BRUNEI ECONOMIC OUTLOOK 2022
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Please email economics@csps.org.bn if you have any questions, comments, or suggestions regarding the Brunei Economic Outlook.
Foreword by the Chairman

It is my pleasure to present the 2022 edition of the Brunei Economic Outlook, a flagship publication of the Centre for Strategic and Policy Studies (CSPS) that discusses recent key macroeconomic developments, outlook and risks, and specific development challenges for the economy of Brunei Darussalam.

The year 2021 was supposed to be marked by a strong recovery of the Brunei economy, having swiftly contained the first COVID-19 wave a year earlier. The first half of 2021 saw a return to growth in the services sector, after four consecutive quarters of contraction. Unfortunately, following more than 450 days without any community infection, the nation was hit by a more serious COVID-19 wave that began in early August 2021. The abruptness and severity of the second outbreak led to the re-imposition of stringent measures, which were centred around saving lives and relieving the pressure on the public health system. Consequently, most economic sectors were adversely affected.

The Government of His Majesty The Sultan and Yang Di-Pertuan of Brunei Darussalam took swift action to implement economic stimulus and relief measures to cushion the impact on firms and households, with a focus on protecting jobs for locals in the private sector and supporting micro, small, and medium enterprises (MSMEs). The acceleration of the national COVID-19 vaccination programme has played a key role in reducing infections, disease severity, and deaths, thus enabling the implementation of the country’s exit strategy from the pandemic. More than 93 percent of the population has received at least two vaccine doses as of early January 2022. Economic and social activities have been permitted to gradually resume as the outbreak appears to have been brought under control.

The emergence of new variants of concern, such as the highly-mutated Omicron, is a stark reminder that the fight against COVID-19 is far from over. We must take heed of the lessons from the pandemic. Building resilience is a key priority. This includes ensuring adequate investment in public healthcare, rebuilding fiscal buffers, and enhancing social safety nets to prepare for future pandemics and crises. We must also push ahead with building a digitally-connected economy, strengthening public service delivery, investing in infrastructure, enhancing education quality, improving food security, and attracting foreign investment, among others, to support medium- to long-term sustainable growth and development, in line with the Brunei Economic Blueprint.

Another key priority is to ensure that no one is left behind. Although the acceleration of digital adoption, spurred by the pandemic, has been a positive development, there is a need to address the digital divide across socioeconomic groups. Every child must be able to continue learning during emergency school closures, and the pandemic may have set back learning for those with limited access to digital resources. At the same time, inflation has risen, driven by global supply bottlenecks and shortages. The affordability and availability of essential goods is critical to preserve consumer welfare, especially in low-income households.
Looking ahead, we are cautiously optimistic that the Brunei economy can achieve robust growth due to its strong fundamentals. GDP growth is expected to rebound in 2022, according to CSPS projections, predicated on a continuation of the global economic recovery, a greater opening of the Brunei economy, and limited domestic oil and gas production disruptions. However, this outlook is subject to considerable uncertainty and largely hinges on the effectiveness of vaccines and therapeutics against new virus variants.

In closing, I trust that the Brunei Economic Outlook is a timely and valuable resource for policymakers, industry professionals, investors, academics, civil society organisations, and the general public. It is hoped that the insights generated will provide impetus for constructive debate and ideas to contribute to economic prosperity. Last but not least, I thank the staff of CSPS for their commitment and perseverance in producing this report.

Yang Berhormat Dato Seri Setia Dr Awang Haji Mohd Amin Liew bin Abdullah
Minister at the Prime Minister’s Office and Minister of Finance and Economy II
as Chairman of the Board of Directors of the Centre for Strategic and Policy Studies
Summary

The anticipated recovery of the Brunei economy in 2021 has been derailed by a materialisation of key downside risks—pandemic resurgence, unanticipated domestic oil and gas production disruptions, and delays in the commencement of FDI projects.

Domestic economic activity has been severely impacted by the re-imposition of containment measures. The Brunei economy contracted by 2.2 percent year-on-year in Q3 2021—the fourth consecutive quarterly decline. Upstream and downstream oil and gas production have been weaker than expected, while some service activities have been hampered by mobility restrictions.

Retail sales declined sharply in Q3 2021, reflecting limited consumer spending due to stay-at-home orders and voluntary social distancing to avoid contracting the virus. The contractions across almost all retail activities highlight the severity of the second COVID-19 wave, contrasting the resilience during the first wave in 2020.

The recovery in the hotel sub-sector has been halted by the second COVID-19 wave. Hotel occupancy rates had returned to pre-pandemic levels since December 2020, but fell sharply in September 2021. The air transport sub-sector continues to be the most severely affected amid border closures.

Agriculture and communication and health services have been resilient throughout the pandemic. Production of livestock and poultry, paddy, and aquaculture has increased significantly. Use of ICT for remote learning and working and demand for government health services has also been strong.

Residential electricity demand increased in Q3 2021 after returning to normal levels in the first half of the year. By contrast, electricity use in the government and industrial sectors declined, reflecting shorter operating hours.

The trade balance improved markedly in Q3 2021, buoyed by soaring energy and petrochemical prices. Brent crude oil prices averaged US$73 per barrel in Q3 2021—a three-fold increase from the troughs in April 2020—while petrochemical prices doubled over the same period.

Inflation edged higher in Q3 2021 but remains range-bound. Headline inflation has been within the 1 to 2.5 percent range since January 2020. However, prices of durable goods have increased sharply due to a shift in consumer preferences.

The financial sector remains sound and well-buffered. The capital adequacy ratio is well above the minimum regulatory and Basel II requirements. Banks have ample liquidity and non-performing loan ratios have improved. However, banks’ profitability declined slightly due to the low global interest rate environment.

Domestic lending fell in Q3 2021 due to a decline in credit to households, particularly in personal loans financing. Credit to businesses has been more robust, with increased lending for agriculture, manufacturing, ICT, and commercial property development.

The fiscal deficit narrowed in 2021 owing to higher oil and gas revenue. Total expenditure remains contained, but capital spending has been trimmed substantially whereas cuts to current spending were limited.
Brunei’s economy is forecast to expand by 3.7 percent in 2022, after contracting by an estimated 1.5 percent in 2021. Growth in 2021 is expected to be broad-based, largely supported by the downstream oil and gas and services sectors.

Despite the growth rebound, the level of output remains well below pre-pandemic projections. The relatively high growth rate in 2022 partly reflects base effects, as real GDP has been lower than anticipated in the past two years due to the pandemic.

The current account surplus is projected to remain high at 12.1 percent of GDP in 2022, largely driven by exports of crude oil, LNG, and refined petroleum and petrochemical products as external demand firms in line with global growth. The commencement of the production of fertilizers and increased aquaculture output are also expected to boost exports.

The fiscal deficit is projected to narrow further to 6.9 percent of GDP in 2022, following a substantial reduction to an estimated 10.3 percent of GDP in 2021. Oil and gas revenue is forecast to be higher, with crude oil prices averaging US$75 per barrel and LNG prices at US$14 per mmbtu. Government expenditure as a share of GDP is expected to continue to trend lower as fiscal consolidation efforts resume.

Inflation is projected to moderate to 1.3 percent in 2022, following two years of elevated prices. As global production capacity catches up to demand and supply bottlenecks ease, domestic prices are anticipated to fall gradually but remain high by historical standards. Brunei’s currency peg to the Singapore dollar and price administration through subsidies and price controls should keep inflation in check.

However, the baseline projections are subject to considerable uncertainty and could, again, be derailed by a materialisation of several risks. These include a resurgence of the pandemic, prolonged supply bottlenecks, oil market uncertainty, and unanticipated domestic oil and gas supply disruptions.

This report recommends that the policy priorities should focus on driving economic recovery especially in the worst-hit sectors, strengthening resilience including increasing investment in the public health system and intensifying digital transformation, enhancing fiscal space by expanding the revenue base and increasing spending efficiency, and advancing structural reforms such as building a more resilient education system, improving the business environment, and strengthening public service delivery.
Recent economic developments

Brunei’s economy contracted by 2.2 percent year-on-year in Q3 2021, the fourth consecutive quarterly decline.

The trade balance improved markedly in Q3 2021, as soaring export prices more than offset high mineral fuel imports.

Retail sales declined sharply in Q3 2021 as mobility restrictions limited consumer spending.

Inflation edged higher in Q3 2021 but remains within the 1 to 2.5 percent range.

The financial sector remains sound and well-buffered.

The fiscal position improved in 2021 owing to higher oil and gas revenue.

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Graphs and charts representing various economic indicators, including real GDP, trade balance, inflation, and fiscal position.
Brunei’s economy is forecast to grow by 3.7 percent in 2022, after an estimated 1.5 percent contraction in 2021.

Despite the growth rebound in 2022, the level of output remains well below pre-pandemic projections.

The current account surplus is projected to remain high at 12.1 percent of GDP in 2022.

Inflation is projected to moderate to 1.3 percent in 2022 but remain high by historical standards.

The fiscal deficit is forecast to narrow to 6.9 percent of GDP in 2022, following an improvement in 2021.

Risks to the outlook are tilted to the downside, with growth projected to be lower if risks materialise.
PART ONE

Recent Global Developments
Recent global developments

Global COVID-19 infection rates are rising again and vaccine access remains highly unequal

The pandemic is resurging yet again at the global level, driven by the marked spread of the Delta variant, and more recently the Omicron variant, across Europe and North America (Figure 1). Global vaccination is progressing well, with nearly three-fifths of the world population having received at least one dose of a COVID-19 vaccine. However, this masks large differences in vaccine access: less than 9 percent of people in low-income countries have been vaccinated compared to more than 76 percent in high-income countries (Figure 2).

Figure 1. New daily COVID-19 cases
New cases, thousands

The resurgences of COVID-19 have had a limited impact on economic activity compared to earlier waves. The global economy continues to recover as vaccinations have weakened the linkage between infections and economic activity. The number of new hospitalisations and deaths has also been lower. Governments have generally refrained from imposing harsh restrictions and people have adjusted to living with COVID-19. Moreover, compliance with pandemic-control measures has waned and population mobility has surpassed pre-pandemic levels (Figure 3). However, the threat of the highly-mutated Omicron variant could undermine vaccine effectiveness, thus making the strength of the recovery in global activity highly uncertain. Mobility has declined in recent weeks as lockdown measures have been reinstated in several countries.

Figure 2. COVID-19 vaccination coverage
Percent of population with at least 1 dose

Figure 3. Stringency of public health measures and population mobility

Source: CSPS; Google Community Mobility Reports; Oxford COVID-19 Government Response Tracker
Note: The Stringency Index is a composite of nine policy measures: school closing, workplace closing, cancel public events, restrictions on gatherings, close public transport, stay at home requirements, restrictions on internal movement, international travel controls, and public info campaigns. A higher (lower) index means greater (less) stringency. The baseline for the population mobility index is the median value for the corresponding day of the week during January 3 to February 6, 2020. Last observation is January 7, 2022.
Global economic activity is now above pre-pandemic levels, but recovery is incomplete

The recovery in global economic activity has been stronger than anticipated, with output projections progressively higher since mid-2020 (Figure 4). Global output is now above pre-pandemic levels, reflecting the success of public health measures, rapid rollout of vaccines, and massive policy support for firms and households. Global growth is estimated to have surged to 5.5 percent in 2021—its strongest post-recession pace in 80 years—after a steep contraction of 3.4 percent in 2020. However, global output remains about 3.5 percent below its pre-pandemic projection. Moreover, this foregone growth has not been distributed equally, with proportionately larger loss for low-income countries. Contact-intensive sectors and vulnerable groups, such as poor households, informal workers, and women, have been particularly hard-hit.

