



ASIAN DEVELOPMENT OUTLOOK 2021

FINANCING A GREEN AND INCLUSIVE RECOVERY

APRIL 2021

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Notes:

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ADB recognizes “Hong Kong” as Hong Kong, China; “China” as the People’s Republic of China; “Korea” and “South Korea” as the Republic of Korea; and “Vietnam” as Viet Nam.

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Foreword

The worst may be over for developing Asia, but the threat of recurrent COVID-19 outbreaks still casts a pall. The recovery paths of economies across the region will diverge, with those able to contain the virus and its variants set for robust growth, and those less equipped to control the disease having to face prolonged weakness.

After a weak 2020, growth in the region is projected to rebound to 7.3% in 2021, led by strong recoveries in the People's Republic of China and India. Most other economies will experience less vibrant growth. With the global economy still gathering momentum and vaccine distribution programs in their early stages, small economies that are highly dependent on tourism will continue to be the most vulnerable. Growth in developing Asia is expected to moderate to 5.3% in 2022.

COVID-19 has left a trail of despair in terms of lost lives and livelihoods. But the pandemic is also an opportunity to build back better. A Great Reset toward more sustainable, resilient, and inclusive economies will entail green investments, such as clean energy, and social investments in public health and education. These were goals of the region that have been set back by the pandemic.

A green, resilient, and inclusive recovery will require massive amounts of capital. The public sector alone cannot bear the cost, especially with sharp declines in fiscal revenue caused by the COVID-19 pandemic. Private capital will have to be increasingly mobilized to close the funding gap—and this is the focus of the report's theme chapter. Private investors are increasingly recognizing the positive aspects of green and social finance, and this has broadened the financing base. And the motivation for these investments has gone beyond declared environmental and social goals and become more financially driven. This report also shows how green and social finance offers genuine environmental and social benefits.

Despite these advances, public policy can do much more to nurture green and social finance. Governments can, for instance, adopt policies that enforce common standards of information disclosure and impact measurement to build confidence in these markets. They can also incorporate sustainability risks into micro- and macroprudential frameworks.

I hope that this year's *Asian Development Outlook* once again spurs interest in important areas of development. As the region emerges from the COVID-19 pandemic, we at the Asian Development Bank remain the committed partners of policy makers across the region in promoting more sustainable, resilient, and inclusive growth.



MASATSUGU ASAKAWA
President
Asian Development Bank

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Definitions and assumptions

The economies discussed in *Asian Development Outlook 2021* are classified by major analytic or geographic group. For the purposes of this report, the following apply:

- **Association of Southeast Asian Nations (ASEAN)** comprises Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam. The ASEAN-5 are Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam.
- **Developing Asia** comprises the 46 members of the Asian Development Bank listed below by geographic group.
- **Newly industrialized economies** comprise Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.
- **Central Asia** comprises Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.
- **East Asia** comprises Hong Kong, China; Mongolia; the People's Republic of China; the Republic of Korea; and Taipei, China.
- **South Asia** comprises Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- **Southeast Asia** comprises Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam.
- **The Pacific** comprises the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Unless otherwise specified, the symbol “\$” and the word “dollar” refer to US dollars.

A number of assumptions have been made for the projections in *Asian Development Outlook 2021*: The policies of national authorities are maintained. Real effective exchange rates remain constant at their average from 4 to 31 March 2021. The average price of oil is \$64/barrel in 2021 and \$61/barrel in 2022. The 6-month London interbank offered rate for US dollar deposits averages 0.1% in 2021 and 0.8% in 2022, the European Central Bank refinancing rate averages 0% in both years, and the Bank of Japan's overnight call rate averages -0.1% in both years.

The forecasts and analysis in *Asian Development Outlook 2021* are based on information available to 31 March 2021.

Abbreviations

ADB	Asian Development Bank
ADO	Asian Development Outlook
APVAX	Asia Pacific Vaccine Access Facility
ARRA	American Recovery and Reinvestment Act
ASEAN	Association of Southeast Asian Nations
ASER	Annual Status of Education Report
bps	basis points
CO ₂	carbon dioxide
COVAX	COVID-19 Vaccines Global Access
COVID-19	Coronavirus Disease 2019
CROSS	Coronavirus Relief One-Stop Shop (Palau)
DIB	development impact bond
E&S	environment and social
EDL	Électricité du Laos (Lao PDR)
ESG	environmental, social, and governance
ETS	emissions trading system
FSM	Federated States of Micronesia
FTA	free trade agreement
FY	fiscal year
GDP	gross domestic product
GHG	greenhouse gas
H	half
ICMA	International Capital Market Association
ICT	information and communication technology
IMF	International Monetary Fund
IT	information technology
KND	Korean New Deal
KPR	Kyoto Protocol ratification
Lao PDR	Lao People's Democratic Republic
LAYS	learning-adjusted years of schooling
Libor	London interbank offered rate
M2	broad money that includes cash and highly liquid accounts
M2b	broad money that adds bond funds to M2
M2X	broad money that adds foreign currency accounts to M2
M3	broad money that adds time accounts to M2
MDB	multilateral development bank
MFI	microfinance institution
MSME	micro, small, or medium-sized enterprise
NBFI	nonbank financial institution
NIE	newly industrialized economy
NPL	nonperforming loan
NSED	National Socioeconomic Development Plan (Lao PDR)
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PISA	Programme for International Student Assessment

PMEP	Prime Minister Employment Program (Nepal)
PMI	purchasing managers' index
PNG	Papua New Guinea
PRC	People's Republic of China
Q	quarter
RCEP	Regional Comprehensive Economic Partnership
ROK	Republic of Korea
RPC	Regional Processing Centre (Nauru)
SDG	Sustainable Development Goal
SIB	social impact bond, systemically important bank
SME	small or medium-sized enterprise
SOE	state-owned enterprise
SOFAZ	State Oil Fund of Azerbaijan
US, USA	United States of America

ADO 2021—Highlights

Growth is gaining momentum across developing Asia, but renewed COVID-19 outbreaks show the pandemic is still a threat. Even so, the region's economic revival is underway, supported by a healthy global recovery and progress on vaccines. The region's growth is forecast to rebound to 7.3% in 2021, moderating to 5.3% in 2022. Excluding high-income newly industrialized economies, growth of 7.7% is forecast for this year and 5.6% for next year. Headline inflation—after a marginal decline in 2020—is projected to fall to 2.3% in 2021 on easing food-price pressures, with prices expected to rise by 2.7% in 2022.

