIC; AMRO staff estimates
Note: C-efficiency = actual VAT collection/(standard VAT rate x final consumption). Different colors represent VAT collection efficiency in each country.

Indonesia's VAT threshold is significantly higher compared with some ASEAN economies. Businesses are obligated to register for VAT collection if their annual revenue exceeds IDR4.8 billion (about USD315,100). This exemption threshold was introduced on January 1, 2014, replacing the previous threshold of IDR 0.6 billion. The policy aimed not only to ease tax compliance for small and medium-sized enterprises but also to provide greater opportunities for MSMEs to become more competitive and expand their businesses. Given that Indonesia has one of the highest VAT exemption thresholds in the region, some businesses may deliberately maintain their revenue below the IDR 4.8 billion threshold to avoid VAT registration, resulting in slower growth and inefficiencies in tax revenue collection. Regional peers such as Lao PDR, the Philippines, Thailand, and Vietnam have much lower VAT exemption thresholds, of under USD55,000. The lower VAT exemption threshold broadens the tax base, reduces tax avoidance, and enhances compliance and revenue collection.

Table A1.2.1. VAT Rates and Exemptions in Selected ASEAN Nations

	Indonesia	Lao PDR	Philippines	Thailand	Vietnam
			VAT standard rate		
Standard rate (%)	12	10	12	7	10
			Zero percent VAT rate		
Exports of goods and services	ü	ü	ü	ü	ü
Good and services supplied between bonded warehouses, EPZs	ü	ü	ü	ü	ü
International transportation				ü	ü
Imports and purchases made by national shipping/airline firms			ü		
			VAT registration exemption		
Annual turnover threshold (LCY)	4,800,000,000	non	3,000,000	1,800,000	200,000,000
- USD equivalent	*315,100*	-	*54,000*	*51,800*	*8,500*

Source: National authorities' VAT Laws; AMRO staff compilations

6. **On the other hand, the introduction of new programs in 2025 is likely to exert further pressure on fiscal sustainability over the medium term**. In accordance with campaign promises, the new administration has introduced “quick win” programs amounting to IDR121 trillion, which is equivalent to 0.5 percent of GDP, as allocated in the initial 2025 budget (Table A1.1). The scope of these new programs is expected to expand over the medium term, thereby increasing demand for government expenditure. The most significant new initiative launched in 2025 is the Free Nutritious Meals program, which provides free meals to all school-age children, children under five years of age, and also to pregnant and breastfeeding women. Additionally, the government has initiated stimulus packages totaling IDR38.6 trillion in 2025.[137] These packages include a 50 percent discount on electricity tariffs for households with electricity capacity below 2.200 VA with total of 71.1 million households in January 2025 and 64.8 million households in February 2025, an additional two months of rice assistance for 16 million households, and VAT borne by the government on the purchase of houses priced up to IDR 2 billion.

Table A1.1. New Government’s Priority Programs in 2025 Budget

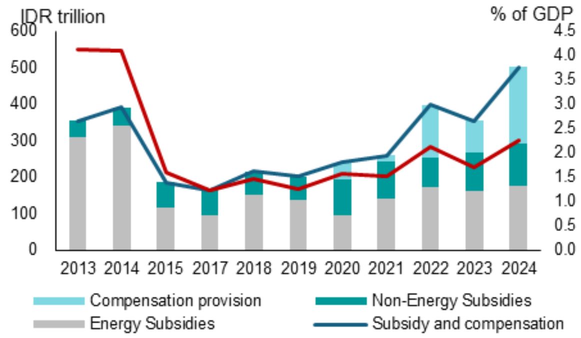
Programs	Initial Budget 2025	Description
Free Nutritious Meals Program	IDR 71 trillion	• The initial aim was to reach 17.9 million beneficiaries*, with an allocated 2025 budget of IDR 71 trillion, making up 0.3% of GDP, and to progressively expand coverage to 82.9 million beneficiaries by 2029. • Now, the government plans to provide an additional budget of IDR 100 trillion to speed up full coverage for the 82.9 million beneficiaries starting by September 2025. • The National Nutritious Agency, the new institution overseeing this program, estimates that the budget required to achieve full coverage of 82.9 million beneficiaries from January to December in 2026 is IDR 370 trillion.
Schools Revitalization and Boarding School Program	IDR 22 trillion	• The government plans to develop four prestigious boarding schools in 2025 at a total budget of IDR2 trillion, and 20 boarding schools by 2029. • School renovations nationwide will amount to IDR20 trillion in 2025, including classroom furniture repairs.
Free Medical Check-up Services Program	IDR 3.2 trillion	• The program aims to reach 52.2 million individuals in 2025, and to gradually expand to cover 207 million people by 2029. • The services include screening tests for anemia, blood pressure, tuberculosis, cancer, cholesterol and blood sugar, to promote preventive over curative approaches to safeguard the health of Indonesians.
Quality Hospitals Improvement	IDR 1.8 trillion	• The program aims to upgrade 32 public hospitals from type D to type C in 2025, and another 34 in 2026. • There are now 873 type D hospitals (27%) and 1,737 type C hospitals (54%) of the 3,205 public and private hospitals.
Tuberculosis (TBC) Elimination	IDR 8 trillion	• Indonesia had the second highest TBC cases in 2023, with 385 patients per 100,000 population, ranked after India. The government wants to lower the TBC incidence to 272 cases per 100,000 population in 2025. • The target is to halve TB incidence by 2029 to 190 TB cases per 100,000 population.
Food Barn (Food Estate)	IDR 15 trillion	• The program aims to create 150,000 hectares of new agricultural fields in 2025 for paddy, corn, soybean and cassava, and at least 4 million hectares of new agricultural fields by 2029 • The government plans to establish a 200 million hectare special economic zone that will focus on rice and sugarcane production in Merauke, South Papua provinces, under the PPP scheme.
Total expenditure in 2025 Budget	IDR 3,621 trillion	

Source: National Authority, AMRO staff compilation
Note: * This includes school-aged children, children under 5 years old, pregnant women and breastfeeding mothers.

[137] On December 14, 2024, the government announced stimulus packages for 2025 to mitigate inflationary pressures caused by the VAT rate increase.

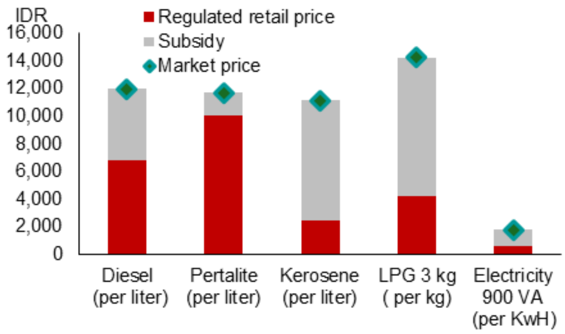
7. **The burden of energy subsidy expenditure also remains elevated, despite some reforms in previous years**. Although the energy subsidy significantly declined in 2015,[138] it showed an increasing trend in subsequent years from IDR98 trillion (1.2 percent of GDP) in 2017 to IDR178 trillion (2.3 percent of GDP) in 2024 (Figure A1.1). This increase was primarily due to the increasing trend of rising global energy prices and domestic consumption of subsidized energy commodities. The annual budget regarding energy subsidies is allocated for diesel fuel[139], and kerosene. 3 kg of liquified petroleum gas (LPG), and 900 volt-amperes (VA) of electricity to poor households which accounts for 47% of electricity subsidy recipients.