Differences in policy support also contributed to divergences in economic performance

Swift and sizable fiscal stimulus in advanced economies have supported firms and households during the pandemic and facilitated a strong rebound in economic activity (Figure 5). Financial conditions in advanced economies remain accommodative even as some central banks have reduced asset purchases and signalled plans to raise policy interest rates. In contrast, financing conditions in emerging markets have tightened somewhat as policy rates have been hiked to contain rising inflation and currency depreciation (Figure 6).
Recent global developments

Pandemic resurgence and supply constraints have dampened the pace of economic recovery

Economic activity in major economies grew at a softer pace in the second half of 2021 due to new virus outbreaks and an intensification of supply shortages (Box 1). In the United States, where supply constraints have been most acute, GDP growth slowed to 4.9 percent year-on-year (y/y) in Q3 (Figure 7). However, recent monthly data suggest a subsequent reacceleration of activity. Although pandemic-related fiscal measures have now largely expired, accumulated household savings will continue to support the economic recovery and supply shortages will gradually abate. China’s GDP growth also slowed to 4.9 percent y/y in Q3, as recurring mobility restrictions to control the spread of the virus and regulatory curbs on the property and financials sectors restrained consumer spending and residential investment. Moreover, industrial output was hampered by stringent environmental targets and power cuts in many provinces. Economic activity in the Euro area rebounded markedly in Q2 but decelerated in Q3 due to a resurgence of infections amid broader supply chain bottlenecks. In Japan, economic activity in Q3 has been particularly weak, as consumption was held back by a fourth state of emergency due to surging Delta variant infections.

Inflation has risen considerably, mainly due to pandemic-induced supply-demand mismatches

Headline inflation rates have increased rapidly in many countries in recent months, largely reflecting pandemic-induced supply-demand mismatches. The rapid recovery in global demand and a slower recovery in production capacity are putting strong upward pressure on prices. In the United States, inflation rose to 6.8 percent y/y in November—a near 40-year high (Figure 8). Signs of shortages in labour markets have also appeared. Unemployment rates have declined but labour force participation rates have also fallen, putting upward pressure on wages and prices as employers compete for scarcer workers (Figure 9).

Figure 7. GDP growth in major economies

Percent, y/y

2021Q1 2021Q2 2021Q3

China 10 5 0
Euro area 0 0 0
Japan 0 0 0
United States 20 15 10

Source: CSPS; Organisation for Economic Co-operation and Development

Figure 8. Headline inflation in major economies

Percent, y/y

2021Q1 2021Q2 2021Q3

United States 7 6 5
China 4 3 2
Euro area 3 2 1
Japan 2 1 0

Source: CSPS; Organisation for Economic Co-operation and Development

Figure 9. Unemployment in major economies

Percent, y/y

2021Q1 2021Q2 2021Q3

United States 15 12 9
China 6 3 0
Euro area 6 3 0
Japan 9 6 3

Source: CSPS; National Bureau of Statistics of China; Organisation for Economic Co-operation and Development

Note: Last observation is November 2021.
Global activity has slowed slightly but economic conditions and expectations remain positive

Global activity has rebounded strongly after suffering a sharp decline in the first half of 2020 (Figure 10). Services activity lost some momentum at the end of 2021, particularly in advanced economies, but manufacturing remained firm. An indicator of global economic conditions, based on a wide range of high-frequency indicators, points to improving economic activity in December (Figure 11). Global economic expectations have also improved after a steady decline since April.

Global trade has rebounded strongly but slowed in recent months due to supply bottlenecks

Global trade picked up strongly in the first half of 2021, in tandem with the rebound in global economic activity (Figure 12). The recovery in global trade reflected a shift in demand toward highly trade-intensive manufacturing goods, especially durable goods. However, the pace has eased as strains in global value chains have emerged due to factory shutdowns, logistical bottlenecks at ports, and an acute shortage of semiconductors and shipping containers. Consequently, logistics costs have risen significantly (Figure 13).

Figure 10. Global PMI activity

Figure 11. Global conditions and expectations

Figure 12. Global trade and industrial output

Figure 13. Container volume and shipping cost

Source: Baumeister, Korobilis, and Lee (2020); CSPS; IHS Markit; J.P. Morgan; Sentix
Note: Purchasing Managers’ Index (PMI) readings above 50 indicate an expansion. Positive global economic conditions values correspond to above normal trend growth. Positive Sentix values indicate improvement. Last observation is December 2021.
Sharp increase in debt and significant rise in currency risk in emerging market economies

The pandemic has resulted in a sharp rise in debt in emerging market economies (Figure 14). Government debt has increased considerably due to elevated pandemic-related spending. The rise in private sector debt has also been substantial, particularly in China and Turkey. Capital inflows have moderated and government bond spreads have increased in Europe and Latin America but not in Asia (Figure 15). Heightened risks of financial stress could lead to capital flight, corporate defaults, and ultimately, financial crises.

Commodity prices have surged, driven by strong demand and supply constraints

Energy prices soared in the second half of 2021, reflecting a resurgence of demand as economies reopened amid restricted supply (Figure 16). Spot prices for Brent crude oil have more than doubled since mid-2020, while the increases for coal and natural gas have been much larger. Global oil consumption has outpaced production, as OPEC output remains below the group’s target (Figure 17). Metal prices have stabilised, partly driven by slowing economic activity in China. Food prices were boosted by record-high imports by China.

Figure 14. Cumulative credit to the non-financial sector in emerging market economies
Percent of 2019Q4 GDP

Figure 15. 10-year local-currency bond spreads over US government bonds
Basis points

Figure 16. Commodity prices
Index (Dec 2019=100)

Figure 17. Global oil consumption and production
Million barrels per day

Source: Bank for International Settlements; CSPS; Refinitiv
Note: Last observation for bond spreads is January 7, 2022.
Note: Last observation for commodity prices is December 2021.
Box 1. Supply bottlenecks and shortages

Current supply bottlenecks and shortages are significant and widespread. Demand for goods—from raw materials and food to electronics and cars—has outstripped available supply, leading to sharp increases in prices, supply chain disruptions, and delivery delays. The turmoil in international commerce and logistics networks has persisted longer than expected, with delays and shortages appearing nearly everywhere, illustrating the interconnectedness of economies across the world. These problems have been most visible in the United States. The record number of container ships waiting to dock at the ports of Los Angeles and Long Beach has become an emblem of a broken supply chain. At the same time, trucking firms are struggling to find drivers to deliver goods and many store shelves are empty, spurring panic-buying sprees. Against this backdrop, this Box discusses the causes of the recent supply shortages.

What are the causes of supply shortages?
The causes of the supply shortages and supply chain disruptions can be attributed to six broad factors: (i) pandemic-driven restrictions; (ii) pandemic-induced demand shifts; (iii) structure of supply chains; (iv) reaction of supply chain participants; (v) labour market mismatches; and (vi) adverse natural events.

Pandemic-driven restrictions
Supply problems stem from the first wave of the COVID-19 pandemic. The imposition of lockdowns forced businesses to furlough labour and curtail production. The rapid recovery in global demand over the past year amid a slower recovery in production capacity led to supply-demand imbalances in some sectors. Lingering pandemic control measures continue to hold back the recovery of supply chains to pre-pandemic levels. Ports have been processing a larger volume of shipping containers than before the pandemic (Figure B1). Recent COVID-19 outbreaks in China have led to factory closures as well as shutdowns of key ports, such as Shenzhen and Ningbo, exacerbating bottlenecks in global shipping, which had already been strained by the blockage of the Suez Canal in March 2021. Consequently, shipping costs have risen to historic highs, especially for trade between Asia and North America, and remain elevated despite a moderation in recent months (Figure B2).

Figure B1. Container throughput

![Graph showing container throughput](image)

Source: CSPS; Freightos; Harpex; Institute of Shipping Economics and Logistics; Leibniz-Institute für Wirtschaftsforschung
Note: The Harpex Index tracks the container shipping rates in the time charter market. The Freightos Container Freight Index reflects the spot rates for 40-foot containers. Last observation for container throughput is November 2021. Last observation for shipping costs is December 2021.

Figure B2. Shipping costs

![Graph showing shipping costs](image)


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1 This Box was prepared by Koh Wee Chian.
Supply bottlenecks are not limited to port congestions. Transport capacity has also fallen significantly since the pandemic began and transport utilisation has risen sharply due to difficulties in the trucking industry (Figure B3). These bottlenecks have had knock-on effects through production networks as firms slowed or stopped production. As a result, suppliers’ delivery times have lengthened rapidly and backlogs of work have surged (Figure B4).

**Pandemic-induced demand shifts**

The pandemic has caused a shift in the composition of demand towards manufactured goods, such as electronics and furniture, as people spent more time at home. These goods are relatively capital-intensive, which takes time to expand production capacity. There has also been a shift towards online shopping, which tends to be more import-intensive and Asia-focused. Sudden increases in demand for manufactured goods have contributed to an intensification of supply shortages, particularly with China—the world’s largest supplier of manufactured goods—pursuing a zero-Covid strategy. Inventory levels have declined steeply in the United States, especially for retail products and motor vehicles (Figure B5).

**Source:** CSPS; Federal Reserve Bank of St. Louis; Haver Analytics; Susquehanna Financial Group

**Note:** Major markets for car production are China, Germany, Japan, and the United States. Last observation is November 2021.
The car industry has been severely impacted by supply chain disruptions. The global shortage of semiconductors has hampered car production in many countries, as recent car models typically contain more than a thousand chips for a range of essential operations (OECD 2021). Car manufacturers who had cut orders for semiconductors early in the pandemic in anticipation of lower demand have found it hard to re-establish their supply lines when car demand returned. Semiconductor producers have shifted their production to manufacturers of computers and other electronic and communication equipment, where sales were soaring. Ramping up production of computer chips requires months. The waiting time for semiconductor chips lengthened to 25 weeks in November 2021, from about 13 weeks before the pandemic (Figure B6). The revival in global car demand amid constrained supply has put upward pressure on prices. New and used car prices have risen substantially in many countries.

**Structure of supply chains**

An important factor that has amplified the severity of supply bottlenecks is the lean structure of supply chains based on the virtues of no slack and little redundancy. Over the last half-century, business industries ranging from automobiles, pharmaceuticals, food processing, and fashion have embraced “Just-in-Time” manufacturing to stay nimble while cutting costs. However, the prioritisation of efficiency over resilience has left them vulnerable to disruptions during the pandemic. Due to the complexity of supply chains, dislocations were difficult to repair, leading to significant supply-demand mismatches. The most prominent manifestation of an overreliance on lean supply chains is in the industry that invented it. Toyota, the Japanese automaker which pioneered the “Just-in-Time” system, slashed its global car production by 40 percent in September 2021 due to an enduring shortage of computer chips.

**Reaction of supply chain participants**

Another factor that has exacerbated shortages is the behaviour of supply chain participants. In anticipation to perceived shortages, supply chain participants placed more, and earlier, orders as well as hoarded inputs—the so-called “bullwhip” effect (Rees and Rungharoenkitkul 2021). Although this kind of reaction is prudent and rational when considered in isolation, it can aggravate aggregate supply bottlenecks and become self-defeating. This is evident in raw materials demand, such as coal and iron ore, where pressures emerged at different points in the supply chain that led to sharp price fluctuations (Figure B7). Prices soared initially but then fell steeply as capacity increased faster than demand.

**Figure B7. Raw materials and dry bulk shipping prices**

<table>
<thead>
<tr>
<th>US$</th>
<th>Iron ore (US$/dmtu)</th>
<th>Coal (US$/mt)</th>
<th>Baltic Dry Index (RHS)</th>
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<tbody>
<tr>
<td>250</td>
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Source: Baltic Exchange; CSPS; Federal Reserve Bank of St. Louis; National Federation of Independent Businesses; World Bank

Note: The Baltic Dry Index is an average of prices paid for the transport of dry bulk materials. The share of U.S. small businesses reporting few or no qualified applicants are three-month averages. Last observation for raw material and shipping prices is December 2021. Last observation for U.S. job openings and qualified applicants is November 2021.
**Labour market mismatches**

Labour shortages have also affected the supply of goods and services. Migrant workers were typically the first to be laid off during lockdown periods, and many have not returned amid international travel restrictions. Changes in the skill mix required due to the sudden shift in demand from services to goods have resulted in frictional issues around matching displaced workers to vacancies. The share of small businesses in the United States reporting few or no qualified applicants has risen markedly (Figure B8). Job openings also suggest that unfilled vacancies have surged. The pandemic has also led some people to withdraw from the labour force, by retiring early or to care for relatives.