Several downside risks weigh on the generally positive outlook. The biggest is that resurgent COVID-19 outbreaks or delayed or ineffective vaccines could once again disrupt mobility and economic activity, setting back the recovery. This and the other risks to the outlook that are discussed in this report are worrying because the pandemic has set back developing Asia's push toward more environmentally sustainable and equitable growth.

Getting back on this growth path will require mobilizing a vast amount of public and private capital. Recent years witnessed the rapid global and regional expansion of green and social finance, particularly from private sources. While noneconomic factors remain key drivers of this expansion, financial motives are playing an important role. Although measuring the impact of green and social finance is challenging, evidence suggests it is associated with environmental and social benefits. Governments across developing Asia have plenty of scope to nurture sustainable finance through fiscal and regulatory measures. Above all, enforcing common standards of information disclosure and impact measurement will boost green and social finance.



Yasuyuki Sawada
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Asia remains resilient, amid divergent recovery paths

COVID-19 relapse is the biggest risk

- **Resurgent COVID-19 outbreaks show that the pandemic is far from beaten.** Outbreaks continue to reappear, both globally and in the region, due partly to the emergence and spread of coronavirus variants. Although new cases in developing Asia fell from their peak of 106,000 per day in September 2020 to 32,000 by the end of February 2021, they rose again to 93,000 by the end of March, the cutoff date for this report. The easing of containment measures and increased mobility since the second half of 2020 may pause or partially reverse in some regional economies.
- **Vaccine rollouts are still in the early stages, and progress varies considerably.** As of 31 March 2021, 15.2 million doses were being administered per day globally. Some 600 million doses have been administered—about 8 doses per 100 people. Vaccinations are currently significantly skewed toward advanced economies, with the United States administering 45 doses per 100 people and Europe 17 doses per 100 people. Developing economies continue to face difficulties in expediting procurement and rolling out vaccination programs. Developing Asia has administered about 214 million doses, or 5.2 doses per 100 people.
- **Developing Asia’s economy shrank by 0.2% in 2020, and divergences emerged within the region.** Stifled by domestic lockdowns and a global recession, consumption and investment dragged down output in most economies. South Asia posted the largest contraction on the back of an 8.0% fall in India’s gross domestic product (GDP). Southeast Asia also shrank substantially, led by contractions of 9.6% in the Philippines and 6.1% in Thailand. Economic activity declined in Central Asia as commodity prices and remittances fell, and plunging tourist arrivals drove the Pacific into recession. East Asia bucked the trend with positive growth in 2020, boosted by the fast rebound and 2.3% expansion in the People’s Republic of China (PRC).
- **Recovery has begun in developing Asia, but at different speeds.** Growth in most regional economies strengthened in the latter part of 2020. Exports—particularly of electronics and products related to the COVID-19 pandemic, such as personal protective equipment—have been an important driver of faster-than-expected recoveries. And this is reflected in a healthy turnaround in manufacturing. The economic revival is particularly strong in East Asia, but weaker elsewhere, especially in the Pacific. Differing trends are also apparent in labor markets, with unemployment declining unevenly across economies.
- **Tourism collapsed, but remittances were more resilient than expected.** The virtual halt in international tourism caused severe recessions in tourism-dependent economies, such as Georgia, Maldives, Thailand, and many Pacific island countries. Surprisingly, remittances increased by 0.7% on average in the first three quarters of 2020 across developing Asia, relative to 2019. This was driven by Bangladesh and Pakistan, where remittances rose by more than 15%. But remittances declined in most economies in the region, particularly in Central Asia, where they account for a large share of GDP.

- **Headline inflation in developing Asia slowed only slightly, from 2.9% in 2019 to 2.8% in 2020.** Growing economic slack and falling international oil and commodity prices put downward pressure on prices in the region over most of 2020, but this was offset by high food-price inflation in the first half of the year, particularly for the PRC and South Asia—thus leading to only a marginal decline in headline inflation. Global oil and food prices rebounded in the second half of 2020 as the world economy recovered.
- **Record fiscal support and accommodative monetary policies were deployed to counter the impact of the COVID-19 pandemic.** Governments relied on a large number of policy measures to support firms, workers, and households. In most economies, fiscal stimulus in 2020 was much larger than during the global financial crisis of 2008–2009. Further support came from the monetary side. Central banks reacted promptly by cutting interest rates in March 2020, and have either maintained or further loosened monetary policy since then.
- **Financial conditions continued to improve in the second half of 2020.** Expansionary policies, economic recovery, and the development of effective vaccines bolstered investor sentiment. Stable foreign portfolio investment flows resumed from the fourth quarter of 2020, and equity markets have soared above prepandemic levels in most subregions. Most Asian currencies strengthened amid a weak US dollar, but a few experienced continued depreciations.
- **Economic activity in developing Asia is projected to rebound in 2021 and 2022.** Assuming that renewed COVID-19 outbreaks are brought under control, domestic demand and economic activity will continue to strengthen this year and next. Progress on vaccine rollouts and recovering regional as well as global demand are expected to consolidate the growth momentum. Developing Asia is projected to grow by 7.3% in 2021, higher than normal due to the comparison with a weak 2020. Growth is expected to moderate to 5.3% in 2022. The growth trend will not be uniform across the region. After rapid rebounds this year, some deceleration is expected in East Asia and—mainly due to India—South Asia. The more moderate growth in 2021 in Central Asia, Southeast Asia, and the Pacific will accelerate in 2022.
- **Inflation in developing Asia will remain generally benign.** Inflation dynamics are projected to stay muted despite rising international commodity prices, as substantial slack in many economies will contain inflationary pressures. Average inflation in the region is forecast to fall from 2.8% in 2020 to 2.3% in 2021, as food-price pressures ease and inflation moderates in India and the PRC. Prices in 2022 are forecast to rise by 2.7%, driven mainly by the PRC, while inflation will be lower in Central Asia and South Asia—with more stable expectations on exchange rates and food prices anticipated to play a large role in these subregions.
- **Developing Asia’s current account surplus is projected to narrow.** Gradually healthier economic activity will lead to imports growing faster than exports in most economies in developing Asia, reversing the import contraction and current account improvement seen in 2020. As a result, the region’s current account surplus is forecast to narrow from 2.4% of GDP in 2020 to 2.1% in 2021, and

further to 1.7% in 2022. The decline, however, will not affect all economies. Commodity-exporting economies should see an improvement in their current account balances.