Figure A1.1. Subsidy and Compensation



Source: Ministry of Finance; AMRO staff calculation

Figure A1.2. Energy Subsidy, 2024



Source: Ministry of Finance; AMRO staff calculation

8. **In addition to energy subsidy expenditures, the government compensates state-owned enterprises (SOEs) Pertamina and PLN, which are responsible for fuel distribution and electricity supply.** This annual compensation relates to the government's decision to maintain public's purchasing power with the regulated price of Pertalite fuel (RON 90)[140] and electricity tariffs for non-subsidized customers below market prices. Additionally, since the price subsidy for diesel fuel is fixed, the increasing gap between the regulated retail price and its market price is also covered through this compensation mechanism (Figure A1.2). The government reassesses the regulated fuel price and electricity tariff every three months to determine the need for adjustments. This compensation mechanism has been in place since 2020 and adds further pressure to government expenditures.[141]

Way Forwards

9. **To ensure medium-term fiscal sustainability while achieving ambitious economic growth targets, some strategic policies can be implemented to enhance revenue collection.**[142] Expanding the tax base, particularly for VAT and income-based taxes, is essential. Normalizing the 12 percent VAT rate so that it applies universally, including on non-luxury goods and services, not only broadens the tax base but also reduces tax administration costs. Additionally, reducing exemption of goods and services and those subject to a zero percent VAT rate is also necessary. For example, the elimination of VAT exemptions on hotel and restaurant services could increase VAT revenue collection. To widen the tax base, lowering the VAT registration threshold can also be considered. According to the Ministry of

[138] In 2015, the government removed the price subsidy for Premium fuel (RON 88) and switched to a fixed price subsidy (IDR 1,000 per liter) mechanism for diesel fuel. The government also removed the electricity subsidy for 12 groups of customers, including households of 1,300VA and above, large industrial customers (200 kVA and above), large business and public agencies (both 6,600 VA and above).

[139] The fixed subsidy for diesel fuel has been adjusted several times since its launch: IDR1,000/liter in 2015, IDR500/liter in 2016, IDR2,000/liter in 2018, IDR1,000/liter in 2020, IDR500/liter in 2021, and IDR1,000/liter in 2023.

[140] in July 2015, the government introduced Pertalite (RON 90), which is priced slightly higher than Premium (RON88) and has superior fuel quality. The introduction of Pertalite was part of government initiatives to gradually eliminate Premium.

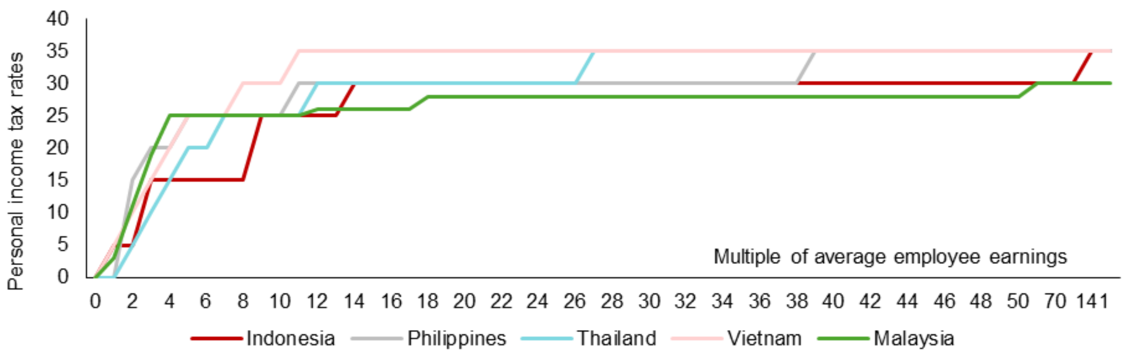
[141] In the preliminary realization for 2024, total subsidy spending and compensation provision reached IDR 502 trillion, equivalent to 2.3 percent of GDP. Although the allocated budget for subsidy and compensation in 2025 is set at IDR 393 trillion, or 1.9 percent of GDP, actual realization may exceed this amount. Since 2018, subsidy spending has consistently surpassed budget allocations, except in 2019.

[142] It is estimated that the additional revenue from policy measures is at least 0.8 percent of GDP, assuming the full implementation of the CTAS, universal application of a 12-percent VAT rate, and excise tax on sugar-sweetened beverages.

Finance, tax expenditure related to the higher VAT registration threshold is estimated to be IDR61.3 trillion for 2025.

10. To mobilize revenue from income-based taxation, expanding the tax brackets for high-income earners should be considered. While Indonesia has increased its income tax brackets from four to five tiers,[143] it still has fewer brackets than neighboring countries.[144] The personal income tax bracket in Indonesia is also less progressive compared with some of its neighbors. For illustration, taxpayers earning five times the average income in their respective countries are subject to higher income tax rates than Indonesian taxpayers (Figure A1.3). Furthermore, the 35 percent top tax rate in Indonesia applies only to incomes more than IDR5 billion, or about 141 times the national average wage, while the 30 percent rate applies to incomes IDR500 million to IDR5 billion, or about 14 times the average wage. Given the significant gap in income threshold between the personal income tax rates of 30 percent and 35 percent, introducing additional brackets for high-income earners can also be a consideration.

Figure A1.3. Statutory Marginal Personal Income Tax Rates by Income Level, 2024



Source: PwC; International Labour Organization; AMRO staff calculation

11. Enhancing tax compliance remains essential to improving revenue mobilization. It is crucial to ensure the effective implementation of CTAS in order to improve compliance,[145] particularly in capturing the informal sector into the tax system. This is especially important considering the significant share of informality in Indonesia that makes it difficult for the tax system to fully capture. By leveraging data of taxpayers' financial transactions from other counterpart sources, such as banking institutions and online market platforms, tax authorities can assess taxpayer obligations more accurately and efficiently.

12. On the expenditure side, efforts should continue to reprioritize budget allocation, including phasing out energy subsidies,[146] to support growth-enhancing expenditures. Although a mobile app (MyPertamina) has been introduced since 2023, the implementation of Pertalite consumption restriction faces challenges, particularly in rural area, as it relies on mobile-app-based identification.[147] Additionally, the government has revoked its initiative to

[143] Under Law 7/2021, the government expanded the taxable income brackets from four tiers to five by introducing a 35 percent tax rate for the highest earners. Previously, the highest rate was 30 percent, applicable to individuals earning more than IDR 500 million annually. The new structure applies a 30 percent rate to those earning between IDR500 million and IDR5 billion, while individuals with taxable income exceeding IDR5 billion are subject to a 35 percent rate. Additionally, the lowest taxable income bracket has been raised from IDR50 billion to IDR60 billion.
[144] For example, Malaysia has nine income tax brackets (1 percent to 30 percent), Singapore has twelve (2 percent to 24 percent, while Thailand and Vietnam each has seven brackets (5 percent to 35 percent).
[145] In mid-February 2025, the government and Parliament agreed to delay the full CTAS implementation by allowing taxpayers to also use the previous tax administration system in fulfilling their tax obligations. This is to ensure a smoother transition, as taxpayers were facing technical difficulties with the new CTAS.
[146] In November 2024, the government established a task force chaired by the Minister of Energy and Mineral Resources to redesign a more targeted energy subsidy mechanism by incorporating poverty-related databases.
[147] The effectiveness of the mobile app depends on reliable internet access, which remains a challenge, particularly for rural and remote areas. A large portion of poor households live in rural areas where internet access is often limited or unavailable. This issue may lead to moral hazard, especially when transaction volumes at petrol stations are high and staff might not be able to operate the application properly.