**Adverse natural events**

Severe weather events have caused a reduction in energy supply and affected industrial production (World Bank 2021). As a result of Hurricane Ida, 96 percent of crude oil production and 94 percent of natural gas production in the U.S. Gulf of Mexico were shut in (EIA 2021; Figure B9). In addition, at least nine oil refineries had to shut down or reduce production, while several large fertilizer companies had to declare force majeure as production was halted. An unusually cold winter in Europe spurred greater demand for gas and caused a large drawdown of stocks that have not been restored fully. Natural gas prices in Europe soared to record-highs, which led to widespread production cutbacks in ammonia—an important input for nitrogen fertilisers—and a surge in urea prices (Figure B10). Meanwhile, flooding in China reduced coal production, which led to escalating thermal coal prices and a rationing of electricity use in some provinces, forcing factories to cut production. The energy crisis in China also resulted in an increase in demand for liquefied natural gas, diverting some gas that would have otherwise gone to Europe.

**Figure B9.** U.S. Gulf of Mexico crude oil and natural gas production

**Figure B10.** Natural gas and urea prices

Source: CSPS; U.S. Energy Information Administration; World Bank
Note: Last observation is December 2021.

**References**


PART TWO

Recent Developments in Brunei
Recent developments in Brunei

The anticipated recovery of the Brunei economy in 2021 has been derailed by a materialisation of downside risks.

Brunei’s economy contracted by 2.2 percent year-on-year (y/y) in Q3, following negative growth in Q2 (-2.1 percent), Q1 (-0.8 percent), and 2020 Q4 (-1.4 percent). Brunei had also experienced at least four consecutive quarters of contraction in 2013-15 and 2016-17 (Figure 18). The key downside risks to growth that were highlighted in last year’s Brunei Economic Outlook 2021 report—new waves of COVID-19 infections, unanticipated oil and gas production disruptions, and delays in the commencement of foreign direct investment (FDI) projects—have, unfortunately, materialised.

The traditional oil and gas sector, which comprises oil and gas mining and manufacturing of liquefied natural gas (LNG), has been weaker than expected. Crude oil and natural gas production fell 3.6 and 7.2 percent, respectively, in the first three quarters of 2021, while LNG production declined 9.3 percent (Figure 19). The sector has been plagued by manpower shortages due to pandemic-related mobility restrictions. Unanticipated production disruptions owing to ageing oil and gas fields have also hampered the sector’s output, which has been trending lower since 2006.

In the downstream oil and gas sector, y/y production of petroleum and chemical products rebounded in Q1 as external demand grew in line with the global economic recovery. However, demand has since softened and petrochemicals output growth fell markedly in Q2 and stayed flat in Q3. Commercial production of urea fertilizers was slated to begin in May 2021, but is now projected to start in early 2022. The much-anticipated expansion of Hengyi Industries’ oil refinery and petrochemical plant has also been delayed.

After four consecutive quarters of contraction, the services sector staged a strong recovery in the first half of 2021 as the easing of pandemic-related measures allowed a return to somewhat normal economic and social activity. However, after nearly 460 days without any community infection, and despite strict border controls, Brunei experienced a much larger COVID-19 outbreak that began in early August. The re-imposition of stringent public health measures, including new mask mandates and stay-at-home orders, slowed the recovery in service activity. Consequently, the services sector grew at a slower pace in Q3, by 1.1 percent y/y.
Several sub-sectors have been resilient throughout the pandemic

Among the few positive developments in 2021 has been the robust growth of the agricultural sector (Figure 20). The sector expanded by 28 percent y/y in Q3, supported by increased production of livestock and poultry (beef, chicken, and egg), paddy, and aquaculture (shrimp and fish).

Although manufacturing of petroleum and chemical products declined in Q3, other manufacturing activities experienced an increase, such as food and beverage products.

Demand for communication and health services has also been strong throughout the pandemic, reflecting increased use of information and communication technologies (ICT) for remote learning and working and high demand for government healthcare services.

Construction, on the other hand, has been particularly weak in 2021, reflecting ongoing shortages of foreign labour due to travel restrictions and a lack of new infrastructure investment. The sector’s output fell 8.3 percent through the first three quarters of 2021.

Retail sales declined sharply in Q3 as mobility restrictions limited consumer spending

Retail sales declined 5.2 percent y/y in Q3, reflecting the impact of lockdown measures which forced people to remain at home in the evening and voluntary social distancing due to fear of contracting the virus (Figure 21). The contractions across almost all retail activities highlight the severity of the second COVID-19 wave, contrasting the resilience during the first wave in 2020. Food and beverages services also fell sharply in Q3, by 12.3 percent y/y, as dine-in at restaurants and other food premises was prohibited (Figure 22).
The recovery in the hotel industry has been held back by the second COVID-19 wave

After a partial recovery since December 2020 that has been supported by domestic tourism campaigns and staycation promotions, the hotels sub-sector contracted by 7.1 percent y/y in Q3. Hotel occupancy rates had returned to pre-pandemic levels prior to the second COVID-19 wave that began in early August 2021, but fell to around 30 percent in September 2021 (Figure 23). The air transport sub-sector continued to be severely affected as borders remain closed. Over the first nine months of 2021, only 2,700 tourist arrivals by air were recorded—about 1 percent of the total over the same period in 2019 (Figure 24).

Residential electricity demand increased in Q3 as most people worked from home

Total electricity demand dropped sharply in September 2021 under lockdown measures, but rebounded in October (Figure 25). After returning to normal trends in the first half of 2021, residential electricity use increased in Q3 and rose further in October as most people reverted to working and studying from home (Figure 26). Electricity demand in the commercial sector declined in September but picked up in October. On the other hand, electricity use in the government and industrial sectors declined in Q3 and in October, partly reflecting shorter operating hours.

Figure 23. Hotel occupancy rate
Percent  
2019 2020 2021

Figure 24. International tourist arrivals by air
Thousands  

Figure 25. Total electricity demand
Gwh  
2019 2020 2021

Figure 26. Electricity demand by sector
Percent, y/y  
Residential Commercial Government Industry

Source: CSPS; Tourism Development Department
Note: Last observation is September 2021. Data for tourist arrivals in 2021 is annualised.

Source: Berakas Power Company; CSPS; Department of Economic Planning and Statistics; Department of Electrical Services
Note: Last observation is October 2021.
Recent developments in Brunei

Weak investment outweighed the recovery in external demand and robust private consumption in Q3

External demand rebounded in Q3, driven by higher exports of crude oil and other petroleum and chemical products, which more than offset an increase in imports (Figure 27).

Private consumption continued to grow despite the pandemic, by 13 percent y/y in Q3, following robust growth over the past several years. Meanwhile, government consumption was broadly unchanged, reflecting a conscious reining in of spending amid fiscal consolidation efforts.

By contrast, gross capital formation plunged by 28 percent y/y in Q3 due to a sharp decline in private investment, which is in line with the contraction in construction activity.

However, due to the large statistical discrepancy in the GDP by expenditure approach, some caution should be taken in interpreting trends. For instance, the strength in household spending appears to be at odds with weak retail sales in Q3.

Incoming data point to a recovery of economic activity in Q4

Pandemic-related restrictions have been gradually lifted since the first week of December as the country entered the endemic phase (Figure 28). Alternative indicators of economic activity based on high-frequency data, such as internet search, suggest that service activity has partially recovered after a steep fall in August (Figure 29). However, given the contractions in the first three quarters, GDP growth for the whole of 2021 is estimated to be -1.5 percent. This outturn would be the lowest since 2016 when GDP growth was -2.5 percent.

---

**Figure 27. Contribution to real GDP growth by expenditure component**

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<tr>
<th>Percentage points</th>
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<td>Real GDP (% y/y)</td>
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Source: CSPS; Department of Economic Planning and Statistics

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**Figure 28. Stringency of COVID-19 restrictions**

Index (100=maximum stringency)

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</tbody>
</table>

Start of first COVID-19 wave in March 2020
Start of second COVID-19 wave in August 2021

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**Figure 29. Google search for "mall" in Brunei**

Index

<table>
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<tr>
<th>Month</th>
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<th>Apr '18</th>
<th>Jul '18</th>
<th>Oct '18</th>
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</tbody>
</table>

1st wave 2nd wave mall

Source: CSPS; Google Trends; Oxford COVID-19 Government Response Tracker
Note: Last observation is January 8, 2022.
The trade balance improved markedly in Q3, buoyed by soaring energy and petrochemical export prices

A marked increase in the value of exports led to an improvement in the goods trade balance in Q3 (Figure 30). Trade deficits had been recorded in three of the preceding four quarters. The recovery in external demand since mid-2021 is in line with the global economic recovery, which has been accompanied by sharp rises in energy and petrochemical prices (Figure 31). Brent crude oil prices averaged US$73 per barrel in Q3—a three-fold increase from the troughs in April 2020—while petrochemical prices doubled over the same period. An easing of travel restrictions led to higher global demand for jet fuel, diesel, and gasoline. Global demand for aromatics has also increased, in part driven by rising downstream demand for raw materials used in food packaging and household goods.

Brunei’s exports have shifted from being dominated by crude oil and LNG to a more diversified composition, with other petroleum and chemical products now accounting for the majority of exports. The share of crude oil and LNG in total exports has fallen sharply from 90 percent in 2018 to 40 percent in 2021 (Figure 32). Most of the exports of petrochemical products are destined for China and Singapore.

Total goods imports have continued to increase, largely driven by imports of mineral fuels as feedstock for the production of refined and petrochemical products. To diversify supply sources, crude oil imports have increasingly come from the rest of the world, including from Nigeria, Norway, Russia, Saudi Arabia, and the United Arab Emirates.

Figure 30. Merchandise trade by product

Figure 31. Global benchmark prices of key exports

Figure 32. Share of crude oil and LNG exports and share of exports to China and Singapore
Consumer price inflation remains range-bound but is still historically high

Headline inflation, measured by the y/y percent change in the Consumer Price Index (CPI), increased to 1.9 percent in Q3 from 1.3 percent in Q2 (Figure 33). Inflation has been within the 1 to 2.5 percent range since January 2020. Nonetheless, it remains historically high (average inflation during 2000-19 is 0.3 percent).

The headline inflation rate masks considerable heterogeneity in the price changes of certain goods and services. Prices of durable goods have increased sharply during the pandemic due to the shift in consumer preferences away from services toward goods such as consumer electronics and household appliances as more people stayed at home. Following the reopening of economies around the world, demand for motor vehicles has rebounded but supply has not kept pace owing to the global shortage of semiconductors—a key component of new car models. As a result, prices of both new and used cars have risen significantly globally and in Brunei (Figure 34). On the other hand, prices of non-durable goods, such as clothing and footwear, declined due to weak demand.

Other notable price increases that were observed in 2021 included air transport, jewellery, vegetables, oils, and meat products (Figure 35). Air transport prices rose 13 percent due to price hikes of air tickets to cover higher operational costs. Jewellery prices increased 11 percent due to higher precious metal prices. Meanwhile, prices of vegetables and oils surged 24 percent and 18 percent, respectively, due to limited supply from exporting countries. Prices of lamb and mutton jumped 30 percent on low cattle inventory. On the other hand, price declines were reported for clothing, furniture, accommodation services.

Figure 34. Contribution to consumer price inflation by category

Figure 33. Consumer price inflation by goods durability and services

Source: CSPS; Department of Economic Planning and Statistics
Note: Last observation is September 2021.
Unemployment and underemployment increased in 2020 due to pandemic-induced restrictions

Brunei’s unemployment rate increased to 7.4 percent in 2020 from 6.8 percent in 2019 as COVID-19 restrictions affected economic activity. Time-related underemployment also increased, from 7.1 percent in 2019 to 11.9 percent in 2020, as some workers reported fewer working hours due to temporary business closures while others were furloughed.

The size of the labour force declined in 2020 as the reduction in foreign labour outweighed the increase in local labour (Figure 36). Entry of foreign workers into Brunei has been restricted due to international travel bans, and new foreign work passes are only approved for those classified as essential workers. The largest declines in foreign labour were in accommodation and food services, wholesale and retail trade, and manufacturing (Figure 37). Most of the positions vacated by foreign workers in the retail and manufacturing industries have been taken up by the locals.

The government has been resolute in ensuring job security for locals during the pandemic. Support measures include extending the i-Ready programme to non-university graduates, providing online courses for upskilling and reskilling, and helping businesses stay afloat to reduce the risks of employee retrenchment.

