



AMRO Annual Consultation Report

Brunei Darussalam - 2022

ASEAN+3 Macroeconomic Research Office (AMRO)

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Acknowledgments

1. This Annual Consultation Report on Brunei Darussalam has been prepared in accordance with the functions of AMRO to monitor and assess the macroeconomic status and financial soundness of its members; identify relevant risks and vulnerabilities; report these to member authorities; and if requested, assist them in mitigating these risks through the timely formulation of policy recommendations. This is being done in accordance with Article 3 (a) and (b) of the AMRO Agreement.
2. This Report is drafted on the basis of the Annual Consultation Visit of AMRO to Brunei Darussalam from November 26 to 30, 2022 (Article 5 (b) of the AMRO Agreement). The AMRO mission team was headed by Mr Anthony Tan, Deputy Group Head/Senior Economist. Members include Ms Vanne Khut, Desk Economist; Dr Heung Chun (Andrew) Tsang, Economist; Ms Kana Yoshioka, Economist; Ms Laura Grace Gabriella, Associate Economist. AMRO Director Dr Kouqing Li and Chief Economist Dr Hoe Ee Khor also participated in key policy meetings with the authorities. This AMRO Annual Consultation Report on Brunei Darussalam for 2022 was peer reviewed by a group of economists from AMRO's Country Surveillance, Financial Surveillance, and Fiscal Surveillance teams; endorsed by the Policy Review Group; and approved by Dr Hoe Ee Khor, AMRO Chief Economist.
3. The analysis in this Report is based on information available up to January 2, 2023.
4. By making any designation of or reference to a particular territory or geographical area, or by using the term "member" or "country" in this Report, AMRO does not intend to make any judgments as to the legal or other status of any territory or area.
5. On behalf of AMRO, the Mission team wishes to thank the Bruneian authorities for their comments on this Report, as well as their excellent meeting arrangements and hospitality during our visit.

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Executive Summary

1. Economic activities in Brunei have picked up since mid-2022, led by the non-oil and gas (O&G) sector. Thanks to the high vaccination rates, daily new cases have declined sharply since April 2022, enabling containment measures to be phased out. The resumption of economic activities amid fuller economic re-opening has provided the impetus for the non-O&G sector, particularly contact-intensive services sector (such as transportation) to recover. The commencement in production of a new downstream fertilizer plant has also helped to buoy activities in the non-O&G sector. In contrast, the continuing challenges in rejuvenating the offshore O&G production have weighed on the performance of the O&G sector. Given the weaker O&G production in the first half of 2022, Brunei's overall economic growth is estimated to register a contraction of 1.2 percent from -1.6 percent in 2021, before recovering to 2.8 percent in 2023.

2. Headline consumer price inflation (CPI) has risen to a multi-year high in 2022, mainly on rising food and transport prices. The pandemic-induced supply chain disruptions, which were later exacerbated by the war in Ukraine, had led to rising global commodity prices. As Brunei is a net food importer, soaring global food prices, particularly in the first half of 2022, contributed significantly to the broadening of food inflation. The spike in prices of transport services and vehicles contributed to higher transport inflation. Consequently, headline CPI inflation peaked at 4.5 percent (yoy) in August—the highest in over 20 years, and remained high at 3.7 percent in 2022, before easing to 2.5 percent in 2023.

3. External position continues to be strong. Overall balance of payments recorded a surplus of USD1.1 billion in 2021 (7.8 percent of GDP), reflecting the significant widening of the current account surplus. The current account surplus is expected to widen further to 12.8 percent of GDP in 2022 from 11.2 percent in 2021, benefiting from high energy prices and robust growth of non-O&G exports. In the first nine months of 2022, trade balance already reached USD3.7 billion, a 70-percent rise from the corresponding period of 2021.

4. The banking sector remains well-capitalized, while credit growth has also recovered. The banking system continues to be well buffered, with capital adequacy ratio staying above the regulatory requirements. Meanwhile, credit growth has recovered, driven mainly by the corporate sector. Credit to the household sector registered a marginal growth for the first time since Q2 2020 on stronger growth of personal loans.

5. Fiscal balance has improved significantly since 2021, benefiting from higher global energy prices. Brunei saw a considerable improvement in its fiscal deficit to 5.2 percent of GDP in FY2021 from 20 percent in FY2020 as revenue collection soared on surging O&G export receipts. Given that the revenue for the first half of FY2022 already exceeded the budgeted revenue for the entirety of FY2022, and together with largely stable expenditure growth, the fiscal balance is likely to register a surplus of 0.5 percent of GDP in FY2022.

6. Risks to Brunei's outlook are tilted to the downside. Given the continuing reliance on the O&G sector, Brunei is vulnerable to both domestic and external shocks, which could derail the growth prospects and put strains on the external and fiscal positions. A possible re-emergence of new and more virulent COVID-19 variants could also set back the economic recovery. Sharply higher borrowing costs amid moderating external demand could exert downward pressures on corporate earnings. There are also perennial risks (such as those posed by climate change) which could undermine Brunei's economic and financial stability in the longer term.

7. In FY2022, the improvement in the (budgeted) fiscal deficit mainly reflects the continuing expenditure cuts amid strong revenue outlook. Brunei's expenditure is budgeted to decline by

2.7 percent in FY2022 relative to the previous fiscal year's budget, reflecting the government's policy intent to maintain a prudent level of spending in tandem with the Fiscal Consolidation Program (FCP). Coupled with strong revenue outlook, the fiscal balance is expected to improve significantly in FY2022, with AMRO staff estimating a fiscal surplus of 0.5 percent of GDP.

8. Efforts to broaden and diversify fiscal revenue sources would reduce dependence on the O&G sector, while helping to shield the public finance against volatility and procyclicality. Even though there are no immediate plans to implement major tax reforms at the current juncture given ample fiscal buffers, the authorities are encouraged to take incremental steps to broaden the tax base over the medium run, in order to reduce procyclicality of fiscal revenue in the O&G sector. On the expenditure side, the authorities remain committed to maintain budgetary prudence.

9. Monetary conditions have tightened reflecting the rise in domestic interest rates. The Brunei Darussalam Central Bank (BDCB) standing facility deposit and lending rates have been raised since May 2022 to reach 2.5 percent and 1.5 percent in November, respectively. The upward adjustment in interest rates is appropriate, reflecting the Currency Interchangeability Arrangement with Singapore. With inflation having risen to a multi-year high, AMRO supports the temporary use of administrative price controls to contain upward pressure on inflation.

10. In the financial sector, it would be prudent to remain vigilant of global market developments to safeguard financial stability, while continuing to facilitate credit to MSMEs to foster private sector growth and development. The increased volatility in global financial markets calls for close monitoring of risks associated with banks' foreign lending activities, and placement of surplus funds abroad for investment. Strengthening the provision of credit to MSMEs is important given that access to the traditional bank financing remains a challenge in view of MSMEs' limited capacity in designing a good business plan and producing basic information required by banks.

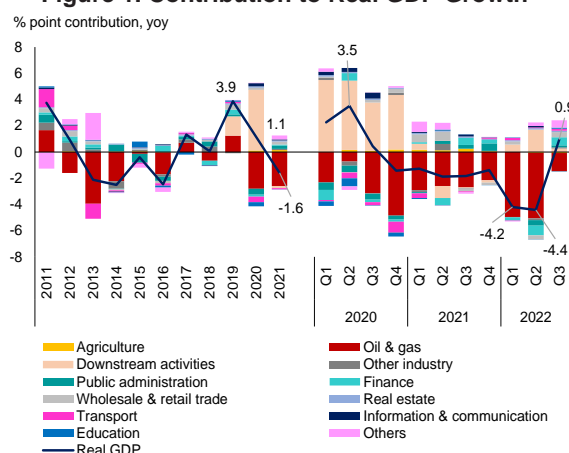
11. Further efforts to accelerate structural reforms and economic diversification are desirable to promote a low-carbon and sustainable economic growth in the longer term. Strengthening the diversification of the economic structure, as well as fiscal revenue sources will help to enhance Brunei's resilience to both domestic and external shocks. This can be achieved by attracting more FDIs into sectors beyond the O&G (such as tourism and ICT). Addressing a number of long-standing structural challenges in the labor market (such as the prevalence of skill mismatches) can help promote employability amongst the locals. Policy support should also continue to focus on fostering private sector developments in driving the economy, notably through the development of MSMEs alongside the expansion of their global market access. Given the rising global concerns over climate change, mainstreaming climate change adaptation, mitigation and transition programs into the multi-year national development agenda will be crucial to ensure longer term sustainability.

A. Recent Developments and Outlook¹

A.1 Real Sector Developments and Outlook

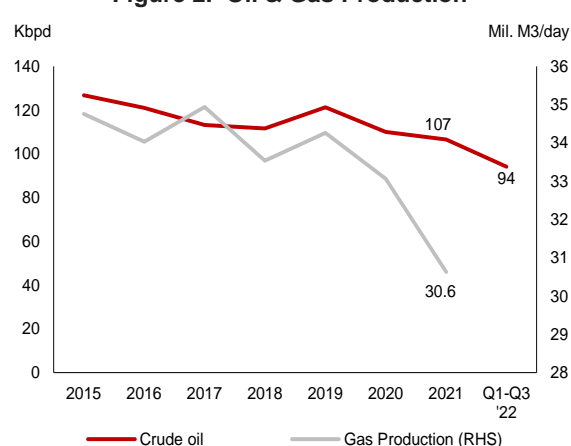
1. Economic activities in Brunei have picked up since mid-2022, led by the non-O&G sector Thanks to the rollout of comprehensive vaccination programs, Brunei has attained one of the highest vaccination rates in the region. Daily new cases have fallen sharply since April 2022, enabling containment measures to be phased out.² The resumption of economic activities amid fuller economic re-opening has provided the impetus for the non-O&G sector to recover. With border restrictions fully lifted, travel and tourism have resumed, helping to support the recovery in the contact-intensive services sector, which has been hit hard by the pandemic. In particular, transportation services (water and air transport) have notably recovered. The diversion of domestic O&G supply to the downstream industry, including the commencement of a new fertilizer production, has also helped to buoy activities in the non-O&G sector. In contrast, the O&G sector continues to face production challenges, reflecting the ongoing efforts to rejuvenate offshore O&G fields as well as the compound effect of disruption during COVID-19 restrictions. In Q3 2022, real GDP grew by 0.9 percent (yoy)—the first quarterly expansion since Q3 2020, led by the non-O&G sector which grew by 4.6 percent. Activities in the O&G sector also improved during the period, as the pace of decline in the O&G value added slowed to -2.7 percent in Q3 2022, relative to a contraction of 9.4 percent in the first half of 2022. Overall, economic growth contracted by 2.6 percent in the first three quarters of 2022, weighed down by weaker O&G sector performance in the first half of the year (Figures 1, 2).

Figure 1. Contribution to Real GDP Growth



Source: Department of Economic Planning and Statistics (DEPS); AMRO staff calculations

Figure 2. Oil & Gas Production



Source: Department of Energy
Note: 2022 data is a simple average of three quarters. RHS = right hand side

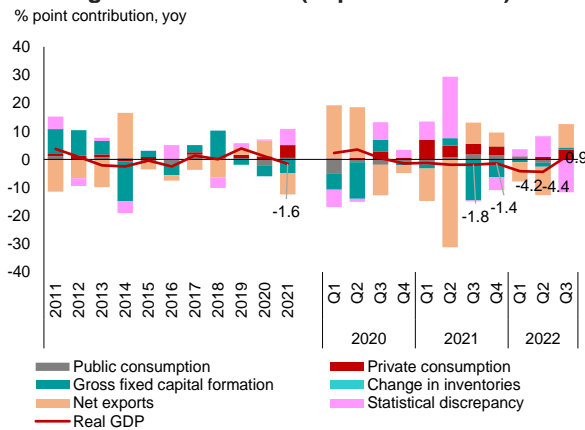
2. On the demand side, private consumption remains a key growth driver. An extended period of border closures has boosted private consumption to above trend growth for much of 2021. In the first three quarters of 2022, private consumption remained resilient, growing by 5.6 percent (yoy). The outlook ahead is positive, as reflected in the retail sales outperformance in Q3 2022, a trend which is expected to continue, benefiting from fuller economic re-opening (Figures 3, 4). In contrast, the decline in investment since 2019 remains

¹ For brevity, Brunei Darussalam is referred as “Brunei” throughout the document.

² Remaining border restrictions—land and sea borders—were lifted in August 2022.

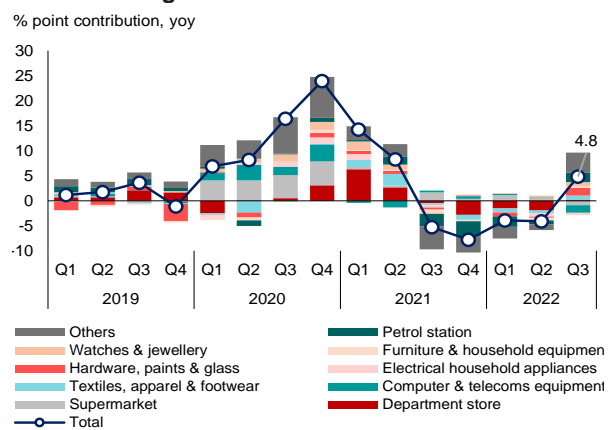
a drag on growth. On the exports side, after a robust 2021, exports slowed going into 2022, mainly on account of the decline in O&G production and softer external demand.

Figure 3. Real GDP (Expenditure Side)



Source: DEPS; AMRO staff calculations

Figure 4. Retail Sales Index



Source: DEPS; AMRO staff calculations

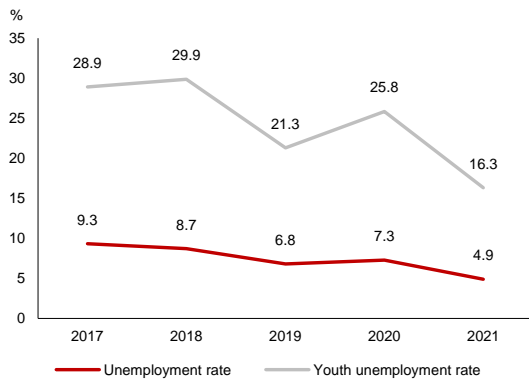
3. Looking ahead, the economy is expected to record a negative growth of 1.2 percent in 2022 before recovering to 2.8 percent in 2023. The weak growth outlook reflects the downward surprise in O&G production in the first half of 2022, which contracted by 9.4 percent (yoy). Even though the contraction in the upstream O&G production appears to have bottomed out, a sustained improvement in the O&G production is expected to be gradual, as the rejuvenation work is expected to continue for several more years to address the maturing/aging oil wells. The outcome would result in an increased production availability in the medium term. Encouragingly, the expansion in the downstream activities, including the commencement of ammonia and urea production, is expected to provide tailwinds to growth. The relaxation of containment measures and border reopening since August will further normalize economic activity, bolstering growth in the contact-intensive services sector.

4. Labor market conditions have improved markedly since 2021, while the constraints on labor supply have started to ease in 2022³ with more migrant workers expected to return after the lifting of border restrictions. Both the unemployment rate and the youth unemployment rate fell significantly from 7.3 percent and 25.8 percent to 4.9 percent and 16.3 percent in 2021, respectively, as the local jobseekers filled jobs in several industrial sectors previously dominated by foreign workers (Figure 5). The number of local workers in the private sector also continued to rise, albeit at a slower pace at 3.7 percent in 2021 from 16.2 percent in 2020 (Figure 6). The employment sub-index—one of the indices under the Business Sentiment Index—continued to expand at 50.3 in November. This one-month ahead survey data of business expectation suggests that firms would continue to hire more employees. While there are still pockets of labor shortages, they reflect the ongoing challenges in hiring and retaining local employees in certain industries. To address these issues, the government has simplified the recruitment process,⁴ while also putting more efforts into boosting local employment.

³ Based on administrative data in the first nine months collected by the Manpower Planning and Employment Council.

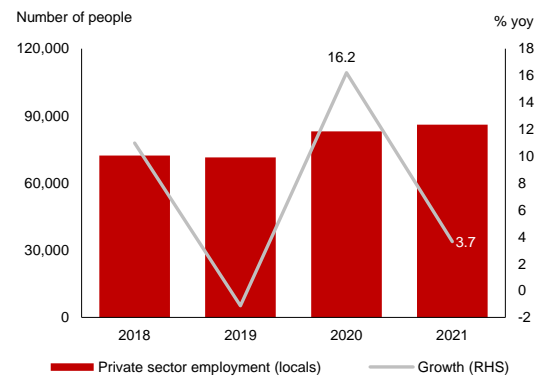
⁴ Some policy initiatives have been implemented, e.g., Foreign Worker License Application process including the issuance of Clearance Letter through JobCentre Brunei (JCB). The Clearance Letter enables companies to either obtain new foreign workers, or to renew their existing foreign workers for another 2 years. From January to 19 November 2022 (YTD), JCB had received 22,462 Clearance Letter applications, up from 6,426 applications for the entirety of 2021.

Figure 5. Unemployment Rate



Source: DEPS

Figure 6. Private Sector Employment (Locals)

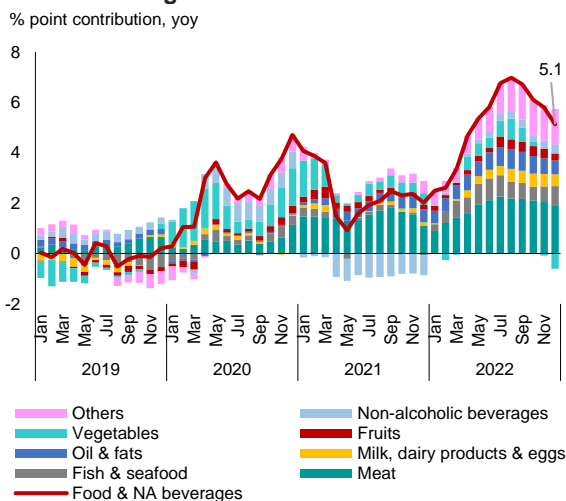


Source: DEPS; AMRO staff calculations

5. Inflation has risen to a multi-year high, mainly on rising food and transport prices.

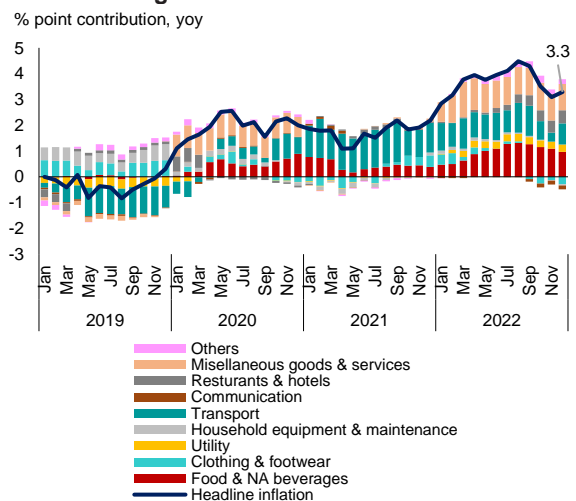
The pandemic-induced supply chain disruptions, which was exacerbated by the war in Ukraine, had led to rising global commodity prices. As Brunei is a net food importer, soaring global food prices, particularly in the first half of 2022, contributed significantly to the broadening of domestic food inflation (Figure 7). Meanwhile, the spike in prices of transport service and purchase of vehicles contributed to higher transport inflation. Beyond food and transport prices, higher prices of miscellaneous goods and services, chiefly in the form of higher vehicle insurance premium—influenced by the market prices of cars, also added to the overall price pressure. The price control and social assistance measures, which are still in place, help to temper, but not fully offset the upward pressure on prices. As a result, headline inflation peaked at 4.5 percent in August and remained high at 3.7 percent in 2022 from 1.7 percent in 2021 (Figure 8). Going into 2023, Brunei’s inflation is projected to ease to 2.5 percent on expectations of easing supply disruptions. The unprecedented rise in Brunei’s inflation calls for a deeper analysis on the decomposition of its inflation drivers (see Appendix 1).

Figure 7. Food Inflation



Source: DEPS; AMRO staff calculations
Note: NA = non-alcoholic

Figure 8. Headline Inflation

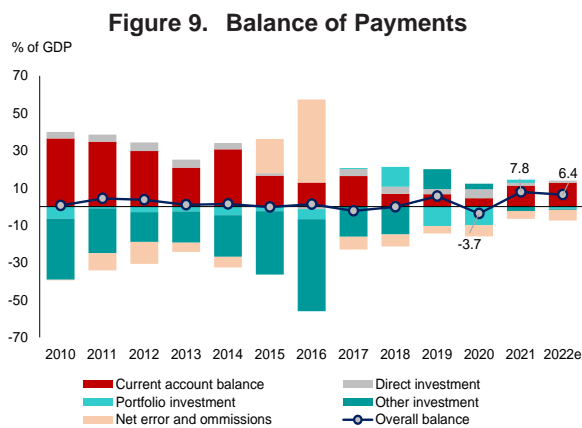


Source: DEPS; AMRO staff calculations
Note: The inflation (excl. items under price control and social assistance measures) is based on AMRO staff calculations

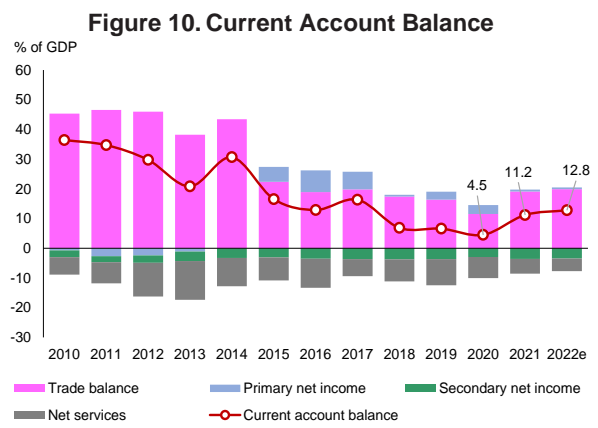
A.2 External Sector and the Balance of Payments

6. Brunei’s external position continues to be strong. The overall balance of payments recorded a large surplus of USD1.1 billion in 2021 (7.8 percent of GDP), reflecting the significant widening of the current account surplus (Figure 9). High commodity prices and robust external demand underpinned the robust export growth—outpacing import growth, leading to a widening of trade surplus in 2021. As a result, the current account surplus rose to 11.2 percent of GDP in 2021 from 4.5 percent of GDP in 2020 (Figure 10). The financial account also saw net inflow of funds equivalent to 0.9 percent of GDP in 2021—driven by portfolio investment and FDI flows (Figures 9, 11). International reserves increased to USD5.0 billion in 2021, or equivalent to 6.5 months of imports, from USD4.0 billion in 2020.