restrict the sales of 3-kg LPG to only designated retailers.[148] Restricting the consumption of Pertalite and 3-kg LPG to only eligible households that meet specific socioeconomic criteria is necessary not only to reduce the burden of subsidies but also to ensure more equitable distribution. Adjusting electricity tariffs for non-subsidized households, which has remained unchanged since 2022, is also essential to improving the incomes of Pertamina and PLN so that the savings from reduced compensation to these SOEs can be reallocated to other priority programs. AMRO staff estimated that, by restricting the consumption of subsidized fuel, spending on subsidies and compensation could be lowered by about 0.4 percent of GDP.[149] Additionally, given the significant budget allocation for the Free Nutritious Meal program amidst the increasing need for other growth-enhancing expenditures, the government must strictly monitor its implementation to ensure efficient delivery and effective achievement of targeted outcomes. The central government can also explore the possibility of forming partnerships, including cost-sharing arrangements, with local governments and private sector. Furthermore, budget efficiency initiatives that were implemented in early 2025 by reallocating non-priority spending to higher-priority expenditures should serve as a new baseline for budget allocation over the medium term.

References

Ministry of Finance. (2023). *Tax Expenditure Report 2023 (in Bahasa)*. https://fiskal.kemenkeu.go.id/files/ter/file/1734258213_lbp_2023_-_buku_1.pdf

Ministry of Finance. (2024). *Financial Notes of 2025 Budget (in Bahasa)*. https://media.kemenkeu.go.id/getmedia/84501460-c812-45dd-9bc7-25185df35160/Buku-II-Nota-Keuangan-APBN-TA-2025.pdf?ext=.pdf

Ministry of Finance. (2024b). *Guidebook on Core Tax Implementation for Taxpayers (in Bahasa)*. https://www.pajak.go.id/sites/default/files/2024-12/Buku%20Panduan%20Singkat%20Coretax%20v.1.pdf

[148] Initially, the government restricted the sale of 3-kg LPG to only registered retailers, effective February 1, 2025. This policy aimed to gather more accurate data on the 3kg LPG consumer profile, as it was previously sold freely in stores, allowing households of all income levels to buy it. Due to social pressure, the government revoked this policy on February 4, permitting non-registered retailers to resume sales while awaiting the adjustment of administrative procedures.

[149] According to the Ministry of Energy and Mineral Resources press release dated September 19, 2024, 86 percent of the Pertalite usage is attributed to households and 14 percent to businesses. Among households, 80 percent of consumption comes from middle- and high-income households. The Ministry of Finance also estimates that the bottom 40 percent of households benefited from only 37 percent of the government's 3kg LPG subsidy. The budget saving of 0.4 percent of GDP from the fuel subsidy rationalization is estimated by assuming the non-eligible households (middle- and high-income households) are excluded from the subsidized fuel consumption.

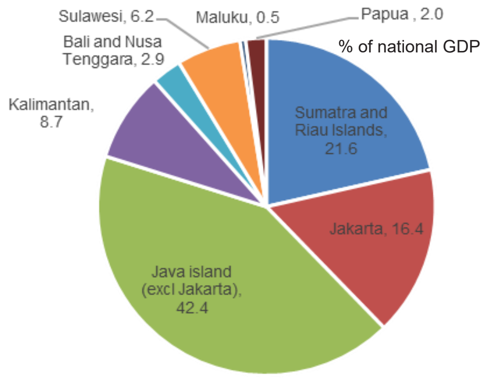
Annex 2. Regional Income Disparities in Indonesia[150]

Regional income disparities are prevalent in many economies, and how to reduce the gaps is an important policy question. With diverse initial endowments, Indonesia's regional economies have experienced significant differences in the pace of economic development, prompting the government to implement various policies to address the imbalance. This selected issue outlines how the Indonesian government could accelerate the income convergence process.

Regional Income Inequality in Indonesia

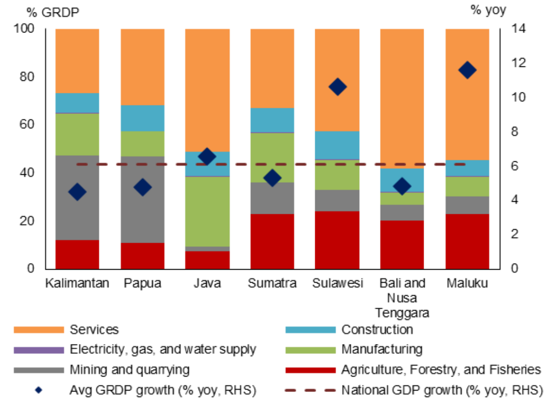
1. Regional income disparities, albeit narrowing, remain significant in Indonesia. The country comprises 38 provinces, 514 regencies and cities, and 75,265 villages, spread across different islands. About 90 percent of national economic wealth has been created in manufacturing and service hubs, particularly of the financial sector, in Java and the established resource-rich Sumatra and Kalimantan (Figures A2.1). However, growth in these areas has slowed to the national average level, while Sulawesi and Maluku have emerged as fast-growing regions, benefiting from metal-based downstreaming industries (Figure A2.2). This has lifted incomes in these regions, but the gap with the wealthier areas is still large. Indeed, per capita income of the top 10 percent richest provinces is about sevenfold the bottom 10 percent poorest provinces (Figure A2.3).

Figure A2.1. Indonesia: GDP Contribution by Region, 2010-2023 Average



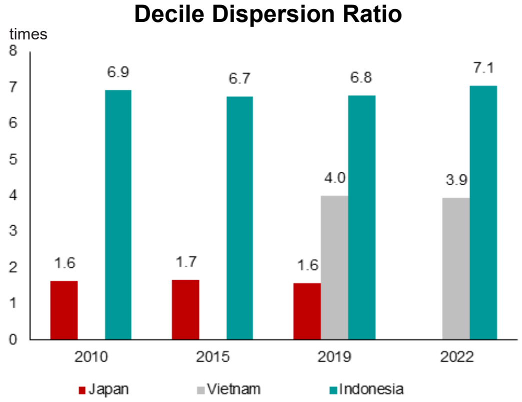
Source: Statistics Indonesia; CEIC; AMRO staff calculations

Figure A2.2. Indonesia: Regional Economic Structure and Growth, 2010-2023 Average



Source: Statistics Indonesia; CEIC; AMRO staff calculations
Note: The regions are arranged from left to right in descending order of GRDP (i.e., Gross Regional Domestic Product) per capita in 2010, with Kalimantan and Papua being the richest, while Bali and Nusa Tenggara, along with Maluku, were the poorest.