Labour market conditions appear to have improved in 2021. The number of active jobseekers has dropped, as of December 2021, with the largest decline seen in those with secondary education attainment (Figure 38). However, job market opportunities for university and technical and vocational training (TVET) graduates remain limited. The pandemic may have pushed for the adoption of innovative technologies capable of automating routine tasks (Box 2). Upskilling and reskilling is necessary to enable workers to acquire non-routine cognitive skills in anticipation of future market demands.

Figure 36. Employment by citizenship

![Graph showing employment by citizenship in Brunei](source)

Figure 37. Change in employment by economic sector between 2019 and 2020

![Bar chart showing change in employment by economic sector](source)

Figure 38. Active jobseekers by education level

![Bar chart showing active jobseekers by education level](source)
The COVID-19 pandemic and the imposition of nationwide restrictions severely affected MSMEs

The pandemic and the associated public health measures have severely affected businesses, particularly micro, small, and medium enterprises (MSMEs). Some sectors could not operate normally due to mobility restrictions, such as shorter business hours and capacity limits at premises. Moreover, demand has been hampered by changes in consumer behaviour.

A survey of firms conducted by Darussalam Enterprise in August 2021 showed substantial business sustainability issues, especially among MSMEs. More than half of the surveyed firms projected revenue loss of at least 50 percent that month, including 35 percent that anticipated revenue loss of more than 80 percent. In addition, three-fifths of firms reported having less than three months of cash flow to survive (Figure 39). Liquidity problems are most acute in micro firms (1 to 4 employees), with nearly 70 percent having less than three months’ worth of cash flow. Given the stringency and duration of the imposed restrictions, it is likely that more firms would have experienced difficulties after the survey period.

Most firms had difficulty in paying large fixed costs, especially staff salaries and rent, similar to survey responses during the first outbreak in April 2020 (Figure 40). Among the cost-cutting measures implemented included temporarily shutting the business, reducing or delaying salary payments, imposing compulsory leave without pay, and dismissing employees. Businesses that were more nimble could pivot their strategy towards offering new products and services or using online distribution channels. However, businesses which are heavily reliant on physical customer interaction or those which lack digital skills had difficulty in adjusting to the new operating environment.

In response to the second outbreak in August 2021, most economic support and relief measures were reinstated. Fiscal measures were centred around tax, utility, and social security deductions or deferments, while monetary measures were mainly on deferment of principal repayment of loans. New measures were also announced, such as providing financial assistance to local employees and self-employed individuals in the private sector whose income or employment was affected.

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**Figure 39.** Cash flow sustainability

<table>
<thead>
<tr>
<th>Less than 1 month</th>
<th>Less than 3 months</th>
<th>Less than 6 months</th>
<th>Less than 12 months</th>
<th>12 months or more</th>
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</table>

**Source:** CSPS; Darussalam Enterprise

**Note:** Survey of firms in August 2021 by Darussalam Enterprise.

**Figure 40.** Difficulty in paying

<table>
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<th>August 2021 survey</th>
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<tr>
<td>1</td>
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<tr>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Source:** CSPS; Darussalam Enterprise

**Note:** Businesses that reported no impact were assigned a score of 1, limited impact a score of 2, significant impact a score of 3, and critical impact a score of 4. A higher score indicates greater difficulty to pay.
Brunei’s second wave of COVID-19 infections appears to be under control, following a rapid uptake in vaccination

After nearly 460 days without any community infection, and despite strict border controls, several COVID-19 cases were confirmed on August 7, 2021, triggering a serious outbreak. The number of cases grew rapidly, many of which had unknown epidemiological links. The effective reproduction number—the average number of secondary infections caused by one infectious case—was estimated at around 5 during the early stages of the outbreak, suggesting high transmissibility that is characteristic of the Delta variant (Figure 41). In mid-October, the number of new daily cases surpassed 600 per 1 million people, higher than most countries in the region (Figure 42).

However, cases have since declined sharply to less than 40 per 1 million people as of early January. The number of patients in the intensive care unit (ICU) who require oxygen supplementation or are in critical condition has also fallen significantly (Figure 43). The sharp decline in case numbers coincided with the rapid increase in vaccination rates (Figure 44). After a slow start to the national COVID-19 vaccination program amid vaccine hesitancy and supply issues, the pace picked up when community infection was reported. As of early January, more than 93 percent of the population have received their two-dose regimen. Booster shots have also been rolled out to individuals aged 18 years and above.

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**Figure 41.** Effective reproduction number

**Figure 42.** New confirmed COVID-19 cases

**Figure 43.** COVID-19 patients in ICU

**Figure 44.** COVID-19 vaccination rates

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Source: CSPS; Ministry of Health; Our World In Data

Note: Last observation is January 8, 2022.
The financial sector remains sound and well-buffered

The banking system, which dominates the financial sector with more than four-fifths of total assets in the financial system, remains sound with solid capital and liquidity buffers. The capital adequacy ratio stood at 19.9 percent in Q3, down from 20.8 in 2020 but still well above the regulatory minimum requirement of 10 percent and the minimum requirement of 8 percent under Basel II (Figure 45). Banks also have ample liquidity, with the liquid assets to total assets ratio at 49.2 percent.

Gross non-performing loans (NPLs) to total loans declined to 3.6 percent in Q3, due to a change in accounting of non-performing exposures as well as the impact of forbearance measures as the deferment of loan and financing repayments are not classified as impaired. However, NPLs are expected to rise when the moratorium ends. Banks’ profitability declined slightly, reflecting uncertainties due to the pandemic and the low global interest rate environment. The banking sector’s return on equity fell to 9.5 percent in Q3 (10.6 percent in 2020) while the return on assets was broadly unchanged at 1.5 percent. Although the spread between lending and deposit rates has declined slightly, it remains relatively high.

Demand deposits growth has slowed sharply

The pace of expansion in monetary supply has been broadly stable, as the growth of quasi money (fixed deposits and savings) has offset the sharp fall in the growth of demand deposits (Figure 46). The decline in demand deposit holdings since the start of 2021 reflects the relative improvement in demand and consumption opportunities following the lifting of restrictions in 2020. The velocity of money—the frequency in the movement of money in the economy—also picked up in the first half of 2021, but fell again in Q3 when restrictions were reinstated (Figure 47).

Figure 45. Banking system financial soundness indicators

- Regulatory capital to risk-weighted assets
- Liquid assets to total assets
- Return on assets
- Non-performing loans to gross loans

Source: Brunei Darussalam Central Bank; CSPS
Note: Data for 2021 as of end Q3.

Figure 46. Money supply growth

Percent, y/y, 6-month average

Figure 47. Velocity of money (M2)

Source: Brunei Darussalam Central Bank; CSPS
Department of Economic Planning and Statistics
Note: Last observation is September 2021.
Credit to households continued to trend lower in Q3

Domestic lending to households fell by 1.8 percent y/y in Q3, the sixth consecutive quarterly contraction (Figure 48). The decline in household sector credit has been driven by a sharp fall in personal loans, which includes loans and financing for general consumption, credit cards, home improvement, vehicles, and consumer durables. Meanwhile, residential property financing continues to grow. Prudent loan limits, debt service ratios, and sound underwriting standards have underpinned the reduction in the share of personal loans in household debt to 48 percent in Q3 2021, from 67 percent in 2011 (Figure 49).

Lending to the non-household and foreign sectors increased

Credit to businesses expanded during the pandemic. Most of the recent lending has been channelled to commercial property development, as well as to the agriculture, manufacturing, and ICT sectors (Figure 50).

Lending to non-residents has also increased significantly, accounting for 15 percent of total loans outstanding in Q3 2021, from 3 percent during 2014-18 (Figure 51). However, foreign lending constitutes a small share of offshore assets; the majority are in the form of placements of banks’ excess liquidity. Offshore asset currency risks are partly mitigated by placements in S$, but large fluctuations in other foreign currencies remain a significant risk.
Brunei’s exchange rate has fluctuated in tandem with the evolution of the pandemic

Brunei’s nominal effective exchange rate (NEER)—a trade-weighted exchange rate against a basket of foreign currencies—has been broadly reflective of the country’s economic prospects as the pandemic evolved. Brunei’s NEER depreciated markedly in Q1 2020 when the region experienced the first wave of COVID-19 infections (Figure 52). The NEER then appreciated steadily in the second half of 2020, as the country faced brighter prospects compared to the rest of the region. Brunei’s NEER weakened again in the first half of 2021 in part due to a weak GDP outturn, but have since regained strength.

Brunei’s monetary policy is based on a currency board arrangement, in which the Brunei dollar is pegged at par to the Singapore dollar. In October 2021, the Monetary Authority of Singapore tightened its monetary policy stance amid a broadening of sustained inflationary pressures. This suggests that Brunei’s currency may face some near-term upward pressures, which could help alleviate imported inflation.

Interest rates edged higher but remain near record lows

Short-term interest rates have risen slightly over the last three months, but remain near all-time lows. In September, the U.S. Federal Reserve (Fed) signalled that it would taper the asset purchase programme, which caused global bond yields to rise. Then in December, the Fed decided that it would double the pace of tapering and signalled three interest rate hikes in 2022 in response to risks of higher inflation becoming entrenched.

The 3-month US$ London Interbank Offered Rate (LIBOR)—a widely-used benchmark interest rate at which major global banks lend to one another—edged higher to 0.20 percent in December, from 0.12 percent in September (Figure 53). Similarly, the 3-month compounded Singapore Overnight Average Rate (SORA) has risen slightly over the past three months. Brunei domestic interest rates are expected to have increased marginally in tandem with global developments.

Figure 52. Nominal effective exchange rate in Brunei and Singapore

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Source: Brunei Darussalam Central Bank; CSPS; Monetary Authority of Singapore
Note: A higher (lower) nominal effective exchange rate index indicates an appreciation (a depreciation). Last observation is November 2021.

Figure 53. B$, S$, and US$ interest rates

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Source: Brunei Darussalam Central Bank; CSPS; Federal Reserve Bank of St. Louis; Monetary Authority of Singapore
Note: Last observation is December 2021.
The fiscal deficit narrowed due to higher oil and gas revenue and lower expenditure

The fiscal position improved in 2021 thanks to an increase in revenue and slightly lower expenditure (Figure 54). The fiscal deficit is estimated to have narrowed to 10.3 percent of GDP in 2021, from 15.7 percent of GDP in 2020. Oil and gas revenue in 2021 was more than 50 percent higher than a year ago as oil prices recovered to an average of US$70 per barrel (US$43 per barrel in 2020). On the other hand, non-oil and gas revenue declined due to weak private sector activity. Economic support and relief measures, such as tax and duty exemptions, also contributed to lower receipts.

Budget pressures have been mounting since 2014-15 when oil prices plunged from US$110 per barrel in June 2014 to US$30 per barrel in January 2016. In response, the government undertook efforts to enhance the efficiency of fiscal spending and diversify revenue sources, including a fiscal consolidation program and introducing new excise duties.

Capital spending on development projects under the National Development Plan has been trimmed substantially, whereas cuts to current spending, which includes wages, salaries, pensions, allowances and other benefits, were somewhat limited (Figure 55). As a result, the public wage bill remains high at more than 30 percent of government expenditure and more than 10 percent of GDP (Figure 56). This may in part be explained by the high share of public sector employment in total employment, a distinctive characteristic of the labour market similar to that of Arab Gulf oil-exporting countries. Nonetheless, there have been significant efforts at containing wage growth, which has been largely stagnant since 2015.
Increased capacity to prepare for epidemics and pandemics

Brunei’s successful COVID-19 response has been reflected in marked improvements in the country’s scores in the Global Health Security Index (Figure 57). The COVID-19 pandemic has highlighted that underlying health conditions, such as cardiovascular disease, chronic respiratory disease, and diabetes, can exacerbate vulnerability to the disease. Brunei’s population has a higher risk of dying from noncommunicable diseases (NCDs) compared to other high-income countries (Figure 58). Improved prevention and treatment of NCDs is therefore critical in preparing for future pandemics more effectively.