7. In 2022, the current account surplus is estimated to widen further to 12.8 percent of GDP, buoyed by favorable commodity prices and robust activities in the non-O&G sector. In the first nine months of 2022, exports and imports surged by 47.4 percent and 37.8 percent, respectively, bringing the trade surplus to USD3.7 billion—a 70-percent increase from the same period of the preceding year. Similarly, over the same period, exports of refined products—chemicals and other petroleum and gas products—continued to expand markedly by 67.7 percent (yoy) to USD6.3 billion, accounting for about 58.9 percent of total exports. The robust growth of the non-O&G sector reflects the tangible results from past diversification efforts, notably in 2021, when the export share of refined products (51.6 percent of total exports) exceeded that of crude O&G products for the first time.



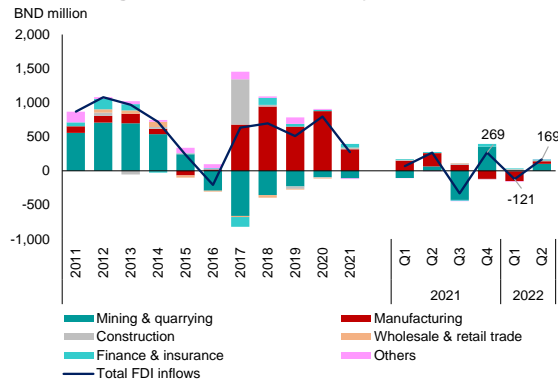
Source: DEPS; AMRO staff calculations
Note: Brunei’s BOP follows BPM6. The sign of financial account for the chart is reversed, so the negative value represents net outflow. e = AMRO staff estimates



Source: DEPS; AMRO staff calculations
Note: e = AMRO staff estimates

8. The outlook for FDI inflows remains positive, albeit at a slower pace in 2022 given the delayed implementation of some projects. Brunei recorded FDI inflows amounting to BND48 million in 1H 2022, down from BND336 million in the same period in 2021, mainly due to a sharp contraction in manufacturing sector investment (Figure 9). Currently, there remain a number of FDI projects in the pipeline (Table 1), but some of which are not likely to be implemented in the near term, e.g., refineries and petrochemical plant.

Figure 11. FDI Inflows by Sector



Source: DEPS; AMRO staff calculations

Table 1. FDI Projects in the Pipeline

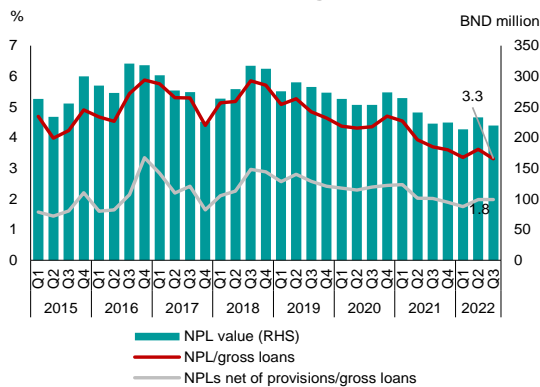
	Sector	Source	Investment Value (USD)	Projected Employment
Downstream	Sodium methylate production	Japan	29 million	56
	Terminal storage	Germany	134 million	55
	Refineries & petrochemical Plant: Phase 2	China	13.65 billion	3,400
Food	Global trading, operation & spice processing centre	China	15.8 million	100
	Atlantic salmon farming	Singapore	220.2 million	145
	Poultry farming	Singapore	31.5 million	84
	Integrated meat processing	India	76 million	995
	International Halal frozen seafood processing hub	Malaysia	18.6 million	550
	Medical AI & Big Data global hub	China	175.0 million	1,313
Tourism	Eco-resort	Singapore	6.8 million	30

Source: DEPS; AMRO staff calculations

A.3 Monetary Condition and Financial Sector

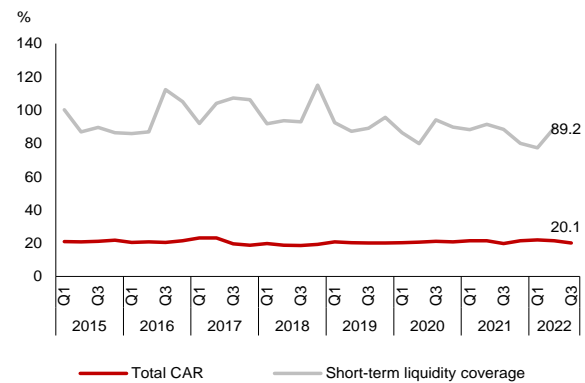
9. The banking sector remains sound—with ample capital buffers and recovering profitability. Banking system asset quality continues to improve with the non-performing loan (NPL) ratio declining to 3.3 percent in Q3 2022, from a peak of 4.7 percent in 2020 during the pandemic (Figure 12). Financial institutions in Brunei continue to be highly capitalized, with an aggregate capital adequacy ratio of over 20 percent in Q3 2022, well above the 10-percent minimum regulatory requirements.⁵ Similarly, the short-term liquidity coverage in the banking sector remained adequate at around 90 percent in Q2 2022 (Figure 13). After hitting an all-time low in Q1 2022, profitability has improved. Return on equity increased to 8.4 percent in Q3 2022 from 5.5 percent in Q2 2022, in tandem with the improvement in net income of banks.

Figure 12. Banking Sector: Non-Performing Loan



Source: BDCB; AMRO staff calculations
Note: NPL = non-performing loan; RHS = right hand side

Figure 13. Capital Adequacy and Liquid Assets to Short-Term Liabilities



Source: BDCB; AMRO staff calculations
Note: CAR = capital adequacy ratio

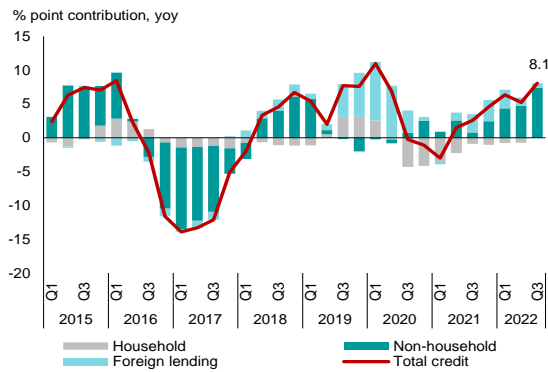
10. Credit growth has recovered, driven mainly by the corporate sector. After being curtailed by the pandemic, credit growth recovered in 2021 (+4.6 percent) and strengthened in Q3 2022 (+8.1 percent) (Figure 14). The recovery has been driven by stronger corporate sector loan demand amid a pickup in domestic economic activities. Credit to households, which had contracted since Q2 2020, registered a marginal growth for the first time at 0.01 percent (yoy) in Q3 2022 from -2.1 percent in 2021, on stronger growth of personal loans.

11. Encouragingly, there has been a gradual shift in the composition of bank lending towards productive sectors, helping to foster growth. As compared to a decade ago, the

⁵ The Tier 1 capital ratio in Brunei stood at around 10 percent as of Q2 2022, which is slightly above the average of 9 percent in other emerging market economies.

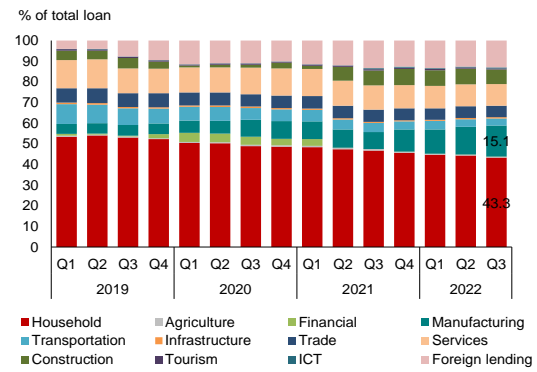
volume of financing to the manufacturing and services⁶ sectors doubled in size, reaching 15.1 percent and 10.4 percent of total credit, respectively, as of Q3 2022 (Figure 15). In contrast, the share of financing to the household sector has declined from nearly 60 percent of total loans to just slightly above 40 percent over the same period, partly due to efforts by regulators to encourage prudent lending to households.

Figure 14. Banking Sector: Credit Growth by Sector



Source: BDCB; AMRO staff calculations

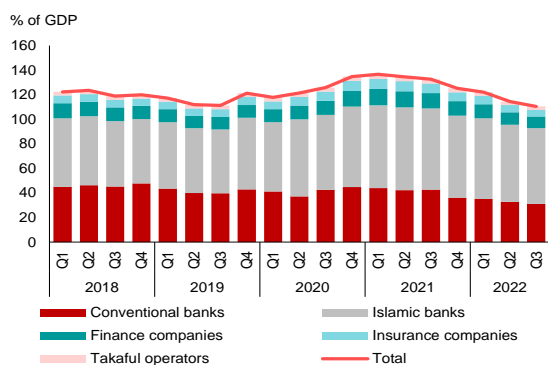
Figure 15. Banking Sector: Share of Credit by Sector



Source: BDCB; AMRO staff calculations

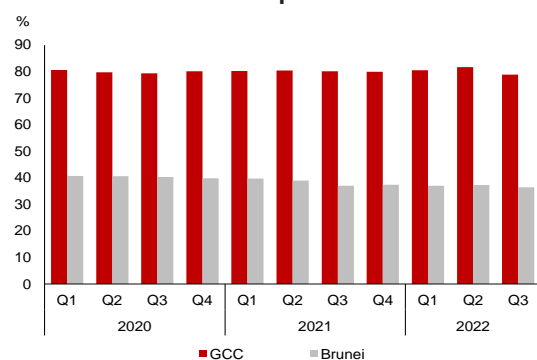
12. Financial intermediation remains relatively low as compared to peers in the oil-exporting Gulf Cooperation Council (GCC). As of Q3 2022, the banking sector assets accounted for 92.7 percent of GDP, with the corresponding loan-to-deposit ratio (LTD) at 36.4 percent (Figures 16, 17). The relatively low LTD ratio reflects the continuing low level of domestic financial intermediation relative to GCC peers (Figure 17), given that a large proportion of companies in Brunei (mostly large MNCs related to the O&G sector) do not borrow from domestic banks as they receive funding from their parent companies or have direct access to foreign financing, while domestic MSMEs players are much smaller in size, thereby limiting the volume of domestic financing.

Figure 16. Brunei: Structure of Financial System



Source: BDCB; AMRO staff calculations

Figure 17. Brunei Versus GCC: Loan-to-Deposit Ratio



Source: BDCB; KAMCO INVEST; AMRO staff calculations
Note: GCC = Gulf Cooperation Council

13. The temporary financial/regulatory relief measures introduced during the pandemic have all been lifted after end-December 2022, reflecting the demand conditions and rebounding economic activities.⁷ Since April 2020, the BDCB has provided various financial/regulatory relief measures to support businesses and individuals affected by the pandemic (Table 2). However, as economic recovery gained traction and the need for the

⁶ Following the authorities' classification, services exclude tourism, ICT, transportation, trade, and financial sectors.

⁷ An economic support package—valued at BND450 million or 2.7 percent of GDP—was introduced in March 2020 to support affected businesses and individuals, of which BND200 million were classified as fiscal measures, and BND250 million were “Economic Relief Package.” (Source: [AMRO Brunei Darussalam ACR 2020](#))

15. Going into FY2022, the fiscal position is expected to improve further in view of the continuing high global energy prices and spending restraint. Latest available data showed that the government already achieved revenue of BND3.4 billion in the first two quarters of FY2022, well above its whole year target of BND3.2 billion (Table 3). For the year, AMRO staff estimates that fiscal revenue is expected to reach BND5.7 billion or 23.7 percent of GDP from BND4.7 billion or 24.2 percent of GDP in FY2021. Meanwhile, expenditure is estimated to decline by around 2.6 percent to BND5.5 billion or 23.2 percent of GDP in FY2022. As a result, the fiscal balance is expected to register a surplus of 0.5 percent of GDP, before reversing to deficit of 1.3 percent in FY2023.

Table 3. Fiscal Budget and Realization

Items	FY2021			FY2022		
	Budget	Actual	% of Budget	Budget	Actual (Apr-Sep)	% of Budget
Total revenue	2,607	4,768	182.9	3,173	3,404	107.3
O&G revenue	1,518	4,004	263.8	2,250	3,073	136.5
Non-O&G revenue	661	686	103.9	923	325	35.2
- Tax	317	349	109.9	315	150	47.5
- Fee charges and rent	324	319	98.4	311	155	49.7
- Others	19	19	97.4	20	19	95.7
Returns from investment and savings	428	61	13.1	236	3	1.4
Excess revenue – statutory bodies	N/A	17	N/A	40	4	9.9
Total expenditure	5,860	5,780	98.6	5,700	2,690	47.2
Current expenditure	5,260	5,569	105.9	5,350	2,639	49.3
- Charged expenditure	1,060	1,303	122.9	1,060	801	75.6
- Personal emolument	2,016	1,993	98.9	2,145	930	43.4
- Other charges annually recurrent	2,184	2,273	104.1	2,145	908	42.3
Capital expenditure	600	211	35.2	350	51	14.7

Source: MOFE; AMRO staff calculations

Note: The excess revenue from statutory bodies was classified under the returns from investment and savings in FY2020.

16. The government remains committed to fiscal consolidation to narrow the budget deficit, especially through improving spending efficiency and reducing wastage. Many initiatives have been carried out in recent years. For instance, the conveyance loan for government employees¹⁰ has helped reduce government spending, while the revised water tariff¹¹ and royalties' rate¹² have helped increase the government revenue. Moreover, the One Common Billing System (OCBS)¹³—launched in February 2020—has been extended to more institutions since 2021, helping to improve revenue collections, such as in the area of fees and charges.¹⁴

¹⁰ The conveyance loan refers to a loan provided to government officials based on the criteria set by the MOFE and is only applicable for the purchase of motor vehicles. The Conveyance Loan has new eligibility of civil servant who can apply this loan referring to Circular from MOFE 01/2020. Main objectives are to assist government employees in purchasing their own cars (new or used ones) and to avoid misuse of benefits. This program reduced the government's expenditure by BND16.2 million from July 2020 to February 2021.

¹¹ The revised water tariff is implemented after the launch of Unified Smart Metering System (USMS), from which the revenue collection is estimated to increase from BND16.8 million to BND38.4 million per year based on 88,546 units of water meter (residential) and 8,353 units of water meter (commercial) (Source: MOFE). The USMS is a unified smart solution combining water and electricity into a single account. At present, there have been nearly 3,000 USMS installed by households and business premises (Source: *Borneo Bulletin*).

¹² The revised royalties rate refers to the revision of royalties' rate under Forestry Act Chapter 45, effective on April 1, 2020. The reform contributed to the increase in forestry-related revenue by 16 percent to BND550,919 in FY2020.

¹³ The OCBS was initiated by the Treasury Department of MOFE to help facilitate government's revenue collection by allowing the public to make payments online. (Source: *MOFE*)

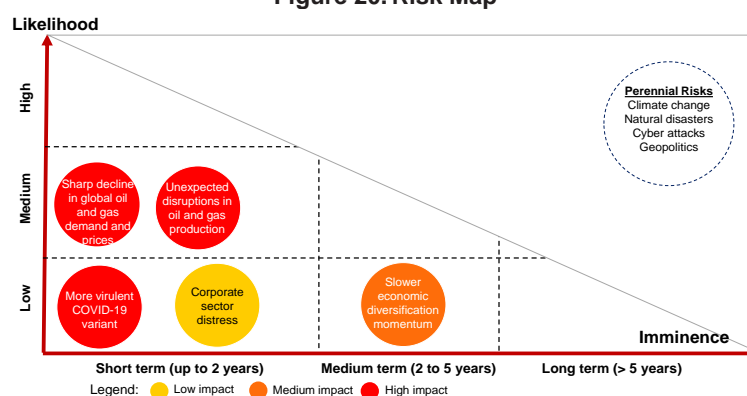
¹⁴ The government has also been reviewing the laboratory charges, which is expected to raise the revenue by roughly BND160,000 per annum.

B. Risks, Vulnerabilities and Challenges

B.1 Near-term Risks to the Macro Outlook

17. Risks to Brunei’s outlook are tilted to the downside amid the unusually high uncertainty in the global energy market (Figure 20). Given its continuing reliance on the O&G sector, Brunei is susceptible to both domestic and external shocks, which could derail the growth prospects while putting strains on the external and fiscal positions. Domestic idiosyncratic risks include unexpected disruptions in upstream O&G production amid challenges in rejuvenating offshore O&G fields. On the external front, concerns over slowing global demand in 2023 could pose a drag on exports, weighing on growth. A sharper-than-expected slowdown in the United States and Europe could also exert downward pressure on global energy prices, with spillovers to other sectors of the economy (notably fiscal and financial).

Figure 20. Risk Map



Source: AMRO staff

18. The emergence of new and more virulent COVID-19 variants—a tail risk at this juncture, could set back the economic recovery. Although current vaccines continue to provide effective protection against severe illnesses and death, the emergence of more virulent COVID-19 variants, which may be resistant to existing vaccines, cannot be discounted. In order to prevent public healthcare system from being overwhelmed, stringent containment measures and border restrictions could be re-imposed. This would derail the economic recovery.

19. Higher borrowing costs and moderating external demand could put downward pressure on corporate earnings. Sharply higher global interest rates at a time when global growth is moderating could put downward pressure on corporate earnings. Businesses in Brunei—particularly those that are still recovering from the COVID-19 pandemic (such as in the tourism and transportation sectors) would come under pressure to service their debt obligations, or face difficulties in rolling over their debt. Higher interest rates could also reduce the valuation of banks’ portfolio investment, which are marked to markets, exposing banking sector balance sheets to interest rate risks.¹⁵

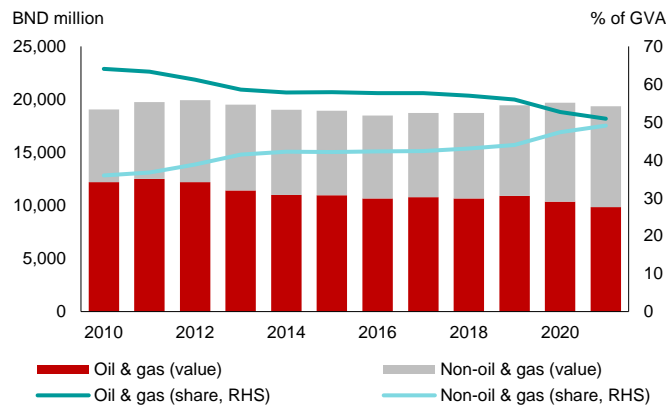
B.2 Medium-to-Long-term Challenges and Vulnerabilities

20. While high global energy prices offer favorable tailwinds to exports and fiscal revenue, they could induce a sense of complacency and undermine the pace of

¹⁵ Based on the financial reports of the top two banks in Brunei, portfolio securities (equity and debt) subject to investment valuation at fair value through profit and loss account for less than 10 percent of total assets in 2021.

economic diversification, setting back the agenda to build longer term economic resilience. Notwithstanding the progress made in economic diversification, the O&G sector continues to account for a large share of GDP, constituting 50.9 percent of real gross value added in 2021, while the non-O&G sector accounts for 49.1 percent (Figure 21). The reliance on the O&G sector exposes Brunei to external shocks in the global energy market, while increasing risks associated with procyclicality.

Figure 21. Real Gross Value Added (GVA) by Sector



Source: DEPS; AMRO staff calculations
Note: RHS = right hand side

B.3 Perennial Risk: Climate Change

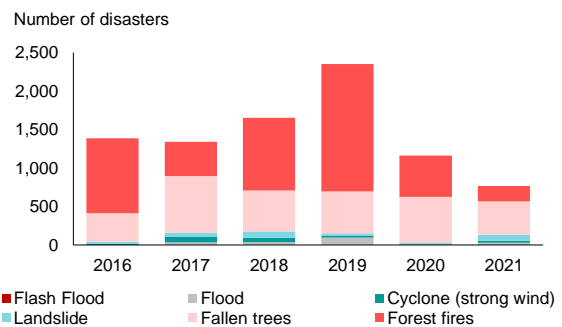
21. Climate change is amongst the perennial risks which could undermine Brunei’s economic and financial stability in the longer term. Extreme weather-related events not only result in significant losses to physical assets/infrastructure but could also strain public finances and pose systemic risks to the financial sector. Although Brunei’s natural hazard risk remains low, below the world average at present, it is crucial to take necessary measures in advance to minimize risks/damage from climate change shocks (Figures 22, 23). The longer-run structural decline in global demand for fossil fuels, driven by global commitment to net zero carbon emissions, should also be taken into consideration and integrated strategically as part of the country’s multi-year economic development agenda, in order to safeguard economic prosperity and intergenerational equity.

Figure 22. Natural Hazard Risk



Source: European Commission; AMRO staff calculations
Note: The INFORM Risk Index identifies countries at high risk of humanitarian crisis that are more likely to require international assistance. The index contains three dimensions of risk: Hazards & Exposures, Vulnerability and Lack of Coping Capacity. ASEAN+3 and World average is simple average of countries in respective groups. BN = Brunei, CN = China, ID = Indonesia, JP = Japan, KR = Korea, LA = Lao PDR, MM = Myanmar, MY = Malaysia, PH = Philippines, SG = Singapore, TH = Thailand, VN = Vietnam.