- **Risks are tilted to the downside and depend mainly on how the COVID-19 pandemic unfolds.** Significant new outbreaks or delayed vaccine rollouts could prolong disruptions to mobility and economic activity, deepening the crisis in some economies. Other risks to the outlook include geopolitical tensions, production bottlenecks, limited vaccine effectiveness, and financial turmoil from tightening financial conditions. Long-term scarring—such as learning losses caused by school closures because of the pandemic—could also occur.

Learning and earning losses from COVID-19 school closures in developing Asia

- **The COVID-19 pandemic severely disrupted education.** Schools were closed to varying degrees across developing Asia—in a quarter of the region's economies, schools were closed for 200–300 days, and in another fifth for a year or more. Only a handful of economies managed to keep schools open continuously. Remote learning strategies were deployed in most economies to keep students learning. But many students are constrained by access to resources like computers and the internet. This has limited their ability to learn when at home.
- **Students in developing Asia have lost 29% of a year of learning on average.** Learning losses varied across the region. They were higher in economies with more days of school closure. In South Asia, where closures have been longest, students lost more than half a year of learning. Students in East Asia lost 39% of a year in learning, students in Southeast Asia lost 35%, and in Central Asia 24%. Schools have mostly stayed open in the Pacific, where learning losses were relatively low, at 8%.
- **Learning losses will substantially reduce future productivity and earnings.** Estimates show that students affected by school closures stand to lose an average of \$180 or a 2.4% decline in expected annual earnings. The present value of these future earning losses adds up to an estimated \$1.25 trillion for developing Asia, equivalent to 5.4% of the region's GDP in 2020. In a more optimistic scenario for the effectiveness of remote learning during the COVID-19 pandemic, total losses are equivalent to \$0.8 trillion (3.6% of 2020 GDP). But a pessimistic scenario puts the losses at \$1.8 trillion (7.6% of GDP). Learning and earning losses will rise the longer that schools remain closed. Policies can be adopted to help mitigate the potential damage and ensure that education systems emerge from this pandemic better than they were before.

Outlook by subregion

- **Developing Asia faces a patchy recovery as the effects of the COVID-19 pandemic linger.** Some economies continue to struggle to contain the virus and its new variants. Tourist-dependent economies in the Pacific and elsewhere face a slow road back. Conversely, a handful of economies in the region that have

contained domestic outbreaks and are benefiting from the recovery in global demand will continue to show resilience and expand.

- **East Asia is forecast to grow by 7.4% in 2021 due to the vaccine rollout, global economic recovery, improving consumer sentiment, and supportive macro policies.** The revival from a pandemic-induced slump will be strongest in the PRC, where output is forecast to grow by 8.1% this year due to a surge in private consumption and exports. The pace is expected to slow to 5.1% in 2022 as the PRC, along with Hong Kong, China and the Republic of Korea, which both suffered contractions in 2020, revert to their longer-term trend. The outlook for Mongolia, where output fell during the pandemic, differs slightly, as a resurgence in mining and investment is expected to lead to stronger growth until 2022. Inflation in the subregion is forecast to decelerate to 1.5% in 2021, a trend that is driven by the PRC, as inflation in most other East Asian economies will increase this year. Inflation will pick up across the subregion in 2022 except in Taipei, China, where it is expected to remain unchanged at 1.1%. In Mongolia, inflation will almost double this year and rise well beyond the central bank's medium-term target of 6.0% in 2022.
- **South Asia will have developing Asia's fastest growth this year after suffering the region's sharpest contraction in 2020.** Aggregate output is forecast to expand by 9.5% in 2021, with growth tapering to 6.6% in 2022. This largely reflects the performance of India, which will rebound from an 8.0% contraction in fiscal year 2020 and grow by 11% and 7% in this and the following fiscal year. A stimulus-fueled surge in the US, India's largest export market, will support the revival, but a severe second COVID-19 wave is threatening the recovery. Maldives will also bounce back from a sharp recession, the steepest in Asia since the outbreak of the COVID-19 pandemic. With some release of pent-up global demand for tourism, Maldives is forecast to grow by 13.1% in 2021 and 14.0% in 2022. Economic activity in Afghanistan, Nepal, and Pakistan will rise as tight containment restrictions are lifted, with buoyant remittances stimulating growth in Nepal and Pakistan. Bangladesh, which weathered the pandemic better than most economies in the subregion, will continue to grow strongly as exports pick up. Bhutan's economy is projected to contract by 3.4% in fiscal year 2021, because of continued strict border restrictions, but growth is forecast at 3.7% in the next fiscal year. Sri Lanka's challenging macroeconomic situation will likely moderate growth in 2022. Inflation in South Asia is forecast to decelerate from 6.5% in 2020 to 5.5% in 2021 and to 5.1% in 2022.
- **Southeast Asia will track developments in the global economy and is forecast to grow by 4.4% in 2021 and 5.1% in 2022.** Vaccination programs and expansionary monetary and fiscal policies are expected to underpin the revival of domestic demand. Both factors are becoming evident in Malaysia and Singapore, two closely intertwined economies that are benefiting from accommodative financial policies, and in Indonesia. In the Philippines, fiscal stimulus from spending on infrastructure and social assistance will promote a bounce back. Brunei Darussalam and Viet Nam, which did not go into recession in 2020, will see their economies expand further in the coming years. In contrast to a generally positive subregional economic outlook, Myanmar's output is forecast to shrink by 9.8% in 2021 as continued disruptions of government operations and mass political protests worsen the problems of an economy

that has been hard hit by the COVID-19 pandemic. With higher growth and rising international commodity prices, inflation in the subregion is projected to double from 1.2% in 2020 to 2.4% in 2021 and 2022. After falling in 2020, prices in Malaysia, Singapore, and Thailand will edge higher in the next 2 years. Inflation will be notably higher in Myanmar, the Philippines, Timor-Leste, and Viet Nam in 2021, but it will decline in Brunei Darussalam on easing supply constraints and price subsidies. Increased food production will reduce price pressures this year in the Lao People's Democratic Republic.