The pandemic may have widened pre-existing learning gaps

Schools in Brunei had been closed for 20 weeks as of end October 2021, a period longer than some countries in the region (Figure 59). This may have set back learning in school children, particularly among those from disadvantaged socioeconomic households who may have limited access to remote learning resources. Even prior to the pandemic, learning outcomes among students in Brunei have been comparatively poor (Figure 60). Moreover, there were significant learning gaps in reading, mathematics, and science between students from socioeconomically advantaged and disadvantaged households.
The pandemic has accelerated the pace of digital transformation but impediments remain

The pandemic has revealed the importance of digitalisation and technological adoption, forcing individuals and businesses to rethink the way they live and operate. Brunei’s digitally-savvy population has the capability and technology for remote learning and working (Box 3). More than 95 percent of the population use the internet, with nationwide mobile cellular network coverage but fixed broadband subscription still lags behind developed countries (Figure 61). The cost and speed of broadband are the main concerns, as Brunei remains far behind peers in affordability (Figure 62). MSMEs are also slow in adopting new digital technologies.

Brunei’s small market size and weak innovation ecosystem hinder competitiveness

Brunei has made some improvements in its global competitiveness ranking in recent years, with relatively high scores in health, ICT adoption, macroeconomic stability, and infrastructure (Figure 63). However, the country’s small market size and weak innovation ecosystem continue to be the main obstacles in increasing competitiveness. Brunei appears to be an outlier in the relationship between innovation and economic development—a high-income country with low innovation (Figure 64). In particular, innovation outputs have been disproportionately low relative to innovation investments (Box 4).
Trade facilitation improved slightly but trade costs remain high

Trade facilitation reforms in recent years, such as pre-arrival document processing, online payment, and the National Single Window, have led to easier movement of goods across borders, but significant gaps remain. The time and cost associated with the logistical process of exporting and importing goods are substantial (Figure 65). Although tariffs are low, non-tariff measures (NTMs) remain high, which may inhibit progress in lowering trade costs. Brunei’s logistics supply chain also showed deterioration in performance, with declines in the ease of arranging competitively priced shipments, quality of trade and transport infrastructure, ability to track and trace consignments, and efficiency of customs and border management clearance (Figure 66).

RCEP provides new impetus for Brunei to push for further reforms

The Regional Comprehensive Economic Partnership (RCEP), the world’s largest free trade agreement (FTA) to-date which comprises about 30 percent of global GDP and a third of the world’s population, entered into force on January 1, 2022. The agreement includes all 10 ASEAN member states, Australia, China, Japan, Republic of Korea, and New Zealand. RCEP builds on existing bilateral ASEAN agreements with its FTA partners.

Brunei’s trade with these regional partners make up about half of its total trade (Figure 67). RCEP is expected to facilitate a greater expansion of regional trade and investment. It may also spur domestic reforms in removing obstacles to increase competitiveness. For instance, RCEP contains enhanced provisions to address NTMs, give greater flexibility for businesses to tap on preferential market access benefits, allow expeditious clearance of goods, liberalise service sectors, prohibits performance requirements on foreign investors, and includes enhancements in areas such as e-commerce, intellectual property, competition, and government procurement.
Rapid technological progress has long been recognised as having the potential to disrupt the functioning of the labour market. While technological progress increases productivity, it may reduce the market value of certain skills and take over tasks once carried out by humans. Consequently, researchers and policymakers are often concerned about the future of work in both advanced and developing economies. There is evidence that automation, robotics, and artificial intelligence have contributed to increasing wage inequality and job polarisation (Autor et al. 2003). The COVID-19 pandemic may become an “automation forcing event” which will accelerate the automation process (Autor and Reynolds 2020). Automation has been identified as a major critical uncertainty in Brunei, based on multiple workshops and focus group interviews of 150 participants (Cheong et al. 2020). Against this backdrop, this Box discusses the implications of automation in the context of the Brunei labour market.

Automation of routine jobs and tasks
A critical question when discussing the impact of technological progress on the labour market is defining which jobs are most affected by automation. Most experts agree that occupations should be seen as bundles of tasks to be performed, and the impact of automation can be seen as the proportion of tasks taken up by machines. While automating certain tasks may be technologically feasible, it is not necessarily the case that firms will choose to automate them given the relative costs of labour and capital (Acemoglu and Restrepo 2019). Firms would be more likely to automate tasks for which technologies have a comparative advantage, such as routine tasks. Jobs with high routine content are therefore likely to undergo significant transformations but these jobs will not necessarily disappear as the non-routine content could be too costly to be automated. Occupations with a high routine content and low non-routine content are most likely to be fully automated, consequently reducing their share in total employment. These occupations include clerical jobs, textile workers, fast food preparers, cleaners, and domestic helpers (Figure B11).

Figure B11. Routine and non-routine content by major occupational group

Source: CSPS; Department of Economic Planning and Statistics; O*NET; U.S. Department of Labor
Note: Routine and non-routine task measures are based on indicators of work activities, work contexts, and abilities for each occupational group. The task measures indicate standard deviations from the weighted average. Positive (negative) values indicate higher (lower) intensity of activities and tasks compared to the average. Earnings are in 2017 PPP$, where 100 indicates the world average. Countries based on World Bank income classification.

This Box was prepared by Giuseppe Rizzo.
Automation and labour costs
Technological feasibility is only one aspect of automation. Tasks are more likely to be automated if labour costs are high relative to the cost of capital required to replace the workers. A cross-country comparison of earnings by occupation group can reveal what occupations have relatively high labour cost (Figure B12). Workers in these occupations could potentially be displaced provided that automation is technologically feasible and the cost of capital is sufficiently low. In Brunei, wages are comparatively high for managers, professionals, technicians and associate professionals, and clerical workers. On the other hand, wages for other occupations are comparatively low.

Automation, industries, and business size
The automation process is not uniform across industries and firm sizes (Hubmer and Restrepo 2021). Large firms are more likely to automate due to different cost of capital, production processes, and economies of scale. Consequently, workers in a given occupation are more likely to be displaced if they operate in large firms or organisations. In Brunei, some of the occupations with the lowest prevalence of non-routine tasks have high share of employment in public administration and highly-concentrated industries (e.g. oil and gas, utilities, air transport; Figure B13). Among clerical occupations, 37 percent are employed in public administration and 29 percent in highly-concentrated industries. By contrast, among cleaners and helpers, only 8 percent are employed in public administration and 15 percent in highly-concentrated industries. This makes the first group more likely to be displaced by automation compared to the second group.

Figure B13. Share of employment in public administration and highly-concentrated industries for the 10 sub-major occupational groups with the lowest prevalence of non-routine tasks
Source: CSPS; Department of Economic Planning and Statistics; O*NET; U.S. Department of Labor
Note: Occupations are arranged in descending order of prevalence of non-routine tasks. Prevalence of non-routine tasks is measured as the difference between the non-routine task measure and the routine task measure. Feasibility of teleworking is determined based on indicators of work activities and work contexts. An occupation is considered teleworkable if the measure is higher than the weighted average.

Automation forcing
The COVID-19 pandemic crisis has affected the labour market through several channels. Labour demand has been affected by the sharp decline in economic activity across major sectors of the economy. Labour supply has been affected by containment measures, which have pushed up teleworking rates where possible while disrupting production processes requiring the presence of workers, and by travel restrictions, which have limited foreign labour hiring. Consequently, the pandemic may push for the
Box 2. Automation and Brunei’s labour market

adoption of technologies capable of automating routine tasks currently requiring the physical presence of workers, especially if these workers are difficult to find in the labour market. Examples of occupations affected by automation forcing include manufacturing workers, cleaners and helpers, and food preparation workers (Figure B14).

Policy implications

Technological innovation has the potential to reduce labour demand for routine-intensive jobs. In Brunei, these jobs can essentially be divided in three groups: (i) clerical and secretarial jobs, (ii) manufacturing jobs, and (iii) elementary occupations with high-routine content.

Clerical and secretarial jobs are relatively well paid and very often are in public administration or medium to large firms. Automation is very likely to displace this type of workers, which in Brunei are mostly locals. Certain labour regulations may slow down the displacement process, but at the cost of reduced competitiveness of the economy. Upskilling and reskilling is necessary to redirect labour supply towards occupations which are more complementary to emerging technologies.

Manufacturing jobs have relatively lower salaries and are mostly in medium to large enterprises. These jobs usually need to be performed physically. Automation has caused, over the last few decades, a decline of manufacturing jobs in most advanced economies, where salaries are high (Acemoglu and Restrepo 2020). In Brunei, the pandemic crisis could be an automation forcing event, as it may cause a reduction in foreign labour supply and an increase in local salary. Local workers are already employed in some of these jobs (e.g. food manufacturing, services), but are unlikely to replace foreign workers in other industries with lower salary. Consequently, local firms with adequate access to finance may choose to adopt innovative technologies to compensate for the reduced labour supply and to reduce the risk of disruptions in case of further travel and movement restrictions. This could present an opportunity for increased employment for locals with the right skills.

Elementary occupations with high-routine content usually have very low salaries and are often employed by households (e.g. cleaners and helpers) and smaller firms (e.g. food preparation assistants). The low labour cost makes humans relatively competitive and less likely to be displaced. However, the pandemic is reducing foreign labour supply for these occupations, increasing the competitiveness of innovation technologies. Firms and households with adequate access to finance could then choose to replace labour with in-house technologies, while business opportunities could emerge for innovative firms to provide automated services.

References

Box 3. Lessons from Brunei’s work-from-home experience during the pandemic

The COVID-19 pandemic necessitated workers in Brunei to work from home (WFH) at an unprecedented scale. The abruptness in which the virus spread into and across the country meant there was little preparation for this new, albeit temporary, way of work and adjustments had to be made on a trial-and-error basis. Thus, while completely incidental, the pandemic brought about the first nationwide experiment on WFH. Now, as Brunei enters the endemic phase of its COVID-19 recovery plan, WFH policies have largely been lifted. In this regard, it is timely to look back and reflect on how workers in Brunei fared with the WFH arrangement. After all, remote work is seen as the new normal in the digital age of the Fourth Industrial Revolution. Could this way of working work in Brunei?

To answer this question, this Box draws on the Survey on Studying/Working from Home conducted by the Brunei Computer Emergency Response Team (BruCERT) in April 2020 and September 2021, focusing on respondents that are employed. The unemployed and students are excluded from the analysis below.

How have Bruneians fared with WFH?

Bruneians have the technology and capability to WFH. Respondents to the 2021 survey were generally satisfied with the WFH infrastructure, including the availability of devices, the speed of their devices, the availability of software, and the ease of using these devices and software (Figure B15). Only a minority of respondents (less than a quarter) in the 2020 survey stated that these were concerns to them. However, the data could not be broken down by age group, education level, or income. Heterogeneity could be expected among these dimensions as well as others.

Internet cost and speed are the main concerns. In the 2021 survey, the respondent’s average satisfaction with the cost of internet and its speed were 2.9 and 2.7, respectively (on a scale of 1 to 5 where 1 is very dissatisfied and 5 is very satisfied). Among the WFH infrastructure that respondents were asked to rate in terms of their satisfaction, these scored the lowest. In the 2020 survey, about one-half of respondents said that the cost of internet was a challenge for them while WFH. Nearly two-thirds (66.1%) of the respondents said the same regarding the speed of internet.

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3 This Box was prepared by Pg Mohd Redhuan Pg Hj Abd Rajak.
Motivation and productivity levels while WFH are relatively unchanged. When asked whether they agree that “they are not motivated to WFH”, respondents in the 2021 survey were on average neutral (Figure B16). When asked whether they are “less productive when working from home”, respondents were again on average neutral (3.4). This suggests that motivation and productivity levels—while they have not increased—have not fallen as a result of WFH as some may have worried.

Bruneians’ work preferences moving forward

Bruneians prefer to work from office (WFO). More than three-fifths (63.6%) of respondents in the 2020 survey stated that they prefer to WFO (Figure B17). The proportion in the 2021 survey was 67.3%. Although the sample for both surveys may not be representative of Brunei’s working population, the similarity of the proportions calculated for both surveys suggest some degree of robustness.