Figure 23. Number of Natural Disasters



Source: Brunei Climate Change Secretariat (BCCS)

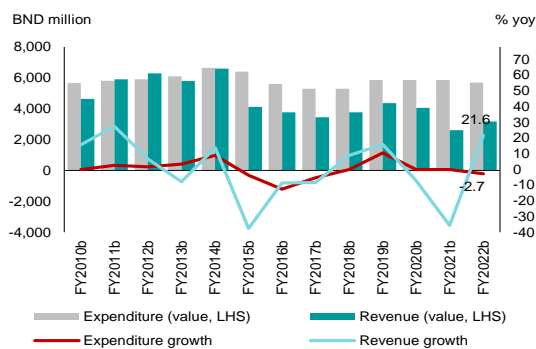
C. Policy Discussions and Recommendations

C.1 Fiscal Policy

22. In FY2022, the improvement in the (budgeted) fiscal position mainly reflects the continuing expenditure cuts amid stronger revenue outlook. Brunei’s expenditure is budgeted to continue to decline by 2.7 percent (yoy) in FY2022 (Figure 24), reflecting the government’s continuing policy intent to maintain a prudent level of spending in tandem with the Fiscal Consolidation Program (FCP).¹⁶ Coupled with an improved revenue outlook, the fiscal position is expected to improve significantly in FY2022, with AMRO staff estimating a fiscal surplus of 0.5 percent of GDP. The improvement in the fiscal position is premised on higher O&G export proceeds due to higher global energy prices, and continuing spending restraint—both of which do not reflect major changes in revenue and expenditure policies, e.g., taxation policy, price controls/subsidy spending.¹⁷

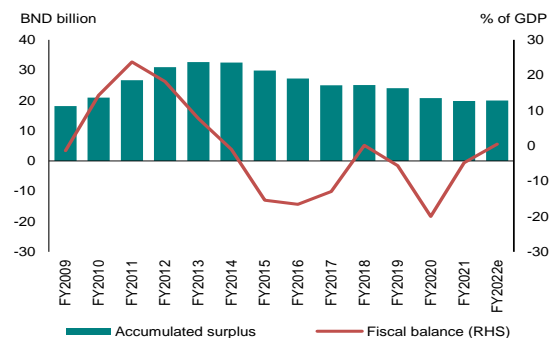
23. Although the extraordinary fiscal measures introduced during the pandemic have been unwound, targeted fiscal support, where appropriate, should remain in place. While the pandemic has largely subsided, the effects will continue to linger. Targeted fiscal support aimed at protecting the most vulnerable groups (such as the self-employed), should continue to remain in place in order to minimize potential scarring effects from the pandemic. However, this should be time-bound, and balanced against the need to design an adequate social safety net (such as unemployment insurance). Of significance, the establishment of the National Welfare System (SKN) in July 2020 is timely, allowing the government to deliver targeted support to vulnerable groups. Fiscal measures in the form of social assistances should continue for the time being to address the rising cost of living.

Figure 24. Budget: Revenue and Expenditure



Source: MOFE; AMRO staff calculations
Note: b = budget; LHS = left hand side

Figure 25. Accumulated Fiscal Reserves and Fiscal Balance



Source: MOFE; AMRO staff estimates
Note: The accumulation starts from FY2003. e = AMRO staff estimates; RHS = right hand side

24. Efforts to broaden and diversify fiscal revenue sources will reduce dependence on the O&G sector, while helping to shield public finance against volatility and procyclicality. The financial windfall from strong O&G exports has recently improved the country’s fiscal position—helping to rebuild buffers (Figure 25). Such gains, however, may not be sustainable moving forward, given the uncertainties on the outlook of global energy prices. Even though there are no immediate plans to implement major tax reforms at the current

¹⁶ The FCP—which has been implemented since 2018, aims to restructure revenues and expenditures for fiscal sustainability. The FCP requires various ministries and line departments to review their existing policies and to undertake relevant reforms to promote efficiency in the provision of public services (such as trimming unproductive budget spending and improve expenditure structures).

¹⁷ Efforts by the authorities to strengthen fiscal consolidation are also reflected in lower expenditure outturns in FY2021. Actual spending was lower by 3 percent (yoy), as compared to the budgeted spending.

juncture given ample fiscal buffers, the authorities are encouraged to take incremental steps to broaden the tax base over the medium term, in order reduce procyclicality of fiscal revenue with the O&G sector. For instance, broadening excise taxes to include goods that cause pollution (such as batteries, pesticides, synthetic rubbers) at low rates, would not only help signal the authorities' policy intent to diversify revenue sources, but also help protect the environment. The implementation of revenue reform agenda should be in line with longer term economic diversification strategies. According to AMRO staff model simulation, under the extreme scenario of both energy price and production shocks (see Appendix 2), the impact on fiscal revenue would cause a widening of the overall deficit to 17.5 percent in FY2027, compared with the baseline assumption of 2.9 percent. This underscores the need to accelerate revenue reform.

25. On the expenditure side, the authorities remain committed to maintain budgetary prudence. The authorities continue to keep expenditure within budget, despite the financial windfall from higher O&G prices in the past two years. Encouragingly, the authorities have also undertaken timely reforms, such as the introduction of a new pension scheme “National Retirement Scheme (SPK)”¹⁸ (scheduled to commence in 2023) (see Box A), which helps to minimize the risk of a future liability in the form of government top-up on pension payments. Other reforms in the area of untargeted subsidy on fossil fuels are desirable as resources could be reallocated to further strengthen expenditures in priority areas such as climate change action plans.

26. Strengthening fiscal consolidation—at a time when economic recovery is underway, would help to restore and rebuild buffers. As economic activities normalize, the focus of fiscal policy should shift towards strengthening fiscal consolidation—one that also prioritizes building back better in a more inclusive and sustainable manner post-pandemic. In this regard, fiscal consolidation should be well designed to remain supportive of growth without disrupting the economic recovery. The favorable tailwind from high global energy prices offers not only the opportunity to restore and rebuild fiscal buffers but also the opportunity to undertake growth-enhancing capital spending, such as investment in soft and hard infrastructure and digital connectivity. This helps to bolster growth and foster resilience.

27. The authorities are encouraged to enhance the fiscal management framework to put public finances on a sustainable growth path, with due regards for intergenerational equity. At the current juncture, the authorities continue to be guided by the fiscal consolidation program (FCP) as the planned implementation of a medium-term fiscal framework remains in the pipeline. Based on the market assumption¹⁹ that oil prices are likely to stabilize at around USD80/barrel in the medium term, AMRO staff assessment suggests that the medium-term fiscal revenue would fall to 19.8 percent of GDP in FY2027 under the baseline “business-as-usual” scenario from 23.7 percent of GDP in FY2022. The downward shift in the O&G revenue receipts reflects a structural shift to cleaner energy globally, and the maturation of O&G fields domestically (Table 4). Meanwhile, the expenditure-to-GDP ratio is projected to fall to 22.7 percent of GDP in FY2027 from 23.2 percent of GDP in FY2022. In this baseline scenario, the budget deficit is expected to stay around 1-4 percent of GDP during FY2024–27 (Table 4). Over the medium- to longer-term, it is desirable to systematically link the annual resource allocation (the budget process) to the medium- to longer-term fiscal priorities/development agenda, including the necessary financing mechanisms to better promote the efficiency of public finances. The adoption of such fiscal anchor would enhance the strategic resource

¹⁸ This will replace the current schemes “Employees Trust Fund” and “Supplemental Contributory Pension” which are deemed insufficient for retirement needs. The new scheme eliminates caps on employer and employee contributions and is also extended to workers in non-formal sectors including the self-employed.

¹⁹ The assumption for the oil price forecast is from the Oxford Economics.

allocation, which not only contribute to the efficiency of public finances but also help improve transparency and accountability—in line with the objective of a holistic public financial management (PFM).

Table 4. Medium-Term Fiscal Outlook

Percent of GDP	FY2021	FY2022e	FY2023p	FY2024p	FY2025p	FY2026p	FY2027p
Government revenue	24.3	23.7	24.6	24.2	21.0	20.3	19.8
O&G revenue	20.4	20.5	20.7	19.9	17.0	16.5	16.1
Government expenditure	29.5	23.2	25.9	25.7	24.6	23.6	22.7
Budget balance	-5.2	0.5	-1.3	-1.6	-3.6	-3.3	-2.9

Source: MOFE; AMRO staff calculations

Note: e = AMRO staff estimates; p = AMRO staff projections

Authorities' Views

28. Notwithstanding the unwinding of pandemic-era fiscal support, fiscal support (in the form of social assistances) continues to be made available to vulnerable groups. This is in line with the Authorities' commitment to ensure that the population's welfare continues to be protected. Under the SKN, a set of National Criteria has been formulated and utilized as a baseline for aligning and calculating applicants' eligibility for the assistances, which includes the calculation of the Minimum Cost of Basic Needs to assess each applicant's poverty level.

29. The introduction of any new tax needs to be assessed holistically. The Authorities will continue to study the feasibility of broadening the revenue base and raising non-O&G tax revenue, especially through improving the existing tax structure and strengthening tax compliance. The government has also been reviewing fees and charges of government services in an effort to strengthen non-tax revenue collection.²⁰

30. The Authorities remain committed to improve their fiscal management through enhancing public financial management. The benefits of a holistic PFM are certainly acknowledged, and the government has sought technical assistance to integrate the PFM into the budget process to achieve better fiscal outcomes. In this regard, it was also acknowledged that the Authorities have leveraged on digitalization, such as launching the One Common Portal and expanding services in One Common Billing System.

Box A. Pension System Reforms in a Nutshell: The Case of Brunei²¹

The Brunei government has undertaken major reforms of its state-owned pension system aimed at strengthening social welfare in the country. A new pension scheme known as the *Skim Persaraan Kebangsaan (SPK)* or *National Retirement Scheme*, which would replace the existing scheme known as the Employees' Trust Fund (TAP), is designed to be more flexible and inclusive. Other recent reform initiatives include an amendment to the old age pension regulations, the *Old Age Pension and Disability Allowances Act (Amendment) Order 2021*, and the introduction of a new act, the *Persons with Disabilities Order 2021*. These allow pensioners with disabilities in the country to be always looked after.

The **SPK, slated to be launched in 2023, is expected to strengthen the social welfare of its members by boosting retirement savings.** Jointly developed by the MOFE and Tabung Amanah Pekerja, the SPK will provide flexibility to members if they want to remain in the TAP and SCP schemes. Changes from the previous schemes include (1) eliminating the earnings cap on

²⁰ In August 2020, the government introduced the Exit and Entry System (EES), imposing charges of BND3 per person on people leaving or entering Brunei through the land control posts or checkpoints. The charges were revised to BND3/6/10 per vehicle per trip for vehicles leaving or entering Brunei through the land control posts or checkpoints in December 2022. This is part of government's efforts to strengthen non-tax revenue collection.

²¹ This box was prepared by Vanne Khut (Economist).

employer's and employee's contributions; (2) providing better retirement income by using income replacement rate (IRR) method; (3) introducing a lifetime annuity payment; (4) providing more flexible withdrawal schemes to cater to members' pre-retirement needs; and (5) expanding the coverage to all types of employment (Table A1). It should be noted that the employee's mandatory contribution rate will remain unchanged at 8.5 percent, whereas the employer's contribution rate will increase but vary, depending on employee's income level (Table A1).

Table A1. Selected Differences between Previous Pension Schemes and SPK

Differences	Previous Schemes (TAP and SCP)	SPK										
Target group	<ul style="list-style-type: none"> Formal sector 	<ul style="list-style-type: none"> Formal and informal sectors 										
Contribution rate of employer and employee	<ul style="list-style-type: none"> Cap at BND98 (maximum) TAP: 5% from employer and employee SCP: 3.5% from employer and employee: <ul style="list-style-type: none"> Employer's minimum contribution: BND17.5 for employee's salary less than BND500 For salary more than BND2,800: contribution capped at BND98 	<ul style="list-style-type: none"> No cap Employee: 8.5% Employer: based on employee's salary level indicated below: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Salary</th> <th>Rate</th> </tr> </thead> <tbody> <tr> <td>BND500 and below</td> <td>minimum contribution (BND57.5)</td> </tr> <tr> <td>BND500.01 - 1,500</td> <td>10.5%</td> </tr> <tr> <td>BND1,500.01 - BND2,800</td> <td>9.5%</td> </tr> <tr> <td>BND2,800.01 and above</td> <td>8.5%</td> </tr> </tbody> </table> 	Salary	Rate	BND500 and below	minimum contribution (BND57.5)	BND500.01 - 1,500	10.5%	BND1,500.01 - BND2,800	9.5%	BND2,800.01 and above	8.5%
Salary	Rate											
BND500 and below	minimum contribution (BND57.5)											
BND500.01 - 1,500	10.5%											
BND1,500.01 - BND2,800	9.5%											
BND2,800.01 and above	8.5%											
Member account withdrawal schemes	<ul style="list-style-type: none"> 25% for withdrawal of TAP savings at age 50 100% for withdrawal of TAP savings at age 55 45% for withdrawal of TAP savings for building or purchasing a house or repaying home loans to banks or government housing 	<ul style="list-style-type: none"> 30% for withdrawal at age 45, 50, 55 100% for withdrawal at age 60 50% for building, buying, repairing, and renovating a house after a member reaches age 40 100% for the withdrawal by members suffering from terminal illness 										
Annuity payment	<ul style="list-style-type: none"> SCP: for a period of 20 years 	<ul style="list-style-type: none"> Lifetime (calculations based on several factors: average household expenditure, IRR, average member salary, inflation rate and work productivity) 										
Dividend	<ul style="list-style-type: none"> Contributions invested and the dividend declared for employee savings 	<ul style="list-style-type: none"> Fixed dividend rate: 2.5% 										

Source: TAP

Note: Brunei's compulsory age for the retirement is 60. TAP = Tabung Amanah Pekerja (or Employee Trust Fund); SCP = Supplemental Contributory Pension

The amended *Old Age Pension and Disability Allowance Act* further improves the eligibility criteria for pensioners. Specifically, only Bruneian citizens and stateless permanent residents (PRs)²² aged over 60 will continue to be qualified for the BND250 monthly allowance, whereas Bruneian Permanent Residents holding foreign citizenship are no longer eligible for the old-age pension. The legislative amendment has also introduced a monthly Care Provider Allowance worth BND250 for care givers of people with disabilities.²³ Individuals with special needs will also be entitled to a differently-abled allowance on top of the old-age pension once they reach 60 years of age. The tightened eligibility rules resulted in a 3-percent decline in the number of old-age pension recipients to 42,700 people in FY2021, translating to a nearly 30-percent reduction in the welfare spending (FY2021: BND98.5 million; FY2020: BND140 million).²⁴

The government's pension reform initiatives are a welcome development, at a time when the country's ageing population continues to rise. Given the declining fertility rate and increasing life expectancy (Figure A1), Brunei's elderly population (aged 65 and above) has been growing at a faster pace relative to the other age groups, reaching 6.3 percent of population in 2021—close to the 7-percent threshold of what is regarded as an ageing nation defined by the United Nations²⁵ (Figure A1). Moreover, the old-age dependency ratio also ticked up to 8.1 percent in 2021, as compared to

²² Brunei-born stateless permanent residents are required to be residing in the country for at least 183 days to be eligible for old-age pension (10 years under previous rules). (Source: [The Scoop](#))

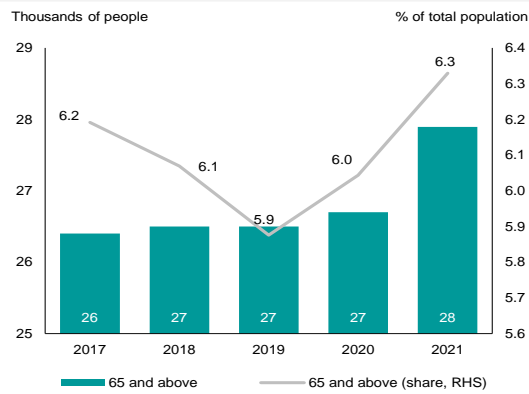
²³ The care provider's allowance replaces the dependent allowance—previously set at BND113 and BND188 for recipients aged under 15 and older than 15, respectively. (Source: [The Scoop](#))

²⁴ Source: [The Scoop](#)

²⁵ According to the United Nations' estimates, Brunei's ageing population is likely to reach 7 percent of population in 2024 and 9.7 percent in 2030 (using median prediction interval).

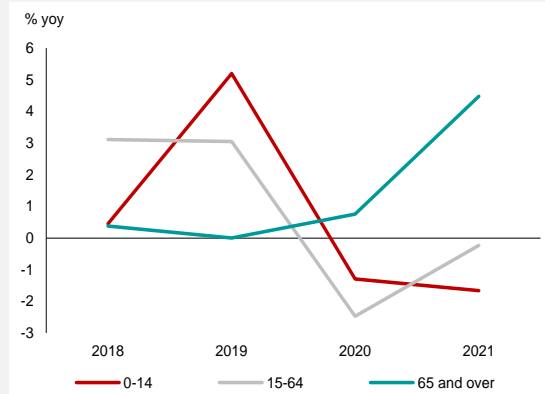
4.9 percent a decade ago, suggesting that the economy faces a greater burden to support a growing number of elderly people. The rapid growth in ageing population can exert pressures on the country's pension system, undermining sustainability especially if the majority of pensioners do not have adequate savings prior to their retirement. In this regard, the government's efforts in strengthening the social welfare for the benefit of the people is commendable, which will in turn help the government mitigate risks from unexpected liabilities (in the form of top-up pension payments) going forward.

Figure A1. Brunei's Ageing Population



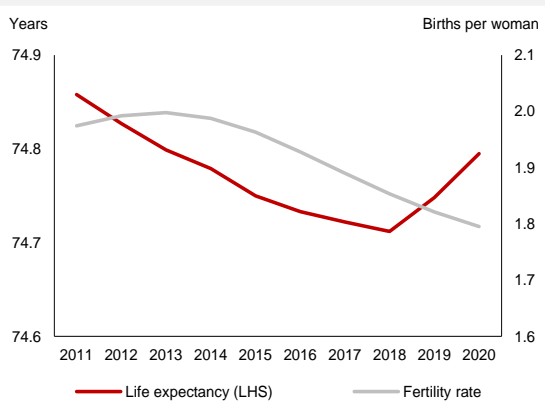
Source: DEPS; AMRO staff calculations

Figure A2. Population Growth by Age Group



Source: DEPS; AMRO staff calculations

Figure A3. Fertility Rate and Life Expectancy



Source: The World Bank

C.2 Monetary Policy

31. Monetary conditions have tightened, reflecting the rise in domestic interest rates.

The BDCB standing facility deposit and lending rates have been raised since May 2022 to 2.5 percent and 1.5 percent, respectively, in November, but by a smaller magnitude as compared to Singapore (Figure 26). The upward adjustment in interest rate is appropriate, reflecting the Currency Interchangeability Arrangement with Singapore. However, on retail interest rates, banks in Brunei have maintained unchanged their retail deposit and lending rates (Figure 27). So far, changes in the standing facilities rates have not translated to adjustment in retail rates, partly reflecting the ample liquidity. However, a sharply higher global interest rate—a tail risk at this juncture, could have material spillovers on domestic lending rates. Higher borrowing costs, if materialized, would raise the debt burden of corporates (Figure 28). Meanwhile, with inflation having risen to a multi-year high, the temporary use of administrative price controls would help to mitigate upward pressures on inflation. See Appendix 1 for a policy discussion to address the current high inflation.

Figure 26. Overnight Standing Facilities Rates in Brunei and Singapore

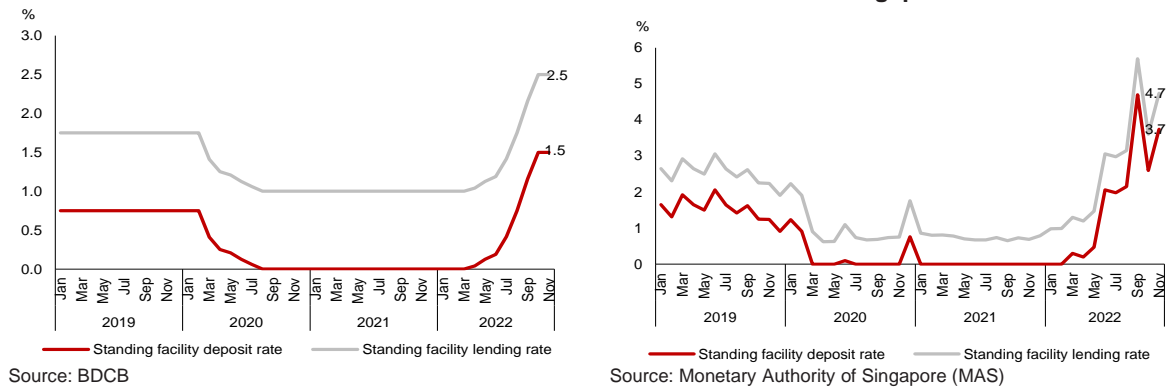
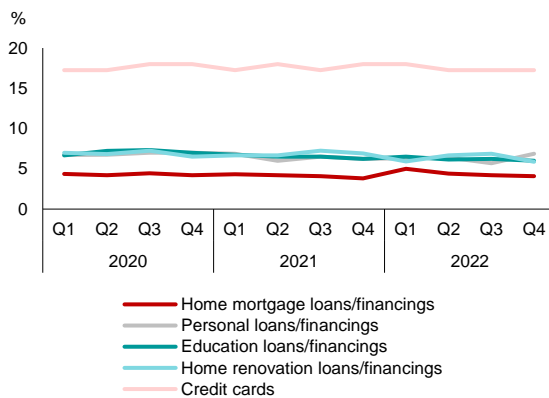
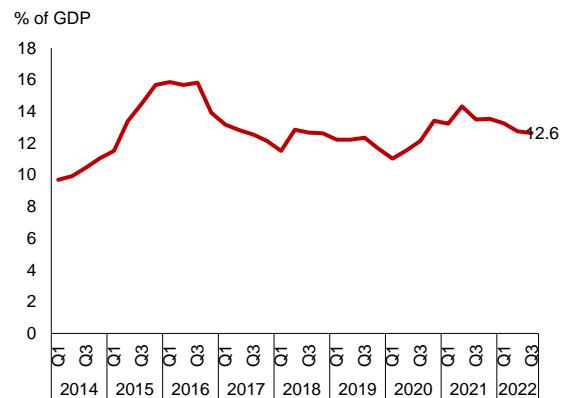


Figure 27. Retail Lending Rates by Sector



Note: The retail lending rate by each sector is the average mode rate of each sector from 6 financial institutions, such as Baiduri Bank, BIBD, Maybank, RHB, Standard Chartered, and TAIB. TAIB = Perbadanan Tabung Amanah Islam Brunei—the first financial institution to conduct all its activities in accordance with Islamic faith.