- **Growth will resume in Central Asia as rising world commodity prices trigger economic activity.** Aggregate output in the subregion is forecast to rise by 3.4% in 2021 and 4.0% in 2022. Higher oil prices and continued government support to manufacturing will trigger growth estimated at 3.2% in Kazakhstan, the region's largest economy. A further rise in demand and oil production should increase Kazakhstan's growth to 3.5% in 2022. A similar pattern will characterize growth in Azerbaijan, where higher prices and increased oil and gas production will boost growth 2021 and 2022—and this growth will be further supported by a recovery in tourism and other services. Growth in Uzbekistan will be propelled by expansions in industry, services, and construction. Higher demand for oil and gas from the recovery in the PRC and other trade partners will support growth in Turkmenistan. Higher remittances will lift growth in Armenia in 2022 to a forecast 3.0%, but subdued investment will limit growth to a projected 1.8% in 2021. Growth in Georgia is expected to accelerate in 2021 and 2022 as the global recovery boosts tourism. Tajikistan, where official numbers showed growth slowing to 4.5% in 2020, anticipates a small pickup in growth to 5.0% in 2021 and 5.5% in 2022 as COVID-19 restrictions in trade partners ease, and remittances, export demand, and foreign direct investment revive. Growth in the Kyrgyz Republic is projected to rise to 3.5% in 2021 and 5.0% in 2022 as pandemic-related restrictions ease and activity recovers in its trading partners. Inflation in Central Asia, which rose to 7.5% in 2020 because of trade disruptions and pandemic-related mobility restrictions, is projected to slow to 6.8% in 2021 and to 6.3% in 2022 as these restrictions are lifted.
- **The Pacific is expected to recover after a crippling downturn in 2020.** After the subregion's economy contracted by 5.8% due to the impact of COVID-19, moderate growth of 1.4% is forecast for 2021 and 3.8% for 2022. This mirrors the outlook for Papua New Guinea, the subregion's largest economy, where output will grow moderately this year, then climb further next year as the recovery strengthens. Fiji will follow a similar trend, but on a stronger rebound from a deeper fall (an unprecedented 19% contraction in 2020). Travel bubbles are expected to contribute to a gradual recovery in some smaller Pacific economies—initially, the Cook Islands and Niue because of their economic ties with New Zealand, and Palau because of its economic ties with Taipei, China. Widespread vaccination, both within Pacific economies and in their trade and tourism partners, is expected to play a major role in boosting growth in 2022. Inflation in the Pacific is forecast at 3.7% in 2021, well above the average for developing Asia. This is due mainly to Papua New Guinea, where the depreciation of the local currency and quantitative easing are stoking inflation pressures. Inflation is expected to remain low in most Pacific economies this year. But deflation is forecast for Samoa due to lower import prices, utility subsidies, and increased agricultural production. Inflation in the subregion is expected to rise only slightly to 3.9% in 2022.

Financing a green and inclusive recovery

Summary

- ❖ **Green and inclusive recovery requires both public and private capital.** Building back better and greener from COVID-19 will demand large investments that are often beyond the means of the public sector alone. Promisingly, green and social finance from private sources has grown rapidly in recent years, both regionally and globally.
- ❖ **Private green and social finance is becoming financially driven.** While it was investors' environmental and social goals that initially drove global growth in sustainable investment, financial motives are increasingly coming to the fore. After Australia's ratification of the Kyoto Protocol restricted its emissions, to cite one illustration, the debt costs of high-emitting Australian companies increased by an average of 5.4%, and their equity costs by 2.5%, relative to low-emitting companies. Tapping green and social finance helps meet the preferences of various stakeholders, hedge and mitigate sustainability risks, and generate resilience under shocks. Green and social finance also fosters positive recognition among investors, thus broadening the financing base.
- ❖ **Sustainable finance offers real environmental and social benefits.** Asian firms that issue green bonds improve their environmental performance by 17% after 1 year and 30% after 2 years on average, as measured by corporate environmental ratings. At the market level, green bond issuance is associated with reduced carbon dioxide (CO₂) emissions as market participants become more aware of the Sustainable Development Goals (SDGs) and committed to achieving them. Social impacts are more varied, but innovative financing instruments such as impact bonds show potential.
- ❖ **Engaged public policy is central to nurturing social and green finance.** Governments can use a range of policy options both to shape markets and to participate in them. Regulation that enforces common standards of information disclosure and impact measurement is the most powerful policy option to support the development of green and social finance. Policy makers can align finance with the SDGs by incorporating sustainability risks into the micro- and macroprudential framework to safeguard financial stability, strengthen market infrastructure and ecosystems, and expand fiscal revenue available for development along a green, resilient, and inclusive pathway.

Mobilizing resources for a green and inclusive recovery

- **Asia must build back better as it emerges from the pandemic.** Asia’s phenomenal development over several decades often adopted a “grow first, worry about cleanup and equality later” approach. In recent years, the region has turned its attention to more sustainable and inclusive growth. Both economic growth and the quality of life face threats from environmental challenges such as climate change, biodiversity loss, and environmental pollution. Growth that empowers and benefits the entire population remains a work in progress. The pandemic set back these efforts and imposed disproportionate burdens on the poor and vulnerable. It also clearly demonstrated that abnormal risks can and do become reality, driving home the need to prepare for future risks, the most dire of which is worsening climate change. Society now has an opportunity to build back better. Green and inclusive recovery would strengthen resilience under future shocks.
- **Building back better requires mobilizing capital both public and private.** Dubbed the Great Reset, building back better after COVID-19 will require mobilizing capital to fund green investments such as clean energy and social investments such as public health, education, and job training. The vast financial resources needed are often beyond the means of the public purse alone. Especially after suffering sharp contractions in fiscal revenue during the pandemic, Asian governments must close the funding gap by catalyzing more private capital and mobilizing resources from a much broader funding base. As a bonus, the participation of private capital fosters risk sharing on green and social projects across a broad coalition of public and private investors.
- **Green and social finance specifically targets sustainability goals.** Such capital is deployed in a range of investments designed to achieve specific and measurable environmental or social objectives. Comprising all financing instruments, investments, and mechanisms that contribute to the SDGs, the spectrum of green and social finance includes blended or catalytic finance, debt, equity, funds, and grants. This diversity offers the opportunity to create innovative financing models and new financial instruments to expand the supply of capital for sustainability goals.
- **This area of finance has grown rapidly in recent years.** Growth in green and social finance has been particularly strong in private capital. Financially sophisticated advanced economies, where environmental and social issues have long been high priority, still dominate the global green and social finance landscape. Meanwhile, developing Asia leads all other emerging regions in the issuance of green, social, and sustainability bonds. The region also leads the developing world in regulation and policy guidance on green and social finance. Rapid global growth in green and social finance has continued since the COVID-19 outbreak. The trend is consistent with heightened awareness in the financial industry of the importance of green and inclusive recovery from COVID-19.