Figure A2.3. Indonesia, Japan and Vietnam: Decile Dispersion Ratio



Source: National authorities; CEIC; AMRO staff calculations

Table A2.1. Indonesia: Empirical Findings on Drivers of Per Capita Income Growth

Dependent variable: Annual growth of per capital gross regional domestic value (GRDP)	
Sample period: 2010-2022	
Explanatory variable	**Coefficient**
Lagged GRDP growth (%)	0.214 (P-value: 0.000)
Initial per capita income (logarithmic value-2010)	-0.754 (P-value: 0.027)
Local government CAPEX to GRDP (%)	0.194 (P-value: 0.008)
Private sector CAPEX (% GRDP)	0.102 (P-value: 0.000)
Manufacturing share in GRDP (%)	0.035 (P-value: 0.052)
Provincial employment growth (%)	0.131 (P-value: 0.024)
Provincial population growth (%)	-0.620 (P-value: 0.000)
R-squared:	0.294
Adjusted R-squared:	0.280
F-statistics:	21.153
Durbin-Watson statistics:	1.988

Source: AMRO staff calculations

[150] Prepared by Akifumi Fujii, Economist. This selected issue is a summary of the analytical note, "Regional Income Convergence in Indonesia," prepared by Akifumi Fujii, Ginanjar Wibowo and Thi Kim Cuc Nguyen.

2. **AMRO staff panel regression analysis finds that regional economic growth can be boosted by public and private capital investments, a large manufacturing sector, and employment growth.** Using annual data spanning 2010 to 2023, AMRO staff conducted a simple regression of per capita income growth of provinces by their initial per capita income level in year 2010, the local government's capital expenditure, private sector's capital expenditure, size of the manufacturing sector,[151] provincial employment growth and population growth. The empirical study finds that provinces with lower initial per capita income tended to grow faster to catch up with richer regions. It also finds that increased capital spending by local governments and the private sector, a larger manufacturing sector and job creation have boosted provinces' per capita income growth (Table A2.1).

Current Policies to Foster Regional Income Convergence

3. **The Indonesian authorities have actively rolled out policy measures to narrow regional income gaps.** Such policies include fiscal decentralization to empower local governments and foster regional development, and establishment of economic zones to transform regional economic activities into sectors with higher productivity.

Fiscal Decentralization

4. **Indonesia has been promoting fiscal decentralization after the Asian financial crisis**. The primary objective of fiscal decentralization is to enhance the fiscal capacity of local governments, thereby enabling them to take on a crucial role in promoting regional economic development. Several state revenue items which were once concentrated within the central government have been delegated to local governments as their own-source revenue.[152] To reduce vertical imbalance between the central and local governments, and horizontal imbalances among regions, the central authorities also provide transfers to regions such as revenue-sharing funds,[153] general allocation funds[154] and special allocation funds.[155]

5. **That said, local governments in Indonesia remain reliant on central government transfers and spend only modestly on growth drivers.** Local governments' own-source revenue has remained below 30 percent of total local government revenue for more than two decades, so a significant portion of their income still relies on transfers from the central government (Table A2.2). In terms of expenditure composition, local government budget is mostly spent on recurrent items, especially on personnel, and goods and services expenditures. Capital spending remains markedly low relative to Indonesia's regional peers, at about 1.5 percent of GDP in 2020,[156] accounting for 16.4 percent of total local government budget.[157] To raise productivity in local government spending, Law 1/2022 mandates local governments to allocate at least 40 percent of their total expenditure to infrastructure for public services, and caps local government personnel spending at 30 percent of total spending, allowing for a transition period of five years.

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[151] This variable acts as a proxy for the transformation of the regional economic structure toward sectors with higher productivity. As for the service sector, Ikhsan et al. (2021) found that workers moving from agriculture to services tended to be employed in less productive activities, such as retail and wholesale trade, government and non-market sectors.
[152] For instance, land and building taxes, land and property transfer fees, vehicle registration taxes, vehicle ownership transfer taxes, fuel taxes and water exploitation taxes are owned by local governments and shared provincial and district governments.
[153] Revenue-sharing funds aim to reduce vertical imbalances between central and local governments. The central government shares with local governments personal income taxes, land and building taxes, excise taxes and natural resources nontax revenue.
[154] General allocation funds aim to reduce horizontal imbalances due to different fiscal capacities among regions. Allocation is based on the fiscal gaps of local governments, meaning the difference between their fiscal capacity and needs. Their performance and regional characteristics are also taken into consideration.
[155] Special allocation funds aim to support local governments' financing capacities to accelerate the regional infrastructure development and national priorities agenda.
[156] The ratios for Japan (2019) and Vietnam (2020) were 3.4 percent and 4.1 percent, respectively.
[157] The ratios for Japan (2019) and Vietnam (2020) were 22.2 percent and 25.0 percent, respectively.

Table A2.2. Indonesia: Local Government Revenue and Expenditure

Items	2000	2005	2011	2016	2019	2023
in trillions of rupiah						
Local Government						
Revenue	38	181	548	1,003	1,198	1,198
Own source revenue	6	38	109	229	294	345
Transfer from CG	29	127	406	702	799	776
o/w revenue sharing	4	50	97	91	104	206
Others	3	16	32	19	4	77
Expenditure	36	162	519	1,003	1,188	1,205
Fiscal Balance	2	20	29	0	10	-7
Financing Surplus (+)/deficit (-)	4	5	39	84	79	92
Central Government						
Revenue	205	495	1,211	1,556	1,961	2,784
Expenditure	221	510	1,295	1,864	2,309	3,121
Fiscal Balance	-16	-14	-84	-308	-349	-327
Financing Surplus (+)/deficit (-)	0	-3	47	26	53	29
in percentage						
LG own-source revenue to total LG revenue	14.5	21.0	19.9	22.9	24.5	28.8
LG own-source & shared revenue to general government revenu	4.8	17.9	17.0	20.6	20.3	19.8
LG expenditure to consolidated expenditure	15.9	30.9	37.0	46.5	44.3	35.0
LG revenue to GDP	2.7	6.5	7.4	8.1	7.6	5.7
LG own-source & shared revenue to GDP	2.5	5.9	6.9	7.5	6.9	5.4
LG expenditure to GDP	2.6	5.8	7.0	8.1	7.5	5.8
Consolidated (CG and LG) revenue to GDP	15.2	19.0	18.1	14.9	14.8	14.9
Consolidated (CG and LG) expenditure to GDP	16.1	18.8	18.9	17.4	17.0	16.5
Consolidated (CG and LG) fiscal balance to GDP	-0.9	0.2	-0.7	-2.5	-2.1	-1.6

Source: Ministry of Finance; AMRO staff calculations

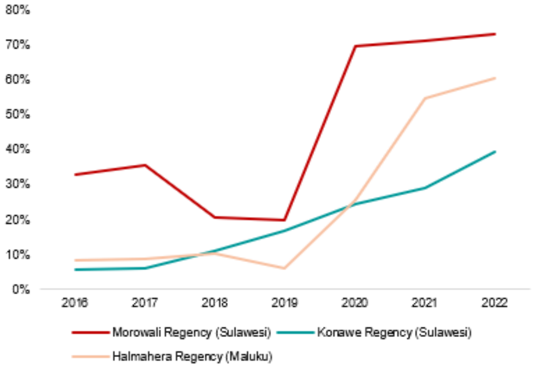
Economic Zones

6. **Industrial estates (IEs) have been developed since the 1970s to establish industrial growth hubs across Indonesia**. As of July 2024, the country has 158 IEs, which are 64.4 percent occupied overall. Since 2019, Indonesia has added 28 and 30 IEs inside and outside Java, respectively, increasing the share of manufacturing in some non-Java regions (Figure A2.4). Investors in IEs can enjoy fiscal and non-fiscal incentives, including tax benefits for 18 pioneer industries[158] and vocational training provided by the government.[159] IEs which are included in the National Medium-term Development Plan (RPJMN) and National Strategic Projects (PSNs) can also receive government support in the form of infrastructure development outside the estates, as well as fast-track permits. In addition, IE tenants are not required to obtain location or environmental permits separately from the estate developers.