Figure 28. Brunei's Corporate Debt



Note: Corporate debt is in the form of credit card debt, corporate bond, or business loan.

Authorities' views

32. Certain food items will continue to be subsidized to protect low-income groups, especially amid the current upward inflationary pressures. In an attempt to lower price pressures, the government has been putting more efforts into diversifying import sources, strengthening self-sufficiency, while increasing price transparency²⁶ which is important for consumers to make an informed decision and for regulators take a proactive approach in tackling price concerns.

C.3 Financial Policy

33. The increased volatility in global financial markets calls for close monitoring of risks associated with banks' foreign lending activities, and the placement of surplus funds abroad for investment. A sizable share of total credit in the banking system goes to foreign lending—mostly in property sector, making up 13.0 percent of the total as of Q3 2022. This is similar to the share of lending to the manufacturing sector (15.1 percent). In addition, banks' placement of surplus funds abroad—which continues to be sizeable, is subject to both

²⁶ The authorities publish all prices of products and their availability in the market on "SmartConsumer" mobile application—launched since 2016 but upgraded in 2022; DEPS's website; and MOFE's Instagram.

interest rate and exchange rate risks. The authorities should remain vigilant and strengthen their risk management framework to monitor banks' cross-border exposure to market risks.

34. Banks in Brunei can improve their Environmental, Social, and Governance (ESG) practices by offering green financial products, financing renewable energy, and promoting sustainability. Brunei's banks have a significant exposure to ESG related loans at around 48 percent, with such loans mostly coming from mortgages.²⁷ To become more environmentally and socially responsible, financial institutions in Brunei could consider offering sustainability-focused financial products and services such as green mortgages, green loans, and green investment options. They could also provide financing and support for renewable energy projects, promote sustainable transportation, invest in energy efficiency and conservation, and disclose their environmental and social performance in their financial reports.

35. It is important to continue facilitating the provision of credit to MSMEs to foster private sector growth and development. While MSMEs account for over 97.3 percent of total number of enterprises, total credit to MSMEs constitutes only around 9.2 percent of total banking sector's loan portfolio. For most MSMEs in Brunei, especially start-ups, their financing needs are largely dependent on retail investors who are able to provide only limited financing. Corporate loans, and traditional financing offered by banks tend to have high interest rates (5.5–7.5 percent per annum). However, the access to the traditional bank financing remains a challenge given MSMEs' limited capacity in designing a good business plan and providing basic information required by banks. The establishment of an SME bank (*Bank Usahawan*) has helped to improve access to financing by MSMEs (see Box C2). Therefore, government's efforts to improve access to financing for MSMEs, including through enhancing the financial literacy of MSMEs and building their capacity to develop a sound business plan, should continue to be prioritized.

36. AMRO staff support the authorities' plan to enhance financial stability and promote financial sector development. The authorities have been stepping up their efforts to enhance financial sector supervision by gradually moving towards the adoption of Basel III framework. For instance, a background paper on the development of a macroprudential policy framework has been completed since early 2022 although some other areas, e.g., systemic risk monitoring, and institutional arrangement, remain work in progress. In the area of Fintech, new initiatives have been recently undertaken, e.g., the establishment of a fintech association,²⁸ the Digital Payment Hub—a flagship project consisting of National QR Code and Instant Payment System that will allow for immediate and cost-effective fund transfers and cross-border interoperability. More efforts have also been put into the setting up of a national stock exchange, which could, in turn, encourage investment and facilitate capital raising of domestic companies. Speeding up the development of the sukuk market and other Islamic finance products, such as Islamic equity indices and funds is desirable to promote the development of the local capital market.

C.4 Structural Reforms

37. Greater economic diversification would strengthen the resilience of the economy. Encouragingly, Brunei's efforts to diversify the economy have borne fruit in recent years as evidenced by the success in attracting investments in the downstream sector, such as Hengyi Industries (Phase I) and Brunei Fertilizer Industries. For Hengyi Industries (Phase II), some dredging and reclamation work has started since 2021, whereas a feasibility study and revision

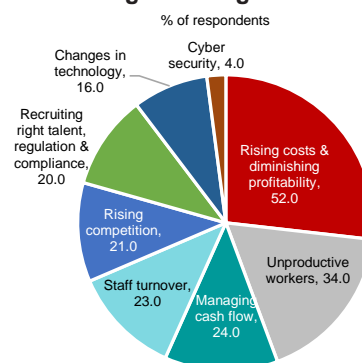
²⁷ Source: Wong, Gabriella, and Durrani (2022)

²⁸ The establishment is targeted to be completed by end-2023.

of business plans are currently being finalized. Hence, speeding up the process is recommended as the successful expansion of this USD13.7-billion project—the country’s largest FDI project to date—will give a major boost to the economy and enhance potential growth in the longer term through higher value-added production and employment generation. Besides the downstream sector, the government should also strive to create a conducive investment climate to attract more FDIs into the other priority sectors, such as ICT, food, tourism and services.

38. Greater efforts to address long-standing structural challenges in the labor market and enhance digitalization are crucial to attract quality FDIs into sectors beyond the O&G. Given the emerging new areas of growth (such as data analytics and digitalization), it is increasingly important for the local workforce to fully participate in the knowledge-based industries that would support Brunei’s future growth. Brunei’s labor market continues to face challenges in meeting the manpower needs of the emerging industries, given the prevalence of skill mismatches and gaps in skilled labor. Results from the employment survey suggest that businesses cited staff turnover and unproductive workers as amongst the key challenges in the labor market. 23 percent of the survey response reported staff turnover and the recruitment of right talents as their major challenges, while 34 percent of the survey response reported unproductive workers (Figure 29). Data from the 2021 labor force survey also indicate that most of the employed locals are in the medium-skilled category (2021: 44 percent of total employment), in line with their educational attainment.²⁹ In this regard, continuing upskilling/reskilling of the local talent pool is needed to acquire the right qualifications to promote their employability in the job market. AMRO staff applaud the government’s ongoing efforts to address the labor issues through the implementation of various programs, e.g., i-Ready, SkillsPlus, iLEAP Program (Figure 30). Simultaneously, digitalization should be strengthened in pursuit of the government’s vision to become a Smart Nation as stipulated in the Digital Economy Masterplan 2025. Equipping the locals with the right skillset while tapping into digitalization will improve the country’s labor productivity and competitiveness, which can initiate a virtuous cycle—attracting more quality FDIs, and further upgrading skills of locals through the transfers of technologies and knowhow from transnational corporations.

Figure 29. Challenges Facing Brunei’s Businesses



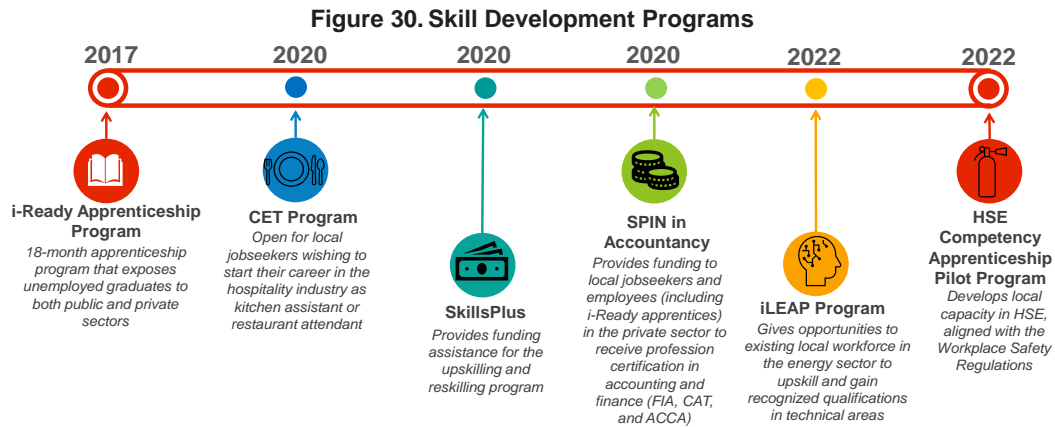
Source: JobsBrunei (Employment Report 2019 – 2020)

Note: Sample size (744 respondents including graduates, employees and companies)

39. Policy support should continue to focus on increasing the private sector’s role in the economy, notably through the development of MSMEs alongside the expansion of their global market access. MSMEs have great potential to further drive the economic diversification, yet they still encounter numerous challenges, namely limited access to

²⁹ In 2021, the employed locals with the secondary educational attainment made up the biggest share (37.4 percent of total employment), whereas those with tertiary level constituted a much smaller share (17.7 percent). Medium-skilled occupations, following ILO classification, are technicians and associate professionals; clerical support workers; service and sales workers; skilled agricultural, forestry and fishery workers; and craft and related trades workers.

financing, limited capacity in designing business plans, low productivity, and limited market access (see Box C2). The establishment of Darussalam Enterprise (DARE)³⁰ and Bank Usahawan to improve MSMEs' capacity through providing technical assistances and access to financing is laudable. Also, Brunei's integration into various bilateral or multilateral free trade agreements (FTAs)³¹ can help to open up new investment opportunities for local investors and help them access overseas markets. The activation of the Regional Comprehensive Economic Partnership (RCEP) agreement in January 2022, for instance, is expected to help facilitate trade, promote MSMEs' innovation, and increase their involvement in supply chains.



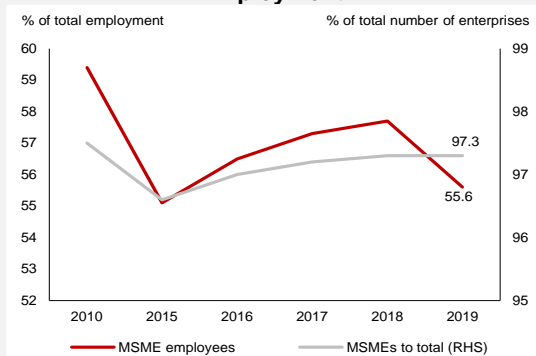
Source: Manpower Planning and Employment Council; Lifelong Learning Centre (L3C); various media

Note: CET = Continuing Education and Training; HSE = Health, Safety and Environment; SPIN = Study in Professional Institution; iLEAP = Industry Learn and Excel Apprenticeship Program

Box B. Brunei's MSMEs: Recent Developments, Challenges and Support Policies³²

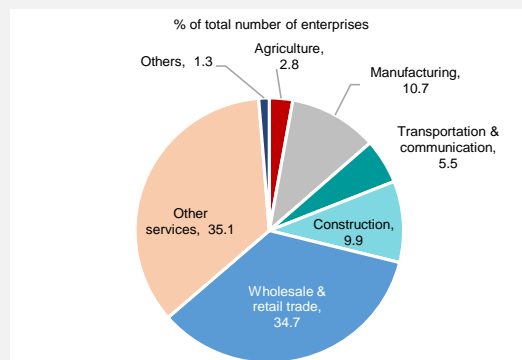
MSMEs account for the majority of businesses in Brunei and are important contributors to job creation and economic growth. MSMEs represent 97.3 percent of total firms in Brunei, constitute 55.6 percent total employment (Figure B1) and contribute 27 percent to GDP in 2019. Most of the MSMEs operate in service sectors, together making up 75.3 percent of total number of MSMEs (Figure B2). Despite an increase in the number of MSME formations,³³ MSMEs' performance has somewhat weakened in recent years in terms of their contribution to GDP and job creation (Figures B3).

Figure B1. MSMEs Share in Total Firms and Employment



Source: ADB

Figure B2. Number of MSMEs by Sector, 2019



Source: ADB

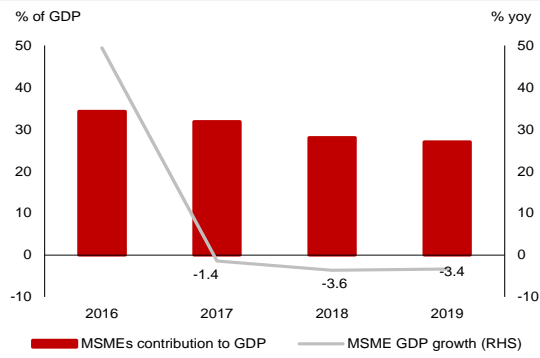
³⁰ DARE, founded in January 2016, is mandated to develop MSMEs across the country through providing capacity building, facilitating their access to regional and international markets, as well as overseeing industrial sites for FDIs. The industrial site management has allowed DARE to identify potential opportunities created by FDIs and their spillovers to local MSMEs. Unlike other government agencies financed through budgeting process, DARE generates its own revenue through the rental of industrial sites, which in turn is used to support MSMEs.

³¹ Thus far, Brunei has 11 FTAs signed and in effect since 1993, and 1 FTA with negotiations launched since 2021.

³² This box was prepared by Vanne Khut (Economist).

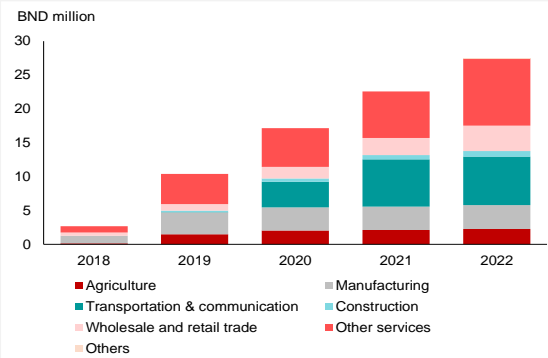
³³ The number of MSMEs grew by 1.3 percent to 5,590 enterprises in 2021. (Source: ADB)

Figure B3. MSMEs Contribution to GDP



Source: ADB

Figure B4. MSMEs Loans by Bank Usahawan

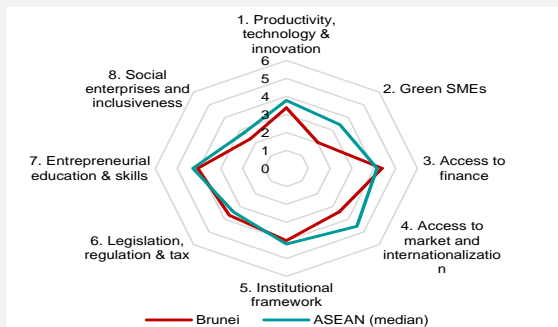


Source: Bank Usahawan

Note: Data refers to approved financing amount, which is cumulative. Bank Usahawan was established in September 2017.

While there has been notable progress in MSME developments in Brunei, many challenges remain before they can become an important driver of economic growth. These include limited access to finance, limited capacity in designing sound business plans, low productivity, and limited market access. Findings from the ASEAN SME Policy Index indicate that out of eight dimensions, Brunei lags behind ASEAN member states in six dimensions, namely (1) productivity; (2) technology and innovation; (3) green SMEs; (4) access to market and internationalization; (5) institutional framework; and (6) entrepreneurial education and skills (Figure B5). There have been some improvements in MSME’s access to finance in recent years, as reflected in an index score above the ASEAN median. However, in comparison with high-income economies in the region, Brunei’s score is comparatively lower (Figure B6). Indeed, the access to bank financing remains a challenge for Brunei’s MSMEs, largely because of banks’ low risk appetite for small businesses, as well as gaps in MSMEs’ capacity in developing good business plans and producing basic information required by banks, including cost structure, business’s breakeven point, and target customers.

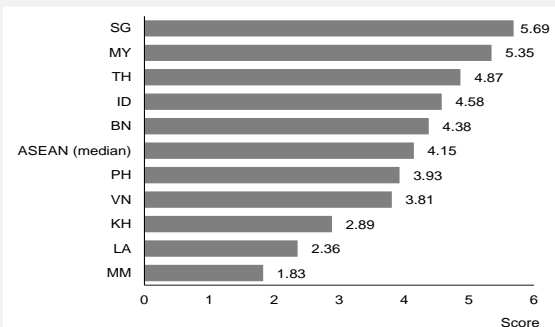
Figure B5. ASEAN SME Policy Index Score



Source: ASEAN

Note: The latest data point is 2018. The higher the score, the better the performance (on a scale of 1 to 6). ASEAN and related working groups have already kickstarted to develop ASEAN SME Policy Index 2024 which is due to be completed in the next several years.

Figure B6. Access to Finance Dimension Score



Source: ASEAN

Note: BN = Brunei Darussalam; ID = Indonesia; KH = Cambodia; LA = Lao PDR, MM = Myanmar, MY = Malaysia, PH = Philippines, SG = Singapore, TH = Thailand, VN = Vietnam

Encouragingly, more efforts have been channeled to facilitate greater access to financing by MSMEs. Prior to the establishment of Bank Usahawan,³⁴ DARE in association with Bank Islam Brunei Darussalam formulated a small credit scheme, namely “Microcredit Financing Scheme”, in 2016, which targeted only a limited segment of local MSMEs (100 start-ups). Requiring no collateral, the scheme allowed start-ups in need of funds to borrow up to BND15,000—which had to be repaid within three years.³⁵ After the scheme was phased out in June 2019, MSMEs financing has been

³⁴ Bank Usahawan was established in September 2017.

³⁵ Source: MOFE

streamlined under Bank Usahawan³⁶ and other commercial banks that also have MSMEs credit facilities. As of November 2022, Bank Usahawan had cumulatively provided credit totaled BND27.4 million, equivalent to 0.4 percent of total loans in the banking system (Figure BC2.4).³⁷ Over the last few years, DARE has also been developing an angel investment platform as an alternative for MSMEs' financing before introducing them to angel investors to ensure a successful matching—which is expected to enable MSMEs to not only receive financing but also access angel investors' network and other available resources. With proper financing support, MSMEs could be a major boost to the economic diversification into industries beyond the oil and gas. DARE has been coaching MSMEs to develop sound business models/plans, assess market validation, and improve financial literacy.

Various skills development initiatives have also been implemented to raise MSMEs' capacity and productivity. As the economy expands and becomes more diversified, the increasing need for more skilled personnel in both emerging and existing industries is undeniable, prompting the government to initiate many skill support programs. Established in March 2019, the Brunei Mentors for Entrepreneurs Network (BMEN)³⁸ is a voluntary platform connecting MSMEs with business mentors, including social entrepreneurs, industry experts, professionals, and academics. From its inception to early 2022, the number of mentors has grown from 17 to 78, with 173 registered mentees and over 485 mentoring engagements, while additional 20 MSMEs mentoring activities are targeted to be launched by March 2023.³⁹ The government has also adopted the Go Digital ASEAN initiative⁴⁰ to equip around 4,000 local entrepreneurs and under-employed youths with necessary digital skills. A cohort-based structured Elevate program has been introduced to help highly potential businesses grow through DARE's customized assistance and regular monitoring for up to five years.⁴¹

C.5 Sustainable Development

40. The authorities' proactive approach in tackling climate change should continue. Many initiatives have already been undertaken since 2021, including a pilot program for electric vehicles, Energy Efficiency (Standards and Labeling) Order, and a climate action fund launched in mid-2022. The establishment of the ASEAN Centre for Climate Change⁴²—a regional knowledge and research hub for climate change—will also play a vital role in raising the climate change awareness and more importantly will serve as an intergovernmental center to facilitate and enhance cooperation among ASEAN member states. Given the prevalence of extreme weather events and the growing climate actions undertaken globally, it is important for Brunei to expedite the implementation of its climate change initiatives, including those specified in the Brunei Darussalam National Climate Change Policy (see Appendix 2). The transition to renewable energy sources, e.g., solar panels, can be further accelerated to lower greenhouse gas emissions (see Box C). The associated policies need to be well costed, and their sources of financing clearly identified and are consistent with the fiscal sustainability objectives.⁴³

³⁶ Bank Usahawan offers MSMEs the financing up to BND750,000 with a 4.5-percent profit rate and a repayment period of up to eight years.

³⁷ Bank Usahawan takes a different but more understanding approach compared to commercial banks when it comes to MSMEs financing, specifically by also assessing their background, cash flows, entrepreneurial drive and business passion.

³⁸ BMEN is initiated by DARE in cooperation with the ASEAN Business Advisory Council of Brunei Darussalam (ABAC Brunei).

³⁹ Source: [BIZ BRUNEI](#)

⁴⁰ This initiative was founded by the ASEAN Coordinating Committee on Micro, Small and Medium Enterprises (ACCMSME) and The Asia Foundation, funded by a USD3.3 million grant from Google.org. (Source: [Borneo Bulletin](#))

⁴¹ The first cohort was launched in August 2020. In the second cohort starting in March 2022, DARE plans to help 10 participants to develop their businesses by establishing a 5-year strategic roadmap while still providing regular assistance and monitoring.

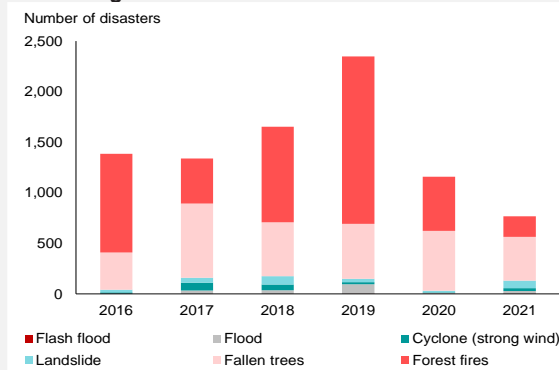
⁴² The centre is expected to be operational in early 2023. Currently, the centre is still finalizing the establishment and host country agreements with the ASEAN member states. (Source: Brunei Climate Change Secretariat)

⁴³ In April 2021, the government signed a Memorandum of Understanding with Bank Islam Brunei Darussalam to provide climate financing of up to BND2 billion.