Drivers of green and social finance

- **Economic and noneconomic factors alike drive green and social finance.** While it was investors' environmental and social goals that initially impelled global growth in sustainable investment, financial motives are increasingly coming to the fore. Evidence shows various factors driving incentives for the finance industry to channel capital into investments with environmental and social impacts: staying aligned with changing stakeholder preferences and social norms, hedging and mitigating sustainability risks, and fostering greater resilience in the wake of shocks to particular firms or entire markets.
- **Evidence shows that sustainability risks increase firms' financing costs.** In the first 5 years after the 2007 ratification of the Kyoto Protocol initiated restrictions on annual CO₂ emissions in Australia, the debt costs of high-emitting Australian companies increased by 5.4%, and their equity costs by 2.5%, relative to Australian firms with lower carbon footprints. Two probable channels for higher financing costs are worsened cash-flow risk and investor recognition. High emitters had increased default probability, financial distress risk and market risk. In addition, they faced declines in institutional ownership and greater difficulty in obtaining finance from major banks. These developments demonstrate that investors weigh firms' exposure to sustainability risk when making portfolio decisions.
- **Green and social finance engenders positive investor recognition.** Tapping green and social finance signals a firm's awareness of environmental and social issues and its commitment to positive outcomes. This is well received by investors, as evidenced by Asian stock markets responding positively to the issuance of corporate green bonds. During a 16-day period encompassing the announcement of green bond issuance, issuing firms' common stocks post an average cumulative abnormal return of 0.5%, or an annualized gain of 7.9%. Such positive reaction indicates that investors see green and social finance creating value. Recent evidence from global markets shows firms distinguished by their green bond issuance enjoying superior stock price performance and greater resilience during the pandemic. Further, such positive investor recognition helps to broaden the investor base for green and social investment.

Targeted impacts from green and social finance

- **Social and green finance requires better impact measurement.** Accurate impact measurement informs assessment of funding and investment proposals, enhances credibility, facilitates decision making, guides future resource allocation, and creates models and benchmarks. However, there are currently no commonly agreed reporting standards or impact metrics for green and social finance. This failing exacerbates information asymmetry and raises concerns about green- or social-washing—inaccurate, self-serving claims that undermine investor confidence. In response, some progress has been achieved toward consolidating the many competing models for impact measurement.

- **Green finance credibly signals commitment to environmental impact.** Evidence suggests that green finance signals increased awareness of and commitment to the SDGs and thus indicates positive environmental outcomes. Asian firms that issue green bonds improve their environmental performance by 17% within a year after issuance and by 30% within 2 years on average, as measured by corporate environmental ratings. Evidence further suggests that cities using more green bond finance enjoy significantly improved local air quality. An increase by one standard deviation in green bond financing is associated with a 0.6% improvement in the air quality index. Countries similarly record lower carbon emissions after the first green bond issuance in national bond markets.
- **Private capital makes social programs more efficient and effective.** Innovative social finance instruments like impact bonds connect private capital to investment that addresses social and development challenges. These mechanisms facilitate risk transfer from the government and service providers to private investors, who earn returns only when desired social outcomes are achieved. Development impact bonds enable results-based private finance to participate in development programs in low- and middle-income economies. Notable examples include the Educate Girls Development Impact Bond, which improved education outcomes for marginalized school-age girls in India.
- **Multilateral development banks catalyze green and social finance.** The challenge of unlocking green and social finance created a role for multilateral financial institutions. They provide direct financing and catalyze capital from public and private sources through blended finance, credit enhancement, and loan guarantees. They innovate novel financing solutions and further facilitate the development of green and social finance by strengthening market infrastructure and ecosystems, as well as government policy, knowledge, and capacity in developing economies.

Complementary financing instruments for a green and inclusive recovery

- **Public sector capital remains a vital pillar of finance for the SDGs.** Public spending oriented toward the SDGs remains important for developing economies' green and inclusive recovery. Evidence shows that fiscal measures with environmental goals contribute to green development. The pandemic underscores the need for investment in basic public services such as health care and education to address worsening inequality. Even as the COVID-19 crisis suppresses tax revenue in Asian economies, some Asian governments are investing to ensure sustainable recovery after the pandemic. Examples include the Green New Deal in the Republic of Korea, green components in Japan's economic stimulus packages, and the issuance in Thailand of sovereign sustainable bonds.
- **Microfinance has potential for achieving positive social outcomes.** Whether commercially oriented or not for profit, microfinance institutions provide a wide range of financial services to vulnerable groups. Microfinance aims to promote positive development outcomes toward the major socioeconomic imperatives of poverty reduction, equitable health care and education, job creation, women's

empowerment, and disaster resilience. However, evidence is mixed on the impact that microfinance has on poverty reduction and some other social outcomes, leaving it subject to debate.

- **Carbon pricing narrows the funding gap during a low-carbon transition.** Carbon pricing through emission trading, carbon taxes, and other mechanisms aims to internalize the external costs of carbon emissions by making polluters pay for their CO₂ emissions. While carbon-pricing instruments are still in their infancy, momentum is growing in Asia and the Pacific for their use to facilitate a low-carbon transition. Asian economies can build on regional experience with carbon-pricing schemes to realize the benefits of a broad toolkit of available carbon-pricing instruments.