However, there are marked differences across occupation groups. Three-quarters (75.6%) of educators in the 2021 survey stated that they prefer WFO (72.1% in 2020)—the highest amongst all occupation groups. Meanwhile, the occupation group that least prefers to WFO is the self-employed (51.4% in 2021; 51.5% in 2020). Civil servants and private sector employees have similar preferences, falling in between the educators and the self-employed.

Preferences are not linked to satisfaction with WFH infrastructure and arrangements. Those who prefer to WFO have broadly similar satisfaction scores as those who prefer to WFH in terms of WFH infrastructure and arrangements (Figure B18). This suggests that differences in preferences to WFH have little to do with satisfaction with WFH infrastructure and arrangements. Rather, differences are driven by other factors that are not captured in the survey. Possible factors could be a preference to maintain the status quo of WFO or lack of social interaction when WFH. Health concerns while WFH were also mentioned by respondents but these are perhaps more a symptom of movement restrictions during the pandemic, which restricted physical exercise and outdoor activities, rather than WFH itself.

Can WFH work in Brunei?
Bruneian workers seem to have the technology and capability to adapt to WFH. However, there is likely...
to be heterogeneity across different socioeconomic groups. The survey data suggests that productivity will not drop as some may have feared, nor will productivity increase as some may have hoped. However, the pandemic itself represents a confounding factor. Without the pandemic and without movement restrictions and the stress of going through a health crisis, productivity levels while WFH are likely to be different.

The cost and speed of the internet are the main concerns when WFH. Nevertheless, this does not determine Bruneians’ preferences to WFH. In fact, satisfaction with WFH infrastructure and arrangements in general has little to do with preferences to WFH. Instead, preferences may be driven by other factors such as the unwillingness to change the status quo of work, which are not captured in the survey.

There is wide variation across occupation groups in terms of WFH preferences. This indicates that WFH works better for some occupations than others. Educators in particular seem to have a strong preference to WFO. Their comments in the survey suggest that existing technologies and capabilities, while sufficient to communicate and collaborate with colleagues, are limiting when it comes to teaching.

Overall, the survey data indicates that WFH policies are feasible in Brunei but different social and occupation groups may need more assistance than others in adapting. Although the survey sample may not be representative of the working-age population, the indicative findings warrant further analysis. In particular, it is important to understand more objectively how remote work impacts worker productivity.
Box 4. Innovation in Brunei: prospects and challenges

A country’s long-term growth potential depends significantly on its ability to improve productivity. This would require policymakers to introduce long-term reforms that would improve the determinants of productivity. Innovation—the emergence and adoption of new technologies that improve the production of goods and services—plays an important role in stimulating long-term productivity growth (Aghion et al. 2015). Despite increased spending on research and development (R&D), productivity has slowed in many countries, including Brunei (IMF 2021; Koh 2014). Against this backdrop, this Box outlines Brunei’s recent initiatives towards improving its innovation ecosystem, discusses its key strengths and weaknesses, and provides some policy suggestions.

Brunei’s recent push towards innovation
Significant efforts have been made by the government towards improving the country’s innovation ecosystem. Past initiatives include the establishment of the Brunei Research Council (BRC) in 1987 to encourage R&D activities; National Committee on Science and Technology (NCST) in 1994 to advance science and technology; iCentre and Knowledge Hub in 2007 by the Brunei Economic Development Board as a start-up ICT incubation centre for entrepreneurs; Brunei Intellectual Property Office (BruIPO) in 2012 to encourage intellectual property management and commercialisation; and the Bio-Innovation Corridor in 2014 by the Ministry of Primary Resources and Tourism as an industrial park to attract agricultural technological investment, among others. All the above initiatives reflected the main theme of the 10th National Development Plan 2012-2017, “Knowledge and Innovation, Increase Productivity, Accelerate Economic Growth”.

Innovation continues to be emphasised in recent national strategic documents. In the Brunei Darussalam Economic Blueprint, innovation is highlighted in a number of policy directions under the Blueprint’s six aspirations. Innovation has been identified as an important driver in generating high value-added industries, which supports the sustainability agendas, and in improving infrastructural efficiency. In the Digital Economy Masterplan 2025, innovation is one of the five strategic enablers.

The two leading government stakeholders spearheading innovation in Brunei are the Ministry of Transport and Info-communications (MTIC) and the Authority for Info-communications Technology Industry (AITI). Both organisations put strong emphasis on innovation in their respective strategic plans. Innovation is indicated in both MTIC’s vision and mission statements, and is central in supporting the ministry’s strategic objectives. Meanwhile, innovation has been identified as one of the strategic pillars in AITI’s Strategic Plan 2020-2025. The Council for Research and Advancement of Technology and Science (CREATES) was established in 2021. The council, chaired by the Minister of MTIC, is the highest authority overseeing the country’s strategies and funding on Science, Technology, and Innovation (STI), replacing and taking over the responsibilities of BRC and NCST.

Brunei’s strengths and weaknesses
As innovation is multi-layered, it requires a set of indicators and measurements, some of which are technology based. The most widely-cited index is the Global Innovation Index (GII). Brunei was ranked 82nd out of 132 economies according to the GII 2021 report, dropping eleven spots from the 71st place registered in 2020 and 2019 (Table B1). The country’s ranking in 2021 was the second worst recorded after coming in at 88th in 2014.

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4 This Box was prepared by Yuzilawati Abdullah.
Despite being a high-income country, Brunei was ranked lower than some of the upper middle-income countries, such as China (12th), Turkey (41st), and Costa Rica (56th), as well as several lower middle-income countries, such as India (46th), Mongolia (58th), and Morocco (77th). Within Southeast Asia, Brunei was ranked sixth after Singapore, Malaysia, Thailand, Vietnam, and the Philippines. According to MTIC’s Strategic Plan, one of the key targets is to be in the top three in ASEAN by 2025.

The GII 2021 has seven pillars, which are divided further into 21 sub-pillars consisting of a total of 81 indicators. Table B2 provides an overview of Brunei’s strengths and weaknesses. Brunei scored highly in several indicators such as cost of redundancy dismissal and ease of getting credit, in which the country was ranked first globally. Brunei also recorded favourable results for political and operational stability, applied tariff rate, gross capital formation, and graduates in science and engineering.

On the other end of the scale, Brunei faced considerable challenges in a number of areas. These include trade, diversification, and market scale, ICT services exports, domestic market scale, high-tech imports, industrial design, and domestic industry diversification. The performances of these metrics are indicative of the country’s economic structure, which is largely resource-based. Brunei also registered low scores for R&D, one of the key components of innovation.

As most of Brunei’s strengths lie in innovation inputs rather than outputs, it is considered “inefficient”, that is, innovation outcomes are low relative to investments (Figure B19). Inefficient countries include other resource-rich nations such as Bahrain, Kazakhstan, and the United Arab Emirates.

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<td>67</td>
<td>71</td>
<td>71</td>
<td>82</td>
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</tbody>
</table>

Source: World Intellectual Property Organization
Note: NA means not available.

Despite being a high-income country, Brunei was ranked lower than some of the upper middle-income countries, such as China (12th), Turkey (41st), and Costa Rica (56th), as well as several lower middle-income countries, such as India (46th), Mongolia (58th), and Morocco (77th). Within Southeast Asia, Brunei was ranked sixth after Singapore, Malaysia, Thailand, Vietnam, and the Philippines. According to MTIC’s Strategic Plan, one of the key targets is to be in the top three in ASEAN by 2025.

The GII 2021 has seven pillars, which are divided further into 21 sub-pillars consisting of a total of 81 indicators. Table B2 provides an overview of Brunei’s strengths and weaknesses. Brunei scored highly in several indicators such as cost of redundancy dismissal and ease of getting credit, in which the country was ranked first globally. Brunei also recorded favourable results for political and operational stability, applied tariff rate, gross capital formation, and graduates in science and engineering.

### Table B2. Brunei’s strengths and weaknesses in the Global Innovation Index 2021

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Rank</th>
<th>Weaknesses</th>
<th>Rank</th>
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</thead>
<tbody>
<tr>
<td>Cost of redundancy dismissal</td>
<td>1</td>
<td>Global corporate R&amp;D investors, top 3, mn US$</td>
<td>41</td>
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<tr>
<td>Ease of getting credit</td>
<td>1</td>
<td>GERD financed by abroad, % GDP</td>
<td>96</td>
</tr>
<tr>
<td>Political and operational stability</td>
<td>2</td>
<td>GERD financed by business, %</td>
<td>102</td>
</tr>
<tr>
<td>Applied tariff rate, weighted avg., %</td>
<td>2</td>
<td>High-tech manufacturing, %</td>
<td>107</td>
</tr>
<tr>
<td>Gross capital formation, % GDP</td>
<td>3</td>
<td>Cultural and creative services exports, % total trade</td>
<td>110</td>
</tr>
<tr>
<td>Graduates in science and engineering, %</td>
<td>4</td>
<td>Domestic industry diversification</td>
<td>112</td>
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<tr>
<td>General infrastructure</td>
<td>8</td>
<td>Industrial designs by origin/bn PPP$ GDP</td>
<td>115</td>
</tr>
<tr>
<td>Pupil-teacher ratio, secondary</td>
<td>11</td>
<td>High-tech imports, % total trade</td>
<td>121</td>
</tr>
<tr>
<td>Electricity output, GWh/mn pop.</td>
<td>14</td>
<td>Domestic market scale, bn PPP$</td>
<td>123</td>
</tr>
<tr>
<td>Ease of starting a business</td>
<td>15</td>
<td>Trade, diversification, and market scale</td>
<td>130</td>
</tr>
<tr>
<td>Political environment</td>
<td>16</td>
<td>ICT services exports, % total trade</td>
<td>130</td>
</tr>
<tr>
<td>Tertiary education</td>
<td>20</td>
<td></td>
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</tr>
<tr>
<td>Credit</td>
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</table>

Source: World Intellectual Property Organization

On the other end of the scale, Brunei faced considerable challenges in a number of areas. These include trade, diversification, and market scale, ICT services exports, domestic market scale, high-tech imports, industrial design, and domestic industry diversification. The performances of these metrics are indicative of the country’s economic structure, which is largely resource-based. Brunei also registered low scores for R&D, one of the key components of innovation.

As most of Brunei’s strengths lie in innovation inputs rather than outputs, it is considered “inefficient”, that is, innovation outcomes are low relative to investments (Figure B19). Inefficient countries include other resource-rich nations such as Bahrain, Kazakhstan, and the United Arab Emirates.
Figure B19. Innovation input to output performance, Global Innovation Index 2021

Source: World Intellectual Property Organization

Policy implications

The GII framework is a useful reference point for any country in terms of benchmarking its innovation ecosystem. In the case of Brunei, the amount of innovation inputs does not generate proportional innovation outputs (Figure B20). Hence, to improve the country’s standing, the priorities would naturally be to emphasise the sub-pillars that recorded low scores, such as R&D, high-tech imports, and industry diversification. Improvements in innovation inputs could be achieved by enhancing R&D activities, especially industry-based research. In this regard, the establishment of CREATEs is timely and would provide a much-needed funding boost and focus. Sectoral growth and diversification could be improved by introducing industrial reforms, including policies and programmes that can attract foreign capital and expertise as well as assist local firms in venturing into higher value-added businesses and penetrating international markets.

In terms of innovation outputs, more efforts could be directed towards improving trade diversification, especially in technology sectors and knowledge outputs such as patent creation. The push towards tech businesses would be in line with the country’s economic blueprint and digital economy initiatives. The upgrading of the country’s R&D ecosystem through CREATEs would contribute towards generating higher levels of research outputs.

There are other factors that could improve innovation outputs. Knowledge transfer from advanced to emerging economies through trade and foreign direct investment has resulted in greater impacts compared to homegrown research activities (IMF 2021). The impact would be even more significant if the host countries have good education systems and deep financial markets. Basic research is also important as it could enhance more sectors with more lasting impacts. Therefore, innovation policies could be directed towards international collaboration and technological transfer. Lastly, research funding could be more targeted and there could be more incentives for public-private cooperation.