7. **Introduced in 2009, SEZs have provided the most attractive incentives to nurture export industries, accelerate regional development, and boost employment**. These incentives include more generous tax benefits, one-stop services for business licensing, and exemption of foreign ownership restrictions, while on-site infrastructure still needs to be constructed by SEZ developers. As of June 2024, the President had approved 22 SEZs, and the SEZ National Council had approved an additional four. The SEZs have attracted USD12.6 billion of investments[160] and 368 tenants in total, of which 72 percent were FDIs. Nevertheless, their occupancy ratio remains low at around 33 percent (Figure A2.5).

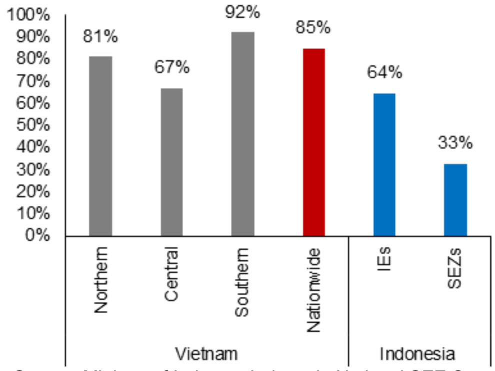
[158] The 18 pioneer industries include upstreaming industries for base metals, downstreaming industries for agricultural crops and fossil fuels, and manufacturing industries for motor vehicles.
[159] As of July 2024, the Ministry of Industry had established 11 vocational universities, two community academies, nine vocational high schools and seven training centers across the nation to develop human resources around the existing IEs.
[160] According to AMRO staff calculations, the USD12.6 billion corresponds to roughly 16 percent of SEZs' target investment amount, which is about IDR1,074 trillion.

Figure A2.4. Manufacturing Share in Non-Java GRDP



Source: Ministry of Industry; AMRO staff compilation
Note: Each regency has nickel smelter-based IEs in its territory.

Figure A2.5. Economic Zone Occupancy Ratio in Indonesia and Vietnam



Source: Ministry of Industry; Indonesia National SEZ Council; Du Long Vietnam Industrial Park; AMRO staff calculations

8. **Although IEs and SEZs have contributed to regional economic growth, the impact on regional economies is still modest**. In fact, economic zones had some impact on changing the country's industrial structure until the Asian financial crisis, by increasing the share of manufacturing in GDP from 10 percent in 1970 to 27 percent in 1997. However, that share dropped to 18 percent in 2022, while income disparities between Java and non-Java regions remain significant. The Indonesian government expects that the share of manufacturing in GDP can rise to 28 percent by 2045.

Policy Discussions and the Way Forward

9. **To accelerate regional economic growth, lessons from other countries can be adopted.** The analysis finds that policy interventions which led to increased capital spending by both the public and private sectors, expansion of manufacturing and higher employment growth have contributed to higher regional growth. Indonesian authorities have carried out specific policies, namely fiscal decentralization and economic zone establishment, to empower local governments and boost regional economic growth. The experiences of other countries also confirm the role of policy interventions to accelerate regional convergence.[161] Notably, the development of multiple economic hubs and connecting infrastructure is crucial, along with the industrial transformation of these hubs into productive sectors with FDI support. To this end, the construction of the new capital Nusantara may help establish a non-Java economic center and help reduce the regional income disparities. Additional drivers include regional market integration, human capital development and fiscal decentralization as the capacity of local governments is improved. While Indonesia is generally moving in the right direction, these lessons suggest that more policy adjustments will be required.

10. **Enhancing local capacity and governance is the key to achieving regional convergence through fiscal decentralization in Indonesia.** To raise the fiscal capacity of local governments, the central government should boost its revenue collection and provide sufficient and timely transfers, or bolster local governments' taxation authority. It is essential to strengthen the competency of local governments in exploring new potential local taxes and in enhancing data management related to businesses and economic activities within their jurisdiction. Policy measures should also be implemented to improve the quality of local government spending, notably to shift spending from current spending to capital expenditure.

[161] See AMRO's forthcoming analytical note, "Regional Income Convergence in Indonesia." The experience of Japan highlights the central government's role in developing an economic development master plan that incorporates greater participation from local governments in the form of capital spending, and the importance of securing long-term financial sources to fund infrastructure development. The experience of Vietnam underscores the role of fiscal decentralization in boosting economic growth in provinces with good governance and narrowing their income gap with richer provinces. On the other hand, empowerment of local governments might lead to state capture by local elites and politicians, an oversupply of FDI incentives and deterioration in environmental standards due to competition to attract FDI.

Decentralized capital spending would still necessitate the central government's role in infrastructure development, including the planning of national projects, oversight of and coordination with local governments, and capacity building through technical assistance. To avoid risks related to fiscal decentralization, the authorities could develop platforms to share best practices among local governments and monitor the impacts of FDI projects on the local economy.[162] To finance capital spending in Indonesia, it is important to increase the availability of long-term funding sources while maintaining debt sustainability.

11. IEs and SEZs can play greater role in boosting regional economies under properly designed policy support. Given the current occupancy ratio of 64 percent in IEs and 33 percent in SEZs, there is ample room to boost the participation of private investment in these economic zones. In doing so, tailor-made support to improve each region's competitiveness and compensate for its locational disadvantages is essential. For instance, the government can provide differentiated support to develop infrastructure, the living environment, skill training centers and environment-friendly facilities, which can also increase positive spillovers to the surrounding areas. As the capacity of local governments is enhanced, fiscal decentralization could help properly address each region's specific issues. Efforts to create cross-country subregions, such as the establishment of the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT),[163] could also help unlock the potential of subregional areas by expanding market size and production base.

12. Efforts to improve the overall investment climate and ease the cost of doing business should continue. The launch of the Online Single Submission platform has shortened business registration and licensing procedures for MSMEs. However, the process remains lengthy for non-MSMEs, particularly outside the economic zones. Investors also face challenges in land acquisition and site clearance due to legal uncertainty over land ownership and high acquisition costs. Removal of these constraints requires strong collaboration between relevant line ministries and local governments. Policy coordination should also be strengthened between central and local governments, and across different government agencies, to ensure that national development priorities are built into regional development plans and implemented effectively at local level. Since improved productivity in the agricultural and service sectors, notably tourism, will also boost regional economies, the government's recent initiatives, such as the food barn program launched in 2025[164] are commended. Policy efforts to expand investment in these sectors should continue.

Reference

Akifumi Fujii, Ginanjar Wibowo, and Thi Kim Cuc Nguyen, forthcoming. *Regional Income Convergence in Indonesia.* ASEAN+3 Macroeconomic Research Office.

[162] For example, the annual publication of Vietnamese Provincial Competitive Index (PCI) rankings since 2005 has been recognized as a reliable reference for evaluating the quality of local economic governance.
[163] Since its inception in 1993, the IMT-GT has been trying to stimulate economic development in 32 of the less developed states and provinces in these three countries, including 10 provinces of Sumatra, Indonesia.
[164] The food barn program aims to achieve Indonesian food self-sufficiency in the medium term. To that end, the program has targeted higher productivity and yields in existing key staples: rice, corn, soybean and cassava.