Box C. Brunei's Transition to Net Zero: Recent Developments⁴⁴

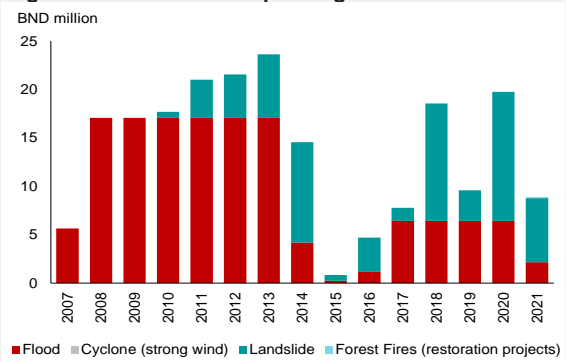
Changes in climate conditions have become increasingly evident in Brunei, prompting the government to adopt a holistic approach to tackle climate risks and strengthen climate resilience in the longer term. The country has been encountering a warming trend (0.25°C per decade) and a rise in the volume of rainfalls (100mm per decade), resulting in more frequent occurrences of natural disasters, e.g., forest fires, fallen trees, landslides and floods, costing the government about BND8.9 million in 2021 (Figures C1, C2). Over the next three decades, the country's temperature and rainfall are forecast to increase at the rate of 0.4°C per decade and 5.0 mm per year, respectively.⁴⁵ In order to achieve sustainable economic growth that are consistent with a low carbon and climate resilient economy, the government unveiled the “Brunei Darussalam National Climate Change Policy (BNCCP)” —a multi-year roadmap which will integrate the decarbonization efforts in Brunei's economic development agenda. This box examines some of the efforts undertaken so far, in the transition to net-zero carbon emissions, namely in the area of energy transition (such as electric vehicles (EV) and forest cover).

Figure C1. Number of Natural Disasters



Source: Brunei Climate Change Secretariat (BCCS)

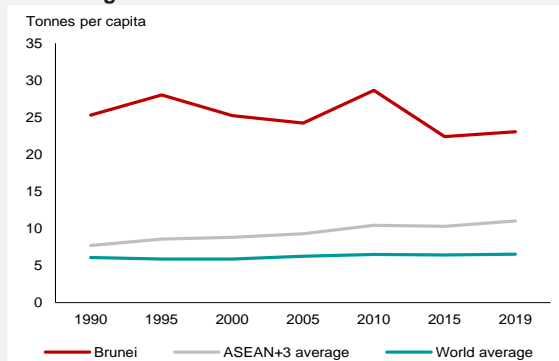
Figure C2. Government Spending on Natural Disasters



Source: BCCS

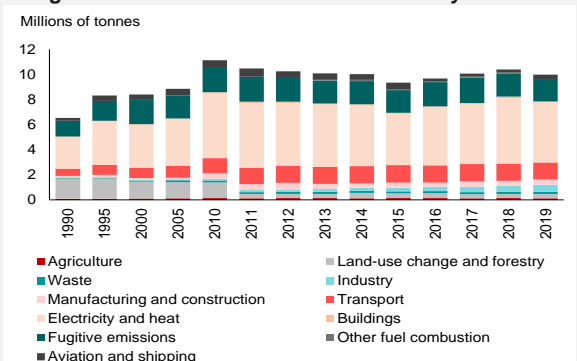
As part of its global commitment, Brunei has signed-up to the Glasgow Leaders' Declaration at COP26, pledging to achieve net-zero carbon emissions by 2050. Although Brunei's GHG emissions still constitute a very small share of world GHG emissions (0.2 percent in 2021), its emissions per capita remains high (23.1 tonnes per capita in 2021), far above that of the region and the world, mostly driven by power generation, fugitive emissions, and transport (Figures C3, C4). As such, getting to net zero is not an easy task as it may take some time to significantly abate GHG emissions, especially carbon dioxide (CO₂), across sectors of the economy. It is worth noting that most of GHG emissions in Brunei are from CO₂, accounting for 73.3 percent of total GHG emissions in 2021.⁴⁶

Figure C3. Green House Gas Emissions



Source: Our World In Data; AMRO staff calculations

Figure C4. Green House Gas Emissions by Sector



Source: Our World In Data

⁴⁴ This box was prepared by Vanne Khut (Economist).

⁴⁵ Source: Brunei National Climate Change Policy

⁴⁶ Source: Our World In Data; AMRO staff calculations

In the area of energy transition, given EVs' potential to reduce CO2 emissions, the authorities have been bolstering their efforts in driving the domestic adoption of EVs. As stipulated in the BNCCP, Brunei aims to increase the share of EV sales to 60 percent of its annual vehicle sales by 2035, which can translate to a reduction of roughly 0.23 million tonnes of CO2 emissions, or equivalent to the planting of 4.6 million trees.⁴⁷ To achieve such an ambitious target, the country has launched a two-year pilot program for EV adoption since March 2021. To date, the EV deployment in Brunei is still at a nascent stage, where only a total of 19 EVs—powered primarily by home charging units—have been registered,⁴⁸ while the first retail fast charging station was launched only in October 2022.⁴⁹ Although EVs offer tremendous opportunities in the area of energy transition in the medium term, there are challenges, including high cost of ownership, limited public charging infrastructure, reliability of power supply, driving range, among others.⁵⁰ The government's generous fuel subsidies could also discourage the swift adoption to EVs.

The implementation of solar panel projects has also been steadily progressing. The Brunei Shell Petroleum (BSP) completed its flagship 3.3MWp solar project in 2021, which has been recently assessed to meet the international standard after having fulfilled the International Renewable Energy Certificate (I-REC) Standard.⁵¹ Specifically in Temburong district, solar panels were installed on the government buildings, commercial buildings and residential—*together generating 800KWp.*⁵² Moreover, the government plans to establish new solar power plants within the next several years to accelerate the transition to clean energy.⁵³

In the area of forest cover, many afforestation and reforestation initiatives have been executed to increase Brunei's natural carbon sink. The country has made great strides in tree planting in collaboration with the private sector to meet the BNCCP's target—planting 500,000 trees by 2035. Launched in August 2022, a tree-planting mobile application *Atmosphiere* allows users to make payment for trees to be planted in different forests and parks as well as to calculate their individual carbon footprint.⁵⁴ As part of its corporate social responsibility, Hengyi Industries has completed its sixth reforestation project by growing another 500 tree saplings across 0.5 hectares of land in the forest reserve, bringing its total tree saplings to 3,510 planted across 3.5 hectares of land since the program's inception in May 2019.⁵⁵ Brunei currently has 72-percent forest cover—the level that has to be maintained if the country were to meet the target of absorbing 80 percent of GHG emissions by 2035.⁵⁶

⁴⁷ Source: [Borneo Bulletin](#)

⁴⁸ Source: [Borneo Bulletin](#)

⁴⁹ Founded by Brunei Shell Marketing Company, the EV charging station located in Lambak features a 175-KWH rapid charger, which can charge an EV from 0 – 80 percent in under half an hour. (Source: [The Bruneian](#))

⁵⁰ Source: [ADB Southeast Asia Development Solutions](#)

⁵¹ Source: BNCCP; [Borneo Bulletin](#)

⁵² Source: BCCP

⁵³ Source: [The Scoop](#)

⁵⁴ The application was developed by local IT company Sphiere and funded by Shell LiveWIRE Brunei. The app enables users to make payment for trees to be planted in different forests and parks in Brunei, costing BND28 to BND38 per tree, and they will in turn receive monthly photo updates of the tree's status. (Source: [BIZ Brunei](#))

⁵⁵ Hengyi Industries has also built two air quality monitoring stations to ensure accurate reading of ambient air quality in the factory area. For its second phase, the production will be more environmentally friendly by replying more on green energy.

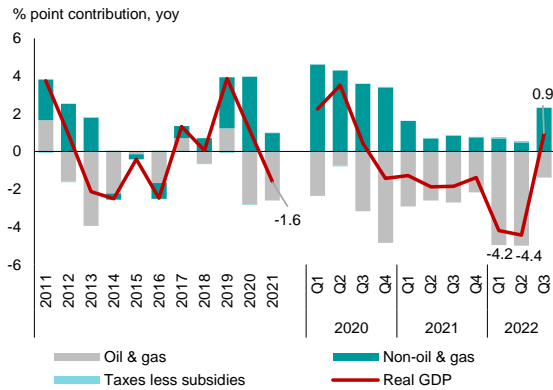
⁵⁶ Source: BNCCP

Appendices

Appendix 1. Selected Figures for Major Economic Indicators

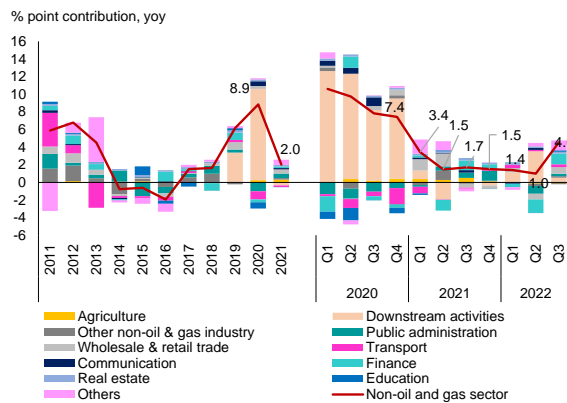
Figure 1.1. Real Sector and Inflation

Real GDP grew by 0.9 percent—the first quarterly expansion since Q3 2020, led by the non-oil and gas (O&G) sector.



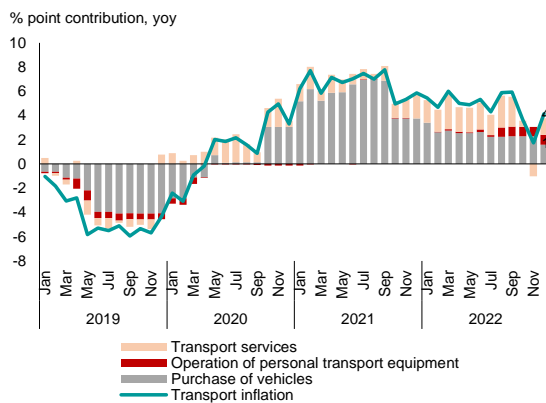
Source: DEPS, AMRO staff calculations

The non-O&G sector growth jumped by 4.6 percent in Q3 2022, supported by stronger growth in the finance, wholesale & retail trade, and transport sectors.



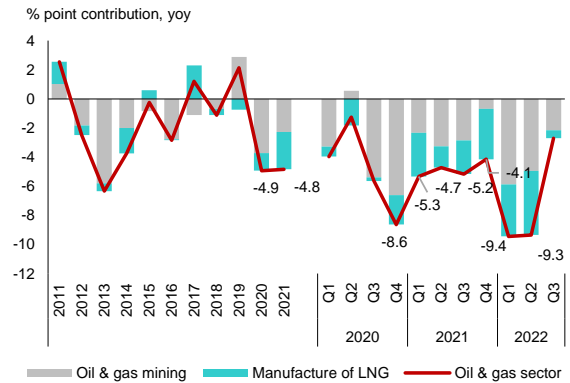
Source: DEPS; AMRO staff calculations

Transport inflation picked up in December 2022 (+4.2 percent), in tandem with rising prices of transport services.



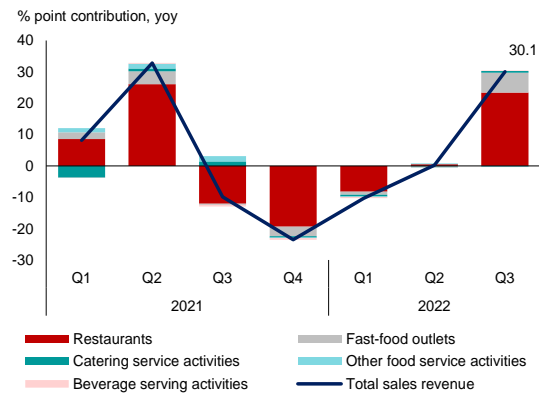
Source: DEPS; AMRO staff calculations

The contraction in the O&G sector improved in Q3 2022 (-2.7 percent; Q2: -9.3 percent).



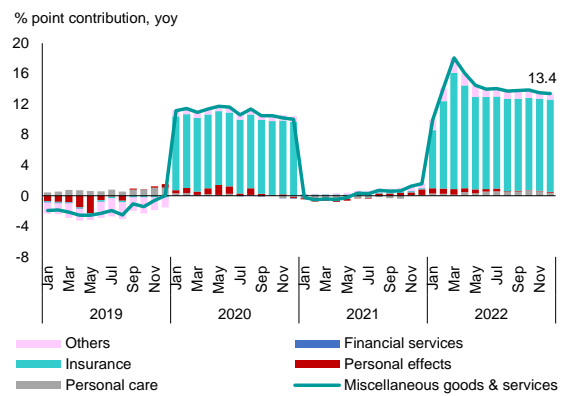
Source: DEPS, AMRO staff calculations

Sales revenue of food and beverage services improved significantly in Q3, driven by stronger sales of restaurants and fast-food outlets.



Source: DEPS; AMRO staff calculations

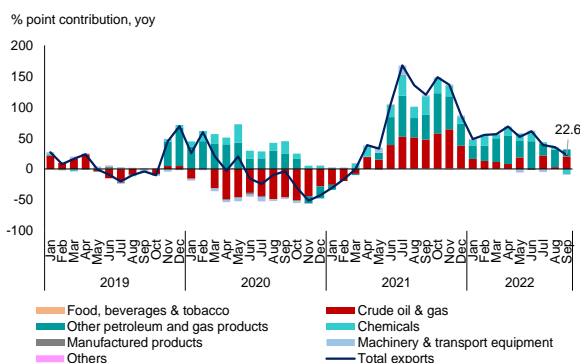
Vehicle insurance continued to drive miscellaneous goods and services inflation (December 2022: 13.4 percent (yoy)).



Source: DEPS; AMRO staff calculations

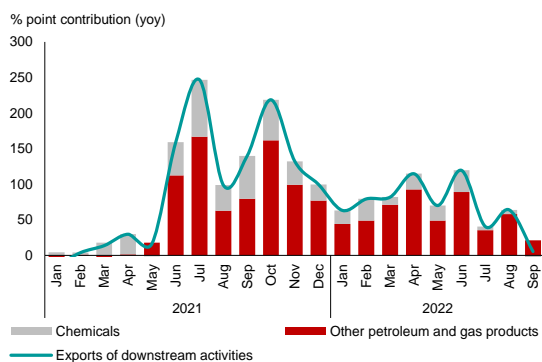
Figure 1.2. External Sector

Though remaining robust, exports slowed down further in September, largely due to the weakened exports of refined products.



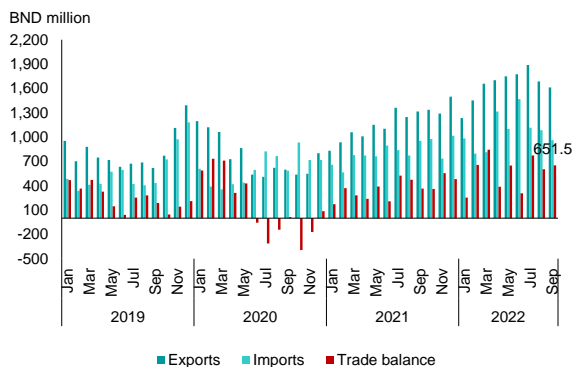
Source: DEPS; AMRO staff calculations

Exports of downstream products decelerated in September, which could be partly due to base effect.



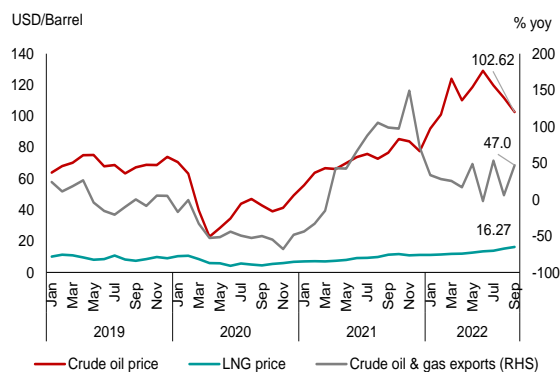
Source: DEPS; AMRO staff calculations

Brunei continued to record a larger trade surplus of BND651.5 million in September as growth of exports outpaced that of imports.



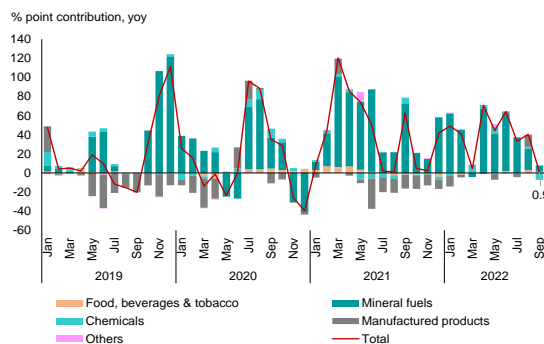
Source: DEPS; AMRO staff calculations

O&G exports, however, grew at a much faster pace in September as exports volume surged.



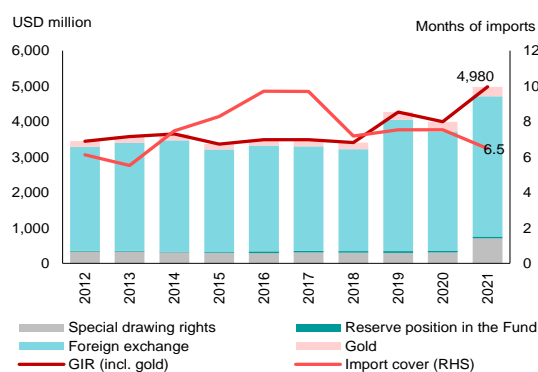
Source: DEPS; AMRO staff calculations

Imports saw a significant slowdown in September, in line with the slowdown in exports.



Source: DEPS; AMRO staff calculations

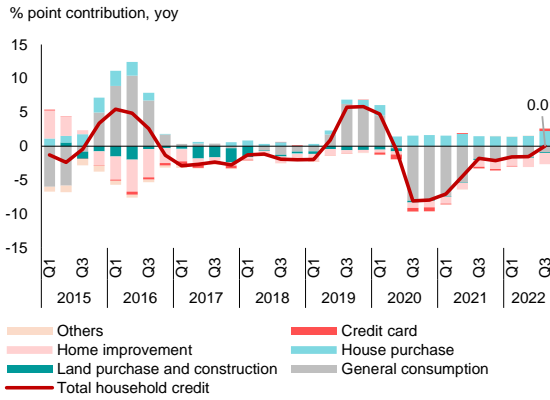
The surge in the overall balance of payments translated to higher international reserves in 2021.



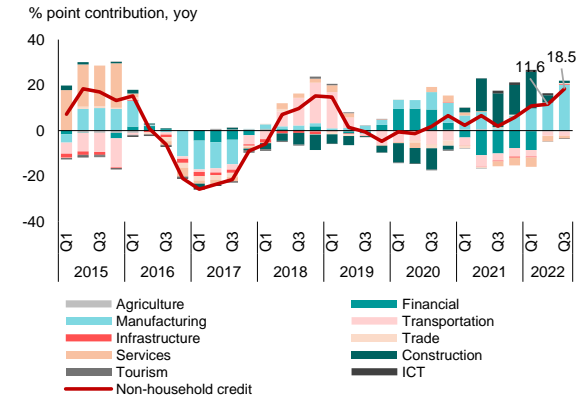
Source: DEPS; AMRO staff calculations

Figure 1.3. Monetary and Financial Sectors

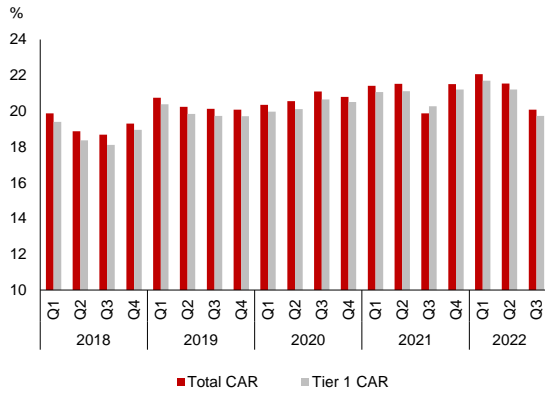
After nine quarters of contraction since Q2 2020, credit to the household sector registered a positive growth for the first time in Q3 2022, reflecting an improvement in domestic consumption.



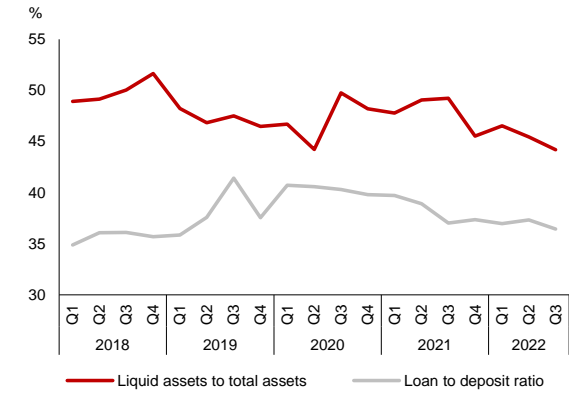
Non-household credit growth remained strong at 18.5 percent in Q3, largely attributed to credit to manufacturing and construction sectors.



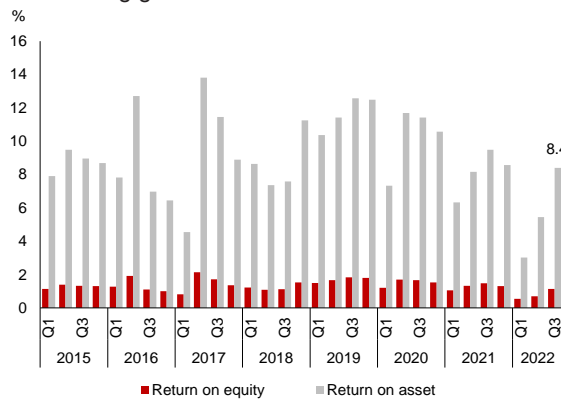
Brunei's financial sector remains sound, with financial institutions well-capitalized...



... amid ample liquidity.



After hitting an all-time low in Q1 2022, financial institutions' profitability improved in Q3, reflecting rising global interest rates since March.



Money supply continues to grow.