References

Economic outlook and risks

Global growth is projected to decelerate to 4.1 percent in 2022, reflecting pandemic resurgence, waning policy support, and supply bottlenecks

The global economy continues to recover but the momentum has slowed due to pandemic resurgence and widespread supply disruptions. Global growth is projected to decelerate to 4.1 percent in 2022, after surging to 5.5 percent in 2021—its strongest post-recession pace in 80 years (Figure 68). Inflation is projected to moderate but remain elevated, partly reflecting a gradual easing of supply bottlenecks (Figure 69). However, the Omicron variant may put upward price pressures if already stretched supply chains are disrupted further.

China’s economy is forecast to slow to 5.1 percent in 2022, after expanding by an estimated 8.0 percent in 2021 (Figure 70). Consumer spending is expected to be weighed by recurring mobility restrictions owing to the country’s zero-COVID policy, while investment will be affected by regulatory tightening on the property and financial sectors.

Growth in the United States is forecast to slow to 3.7 percent in 2022, after output expanded by an estimated 5.6 percent in 2021. Economic activity is expected to face headwinds from COVID-19 outbreaks, lingering supply bottlenecks, acute labour shortages, and waning support from fiscal and monetary policy.

In the Euro area, growth is forecast to moderate to 4.2 percent in 2021, following a rebound of an estimated 5.2 percent in 2021. Growth is expected to be supported by strong services consumption and higher investments.

Growth in Japan is forecast to firm to 2.9 percent in 2022, after a subdued expansion of 1.7 percent in 2021. High vaccination rates have allowed for the lifting of pandemic-related restrictions and the release of pent-up demand.

Source: CSPS; Organisation for Economic Co-operation and Development; World Bank
Note: Grey shaded areas are projections by World Bank (GDP growth) and OECD (inflation).
Brunei’s economy is forecast to expand by 3.7 percent in 2022, with broad-based growth across sectors

Brunei’s real GDP growth is projected to rebound to 3.7 percent in 2022, after the economy had contracted by an estimated 1.5 percent in 2021 (Figure 71). The improved outlook in 2022 reflects broad-based growth across sectors, as external demand and domestic activity strengthen (Figure 72).

The traditional oil and gas sector, which comprises oil and gas mining and LNG manufacturing, is projected to grow by 1.2 percent in 2022, after contracting by an estimated 4.5 percent in 2021. Growth is expected to be supported by a marginal increase in supply, with crude oil production forecast at 109 tb/d and LNG production at 839 thousand mmbtu/d. Energy prices in 2022 are projected to be higher than 2021 given the short global energy supply, but are expected to fall from current highs. Crude oil prices are forecast to average US$75 per barrel and LNG prices at US$14 per mmbtu (Box 5).

The downstream oil and gas sector, consisting of the production of petroleum and chemical products, including methanol and fertilizers, is forecast to grow by about 30 percent in 2022, after output had declined by an estimated 6.3 percent in 2021. The sector was primed for strong growth in 2021, but has underperformed due to lower-than-expected petrochemicals production and a delay in the commencement of a large fertilizer FDI project. Growth in 2022 reflects expectations of a pickup in demand for downstream products as the recovery in global activity continues apace. The start of ammonia and urea production in Q1 2022 is expected to significantly boost the downstream sector’s output. Meanwhile, construction of the second phase of Hengyi Industries’ oil refinery and petrochemical plant has been pushed to 2023.

The non-oil and gas sector is projected to grow by 3 percent in 2022, following an estimated growth of 2.9 percent in 2021. Most service sub-sectors are anticipated to gradually recover, after containment measures had restricted economic activities requiring physical interaction since Q3 2021. However, the recovery in tourism and travel is likely to be hesitant, as impediments to international travel will remain until the COVID-19 pandemic is under control globally and the unequal access to vaccines is addressed.

**Figure 71. Brunei’s GDP growth**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional oil and gas</th>
<th>Downstream oil and gas</th>
<th>Non-oil and gas</th>
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<td>-1.5</td>
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<td>-2.4</td>
<td>-3.3</td>
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<td>2017</td>
<td>-2.5</td>
<td>-3.1</td>
<td>-4.3</td>
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</tr>
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<td>-3.5</td>
<td>-3.8</td>
<td>-5.2</td>
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<td>0.5</td>
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<td>2020</td>
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</tr>
<tr>
<td>2021</td>
<td>0.7</td>
<td>1.3</td>
<td>1.4</td>
<td>2.1</td>
</tr>
<tr>
<td>2022</td>
<td>3.7</td>
<td>3.9</td>
<td>3.8</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: CSPS: Department of Economic Planning and Statistics
Note: Grey shaded areas are CSPS projections. Traditional oil and gas refers to oil and gas mining and manufacturing of LNG. Downstream oil and gas refers to manufacturing of petroleum and chemical products, including methanol and fertilizers. Non-oil and gas refers to all other sectors.
Despite the growth rebound, the level of output remains well below pre-pandemic projections

The seemingly high GDP growth forecast in 2022 partly reflects base effects, as real GDP has been lower than anticipated in the past two years. As such, the economic recovery is only partial. The level of output remains well below pre-pandemic projections, following two years of subdued growth (Figure 73). According to projections by the International Monetary Fund in October 2019, the Brunei economy was forecast to expand by an average of 4 percent per year during 2020-22, largely supported by growth in the downstream oil and gas and services sectors. However, these forecasts have been derailed by the pandemic, resulting in relatively weak external and domestic demand.

The current account surplus is projected to remain high due to a favourable trade balance

The current account surplus is projected to remain high at 12.1 percent of GDP in 2022, following an estimated increase to 12.5 percent of GDP in 2021 from 4.5 percent of GDP in 2020 (Figure 74). The marked improvement in 2021 has been driven by higher export prices of crude oil, LNG, and petrochemicals. In 2022, downstream oil and gas exports, including fertilizers, are expected to contribute to the current account surplus, in addition to crude oil and LNG exports. Increased non-oil and gas exports, such as aquaculture products, would provide an additional boost. Imports are projected to increase moderately in 2022 as the economy recovers. In particular, imports of mineral fuel, used as feedstock for the production of refined petroleum and petrochemical products, are expected to rise. The external position remains well-buffered, with international reserves expected to cover 5.7 months of imports.
Inflation is expected to moderate but remain elevated by historical standards

Consumer price inflation is projected to moderate in 2022 to 1.3 percent, following a slight easing from 1.9 percent in 2020 to an estimated 1.7 percent in 2021 (Figure 75). The high inflation observed in the past two years has been largely driven by global supply shortages and bottlenecks, which resulted in sharply higher prices for some imported items, ranging from fresh vegetables and meat products to motor vehicles. As production capacity catches up to demand and supply bottlenecks gradually ease, prices are anticipated to fall, but remain at elevated levels. Brunei’s exchange rate may weaken against major currencies, given the expected tightening of monetary policy in most advanced economies. This could increase inflationary pressures from imported items. However, Brunei’s currency peg to the Singapore dollar and price administration through subsidies and price controls should keep inflation in check.

The fiscal position is projected to improve further but remain in deficit

Following a marked improvement in the fiscal position in 2021, the fiscal deficit is projected to continue to narrow to 6.9 percent of GDP in 2022 from an estimated 10.3 percent of GDP in 2021 (Figure 76). Nonetheless, the fiscal deficit remains relatively large compared to the significant improvements during 2018-19. Oil and gas revenue is forecast to increase due to higher production and price assumptions for 2022. Non-oil and gas revenue is also forecast to increase as the non-oil and gas sector returns to growth and economic support and relief measures are gradually withdrawn.

On the expenditure side, current spending is projected to be contained in 2022 as fiscal consolidation efforts take hold after a temporary halt in the past two years to support households and businesses during the COVID-19 outbreaks. By contrast, capital spending is expected to increase after some execution delays of the projects under the National Development Plan. On balance, total expenditure as a share of GDP in 2022 is projected to be lower than a year ago, in line with the downward trend of government spending since 2014.

Figure 75. Consumer price inflation

Percent

2
1
0
-1
-2


Source: CSPS; Department of Economic Planning and Statistics
Note: Grey shaded areas are CSPS projections.

Figure 76. Fiscal account balance

Percent of GDP

0

-5
-10
-15
-20
-25


Source: CSPS; Department of Economic Planning and Statistics; Treasury Department
Note: Government finance data based on calendar year. Grey shaded areas are CSPS projections.
Risks to the outlook are tilted to the downside, including a resurgence of the pandemic, prolonged supply bottlenecks, oil market uncertainty, and unanticipated domestic oil and gas production disruptions

The baseline forecasts are conditional on several factors. External demand for Brunei’s key exports is dependent on the evolution of the COVID-19 pandemic. One of the main downside risks is the emergence of new and more transmissible COVID-19 variants that are resistant to current vaccines, resulting in a need for new or modified vaccines or repeated booster doses. Stricter containment measures might have to be re-imposed under such circumstances, which would dampen economic recovery globally and domestically. The strength and duration of the recovery rests on the containment of the pandemic everywhere in the world. Unless unequal vaccine access is addressed through global cooperation, a full recovery is likely to be delayed.

Supply bottlenecks are expected to ease as capacity expands and pent-up demand fades. However, sporadic resurgences of the pandemic, particularly in Asia, may lead to production disruptions at various points in the global value chain. Moreover, renewed trade tensions could exacerbate ongoing supply disruptions. In this scenario, inflation could surprise on the upside, forcing central banks to tighten monetary policy earlier than anticipated. A tightening of financial conditions could elevate global uncertainty and trigger financial stress, which could have negative spillover effects on capital flows to emerging markets.

Uncertainty in the oil market could be detrimental to the fiscal sustainability of oil-exporting countries. A resurgence of the pandemic remains a key downside risk to global oil demand and oil prices, which directly affects Brunei’s exports and government revenue. The high volatility in oil prices has also been due to challenges in controlling production levels under the OPEC+ agreement. Prospects for price stability are dependent on the level of cooperation among large oil producers.

Unexpected disruptions to domestic oil and gas production are a major downside risk. The volatility in the manufacturing of LNG and methanol partly reflects supply disruption of natural gas, which is an important input. A delay in the commencement of fertilizer production, which uses natural gas as feedstock, is another downside risk.

To illustrate the potential implications of the materialisation of these risks, we consider the following downside scenario in 2022:

- A reduction of petrochemicals demand by 10 percent relative to baseline
- Crude oil prices at US$65 per barrel and LNG prices at US$11 per mmbtu
- Crude oil production at 105 tb/d and LNG production at 800 thousand mmbtu/d

In this scenario, Brunei’s GDP growth in 2022 is projected to be lower by more than two-thirds, at 1.1 percent (Figure 77). The current account surplus is projected to fall to 8.4 percent of GDP as net exports decline, while the fiscal deficit is projected to widen to 10.8 percent of GDP due to lower oil and gas revenue.

Figure 77. Comparison of real GDP under baseline and downside scenarios

Source: CSPS; Department of Economic Planning and Statistics
Note: Grey shaded areas are CSPS projections.
Policy priorities should focus on driving economic recovery, strengthening resilience, enhancing fiscal space, and advancing structural reforms

Looking ahead, the policy priorities should focus on driving economic recovery especially in the worst-hit sectors, strengthening national resilience by prioritising public healthcare and accelerating digital transformation, enhancing fiscal space to ensure fiscal sustainability, and advancing structural reforms to build a more competitive, resilient, and inclusive economy.

Pandemic containment measures have affected firms and households. In the near term, it is essential to avoid a premature unwinding of economic support and relief measures to ensure recovery remains on a strong footing. The travel and tourism sectors have been badly hit by the pandemic. The government can help to revitalise these sectors by promoting domestic tourism, working with regional partners to establish travel corridors with harmonised standards around recognition of vaccination certificates and digital contact tracing, and extending financial or fiscal measures to support operating at lower capacities. Targeted social spending for vulnerable and disadvantaged households should also remain in place until their financial situation improves.

Strengthening national resilience should start with the public health system. In addition to ensuring the availability of vaccines, therapeutics, and medical supplies in preparation for future COVID-19 waves, it is essential to make the prevention and control of noncommunicable diseases (NCDs) a top priority. The incidence of NCDs in the Brunei population remains at a very high level, and the COVID-19 pandemic has highlighted that people with underlying health conditions, such as NCDs, have a higher risk of severe disease. The pandemic has also shown that digital preparedness can help firms to navigate and adapt to changes in the operating environment. To prepare for future disruptions, digital transformation should be intensified, including developing 5G infrastructure. MSMEs should be encouraged to adopt digital solutions and the government can facilitate and provide the necessary support for the transition. It is also vital to equip the workforce with digital and technological skills to secure decent jobs in the digital era. Lifelong learning through reskilling and upskilling is particularly important.