Annex 3. Net Interest Margin and Financial Intermediation in Indonesia[165,166]

Although Indonesia has made continued progress in strengthening financial intermediation, a certain group of the population still lacks access to conventional banking services. At the same time, commercial banks continue to generate strong returns from lending activities. From the lenders' perspective, weak fundamentals among certain segments of small companies and low-income households may reduce their incentive to provide loans or lead them to charge higher interest rates for these groups. Meanwhile, from the borrowers' perspective, the cost of financing is a key consideration when deciding whether to access bank credit. This selected issue aims to explore the factors driving the relatively high bank lending rates, compared to peer countries.

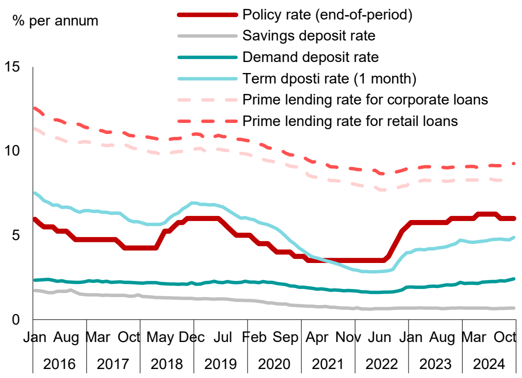
1. **Improving financial intermediation remains a significant challenge for Indonesia.** While the country's financial intermediation as a percentage of GDP has moderately increased since 2010, both bank lending and market-based financing continue to lag regional peers (Figure A3.1). In 2023, bank credit to the private non-financial sector remained well below 50 percent of GDP, while the combined size of the corporate bond market and stock market capitalization was about 58 percent of GDP. Financing for large corporations, as well as for micro, small, and medium enterprises (MSMEs) and retail clients, lags that of peer countries as borrowing costs are higher (International Monetary Fund, 2024).

2. **Unfavorable costs of financial intermediation are one of the key obstacles to Indonesia's financial intermediation.** Although Indonesian banks rely on low-cost funding from current and savings accounts, bank lending rates significantly exceed the policy base rate (Figure A3.2). The wide gap between funding costs and lending rates results in high net interest margins (NIM) compared with regional peers. High NIMs or lending rates are likely associated with constrained credit intermediation, even in countries like Indonesia where loan growth remains strong.

Figure A3.1. Financial Access in ASEAN-4 Countries

Source: World Bank; Bank for International Settlements via Haver Analytics

Figure A3.2. Interest Rates



Source: OJK via CEIC

Determinations of Indonesian banks' lending rates and NIM

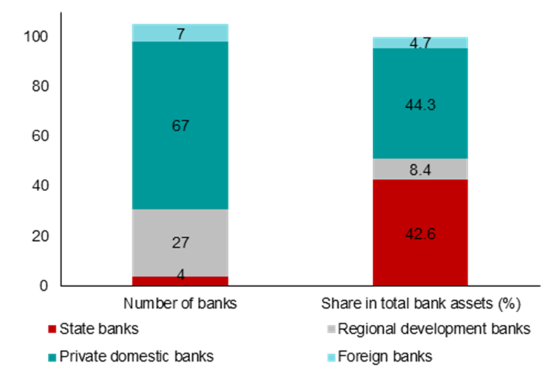
3. **An empirical study is conducted to examine the determinants of financial intermediation costs.** The AMRO staff study applies a panel regression model by Demirgüç-Kunt and Huizinga (1999), controlling for fixed and random effects, to analyze data from the seven largest domestic banks operating in Indonesia, Malaysia, the Philippines, and Thailand. The study also employs a similar model to assess individual Indonesian banks' behaviors. Independent variables include macroeconomic and bank-specific factors, that capture bank

[165] Prepared by; Wanwisa Vorranikulkij, Senior Economist; and Thai Yangsingkham, Associate. This selected issue is a part of the forthcoming study on "Net Interest Margin and the Efficiency of Financial Intermediation in Indonesia".
[166] The authors thank Thi Kim Cuc Nguyen, Deputy Group Head and Senior Economist; and Jungsung Kim, Economist, for very helpful discussions and suggestions.

efficiency, credit costs, capital and loan loss reserve, tax expenses, income and asset diversification, leverage, and reliance on short-term funding (Table A3.1). Additionally, market structure indicators are represented by each bank's share of total banking-sector assets in their respective countries. The cross-country regression results indicate that overhead costs, credit costs, taxes, asset diversification, leverage, and market concentration in the banking sector significantly influence lending rates and consequently the NIMs. For Indonesia-specific results, overhead and credit costs, income and asset diversification, tax payments, and individual banks' market power are found to be key determinants of lending rates and the NIM.

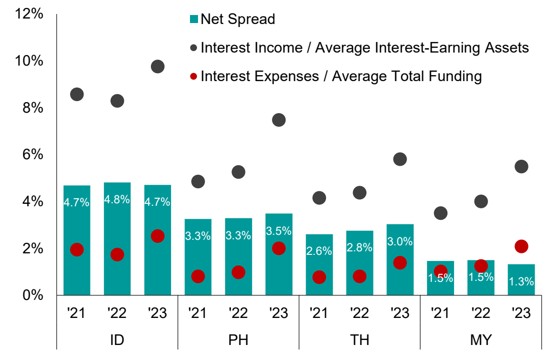
4. **Credit risk premiums and regulations play a key role in shaping lending rates and hence the NIM.** The cross-country regression indicates that government bond yields determine bank lending rates and NIMs. Compared with Malaysia and Thailand, Indonesia has a lower sovereign credit rating. [167] This higher sovereign risk in Indonesia partly contributes to elevated government bond yields, which serve as reference risk-free rates for setting bank lending rates across different loan maturities. In addition, commercial banks also take into account Bank Indonesia's (BI) policy rate and SRBI yields when determining lending rates. At times, BI raised the policy rate and kept it elevated to mitigate the risk of capital flow volatility and anchor inflation expectations. Besides sovereign risk premium, while credit information systems such as OJK's Credit Information System (SLIK) and private credit bureaus have improved financial institutions' access to potential borrowers' financial information and credit risk assessments, banks remain concerned about the data quality of these credit information systems along with the underlying risks. Banks are facing challenges to accurately identify borrowers' creditworthiness and at the same time they are also compelled to enforce cautious lending standards in line with stringent prudential regulations. Indonesia banks often set high risk premiums and build substantial financial buffers. According to empirical studies, regulatory factors such as loan loss provisions and tax obligations contribute to higher lending rates and NIMs in Indonesia. While loan-loss reserves provide a safeguard against future losses, maintaining large reserves comes with opportunity costs.

Figure A3.3. Market Share of Banks in Indonesia



Source: OJK; CEIC; AMRO staff calculations

Figure A3.4. Net Spread Across ASEAN-4



Source: Individual banks' financial statements via Moody's; AMRO staff compilation
Note: 1/ Net spread = ((Interest income ÷ Average interest earning assets) – (Interest expenses ÷ Average total funding)) *100
2/ The data is drawn from selected banks rated by Moody's.