Nurturing green and social finance in Asia

- **Engaged public policy is central to nurturing social and green finance.** Governments can use a range of policy options both to shape green and social finance markets and to participate in them. Policy options include fiscal measures such as grants, direct and indirect investment, tax incentives and subsidies, and legislation and regulation. While a range of policy innovations already exists worldwide, the market would benefit significantly from legislation and regulation that enforce common standards of impact measurement and information disclosure. Governments can reshape existing policies and contribute to green and inclusive recovery through investment, catalysis, innovation, advocacy, and research in green and social finance.
- **Finance should align with the SDGs while safeguarding financial stability.** Sustainability risks pose challenges to individual financial institutions and to the whole financial system. Policy makers have started to incorporate sustainability risks into micro- and macroprudential frameworks, charting the way forward for safeguarding financial stability while supporting the transition to sustainable development. Financing sustainable recovery can be facilitated by sound financial market infrastructure and a viable market ecosystem. Asian policy makers need to work together to develop standards of impact measurement and information disclosure that align with international standards and promote sustainable finance as a regional agenda.
- **Strengthened public finance can support green and inclusive recovery.** Domestic resource mobilization provides more resources for sustainable recovery. Effective tax policy measures can increase tax revenue by (i) broadening and protecting the domestic tax base; (ii) enhancing tax compliance through better taxpayer services and strengthened risk management, audit, and enforcement; (iii) developing more transparent and efficient tax administration with streamlined business processes and digital technology; (iv) striking a balance between raising tax revenue and promoting investment; and (v) strengthening international tax cooperation. Finally, tax policy measures that offer well-designed tax incentives can improve development outcomes by, for example, promoting clean energy investment.

GDP growth rate and inflation, % per year								
	GDP growth				Inflation			
	2019	2020	2021	2022	2019	2020	2021	2022
Central Asia	4.9	-1.9	3.4	4.0	7.2	7.5	6.8	6.3
Armenia	7.6	-7.6	1.8	3.0	1.4	1.2	3.8	2.5
Azerbaijan	2.5	-4.3	1.9	2.5	2.6	2.8	3.5	3.0
Georgia	5.0	-6.2	3.5	6.0	4.9	5.2	5.0	3.5
Kazakhstan	4.5	-2.6	3.2	3.5	5.3	6.8	6.5	6.2
Kyrgyz Republic	4.6	-8.6	3.5	5.0	1.1	6.3	7.0	7.0
Tajikistan	7.5	4.5	5.0	5.5	8.0	9.4	9.0	8.0
Turkmenistan	6.3	1.6	4.8	4.9	13.0	10.0	8.0	8.0
Uzbekistan	5.8	1.6	4.0	5.0	14.6	12.9	10.0	9.0
East Asia	5.3	1.8	7.4	5.1	2.6	2.2	1.5	2.2
Hong Kong, China	-1.2	-6.1	4.6	4.5	2.9	0.3	1.3	2.0
Mongolia	5.2	-5.3	4.8	5.7	7.3	3.7	6.9	8.5
People's Republic of China	6.0	2.3	8.1	5.5	2.9	2.5	1.5	2.3
Republic of Korea	2.0	-1.0	3.5	3.1	0.4	0.5	1.3	1.5
Taipei,China	3.0	3.1	4.6	3.0	0.6	-0.2	1.1	1.1
South Asia	4.2	-6.0	9.5	6.6	5.0	6.5	5.5	5.1
Afghanistan	3.9	-5.0	3.0	4.0	2.3	5.6	5.0	4.0
Bangladesh	8.2	5.2	6.8	7.2	5.5	5.7	5.8	5.8
Bhutan	4.3	0.9	-3.4	3.7	2.8	3.0	6.4	5.3
India	4.0	-8.0	11.0	7.0	4.8	6.2	5.2	4.8
Maldives	7.0	-32.0	13.1	14.0	0.2	-1.4	3.0	2.5
Nepal	6.7	-1.9	3.1	5.1	4.6	6.2	5.0	6.0
Pakistan	1.9	-0.4	2.0	4.0	6.8	10.7	8.7	7.5
Sri Lanka	2.3	-3.6	4.1	3.6	4.3	4.6	4.5	5.0
Southeast Asia	4.4	-4.0	4.4	5.1	2.1	1.2	2.4	2.4
Brunei Darussalam	3.9	1.2	2.5	3.0	-0.4	1.9	0.7	0.7
Cambodia	7.1	-3.1	4.0	5.5	1.9	2.9	3.1	3.0
Indonesia	5.0	-2.1	4.5	5.0	2.8	2.0	2.4	2.8
Lao People's Dem. Rep.	4.7	-0.5	4.0	4.5	3.3	5.1	4.5	5.0
Malaysia	4.3	-5.6	6.0	5.7	0.7	-1.1	1.8	2.0
Myanmar	6.8	3.3	-9.8	...	8.6	5.7	6.2	...
Philippines	6.1	-9.6	4.5	5.5	2.5	2.6	4.1	3.5
Singapore	1.3	-5.4	6.0	4.1	0.6	-0.2	1.0	1.2
Thailand	2.3	-6.1	3.0	4.5	0.7	-0.8	1.1	1.0
Timor-Leste	1.8	-7.9	3.4	4.3	1.0	0.5	2.0	2.0
Viet Nam	7.0	2.9	6.7	7.0	2.8	3.2	3.8	4.0
The Pacific	4.3	-5.8	1.4	3.8	3.0	3.3	3.7	3.9
Cook Islands	5.3	-5.9	-26.0	6.0	0.0	0.7	1.0	0.7
Federated States of Micronesia	1.2	-5.4	-1.8	2.0	-1.0	1.6	1.9	2.0
Fiji	-0.4	-19.0	2.0	7.3	1.8	-2.6	3.5	3.0
Kiribati	2.4	0.6	-0.2	2.3	-1.8	1.0	1.1	1.5
Marshall Islands	0.7	-5.5	-1.4	2.5	0.1	0.3	1.0	1.5
Nauru	1.0	0.8	1.5	1.0	4.3	1.0	1.1	2.0
Niue	...	...	...	...	1.9	2.7	...	...
Palau	-1.8	-10.3	-7.8	10.4	0.6	0.0	0.0	1.0
Papua New Guinea	5.9	-3.3	2.5	3.0	3.6	4.9	4.3	4.4
Samoa	3.6	-3.2	-9.2	3.1	2.2	1.5	-2.5	2.7
Solomon Islands	1.2	-4.5	1.0	4.5	1.6	3.0	2.5	3.5
Tonga	0.7	-0.8	-5.3	1.8	3.3	0.2	0.8	2.5
Tuvalu	4.1	0.5	2.5	3.0	3.5	1.6	3.3	3.5
Vanuatu	3.5	-9.8	2.0	4.0	2.8	3.0	3.5	3.7
Developing Asia	5.0	-0.2	7.3	5.3	2.9	2.8	2.3	2.7
Developing Asia excluding the NIEs	5.5	0.0	7.7	5.6	3.3	3.1	2.4	2.9

... = unavailable, GDP = gross domestic product, NIEs = newly industrialized economies of Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.