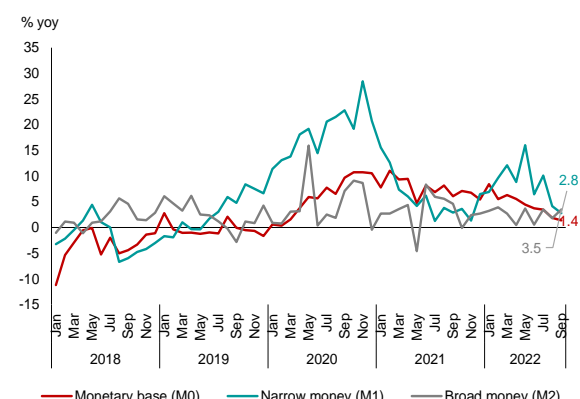
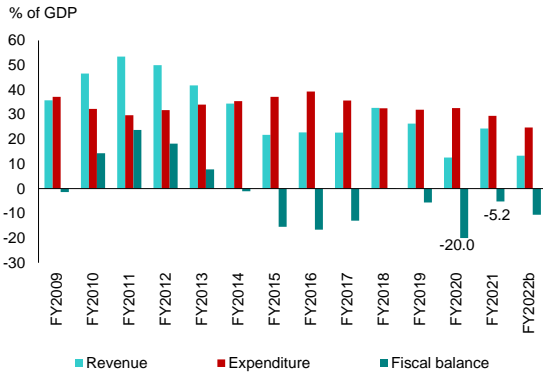


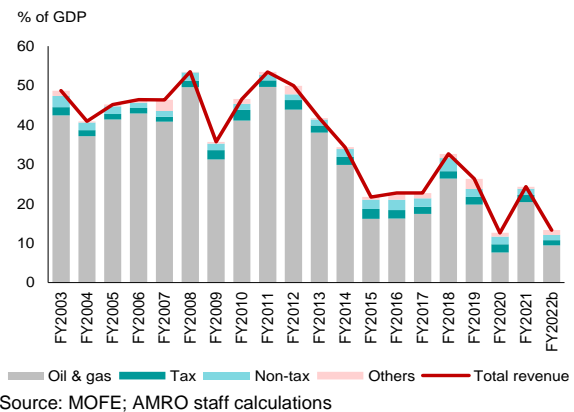
Figure 1.4. Fiscal Sector

Brunei saw a significant improvement in its fiscal deficit to 5.2 percent of GDP in 2021,...



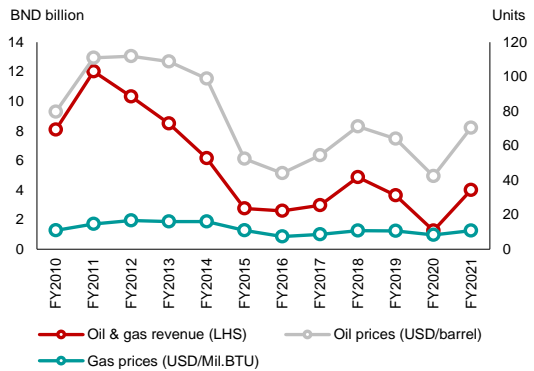
Source: MOFE; AMRO staff calculations
Note: Nominal GDP for FY2022 is AMRO staff estimates.
b = budget

...largely attributed to the rebound in O&G revenue.



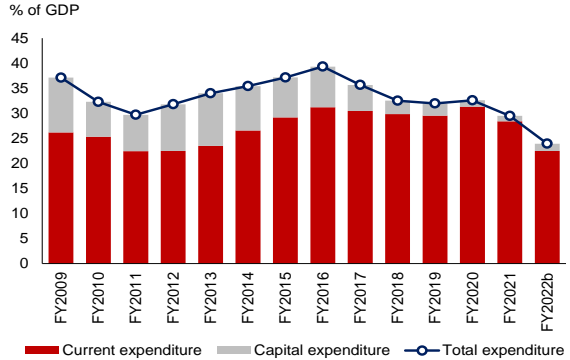
Source: MOFE; AMRO staff calculations

O&G revenue performance is largely dependent on the direction of global oil prices.



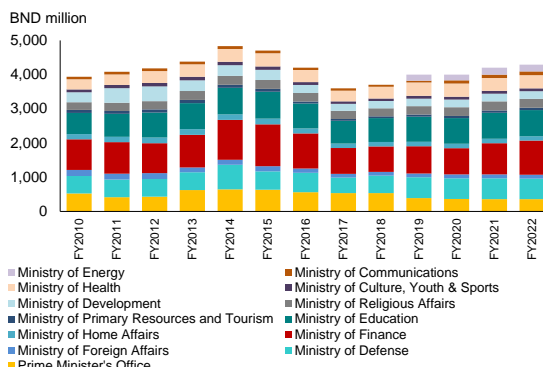
Source: MOFE; The World Bank; AMRO staff calculations

Expenditure has been on the downward trend as the government continues with fiscal consolidation.



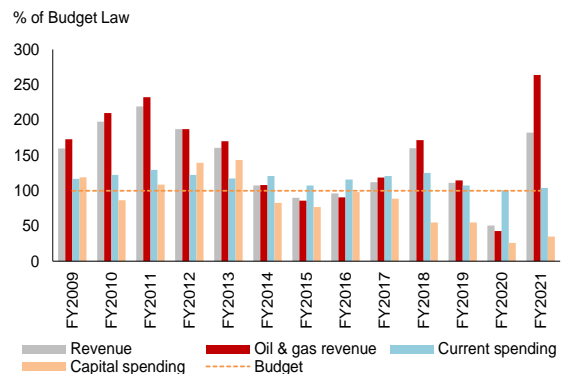
Source: MOFE; AMRO staff calculations
Note: b = budget

Most of the budget goes to the Ministry of Finance and Economy, followed by the Ministry of Education, and Ministry of Defence.



Source: MOFE; AMRO staff calculations
Note: Data is from budget law.

Revenue expanded sharply to above the target stipulated in the FY2021 budget law.



Source: MOFE; AMRO staff calculations

Appendix 2. Selected Economic Indicators for Brunei

	2018	2019	2020	2021	2022e	2023p
Real Sector and Prices	(In annual percentage change)					
Real GDP	0.1	3.9	1.1	-1.6	-1.2	2.8
CPI inflation (average)	1.0	-0.4	1.9	1.7	3.7	2.5
External Sector	(In millions of USD, unless otherwise specified)					
Current account balance	930	890	543	1,570	2,171	1,540
(In percent of GDP)	6.9	6.6	4.5	11.2	12.8	9.9
Trade balance	2,360	2,208	1,385	2,679	3,375	2,906
Exports	6,474	7,208	6,543	11,002	12,450	13,372
Imports	4,114	5,000	5,158	8,323	9,075	10,466
Services, net	-1,008	-1,189	-854	-697	-712	-783
Primary income, net	84	361	362	90	99	111
Secondary income, net	-506	-490	-350	-502	-591	-694
Financial account balance	70	-405	264	-119	118	136
Foreign direct investment	-517	-375	-578	-205	-180	-293
Portfolio investment	-1,439	1,399	1,194	-237	181	259
Other Investment	2,026	-1,429	-353	323	116	171
Net errors and omissions	-874	-539	-722	-594	-974	-1,000
Overall balance	-14	757	-443	1,096	1,079	403
Gross international reserves (incl. gold)	3,407	4,273	3,997	4,980	6,059	6,463
(In months of imports of goods and services)	7.2	7.5	7.5	6.5	7.2	6.6
Gross international reserves (excl. gold)	3,221	4,052	3,721	4,717	5,796	6,200
(In months of imports of goods and services)	6.8	7.1	7.0	6.1	6.9	6.4
Fiscal Sector	(In percent of GDP)					
Revenue	32.7	26.4	12.6	24.3	23.7	24.6
Oil and gas revenue	26.4	19.8	7.7	20.4	20.5	20.7
Non-oil and gas revenue	6.3	6.5	5.0	3.9	3.3	3.9
Expenditure	32.5	31.9	32.6	29.5	23.2	25.9
Current expenditure	29.8	29.5	31.3	28.4	22.3	24.7
Capital expenditure	2.7	2.4	1.3	1.1	1.0	1.2
Overall fiscal balance	0.1	-5.6	-20.0	-5.2	0.5	-1.3
Monetary and Financial Sectors	(In annual percentage change, end-period)					
Broad money	2.8	4.3	-0.4	2.7	1.3	2.8
Domestic Credit	5.9	2.2	18.3	-19.6	-15.6	2.5
Credit to private sector	-3.1	2.0	0.2	2.7	6.0	3.1
Memorandum Items						
Nominal GDP (in millions of USD) (Calendar year)	13,564	13,472	12,008	14,008	16,953	15,542
Nominal GDP (in millions of BND) (Calendar year)	18,301	18,375	16,564	18,822	23,374	20,982
Nominal GDP (in millions of BND) (Fiscal year)	18,453	18,385	16,241	19,609	23,825	20,747
Exchange rate (BND/USD) (period average) (Calendar year)	1.35	1.36	1.38	1.34	1.38	1.35
Exchange rate end of period (BND/USD) (Calendar year)	1.36	1.35	1.32	1.35	1.34	1.35

Source: National authorities; AMRO staff calculations

Note: Data in dark grey shade are AMRO staff estimates/ projections. Figures may not add up due to rounding. Fiscal data are in fiscal year, which is from April to March. Brunei's BOP follows the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6). e = AMRO staff estimates; p = AMRO staff projections

Appendix 3. Balance of Payments

	2017	2018	2019	2020	2021
	(In millions of USD, unless otherwise specified)				
Current account balance	1,986	930	890	543	1,570
Trade balance	2,404	2,360	2,208	1,385	2,679
Exports	5,473	6,474	7,208	6,543	11,002
Imports	3,069	4,114	5,000	5,158	8,323
Services	-697	-1,008	-1,189	-854	-697
Receipts	551	571	618	352	200
Payments	1,248	1,578	1,807	1,207	897
Primary Income	721	84	361	362	90
Secondary Income	-442	-506	-490	-350	-502
Capital account	-	-	-	-	-
Financial account	1,437	70	-405	264	-119
Direct Investment	-460	-517	-375	-578	-205
Portfolio Investment	-64	-1,439	1,399	1,194	-237
Other Investment	1,961	2,026	-1,429	-353	323
Error and omission	-830	-874	-539	-722	-594
Overall balance	-280	-14	757	-443	1,096
Reserve Assets	-280	-14	757	-443	1,096
Memorandum items:					
Current account balance (in percent of GDP)	16.4	6.9	6.6	4.5	11.2
Gross international reserves (in millions of USD)	3,488	3,407	4,273	3,997	4,980
(in months of imports of goods and services)	9.7	7.2	7.5	7.5	6.5
Changes in gross international reserves (in millions of USD)	1	-81	866	-275	983
Nominal GDP (in millions of USD)	12,130	13,564	13,472	12,008	14,008

Source: National authorities; AMRO staff calculations

Note: Brunei's BOP follows the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6).

Appendix 4. Statement of General Government Operations

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022b
General Government	(In millions of BND, unless otherwise specified)					
Revenue and grants	3,872	6,027	4,846	2,051	4,768	3,173
Oil and gas revenue	2,976	4,873	3,646	1,243	4,004	2,250
Non-oil and gas revenue	809	1,043	760	706	686	646
Taxes	309	348	355	340	349	315
Fees, Charges and Rent	358	610	364	312	319	311
Others	142	85	41	54	19	20
Returns from Investments and Savings	87	111	440	102	61	236
Excess revenue (statutory boards)					17	40
Government Expenditure	6,079	6,000	5,873	5,293	5,780	5,700
Current spending	5,193	5,504	5,432	5,086	5,569	5,350
Charged expenditure	1,120	1,213	1,276	1,062	1,303	1,060
Personal emoluments	1,860	1,958	1,965	1,969	1,993	2,145
Other charges annually recurrent	2,213	2,333	2,191	2,055	2,273	2,145
Capital spending	887	496	441	207	211	350
Budget balance	-2,207	27	-1,027	-3,242	-1,013	-2,527
Memorandum items:						
Budget balance (in percent of GDP)	-12.9	0.1	-5.6	-20.0	-5.2	-10.6
Government revenue (in percent of GDP)	22.7	32.7	26.4	12.6	24.3	13.3
Government expenditure (in percent of GDP)	35.7	32.5	31.9	32.6	29.5	23.9
Nominal GDP (in millions of BND) (Fiscal year)	17,048	18,453	18,385	16,241	19,609	23,825

Source: National authorities; AMRO staff calculations

Note: Brunei's fiscal year starts from April to March. Nominal GDP for FY2022 is AMRO staff projection. b = budget; FY = fiscal year

Appendix 5. Data Adequacy for Surveillance Purposes: A Preliminary Assessment

Criteria/ Key Indicators for Surveillance	Availability ⁽ⁱ⁾	Reporting Frequency/ Timeliness ⁽ⁱⁱ⁾	Data Quality ⁽ⁱⁱⁱ⁾	Consistency ^(iv)	Others, if any ^(v)
National Accounts and Labor Market	GDP on the production and expenditure side (both quarterly and yearly) have been made available on DEPS's website. Unemployment and labor market data are based on annual labor force survey and made available on DEPS's website.	Quarterly GDP has a time lag of 3–5 months. Data on the labor market has a time lag of more than one year.	In certain cases, statistical discrepancy remains relatively high. For example, in 2019, statistical discrepancy accounted for 8.4 percent of nominal GDP.	Back series data are available from 1974 upon request.	
CPI Inflation	CPI inflation is available on DEPS's website on a monthly basis.	CPI data is released regularly with a time lag of 1-2 months.	Data quality is good and detailed. However, the detailed CPI items are available only from 2018. The CPI detailed items in 2018 are not consistent with those from 2019 onward (please refer to Annex 3 published on DEPS's website.).	CPI base year has been changed from 2010 to 2015 since 2019, while historical data before 2016 is not yet available. Historical data still uses two different base years.	
Balance of Payments (BOP) and External Position	Annual BOP data is published on the DEPS's website. However, quarterly data are not publicly available. Import and export data are published on the DEPS's website. Import and export data breakdown by both product and market are not available.	BOP data is released on a yearly basis with a time lag of over 1 year. Trade data is released on a monthly basis with a time lag of around 1-2 month.	Net error and omission value is fluctuated and huge in some years. Net error and omission value was 44.4 percent of GDP in 2016 and -5.9 percent of GDP in 2020. Trade data quality should be improved given errors and inconsistency. For example, export markets keep changing every month. These should be consistent, and if more countries are added, none of the existing countries should be excluded.		-
State Budget and Government/ External Debt	Budget implementation data are not available publicly. Annual budget data is available yearly in government publications such as the Brunei Darussalam Statistical Yearbook. The quarterly fiscal data are only available upon request.	Annual fiscal data are released with a time lag of more than one year.	Data quality is good.		-
Money Supply and Credit Growth	These data are available on BDCB's website.	Monthly data are released with a time lag of 2 months.	Data quality is good and quite detailed.	-	
Financial Sector Soundness Indicators	These data are available on BDCB's website. NPL by sector is only available upon request.	The data is released with a time lag of 3 months.	Data quality is good but more details are needed, such as NPL by each sector.	-	The availability of more comprehensive and more frequent data, including a detailed breakdown of assets and liabilities, would help the analysis of financial-sector soundness.

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

- (i) Data availability refers to whether the official data are available for public access by any means.
- (ii) Reporting frequency refers to the time interval between each publication of available data. Timeliness refers to how up-to-date the published data are relatively to the publication date.
- (iii) Data quality refers to the accuracy and reliability of the available data, taking into account the data methodologies.
- (iv) Consistency refers to both internal consistency within the data series itself and its horizontal consistency with other data series of either the same or different categories.
- (v) Other criteria might also apply, if relevant. Examples include but are not limited to potential areas of improvement for data adequacy.

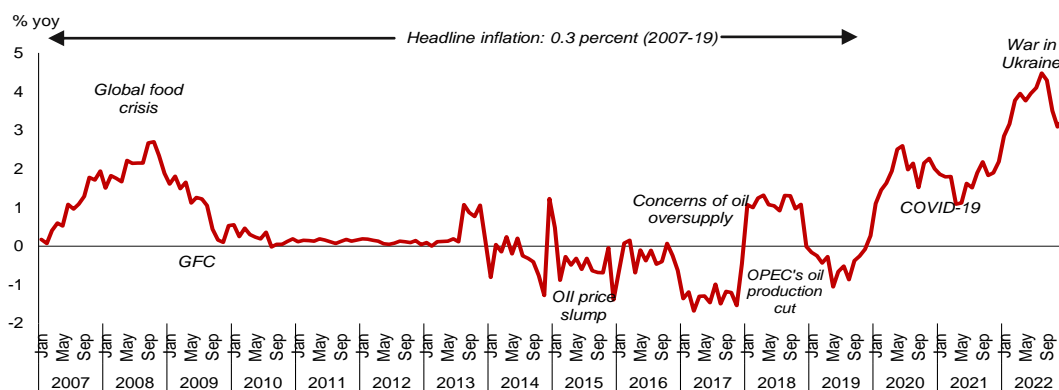
Annexes: Selected Issues

1. Dissecting Drivers of Inflation: The Case of Brunei⁵⁷

Introduction

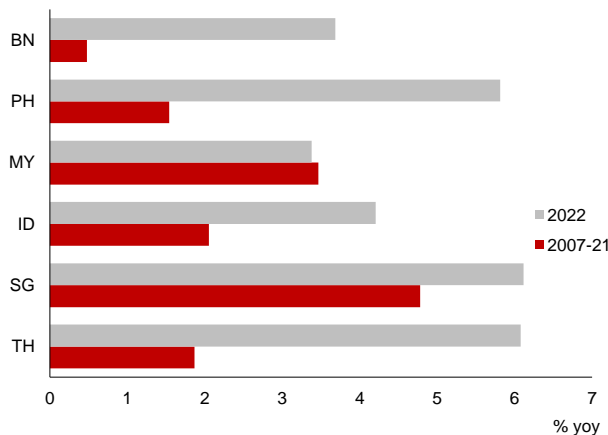
1. Brunei's headline consumer price inflation (CPI) has been historically low over the past decades, but has exhibited periods of high inflation, particularly during crisis time. In 2007–19, headline CPI averaged 0.3 percent annually, much lower than regional peers (Figure A1.1). The generally low inflation partly reflects the administrative price control and generous social assistance measures that are in place, helping to keep a lid on inflation (Figure A1.2). The monetary system, which is underpinned by the Currency Interchangeability Agreement with Singapore, also helps to limit imported price inflation, thereby containing upward pressure on inflation. Despite having such price stabilization mechanisms in place, Brunei does experience episodes of high inflation and deflation, corresponding to global commodity price shocks, e.g., during the 2008 global food crisis, and the 2015 global oil price crash. More recently, the 2022-21 COVID-19 pandemic-induced supply disruptions, which were later exacerbated by the war in Ukraine from early 2022, led to an unprecedented spike in inflation. This selected issue aims to dissect the drivers of inflation dynamics in Brunei using principal component analysis (PCA), followed by some discussions on policy.

Figure A1.1. Brunei: Consumer Price Inflation (versus Global Commodity Prices)



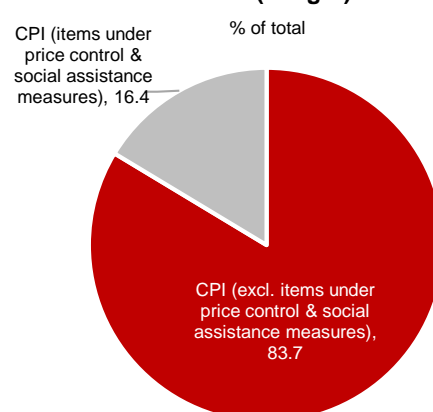
Source: DEPS; The IMF; The World Bank; AMRO staff calculations

Figure A1.2. Headline CPI: Brunei Versus ASEAN-5 Economies



Source: National authorities; AMRO staff calculations

Figure A1.3. Brunei: Measures of Headline CPI (Weight)



Source: DEPS; AMRO staff calculations.

⁵⁷ This selected issue was prepared by Anthony Tan (Mission Chief) and Vanne Khut (Economist).

Drivers of Brunei's Inflation Dynamics

2. Common global factor is found to be the biggest driver of inflation dynamics in Brunei. A PCA covering the period from January 2007 to December 2022 suggests that the first global factor (GF) explains 40 percent of the variations in the headline inflation in the full cross-country sample, which includes Brunei (Figures A1.4, Box A1). It is found that the GF exhibits a strong correlation with world commodity prices, suggesting that the inflation dynamics are largely attributable to global commodity price developments (Figure A1.5).

3. The prevalence of global factors (such as the global commodity price shocks) in driving inflation in Brunei can be most visibly observed during crisis period. During the 2008 global food crisis,⁵⁸ inflation in Brunei rose to 2.1 percent (average 2000-07: +0.4 percent), mainly driven by the spike in food prices. In 2020-21, the pandemic-induced lockdown recession had amplified supply disruptions, leading to a surge in global freight costs. The onset of the war in Ukraine in early 2022 further exacerbated the supply constraints, sending global energy prices to a multi-year high. While many essential consumption items in Brunei are heavily subsidized,⁵⁹ the elevated global energy prices and unprecedented supply disruptions resulted in surging food prices (such as of meat and seafood). Headline inflation in Brunei would be even higher, if not for subsidized items (Figure A1.6).