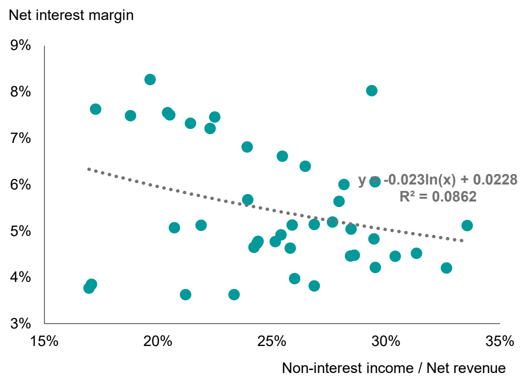
5. **Limited competition in the credit market allows banks to exercise market power when pricing loans.** Preliminary findings from the cross-country model indicate that a banking sector with higher concentration—where a few banks control a large share of total assets—tends to experience higher financial intermediation costs. In Indonesia, for example, more than 100 banks were in operation in 2024, however, the four largest banks accounted for around 40 percent of total banking system assets (Figure A3.3). That said, smaller banks also hold

[167] According to Moody's Investor Service, the long-term sovereign rating for the governments of Malasia, Thailand, the Philippines, and Indonesia are A3, Baa1, Baa2, and Baa2, respectively.

market dominance or oligopoly power in specific regions or specialized segments, capitalizing on the country's archipelagic geography and large population. This dominance enables Indonesian banks to set higher lending rates and maintain wider margins. Compared with regional peers, the average interest income of selected Indonesian banks - measured as interest income divided by average interest-earning assets - was 6.8 percent after the COVID-19 pandemic, compared with 4.6 percent for selected Filipino banks, despite the Philippines having the same sovereign rating, 44 banks in the system, and a similar archipelagic geography. Reflecting these lending rates, the average net interest spread for Indonesian banks during the post-pandemic period was around 4.7 percent, significantly higher than 1.4 percent in Malaysia, 2.8 percent in Thailand, and 3.3 percent in the Philippines (Figure A3.4).

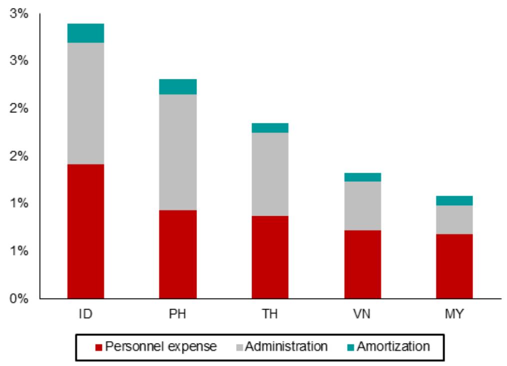
6. **Banks that adopt more cautious and conservative business strategies tend to have higher lending rates and NIMs.** The Indonesia-specific regression suggests that banks with higher non-interest income tend to set lower lending rates, which in turn leads to accepting a lower net interest margin (NIM). Income diversification by banks helps alleviate pressure on interest margins (OJK, 2025). Banks that can generate income from investment activities or fee- and commission-based services tend to offer lower lending rates. Meanwhile, some smaller banks that are constrained to raise their lending rates have expanded their fee-based businesses to sustain profitability, while preserving their market share in the bank loan market (Figure A3.5). A banks risk appetite also plays a role in determining loan pricing. According to results from the Indonesia-specific model, banks with higher equity relative to total assets and larger loan-loss reserves for problem loans adopt more cautious business strategies, which lead to higher lending rates. Indonesian banks achieve strong profitability while maintaining relatively higher capital buffers compared with their regional peers.

Figure A3.5. Income Diversification and NIM



Source: Individual banks' financial statements via Moody's; AMRO staff compilation
Note: The data are drawn from selected banks rated by Moody's, covering the period from 2018 to 2023 as Indonesian banks adopted the IFRS9 in 2018.

Figure A3.6. Breakdown of Banks' Operating Costs



Source: Individual banks' financial statements; via Moody's; AMRO staff calculations
Note: The ratio is calculated by dividing each expenditure items by total bank assets. The figures represent the average ratio, based on data from the top banks, which together account for more than 60 percent of total assets in the banking system.

7. **Compared with banks in other ASEAN-4 countries, Indonesian banks have higher operating expenses than operating income** (OJK, 2025). The geographical challenges and large population significantly increase operational costs, particularly in maintaining branch networks, hiring personnel, and reaching customers in remote areas (Figure A3.6). Additionally, Indonesia's archipelagic nature and varying levels of infrastructure development present unique challenges for credit expansion, assessment, monitoring, and collection, which may result in higher financial intermediation costs. Given the varying levels of telecommunications infrastructure, financial literacy, and customer preference for human interaction in some remote areas, many banks have invested in establishing public facilities

while also navigating challenges in expanding digital platforms such as digital branches and online banking services.

Policy discussion

8. **Increasing competition in the credit market and deepening the capital market could help lower lending rates.** While Indonesia has a large number of banks and the growing role of fintech, the overall lending cost remains high and limits financial access compared to peer countries. This suggests a need for more competition from non-bank financing options such as P2P lending, crowdfunding, and non-bank financial institutions. There is also room to further develop capital markets as alternative fundraising platforms for large, financially stable corporations. However, this approach has had the unintended consequence of increasing financing costs for banks, which in turn drives up lending rates. Expanding the domestic investor base in the capital market could alleviate the need to maintain high policy base rates to attract foreign flows.

9. **There is scope for adjusting the prudential practices of commercial banks.** Significant retained earnings, capital buffers, and loan loss reserves position banks, including state-owned ones, to lower lending rates and interest margins without compromising profitability. Additionally, banks should continue enhancing their credit risk assessment processes, particularly in terms of monitoring and the accuracy of risk evaluation methodologies. Improved risk assessments could reduce the need to maintain high lending rates as a precautionary measure to offset risk premiums. Indonesian banks tend to focus on highly creditworthy, large companies while still setting high lending rates relative to regional peers, even for prime borrowers, which in turn drives up rates for weaker borrowers. With adequate financial buffers, banks still have flexibility to adjust their risk appetite and explore new markets with higher risk profiles to boost profitability, while reducing the risk premium for healthy borrowers.

10. **High financial intermediation costs in Indonesia call for the improvements in infrastructure.** The empirical study found that elevated lending rates were driven by factors such as insufficient financial information, high credit risks among potential borrowers, geographical challenges, and inadequate credit infrastructure. Given these factors, improving financial regulatory and development policies alone may not be enough to lower financial intermediation costs and achieve greater financial deepening. Given customer preferences for human interaction and reluctance to adopt digital solutions, continued and greater efforts in improving physical telecommunication infrastructure and integrating financial and digital literacy into compulsory education could also help promote online financial transactions, thereby lower financial intermediation costs. In addition, further dialogue between financial regulatory authorities and commercial banks is essential to gain a deeper understanding of their cost structures and lending practices. Other factors, such as the existing credit infrastructure[168]—including collateral registries[169] and a robust legal and regulatory framework for the credit reporting systems[170]—may not provide sufficient support to banks' credit decisions and pricing, and required improvement.