**ASIA REMAINS RESILIENT, AMID
DIVERGENT RECOVERY PATHS**

Asia remains resilient, amid divergent recovery paths

The containment of the COVID-19 pandemic since the second half of 2020 has allowed for greater mobility and economic activity in developing Asia. But the surge in new COVID-19 cases in March 2021 is a reminder that the pandemic is far from beaten. Vaccination efforts are still in the early stages, and countries face challenges with the procurement and deployment of vaccines, and vaccine hesitancy. Economically, the silver lining is the recovery of global manufacturing and trade that led to a rebound in exports. But the recovery has been uneven across economies, and mainly benefited firms specializing in pandemic-related supplies and electronics. Remittances were more resilient than expected, but these flows varied widely across economies. Tourism remains uniformly depressed. Consumption and contact-intensive services continue to be constrained by COVID-19 holding back a full recovery. Against this backdrop, governments and central banks responded with substantial policy support.

Economic prospects in 2021 and 2022 will be largely dictated by how the pandemic and the vaccination effort unfold. External demand will strengthen as growth returns to advanced economies, especially the United States, where the progress of vaccination and policy stimulus has been strong. Growth in developing Asia is forecast to rebound to 7.3% this year and 5.3% in 2022—but there will be significant variations across the region in the strength of that growth. Inflation should remain benign, at 2.3% in 2021 and 2.7% in 2022. The improvement in current account balances seen last year will reverse as imports pick up. Several downside risks weigh on the outlook, with the biggest coming from new COVID-19 outbreaks and delayed vaccine rollouts. Long-term scarring—such as learning losses from pandemic-induced school closures—is a concern.

This section was written by Abdul Abiad, David Keith De Padua, Jules Hugot, Yothin Jinjarak, Matteo Lanzafame (lead), Nedelyn Magtibay-Ramos, Rhea Molato, Pilipinas Quising, Arief Ramayandi, Marcel Schroder, Dennis Sorino, Shu Tian, and Mai Lin Villaruel of the Economic Research and Regional Cooperation Department, ADB, Manila, and Jesson Pagaduan, Reizle Jade Platitas, and Michael Timbang, consultants, Economic Research and Regional Cooperation Department, ADB, Manila.

Recent developments— a multispeed recovery across economies and sectors

New COVID-19 cases have resurged globally and in developing Asia since February 2021, confirming that the pandemic is far from beaten. New daily cases of COVID-19 worldwide rose from 50 per million (390,000 cases in total) in February 2021 to 74 per million (580,000 cases) by the end of March, the cutoff date for this report (Figure 1.1.1). Daily cases in developing Asia rose from 8 per million (32,000 cases) to 22 per million (93,000 cases) in the same period. One factor that likely contributed to this rise is the emergence of new coronavirus variants. South Asia still accounts for the bulk of the region's cases, with the number of new daily infections rising from its lowest point of 9 per million (17,000 cases) in February to 39 per million (71,000 cases) by the end of March. New daily cases have also shown an upward trend in Southeast Asia, Central Asia, and the Pacific.

Vaccination programs are still in their early stages, and procurement efforts vary considerably across economies (Figure 1.1.2). COVAX, the global vaccination initiative, is promoting access to COVID-19 vaccines in the region and their equitable distribution among economies. The target is to cover at least 20% of each participating economy's population by the end of 2021, but an interim COVAX forecast, published on 3 February, anticipates the first-round distribution of about 340 million doses, which would allow 145 countries to vaccinate only about 3.3% of their population by mid-2021. In December 2020, the Asian Development Bank (ADB) launched APVAX as a parallel initiative to COVAX. Here, ADB's developing member economies can tap into the \$9 billion made available via APVAX to procure and deliver effective and safe COVID-19 vaccines.

Vaccination coverage in developing Asia is still limited and behind the global average. As of 31 March 2021, 150 countries had administered close to 600 million doses—about 7.7 doses per 100 people globally, according to Bloomberg data. Estimates from Our World in Data indicate that only about 1.7% of the world's population had full vaccine protection by that date. Vaccinations are currently significantly skewed toward advanced economies, with the US having administered 45 doses per 100 people and Europe 17 doses per 100 people.