Figure A1.4. Variability of Headline CPI Explained by Common Global Factors

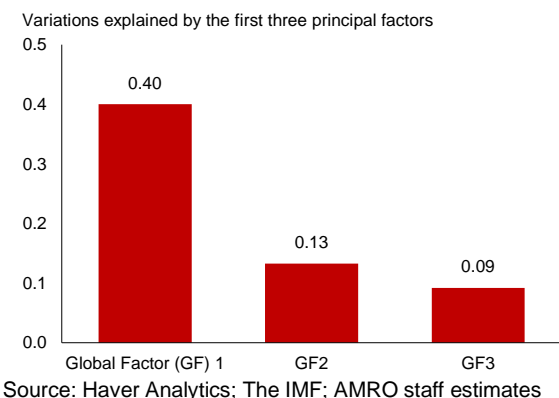


Figure A1.5. Global Factor and Correlations with Global Commodity Prices

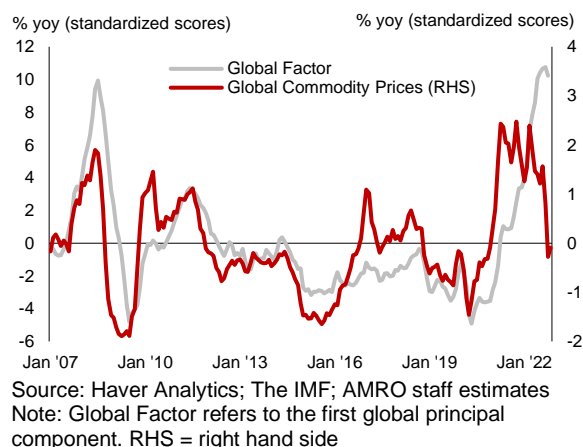


Figure A1.6. Brunei: Measures of Headline CPI

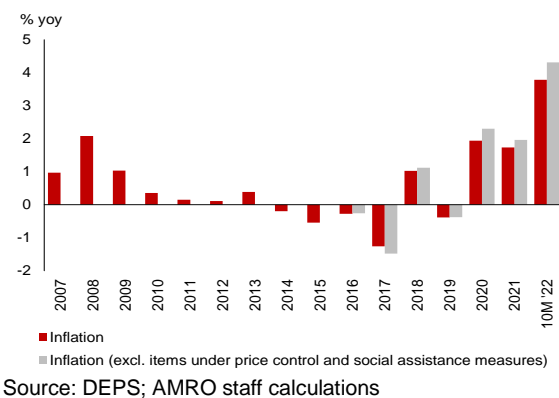
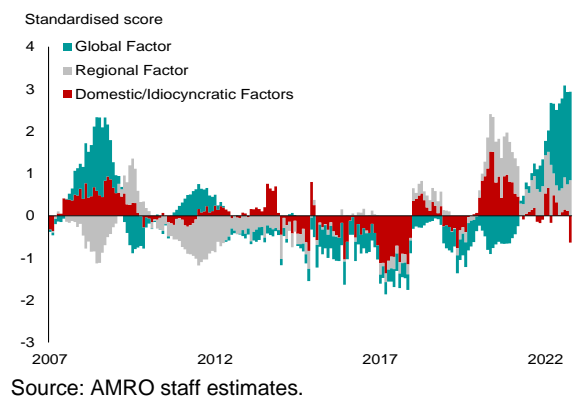


Figure A1.7. Brunei: Headline CPI Inflation Decomposition

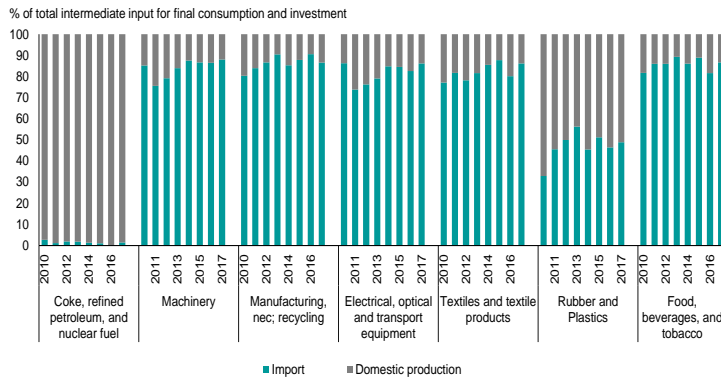


⁵⁸ A number of interacting factors were at play in driving the global food crisis, including high oil prices, higher demand for biofuels, export restrictions, frequent natural disasters, among others (European Commission, 2011) (Ross, 2017).

⁵⁹ CPI items under price control and social assistance measures are milk; cooking oil; rice; sugar; electricity; water supply; gas; fuels; other services under other services in respect of vehicles; hospital services; and other education.

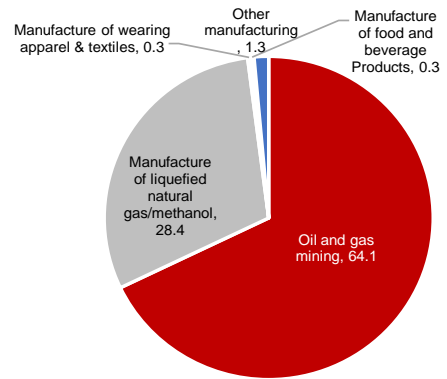
4. Brunei’s less diversified industrial structure may have also amplified the impact of common global shocks on domestic inflation. With the industrial sector primarily dominated by O&G mining and manufacturing (92.4 percent of industrial sector’s real gross value added in 2021), Brunei has to largely depend on imports for both domestic final consumption and investment (Figures A1.8, A1.9). Latest data show that the country imports more than 80 percent of its food and manufacturing products for domestic consumption and investment (Figure A1.8). As a consequence, the rise in global prices can increase prices of Brunei’s imports, which translates to higher prices passing through to domestic consumers.

Figure A1.8. Brunei: Intermediate Input for Final Consumption and Investment by Selected Sectors



Source: Asian Development Bank; AMRO staff calculations.
Note: The calculations are based on ADB’s Input Output Tables. The latest data point of IO tables with breakdowns of imports is 2017.

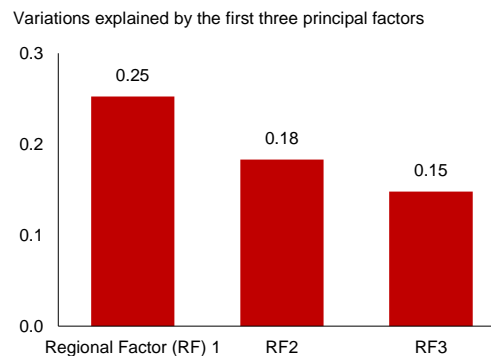
Figure A1.9. Brunei: Industrial Sector by Sub-Sectors, 2021



Source: DEPS; AMRO staff calculations.
Note: The data are in constant prices.

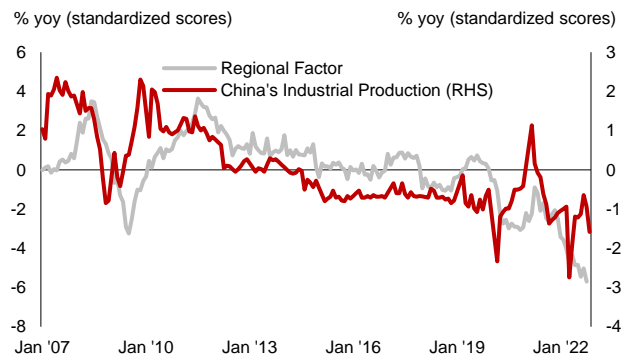
5. Regional and domestic/idiosyncratic factors also play an important role in driving Brunei’s inflation dynamics. The first principal factor from a second PCA analysis (also known as the regional factor) explained 25 percent of the residual variations in inflation. Empirical result suggests that the regional factor is partly related to China’s economic developments. Since 2012-13, the gradual growth deceleration in China has had a disinflationary impact on global and regional inflation via softer China demand. This is consistent with the findings in Shan and others (2021). Brunei imported various products from China, making up around 8.4 percent of its total imports in 2021, as compared to 39 percent in 2018. Meanwhile, domestic/idiosyncratic factors can be seen as mostly driven by O&G sector developments. For instance, from 2013-17, the disruptions due to the previous rejuvenation cycle of offshore O&G fields had weighed on growth, posing downward pressures on inflation. This trend can be also observed during more recent periods.

Figure A1.10. Variability of Headline CPI Explained by Regional Factors



Source: AMRO staff estimates.

Figure A1.11. Regional Factor and Correlations with China’s Industrial Production

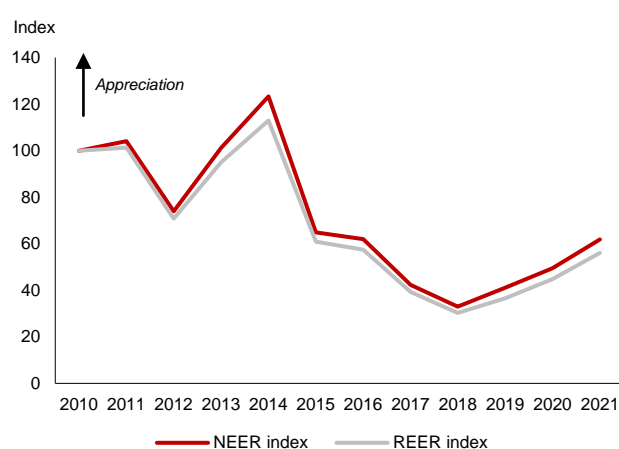


Source: Haver Analytics; IMF; AMRO staff estimates.
Note: Regional Factor refers to the first principal component in the regional PCA analysis. RHS = right hand side

Policy Implications

6. The administrative price control measures and the Currency Interchangeability Arrangement with Singapore remain appropriate to keep inflationary pressures in check. The administrative price control and social assistance measures are important to keep key consumption items—food, transport and essential services (such as medical/healthcare) affordable for the population. Such price stabilization mechanisms can help to temper, but not offset, the upward pressure on prices. To a large extent, the pass-through effects from commodity price shocks are somewhat absorbed by the exchange rate, which has tended to appreciate over time given its peg to the Singapore dollar (Figure A1.12). The Currency Interchangeability Arrangement with Singapore continues to be appropriate, given the external dependence and the need to contain imported inflation.

Figure A1.12. Nominal and Real Effective Exchange Rate



Source: National authorities; The World Bank; AMRO staff calculations

7. Given the unprecedented level of inflation in recent years, fiscal policy has a role to play to help the people cope with the rising cost of living in recent years. The fiscal measures can range from providing targeted cash handouts low-income households, as well as broadening the coverage of consumption goods currently not under the existing administrative price control. However, the introduction of such measures should be timebound and gradually phased out once the inflation pressures abate.

8. The government's efforts in expanding domestic production and diversifying import sources should be accelerated to dampen imported inflationary pressures. The empirical findings suggest that Brunei's inflation is mainly driven by the common global factors. Accordingly, Brunei can consider leveraging on its pool of local MSMEs across the country to build/increase production capacity for essential domestic supplies. However, to achieve this, the authorities should continue to create an enabling environment, such as by providing necessary infrastructure, training, as well as financial support to identify areas where MSMEs have the potential to grow. Additionally, the government can consider further diversifying its import sources, especially for food imports, so as to help maintain the price competitiveness of imported products and lower the vulnerability to price fluctuations in certain import partners.

Box A1. Principal Component Analysis Methodology

PCA is a statistical technique that identify patterns in correlations between variables. These patterns are then used to infer the existence of unobservable (underlying) latent variables in the data. The latent variables are referred to as factors or components. Using the PCA, the (standardized) variations in headline inflation in Brunei can be decomposed into global, regional and domestic/idiosyncratic factors.

For the decomposition, the methodology developed by Krusper (2012) based on Stock and Watson (2002) is adopted (Krusper, 2012) (Stock & Watson, 2002) (Nagy & Tengely, 2018). The global, regional and domestic/idiosyncratic factors are estimated using the following steps:

Step 1: Monthly headline CPI data (in year-on-year terms) are collected from January 2007 to December 2022 for the top 35 largest countries globally, accounting for 80 percent of global output. To estimate the common global factor, the PCA technique is applied on all standardized values of the inflation time series data for all the countries (including Brunei). The first principal factor is identified as the global principal component.

Step 2: Next, we subtract the global component by regressing the common factor on Brunei and other ASEAN+3 member economies' standardized values of headline inflation, and take the residuals. The regional factor is calculated with another PCA using only these residual time series. The first principal factor is identified as the regional principal component.

Step 3: Finally, to compute the domestic/idiosyncratic factor, we simply regress the common global factor and the regional factor on the standardized inflation time series for Brunei. The domestic/idiosyncratic factor is given by the residuals in the following regression:

$$\pi_t = 0.185 (GF_t) - 0.324 (RF_t) + \varepsilon_t$$

(0.01) (0.02)

$$R^2 = 0.73, \text{ Adjusted } R^2 = 0.72$$

where π_t is the actual standardized domestic inflation (Brunei);
 GF_t is the common global factor;
 RF_t is the regional factor; and
 ε_t is the domestic/idiosyncratic factor

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2. Strengthening Fiscal Sustainability and Mainstreaming Climate Action Plans into the National Development Agenda for Brunei⁶⁰

Introduction

1. Brunei's national development strategies have always been geared towards meeting an economic, social and environment agenda, as reflected in the five-year national development plans (*Rancangan Kemajuan Negara (RKN)*). The comprehensive multi-year development strategies are formulated to align with Vision 2035 (Wawasan Brunei 2035), which aims to achieve a dynamic and sustainable economy with high standards of living. This calls for a whole-of-government approach to ensure strategic policy design and implementation of action plans.

2. Strengthening a national development agenda that is consistent with the achievement of a sustainable and low-carbon economy would not only require strategic policy design and implementable action plans, but a holistic approach. Given rising global concerns over climate change, the adoption of fiscal sustainability strategies needs to be more forward-looking, including the mainstreaming of national climate action plans into the multi-year national development plans. In turn, the financing of these climate action plans would require the development of certain niche markets and instruments, to enable the crowding-in of private sector participants. A holistic approach in tackling sustainability in the shift to net-zero carbon emission has the potential to maximize cross-sector complementarity, including harnessing the promise of green investment, as well as fostering domestic capital market developments.

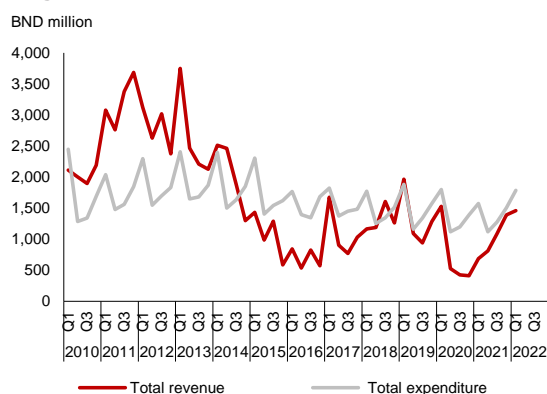
3. This selected issue discusses sustainability challenges in Brunei, focusing mainly on the fiscal front, and how strategies could be aligned with national climate action plans. The discussion starts with an assessment of the fiscal sustainability challenges—in particular, the procyclicality of fiscal revenue with global oil prices, and its impact on the medium-term fiscal position in Brunei. This is followed by a discussion on the possible policy direction—focusing on revenue diversification, with reference to the experience of other oil- or commodity-exporting countries. Next, suggestions on how to mainstream climate action plans into the fiscal strategies are presented, followed by a discussion on the opportunities of financing climate action plans via the development of Islamic finance.

Challenges to Fiscal Sustainability: Procyclicality of Fiscal Revenue with Global Energy Prices

4. Brunei's fiscal condition is mainly driven by global energy price developments. As an oil-exporting country, revenues from the O&G sector have dominated Brunei's fiscal revenue and the fiscal balance. In contrast, fiscal expenditures have been relatively stable. Over the past decade, Brunei's fiscal expenditure was largely stable, averaging at around BND1,500 to BND2,000 million per quarter, although quarterly fiscal revenue showed some degree of variation (ranging from BND500 to BND4,000 million) (Figure A2.1). The development in the last decade showed that fluctuation in fiscal revenue, in which the major component was O&G revenue, was mainly due to oil price developments (Figure A2.2). This shows that shocks to O&G prices, as well as production could pose downside risks to fiscal sustainability.

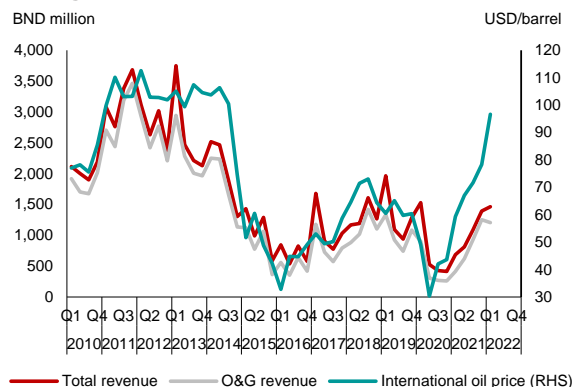
⁶⁰ This selected issue was prepared by Anthony Tan (Mission Chief); Andrew Tsang (Economist); Kana Yoshioka (Economist); and Laura Grace Gabriella (Associate Economist).

Figure A2.1. Fiscal Expenditure and Revenue



Source: DEPS

Figure A2.2. O&G Revenue and Oil Prices



Source: DEPS; Haver
Note: RHS = right hand side

5. To quantify the impact of energy prices or production shocks on Brunei’s fiscal condition, a stress test is used to examine the resilience of its fiscal balance.

Specifically, the stress test assesses the impacts of different shocks on the fiscal balance by using regression models of different components of fiscal revenues (including O&G revenue and other fiscal revenue) and nominal GDP (see the Appendix for details on regression models). Once the models are estimated, different scenarios of energy prices and production are applied to obtain the forecasts of fiscal revenues and nominal GDP, and to calculate the fiscal balance. The impact of shocks is then quantified by comparing the fiscal balance over the medium-term (5-year horizon) under shock scenarios with that of the baseline scenario (see also the medium-term fiscal outlook, Table 4 (main text)).

6. Different energy price and production scenarios are designed for the stress test by using historical and latest information.⁶¹

The baseline scenario of the stress test uses AMRO’s baseline forecasts for the medium-term fiscal outlook (as presented in the main text). In contrast, the three adverse scenarios are based on different assumptions about energy prices and production. The time horizon for the stress testing is from FY2023–FY2027 (see Table A2.1 and A2.2 for the assumptions in the baseline scenario and shock scenarios, respectively). Specifically, the three stressed scenarios are designed as follows:

- **Shock 1: Energy Price Shock:** assuming the oil and LNG prices are one standard deviation below their baselines in FY2023–FY2027 (USD 29.2 and 4.2 respectively).
- **Shock 2: Energy Production Shock:** assuming the growth rates of the oil and gas productions are one standard deviation below their baselines in FY 2023 – FY 2027 (8.9 and 10.6 percentage points respectively).
- **Shock 3: Combined Shock:** combining Shock 1 and Shock 2.

7. The stress test results show that energy price/production shocks could result in a significant increase in the fiscal deficit.

Table A2.3 presents the fiscal balance under various scenarios. In general, the impact of an energy price shock (“Shock 1”) on the fiscal deficit—on average 11 percentage points above the baseline—is more severe than that of a production shock (“Shock 2”), averaging 5 percentage points above the baseline. For the combined shocks (“Shock 3”), the fiscal deficit could increase by 15 percentage points, on

⁶¹ In this stress testing exercise, we examine only the temporary shocks, and assuming no change in expenditure level. If there is a permanent change in energy production and prices, it would be prudent on the part of fiscal authorities to re-examine spending priorities, including changing the level of aggregate expenditures with a proper long-term perspective in fiscal management.

average, peaking at 19.2 percent of GDP (which is close to the situation in FY2020 when the fiscal deficit was about 20 percent of GDP).

Table A2.1. Assumptions Under the Baseline Scenario

	FY2023	FY2024	FY2025	FY2026	FY2027
Brunei's oil export prices (USD/barrel)	95.3	88.5	82.5	83.2	84.2
Brunei's LNG export prices (USD/MMBtu)	14.0	13.3	12.3	12.3	12.5
Brunei's oil production (% yoy)	26.2	2.3	-4.0	-4.0	-4.0
Brunei's LNG production (% yoy)	12.7	2.4	-1.2	-1.2	-1.2
Nominal GDP (% yoy)	-12.9	-2.2	3.6	3.0	3.0
Fiscal expenditure (% yoy)	-2.9	-2.9	-1.0	-1.0	-1.0

Source: DEPS; Oxford Economic Forecasting (OEF); AMRO staff calculations.

Note: The oil and LNG export prices convert the OEF's forecasts of Brent and Japan's LNG import price into Brunei's export prices by using regressions. For oil and LNG production, FY2023 and FY2024 are projected using DEPS' information, while it is assumed that oil and LNG production in FY2025–FY2027 will fall by 4 and 1.2 percent per year respectively (the average declines in oil and gas production during 2011–2021). Growth rates of nominal GDP and fiscal expenditure are AMRO's projections.

Table A2.2. Assumptions Under Various Scenarios

	FY2023	FY2024	FY2025	FY2026	FY2027
Energy Price Shock					
Brunei's oil export prices (USD/barrel)	66.1	59.3	53.3	54.0	55.0
Brunei's LNG export prices (USD/MMBtu)	9.9	9.2	8.2	8.1	8.3
Production Shock					
Brunei's oil production (% yoy)	17.3	-6.6	-12.9	-12.9	-12.9
Brunei's LNG production (% yoy)	8.5	-1.5	-4.9	-4.6	-4.4

Source: DEPS, OEF; AMRO staff calculations.

Note: Nominal GDP growth rates under different scenarios are estimated using regressions (see Appendix). Fiscal expenditures use the same growth rate assumed in the baseline scenario.

Table A2.3. Fiscal Balance (Percent of GDP) Under Various Scenarios

	FY2023	FY2024	FY2025	FY2026	FY2027
Baseline	-1.3	-1.6	-3.6	-3.3	-2.9
Energy price shock	-12.0	-13.1	-14.8	-14.2	-13.3
Production shock	-4.0	-7.2	-8.7	-8.2	-7.7
Combined shock	-14.3	-18.0	-19.2	-18.4	-17.5

Source: AMRO staff calculations.

Note: The changes in fiscal revenues and nominal GDP growth rates under different scenarios are estimated using regressions (see Appendix). The fiscal expenditures use the same growth rate assumed in the baseline scenario, but the percentage of GDP changes due to changes in nominal GDP growth rates.