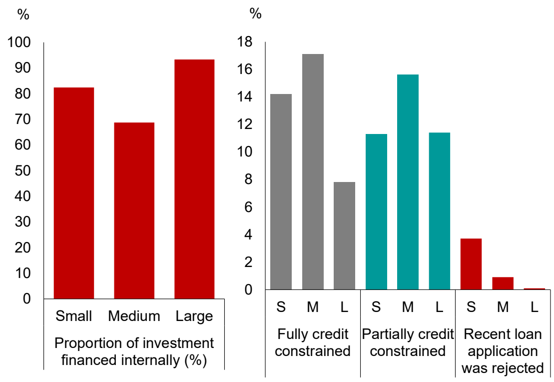
[168] Financial Sector Assessment Program (2024)

[169] Indonesia launched centralized online collateral registry system (Fiducia Online) in 2014, moving from a previously decentralized and manual process. This system has significantly improved the efficiency of credit approval and expanded access to finance. However, several challenges persist, hindering its broader adoption by banks. Notably, the collateral registry, managed by the Ministry of Laws, covers movable and intangible assets, but the relevant legal framework is outdated and fragmented across multiple laws and regulations. The registration process, especially for movable assets, remains complex and costly, limiting their effectiveness as loan collateral.

[170] The credit reporting system consists of SLIK and private credit bureaus, all of which provide data and credit information for banks' credit origination and supervisory purposes. Different regulations govern these systems. Therefore, data quality is hampered by the fragmented legal and regulatory framework, limited consumer protection, and a lack of integration with alternative data sources such as e-commerce and telecommunications bills. The system also lacks a comprehensive strategy to improve data quality and coverage, particularly for MSMEs.

11. **Although loan pricing may be a barrier to credit intermediation, other factors also limit financial access, particularly for MSMEs, and warrant further policy research.** Credit intermediation in Indonesia is relatively low compared to regional peers, and the issue is even more pronounced among MSMEs. At the same time, MSMEs have a substantial economic presence in Indonesia[171], with many small firms operating in the informal economy (International Monetary Fund, 2024). Many MSME borrowers struggle to meet bank lending criteria due to the absence of stable cash flows, reliable financial statements, sufficient credit history or adequate collateral, creating challenges to credit approval. Particularly, seasoned small firms or young medium-sized firms are typically at a developmental stage that requires external financing for business expansion and operations. They still face significant credit constraints, despite the government's credit support programs such as interest rate subsidies and credit guarantee (Figure A3.7). While the absence of complete financial information hampers banks' ability to assess the creditworthiness of these potential borrowers accurately, uncertain long-term business plans also elevate their expected credit losses beyond banks' risk appetite or lead to excessive risk premiums. Additionally, limited financial literacy causes many MSMEs to find bank loan application procedures overly complex, discouraging them from applying.[172] Given the multifaceted nature of credit constraints faced by MSMEs, in-depth studies on specific challenges are crucial to understanding the underlying issues in the credit market, improving the efficiency of credit intermediation, and expanding MSMEs' access to financing in the future.

Figure A3.7. Financing Need Among Enterprises in Indonesia



Source: World Bank Enterprise Survey 2023
Note: The bars indicate the proportion of firms that said they encountered credit constraints in recent loan applications to formal credit institutions.

[171] MSMEs absorbed 97 percent of the total workforce, made up 99 percent of business units, and contributed to 61 percent of GDP in 2023.
[172] World Bank Enterprise Survey 2023

Table A3.1. Determinants of NIM and Average Lending Rate

Independent Variables	Lending Rate		Net Interest Margin (NIM)	
	ID	ASEAN-4	ID	ASEAN-4
Constant	-0.0641	-0.0333	-0.0503	-0.0216
Lagged lending rate	0.214***	0.347***	0.307***	0.535***
	[0.0289]	[0.0162]	[0.0348]	[0.0174]
Bank-specific variables				
Cost of funds/Deposit rates	0.858***	0.571***		
	[0.0842]	[0.0298]		
Overhead costs	0.488***	0.395***	0.505***	0.319***
	[0.0680]	[0.0348]	[0.0562]	[0.0284]
Loan-loss provision to total assets (Credit cost)	0.190***	0.140***	0.125***	0.0627***
	[0.0338]	[0.0226]	[0.0283]	[0.0184]
Reserves to total assets (Reserve cost)	0.0130	-0.0162***	0.0186	0.000362
	[0.0156]	[0.0055]	[0.0131]	[0.0045]
Income tax expenses to total assets (Taxation)	0.487***	0.598***	0.345***	0.412***
	[0.0867]	[0.0523]	[0.0728]	[0.0440]
Non-interest income to total assets (Income diversification)	-0.210***	-0.0261	-0.243***	-0.0595**
	[0.0683]	[0.0352]	[0.0569]	[0.0286]
Equity to total assets (Risk aversion)	0.0149	0.0490***	0.000648	0.0406***
	[0.0198]	[0.0087]	[0.0176]	[0.0071]
Loans to total assets	0.0619***	0.0292***	0.0581***	0.0186***
	[0.00872]	[0.0025]	[0.00732]	[0.0020]
Customer deposits and short-term funding to total assets (share of CASA, ST funding)	-0.0596	-0.1020	-0.00744	-0.000959
	[0.1420]	[0.0742]	[0.00803]	[0.0025]
Bank specific market power	0.0557***		0.0491***	
	[0.00855]		[0.00501]	
Banking system structure variables				
Market structure		0.0203***		0.0129***
		[0.0026]		[0.0021]
Macroeconomic variables				
Inflation rate	0.0339	-0.0173	-0.00126	-0.00678
	[0.0285]	[0.0106]	[0.0241]	[0.0087]
Government bond yields	-0.0471	0.0419**	-0.0137	0.0472***
	[0.0469]	[0.0179]	[0.0394]	[0.0148]
GDP growth	0.0189	0.00156	0.0197*	0.00178
	[0.0138]	[0.0027]	[0.0116]	[0.0023]
Policy rate	0.1520	0.258***	0.110***	0.0875***
	[0.1170]	[0.0624]	[0.0387]	[0.0194]
Observations	317	1122	317	1124
R-square (within)	0.7731	0.7442	0.5005	0.5050

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: AMRO staff estimates based on data compiled from Individual banks' financial statements and Moody's
Note: Since the fixed effects and random effects models produce similar results, with only a slight difference in the R-squared values, this report presents only the fixed effects model.

References

Demirguc-Kunt, A., & Huizinga, H. (1999). Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence. World Bank Economic Review, 13, 379-408. http://dx.doi.org/10.1093/wber/13.2.379

International Monetary Fund. (2024). *Financing Barriers and Performance of Micro, Small, and Medium Enterprises in Indonesia.* Volume 2024: Issue 271. Asia Pacific Department. Washington, D.C. https://doi.org/10.5089/9798400284663.002

International Monetary Fund. (2024). *Indonesia: Financial Sector Assessment Program-Financial System Stability Assessment.* Volume 2024: Issue 272. Monetary and Capital Markets Department Washington, D.C. https://doi.org/10.5089/9798400286438.002

Motes, O. (2024). *Technical Note on Credit Infrastructure*. Indonesia Financial Sector Assessment Program. The World Bank Group, Washington, D.C. https://documents1.worldbank.org/curated/en/099110424110028271/pdf/P181009122340d0ab18bde13ba1244f4524.pdf.

Otoritas Jasa Keuangan. (2025, February 5). Indonesia's Financial System Stability. (ASEAN+3 Macroeconomic Research Office, Interviewer) Jakarta, Indonesia.

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