The short-term priority for fiscal policy is to contain the pandemic, stimulate the economy, and provide relief to firms and households. Over the medium term, ensuring sustainability is the primary focus. Fiscal buffers have deteriorated after seven consecutive years of budget deficits. The revenue base has to be broadened beyond oil and gas. Immediate tax actions can include raising or introducing excises on products with a negative health or environment impact. This would be more feasible compared to other tax options. Enhancing spending efficiency should also be continued, which may include containing the high public wage bill, improving the targeting of social spending, and reviewing policies on blanket subsidies to make them more targeted.

Structural reforms are needed to build a more competitive, resilient, and inclusive economy. They are also critical to remedy the scars from the pandemic-induced crisis and to prepare for future crises. Enhancing human capital and building a more resilient education system should be a policy priority, which can include more effective remote learning, providing remedial classes to reverse learning losses, and closing the education gap and digital divide among socioeconomic groups. Initiatives to foster a business environment that is conducive to trade and investment should continue to be a priority, including improving trade facilitation and strengthening public service delivery by digitalising work processes.
### Annex 1. Selected economic indicators for Brunei

<table>
<thead>
<tr>
<th>Output and prices</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021(^e)</th>
<th>2022(^f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal GDP (B$ million)</td>
<td>18,301</td>
<td>18,375</td>
<td>16,564</td>
<td>18,285</td>
<td>18,955</td>
</tr>
<tr>
<td>Real GDP (B$ million, 2010 constant prices)</td>
<td>18,387</td>
<td>19,099</td>
<td>19,315</td>
<td>19,018</td>
<td>19,715</td>
</tr>
<tr>
<td>Real GDP (percent change)</td>
<td>0.1</td>
<td>3.9</td>
<td>1.1</td>
<td>-1.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Traditional oil and gas sector (^1)</td>
<td>-1.5</td>
<td>3.9</td>
<td>-4.9</td>
<td>-4.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Downstream oil and gas sector (^2)</td>
<td>30.3</td>
<td>54.0</td>
<td>324.6</td>
<td>-6.3</td>
<td>29.7</td>
</tr>
<tr>
<td>Non-oil and gas sector</td>
<td>1.6</td>
<td>2.8</td>
<td>-1.6</td>
<td>2.9</td>
<td>3.0</td>
</tr>
<tr>
<td>Oil production (thousand barrels per day)</td>
<td>112</td>
<td>121</td>
<td>110</td>
<td>107</td>
<td>109</td>
</tr>
<tr>
<td>LNG production (thousand mmbtu per day)</td>
<td>935</td>
<td>973</td>
<td>912</td>
<td>828</td>
<td>839</td>
</tr>
<tr>
<td>Oil price (US$ per barrel)</td>
<td>73.2</td>
<td>68.6</td>
<td>43.3</td>
<td>70.4</td>
<td>75.0</td>
</tr>
<tr>
<td>LNG price (US$ per mmbtu)</td>
<td>10.5</td>
<td>9.1</td>
<td>6.7</td>
<td>10.6</td>
<td>14.0</td>
</tr>
<tr>
<td>Inflation (period average, percent change)</td>
<td>1.0</td>
<td>-0.4</td>
<td>1.9</td>
<td>1.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Balance of payments (B$ million)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021(^e)</th>
<th>2022(^f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports of goods and services</td>
<td>9,504</td>
<td>10,648</td>
<td>9,501</td>
<td>15,234</td>
<td>15,744</td>
</tr>
<tr>
<td>Imports of goods and services</td>
<td>7,680</td>
<td>9,291</td>
<td>8,768</td>
<td>12,818</td>
<td>13,470</td>
</tr>
<tr>
<td>Trade balance</td>
<td>1,824</td>
<td>1,357</td>
<td>732</td>
<td>2,416</td>
<td>2,274</td>
</tr>
<tr>
<td>Net primary and secondary income</td>
<td>-569</td>
<td>-175</td>
<td>16</td>
<td>-122</td>
<td>26</td>
</tr>
<tr>
<td>Current account balance</td>
<td>1,255</td>
<td>1,181</td>
<td>749</td>
<td>2,294</td>
<td>2,300</td>
</tr>
<tr>
<td>In percent of GDP</td>
<td>6.9</td>
<td>6.4</td>
<td>4.5</td>
<td>12.5</td>
<td>12.1</td>
</tr>
<tr>
<td>Gross international reserves</td>
<td>4,596</td>
<td>5,829</td>
<td>5,515</td>
<td>5,861</td>
<td>6,440</td>
</tr>
<tr>
<td>In months of imports of goods and services</td>
<td>7.2</td>
<td>7.5</td>
<td>7.5</td>
<td>5.5</td>
<td>5.7</td>
</tr>
<tr>
<td>B$/US$ exchange rate (period average)</td>
<td>1.35</td>
<td>1.36</td>
<td>1.38</td>
<td>1.34</td>
<td>1.36</td>
</tr>
<tr>
<td>Nominal effective exchange rate (2010=100)</td>
<td>110.0</td>
<td>111.0</td>
<td>110.1</td>
<td>110.3</td>
<td>110.0</td>
</tr>
<tr>
<td>Real effective exchange rate (2010=100)</td>
<td>94.6</td>
<td>93.7</td>
<td>94.0</td>
<td>93.4</td>
<td>95.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public finance (B$ million)(^3)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021(^e)</th>
<th>2022(^f)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue</td>
<td>5,227</td>
<td>5,282</td>
<td>2,892</td>
<td>3,392</td>
<td>3,985</td>
</tr>
<tr>
<td>Oil and gas</td>
<td>4,426</td>
<td>4,077</td>
<td>1,728</td>
<td>2,605</td>
<td>3,177</td>
</tr>
<tr>
<td>Non-oil and gas</td>
<td>802</td>
<td>1,205</td>
<td>1,164</td>
<td>787</td>
<td>808</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>5,887</td>
<td>5,960</td>
<td>5,499</td>
<td>5,272</td>
<td>5,300</td>
</tr>
<tr>
<td>Current spending</td>
<td>5,284</td>
<td>5,520</td>
<td>5,219</td>
<td>5,094</td>
<td>5,000</td>
</tr>
<tr>
<td>Capital spending</td>
<td>603</td>
<td>440</td>
<td>280</td>
<td>178</td>
<td>300</td>
</tr>
<tr>
<td>Budget balance</td>
<td>-660</td>
<td>-678</td>
<td>-2,606</td>
<td>-1,880</td>
<td>-1,315</td>
</tr>
<tr>
<td>In percent of GDP</td>
<td>-3.6</td>
<td>-3.7</td>
<td>-15.7</td>
<td>-10.3</td>
<td>-6.9</td>
</tr>
</tbody>
</table>

Note: \(^e\) expected; \(^f\) forecast; \(^1\) Traditional oil and gas sector refers to oil and gas mining and manufacturing of LNG; \(^2\) Downstream oil and gas sector refers to manufacturing of refined petroleum and petrochemical products, including fertilizers and methanol; \(^3\) Government finance data based on calendar year.
Box 5. Oil and gas market developments and outlook

The COVID-19 pandemic has changed the way many of us live and work in response to lockdown measures, in turn causing energy demand to fluctuate dramatically. Energy prices have recovered strongly from their troughs in April 2020, in line with the recovery in global economic activity as restrictions have been gradually lifted. Crude oil prices reached multi-year highs in Q3 2021 while natural gas prices are at all-time highs. The emergence of the highly-mutated Omicron variant is expected to weigh on oil demand whereas gas prices are expected to remain elevated due to gas supply disruptions. Against this backdrop, this Box discusses recent developments and the outlook in the oil and gas market.

Recent developments
Crude oil prices increased sharply in Q3 2021, driven by increased demand, weather-related supply disruptions, and production restraint from OPEC+ (Nagle and Temaj 2021; Figure B21). Global demand is now just 1 percent below its pre-pandemic peak, where the recovery has been the strongest in China (Figure B22). Meanwhile, oil production in the United States in September was affected by Hurricane Ida, which wiped out 30 million barrels, making the storm the most destructive to the U.S. Gulf of Mexico’s output in 16 years. Moreover, OPEC+ produced almost 1 million barrels per day below their quota. Global oil inventories have continued to fall rapidly as consumption has exceeded production since Q3 2020.

Crude oil prices dropped about 10 percent on November 26, 2021 and have continued to fall, after the World Health Organization designated Omicron as a variant of concern. The price decline reflected market expectations that oil consumption might fall in the coming months due to renewed mobility restrictions, which has indeed been the case in some European countries facing resurgences in infections. The release of strategic oil reserves by the United States and other nations has also put downward pressures on oil prices.

Natural gas prices have risen significantly and reached record levels in mid-December 2021, reflecting a sharp increase in demand for electricity generation, especially in China and Europe, due to an unusually

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5 This Box was prepared by Koh Wee Chian.
cold winter in the Northern Hemisphere, as well as heightened uncertainty about supply from Russia amid geopolitical tensions (Figure B23). European natural gas prices in December were nearly six times higher than in January, while Asian liquefied natural gas (LNG) prices increased almost three-folds over the same period. Europe has become increasingly reliant on imports of LNG as domestic production has dwindled. Inventories in Europe are at very low levels compared to previous years (Figure B24). A shortage of coal in China has also resulted in higher LNG imports, which diverted some supplies that would have gone to Europe, highlighting the impact of the increasing integrated global energy market.

**Figure B23. Natural gas prices**

<table>
<thead>
<tr>
<th>Dutch TTF natural gas</th>
<th>Japan Korea Marker LNG (RHS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 EUR per MWh</td>
<td>60 US$ per mmbtu</td>
</tr>
</tbody>
</table>

Source: Bloomberg; CME Group; CSPS; Gas Infrastructure Europe; S&P Global Platts
Note: Last observation is January 7, 2022.

**Figure B24. Europe natural gas storage inventory**

TWh

Outlook and risks

Global oil consumption is projected to be somewhat subdued in Q1 2022, particularly for jet fuel, due to the recent re-imposition of travel restrictions following outbreaks of the Omicron variant (Figure B25). However, global oil demand is expected to recover thereafter and reach its pre-pandemic level by end 2022. Global oil production is projected to pick up in 2022, led by growth in the United States and OPEC+ countries. Increased supply, together with slowing demand growth due to the uncertainty around the Omicron variant and its impact, is expected to keep a lid on oil prices. The December 2021 forecast by the U.S. Energy Information Administration projected Brent oil prices to average US$70.05 per barrel in 2022 (EIA 2021; Figure B26). This forecast is lower than current spot prices and projections made in October 2021, in light of renewed concerns about COVID-19, but still higher than projections from earlier in the year. Meanwhile, the December 2021 consensus forecast of 30 commodity analysts projected that Brent crude would average US$75.10 per barrel in 2022. Downside risks to the outlook include a sharper-than-expected decline in global oil demand due to the Omicron outbreaks. On the upside, greater use of crude oil as a substitute for natural gas and weather-related natural events that affect production may lift prices.

Natural gas prices are projected to ease in 2022 but remain elevated as they are vulnerable to weather-related shocks. Risks of shortages and price spikes are especially high for European natural gas due to low inventory levels. In October 2021, the World Bank forecast European natural prices and Japan LNG prices to average US$12.6 per mmbtu and US$11.4 per mmbtu, respectively, in 2022 (World Bank 2021). The mean consensus forecast of Japan LNG prices made by commodity analysts in December 2021 was much higher, at US$16.9 per mmbtu. Risks to the outlook are tilted to the upside. The events of 2021 have highlighted that climate change and evolving weather patterns are a growing risk to natural gas markets. Extreme temperatures are becoming more common, affecting energy use for cooling and
heating. High energy prices have contributed to rising inflation in many energy-importing countries, and have impacted the production of other commodities. Several European fertilizer plants were forced to shut or cut production in response to soaring natural gas prices, in turn causing fertilizer prices to rise sharply (Baffes and Koh 2021).

References