Importance of Revenue Diversification and Direction Fiscal Reforms

8. The stress test results show it is desirable to undertake greater fiscal revenue diversification in order to reduce procyclicality of fiscal revenue. Consistent with findings in existing literature (e.g., Frankel, 2011; Richaud and others, 2019; Chang and Lebdioui, 2020; and IMF, 2020), the results show that fiscal deficits would increase significantly under various shock scenarios, driven by declines in O&G revenue due to either falling energy prices or drops in energy production. As a welfare state with stable fiscal expenditure, Brunei does not have much headroom to significantly reduce fiscal expenditures to lower the volatilities in the fiscal balance (IMF, 2020). The authorities should therefore consider diversifying fiscal revenue sources to offset the impact of energy price fluctuations and to safeguard fiscal sustainability.

9. Literature shows there are three possible directions for oil/commodity-exporting countries to take in designing a fiscal revenue diversification strategy.

- **Economic Diversification:** Chang and Lebdioui (2020) argues that it is crucial for oil-exporting countries to improve fiscal stability by reducing their dependency on the single sector, while broadening their sources of fiscal revenues. For example, the

United Arab Emirates (UAE) has successfully diversified its economy by promoting downstream activities and transport equipment production. Fiscal revenues sources are also broadened at the same time (Hvidt, 2013 and Seric and Tong, 2019).

- **Fiscal Reforms:** To mitigate the fiscal vulnerability, Richaud and others (2019) suggests that commodity-exporting countries should accumulate a fiscal surplus during the commodity price boom to enlarge the fiscal space by creating a fiscal buffer. Moreover, fiscal revenue reforms, including raising fiscal revenues from new taxes, broadening the tax system, and improving revenue-collecting efficiency could be implemented. Countries could reduce the fiscal deficit by enhancing fiscal expenditure efficiency, if sizable cuts to fiscal expenditures are not feasible.
- **Using the Sovereign Investment Fund:** Richaud and others (2019) and Chang and Lebdioui (2020) suggest that oil-exporting countries should formulate a developmental approach to manage accumulated funds, which should be invested in projects that help foster the economic diversification agenda. The investment returns of sovereign investment funds could then be integrated into fiscal revenues (Richaud and others, 2019).

10. While Brunei has made commendable progress in economic diversification, further efforts are needed to enhance revenue diversification over the long term, notably by attracting FDI in other priority sectors. The authorities have done well in developing downstream non-O&G industries (such as Hengyi Industries and Brunei Fertilizer Industries), which are expected to contribute to the fiscal revenue base in the longer term.⁶² Encouragingly, the country is leveraging on its comparative advantages—the abundance of natural resources and rich biodiversity—in attracting FDI (such as eco-tourism and aquaculture). This would help to contribute to a more diversified fiscal revenue base. Looking ahead, there is room to further attract FDIs in other priority sectors, such as info-communications and technology (ICT) and services.⁶³

11. Brunei has also done well in establishing a countercyclical fiscal buffer; and there is potential to enhance the current taxation system. Recognizing fiscal vulnerabilities owing to its oil-dependency, the government established the Sustainability Fund in 2006. Specifically, one of its sub-funds, the Fiscal Stabilisation Reserve Fund reduces the impact of O&G revenue fluctuation by accumulating (channeling) the funding from (to) the annual budget when O&G revenue is higher (lower) than the benchmark. Nevertheless, there is still room for the authorities to raise fiscal revenue. In recent years, the authorities have considered imposing excise taxes on polluted and unhealthy goods, which is a move in the right direction of reforms. Although the authorities are cautious about imposing new types of taxes, the tax system, particularly the tax base, should be broadened in the longer term. For example, some indirect taxes, such as the general sales tax at a low tax rate, could be considered by the authorities. Moreover, the authorities could raise fiscal revenues by improving revenue-collecting efficiency, like digitalizing the tax-collecting system.

12. A more strategic use of funding by the sovereign investment fund can help to enhance fiscal revenue diversification. The government has established several extra-budgetary funds, including the sovereign investment funds to ensure that living standards can

⁶² FDI companies are typically exempted from corporate tax in the initial setup years. For instance, Hengyi Industries is granted tax exemption for a period of eight years.

⁶³ The five priority sectors are (1) downstream oil and gas, (2) food, (3) tourism, (4) info-communications and technology (ICT); and (5) services.

be sustained for future generations. For instance, a sub-fund of the Sustainability Fund—the Strategic Development Capital Fund (SDCF)—not only provides risk capital for domestic strategic investments, but contributes to an improved revenue base of the government.⁶⁴ This helps to promote a virtuous cycle—a strategic investment by SDCF using sovereign investment fund could help in fostering economic diversification, which in turn, result in a more diversified source of fiscal revenue for the government.⁶⁵ Finally, the investment returns of the sovereign investment fund could be another revenues source. In Singapore and Hong Kong, for instance, the governments receive investment returns from the GIC and Exchange Fund⁶⁶ (respectively) every year that form part of the fiscal revenue in the annual budget. Similarly, Brunei could consider including the investment returns of its sovereign investment funds in its fiscal revenues.

Mainstreaming Fiscal Strategies with National Climate Action Plans

13. Given growing threats from climate change and the gradual shift away from fossil fuel consumption, the government must consider both spending pressures through physical damage from extreme weather events, and the impact on the country's fiscal position stemming from a structural decline in the demand for fossil fuels. Although Brunei's natural hazard risk remains low, below the world average at present, it needs to further enhance its resilience plans, in order to address the country's medium to high climate change exposure. More importantly, in Brunei's context, the gradual long-run decline in fossil fuel demand through global commitment to net-zero carbon emissions will pose significant fiscal challenges—due to structurally lower fiscal revenue ahead.⁶⁷ It is therefore important as part of the holistic approach to safeguard fiscal sustainability amid the shift to a low-carbon economy, to mainstream climate action plans into the national development agenda.

14. Mainstreaming the climate action plans into the national development agenda requires strategic foresight. Given that the multi-year challenges pose by climate change, the authorities unveiled the Brunei Darussalam National Climate Change Policy (BNCCP)⁶⁸ in 2020 with clear strategies, action plans and milestones with the aim of becoming a low-carbon and climate-resilient country by 2035. Most of the 10 strategies (Figure A2.3) have performance indicators and/or specific timelines to help reduce greenhouse gas emissions by more than 50 percent by 2035 compared to the business-as-usual scenario.⁶⁹ These 10 strategies are long-term goals through 2035, and many of them are currently at the study-stage. However, in order to contain spending pressures owing to physical damage from extreme weather events, further measures to implement actions should be considered, based

⁶⁴ The existing investments in Hengyi Industries and Brunei Fertilizer (BFI) are the investments of Strategic Development Capital Fund.

⁶⁵ An appropriate change in tax system may be needed for collecting the taxes generated from the new industries, as the current system may not be able to properly tax such activities.

⁶⁶ Although the Exchange Fund is technically not a sovereign wealth fund, it has a statutory investment purpose. Specifically, the Exchange Fund has two different statutory purposes, including backing the monetary base (backing purpose), and preserving the Exchange Fund's value and its long-term purchasing power (investment purpose). Moreover, since the government's fiscal reserve is also deposited in the Exchange Fund (as the liabilities of the Exchange Fund), the Exchange Fund has the responsibility to provide investment returns to the government.

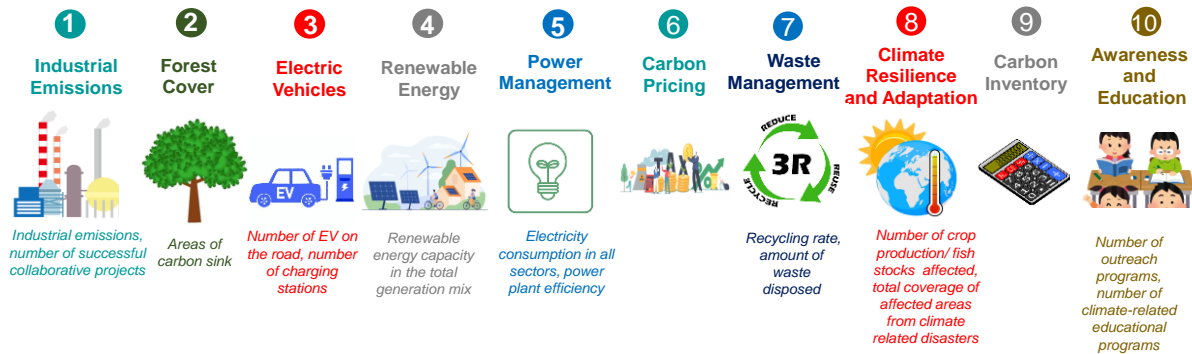
⁶⁷ This is partly mitigated by the increased demand for cleaner energy, such as LNG, of which Brunei is a major producer.

⁶⁸ The BNCCP is steered by Brunei Climate Change Secretariat (BCCS), which functions as a hub for related authorities, co-headed by the Minister of Development and Minister of Energy. The BCCS assigns each policy to the relevant ministries to duly operationalize necessary policy measures by working out a strategy and budgeting, it also promotes the macro-environmental development necessary to achieve these strategic goals. As two or more ministries are responsible for most of strategies, relevant authorities have meetings periodically to achieve the target. For instance, relevant authorities have a taskforce meeting every three months to discuss possible policy actions in order to meet the target of 60 percent electric vehicle sales nationwide by 2035. These 10 strategies will be under the mid-term progress review in 2023, with collaboration with a third-party organization, in addition to the biennial follow-up. If the review results show that the performance indicator is below the target, follow-up measures are planned by the authorities.

⁶⁹ The exception being Strategy 6 (carbon pricing)

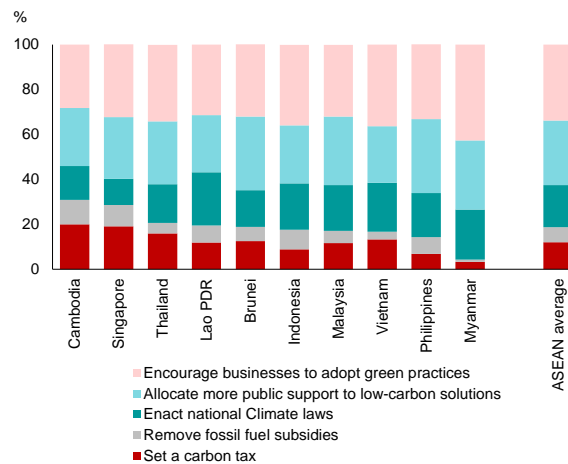
on the outcomes of the 2023 mid-term progress review. This could include measures to, for example, enhance climate mitigation/ adaptation, including food security. In this regard, in Brunei, the percentage of those who consider the introduction of a carbon tax as a policy measure to reduce carbon emissions is relatively higher than in other regional countries. This highlights the possibility of carbon tax as a possible financing source to take additional actions (Figure A2.4).

Figure A2.3. Ten Strategies of the BNCCP and Examples of Performance Indicators



Source: BCCS

Figure A2.4. Selected ASEAN+3 Economies: National Climate Change Policy Priorities to Reduce Carbon Emissions (Poll Results)



Source: The Climate Change in Southeast Asia Programme at ISEAS–Yusuf Ishak Institute

15. On the fiscal front, the systematic identification and costing of climate change programs would be desirable and consistent with fiscal sustainability objectives. The integration of climate mitigation, adaptation and transition programs in longer-term budget planning (such as their integration into the longer-term expenditure framework) would not only help strengthen public financial management, but ensure coordination of various policies in supporting common national objectives. For example, the introduction of electric vehicles (EVs) is one of the climate action strategies, while the implementation of which has been delayed due to the still high price of EVs and the limited number of charging stations (see Box C). It is possible that prevailing fuel subsidies are partially negating people’s incentives to purchase EVs. This underscores the importance of integrating climate mitigation strategies in the longer-term expenditure framework so the provision of fiscal incentives (such as the provision of tax relief for the purchase of EVs, or road tax exemptions for EVs) to accelerate the adoption of EV, can be aligned with fuel subsidy policies.

Opportunities for Climate Financing: Stepping up the Development of Sustainable Islamic Finance

16. Climate action plans require significant amount of funding, presenting immense opportunities for green and sustainable investment through the Islamic finance industry. Globally, the Islamic finance industry (Islamic banks and *sukuk* (Islamic bonds)) has shown strong growth in recent years, particularly during the pandemic. The industry proved to be resilient during pandemic, growing by 14 and 17 percent in 2020 and 2021, respectively, surpassing pre-pandemic levels with total asset size of USD 4 trillion globally (Refinitiv 2020a). Since the climate action plans needs substantial upfront costs, the Islamic finance can help to address these challenges and support the transition to a more sustainable future. However, Refinitiv (2022a) shows that the demand for *sukuk* that focus on green and sustainability is primarily coming from investors who have a mandate to prioritize ESG factors in their investments, rather than those who focus on compliance with Shariah law. As a result, the adoption of ESG principles in most countries in the Organization of Islamic Cooperation (OIC)⁷⁰ has been slower.

17. Brunei has the potential to develop its Islamic finance industry, specifically by creating financial products that align with ESG principles. Currently, the Islamic finance industry in Brunei is dominated by Islamic banks and *takaful*, with the Islamic banks being a significant contributor to the financial system and growing rapidly in terms of asset size relative to GDP in the past decade. Though Brunei only has one Islamic bank, the Bank Islam Brunei Darussalam (BIBD), with assets of USD7.7 billion, the Islamic banks' total assets make up a larger share of GDP compared to Malaysia and Indonesia⁷¹ (Figure A2.5). According to Refinitiv (2022b), Brunei rank 12th globally in Islamic Finance Development Indicator (IFDI)⁷², with high scores for governance and awareness and lower scores for financial performance and sustainability (Figure A.2.6). To improve performance and sustainability in the long term, Brunei could focus on developing Islamic finance products and services, establishing investment funds, and promoting *sukuk*, all the while adhering to ESG principles.

18. In view of the growth potential of Islamic finance, Brunei could leverage on the opportunities from climate financing to accelerate *sukuk* issuances—particularly green *sukuk*, to finance climate action plans, while helping to further develop its *sukuk* market. Literature shows that *sukuk* issuances (Figure A2.7) can contribute to the development of the Islamic capital market, while supporting economic diversification efforts (Ledhem and Mekidiche 2021).⁷³ This would not only help in the development of the domestic Islamic capital market, but could also help to reduce the dependency on the banking system, thus providing an alternative avenue for long-term financing.

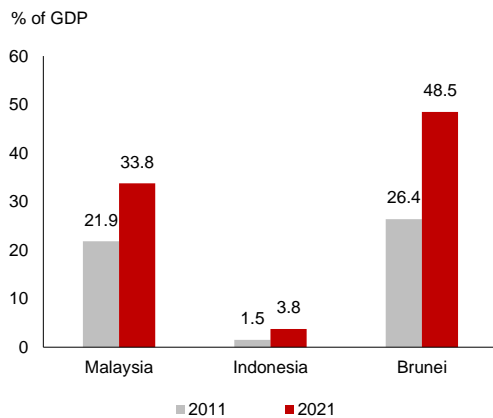
⁷⁰ Brunei is member of OIC since 1984. The organization has 57 member states.

⁷¹ As of 2022, Malaysia has 20 Islamic banks, with total assets of USD252 billion and Indonesia has 10 Islamic banks, with total assets of USD26.9 billion.

⁷² Besides Brunei, three ASEAN+3 countries were ranked in the top 15 countries: Malaysia was 1st, Indonesia was 3rd, and Singapore was 15th.

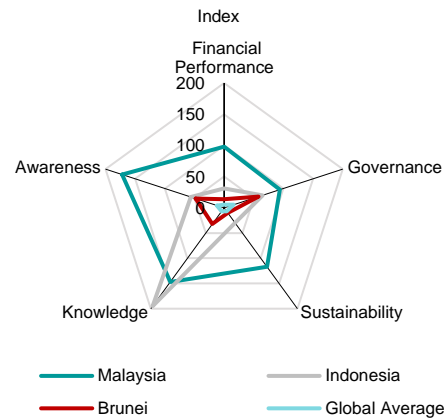
⁷³ Moreover, literature shows that *sukuk* market development has an indirect effect of promoting financial stability of Islamic banks. Ledhem (2022) used a dynamic panel model to measure the financial stability of Islamic banks in Malaysia, Saudi Arabia, Indonesia, Turkey, and Brunei, and found that *sukuk* market developments have had a positive effect on the financial stability of these banks, likely due to the expansion of complementarity between the banks. There is potential for Brunei to lengthen the maturity of existing *sukuk* issuances to better capture the long-term investment opportunities, such as financing climate actions.

Figure A2.5. Malaysia, Indonesia, and Brunei: Islamic Bank Assets to GDP



Source: BankFocus, AMRO staff calculations

Figure A2.6. Islamic Finance Development Indicator (IFDI), 2021

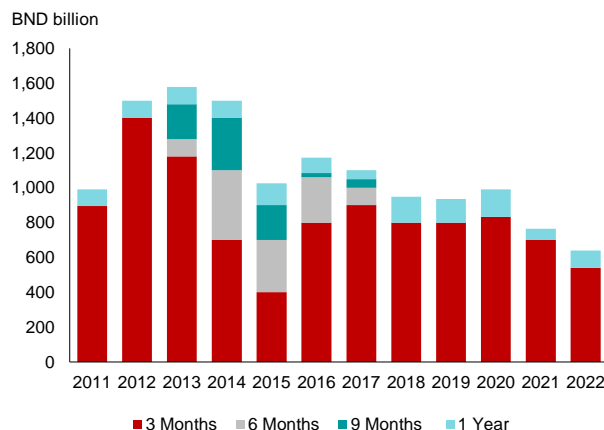


Source: Refinitiv, AMRO staff calculations

Notes: The higher the IFDI score, the better the performance. The IFDI is an index that measures the overall development of the Islamic finance industry of 136 countries globally. It measures the performance of Islamic banks, takaful, other Islamic financial institutions (OIFIs), sukuk, and Islamic funds. The database includes the information of more than 560 Islamic banks, 330 takaful entities, 4,400 sukuk, 1,900 Islamic funds and 770 other Islamic finance providers.

19. There is increasing interest in using green sukuk for climate change mitigation, adaptation and transition programs. The Brunei Darussalam National Climate Change Policy (BNCCP) has mentioned that the introduction of green bonds or green sukuk to finance renewable energy projects is a strategic area that the nation is working on. The issuance of green sukuk could support renewable energy projects such as solar power stations and increase the use of renewable energy. However, there are many factors that drive green sukuk issuance that the authorities need to consider. Abdullah and Keshminder (2022) found that competitiveness, legitimation, and ecological responsibility were drivers of green sukuk issuance in Malaysia. Policymakers can help increase the use of green sukuk by implementing favorable legislative measures and promoting and educating the people about the green agenda in order to strengthen the green sukuk market.

Figure A2.7. Brunei Sukuk Issuance, 2011-2022



Source: BDCB, AMRO staff calculations.

Box A2. Models for the Stress Testing of Fiscal Balance

This study constructs macroeconomic models to project O&G revenues, other fiscal revenues, and nominal GDP under different scenarios. The models are estimated by regressions, in which the determinants of O&G revenues and nominal GDP include nominal values of oil and LNG production⁷⁴ and World GDP. In contrast, other fiscal revenues are determined by the nominal GDP level. The nominal value of oil/LNG production is obtained by multiplying the average oil/LNG production per day by the export price of oil/LNG. In the regression, all determinants are expected to be positive, and the estimated coefficients are consistent with expectations. The estimation uses the quarterly data with the sample from Q1 2010 – Q2 2022. The estimated models are as follows:

Regression on O&G Revenues

$$\begin{aligned} \Delta \ln(Rev_t^{O\&G}) = & -0.016 + 0.408\Delta \ln(Oil_t^{Prod}) + 0.998\Delta \ln(Oil_{t-1}^{Prod}) + 0.778\Delta \ln(Gas_t^{Prod}) + 0.142\Delta \ln(Gas_{t-1}^{Prod}) \\ & (0.04) \quad (0.21) \quad (0.32) \quad (0.43) \quad (0.40) \\ & + 0.140\Delta \ln(WGDP_t) - 2.117\Delta \ln(WGDP_{t-1}) + 5.855\Delta \ln(WGDP_{t-2}) - 0.501\Delta \ln(Rev_{t-1}^{O\&G}) \quad (A2.1) \\ & (2.19) \quad (1.66) \quad (2.10) \quad (0.12) \\ R^2 = & 0.69, Adjusted R^2 = 0.63 \end{aligned}$$

where $Rev_t^{O\&G}$ is the O&G revenue at time t
 Oil_t^{Prod} is the nominal value of oil production at time t
 Gas_t^{Prod} is the nominal value of LNG production at time t
 $WGDP_t$ is the World GDP at year t .
 Figures in parentheses are standard errors.

Regression on Other Fiscal Revenues

$$\begin{aligned} \Delta \ln(Rev_t^{Other}) = & -0.011 + 0.196\Delta \ln(NGDP_t) + 0.856\Delta \ln(NGDP_{t-1}) - 0.582\Delta \ln(Rev_{t-1}^{Other}) \quad (A2.2) \\ & (0.04) \quad (0.55) \quad (0.76) \quad (0.16) \\ R^2 = & 0.37, Adjusted R^2 = 0.32 \end{aligned}$$

where Rev_t^{Other} is the other fiscal revenue at time t
 $NGDP_t$ is the nominal GDP at year t .

Regression on Nominal GDP

$$\begin{aligned} \Delta \ln(NGDP_t) = & 0.019 + 0.119\Delta \ln(Oil_t^{Prod}) + 0.053\Delta \ln(Oil_{t-1}^{Prod}) + 0.246\Delta \ln(Gas_t^{Prod}) + 0.157\Delta \ln(Gas_{t-1}^{Prod}) \\ & (0.01) \quad (0.03) \quad (0.05) \quad (0.03) \quad (0.05) \\ & + 0.016\Delta \ln(WGDP_t) - 1.251\Delta \ln(WGDP_{t-1}) - 0.294\Delta \ln(WGDP_{t-2}) - 0.281\Delta \ln(NGDP_{t-1}) \quad (A2.3) \\ & (0.39) \quad (0.24) \quad (0.24) \quad (0.17) \\ R^2 = & 0.80, Adjusted R^2 = 0.76 \end{aligned}$$

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⁷⁴ Since all the natural gas are converted into LNG, only LNG is used to proxy the natural gas production to avoid the double count of the production.

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