Figure 1.1.1 COVID-19 daily cases, world and Developing Asia

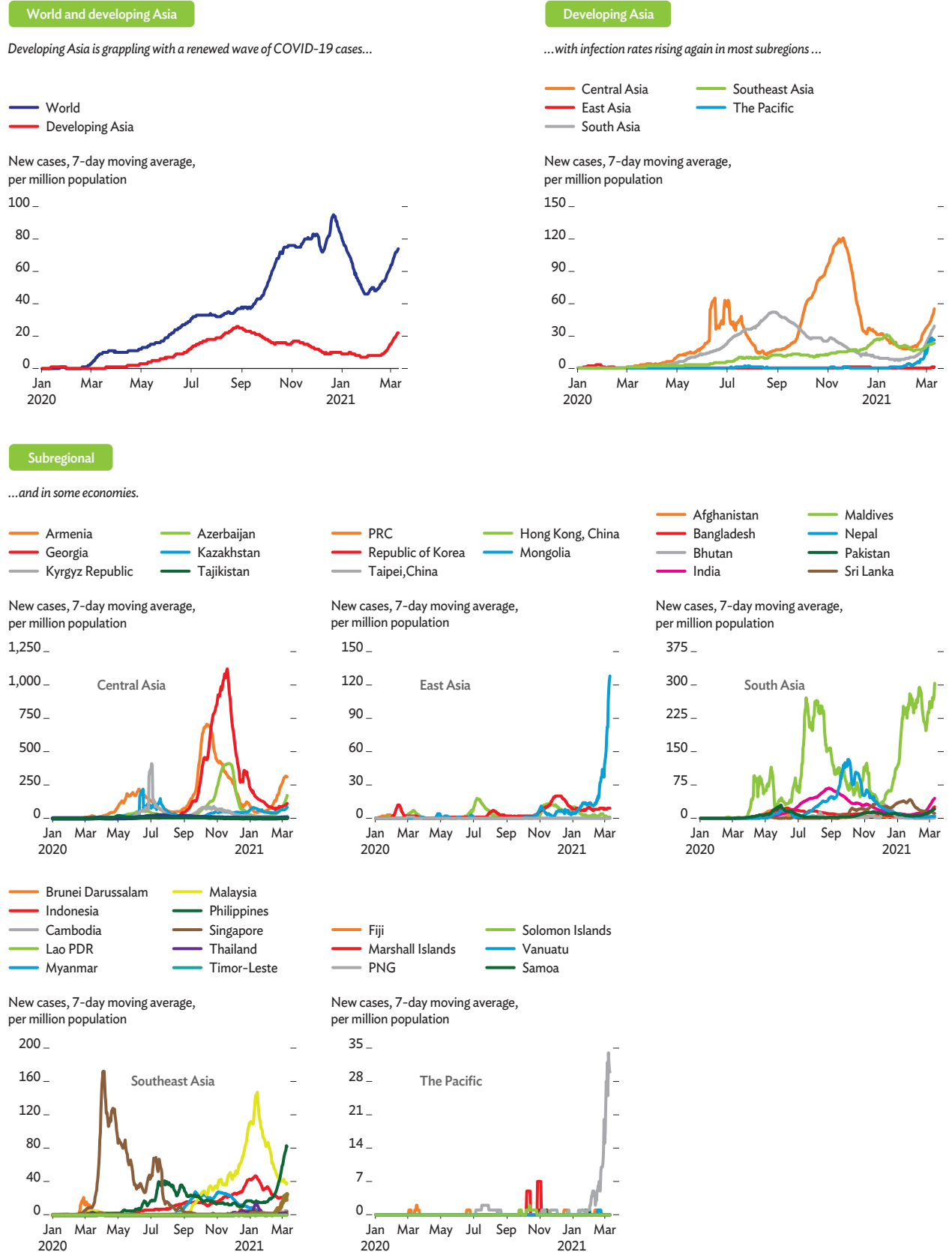
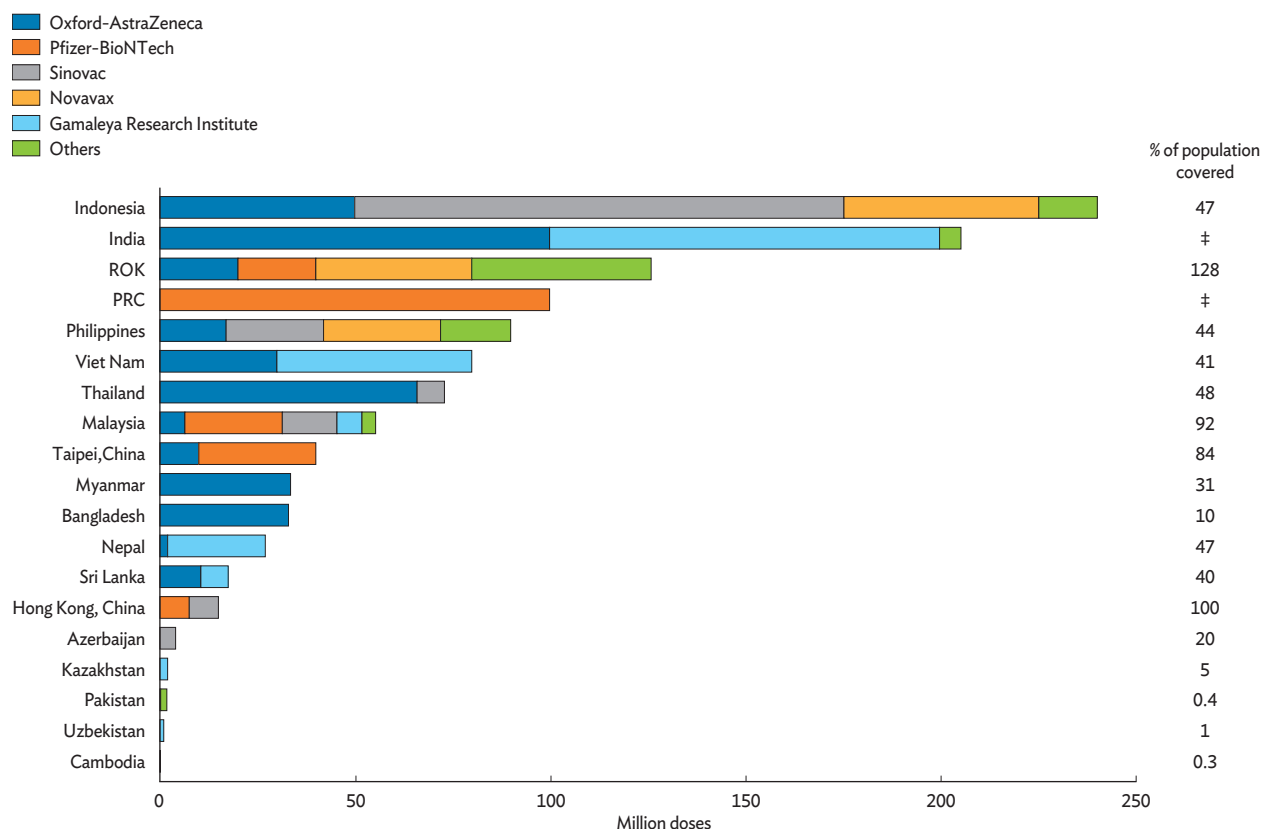


Figure 1.1.2 Confirmed international COVID-19 vaccine purchases

Vaccine procurement varied considerably across developing Asia's economies.



COVID-19 = Coronavirus Disease 2019, PRC = People's Republic of China, ROK = Republic of Korea.

Notes: Confirmed doses are signed and finalized deals. Data as of 31 March 2021. ‡ denotes the data do not include local production of vaccines for domestic use, which is substantial in India and the PRC.

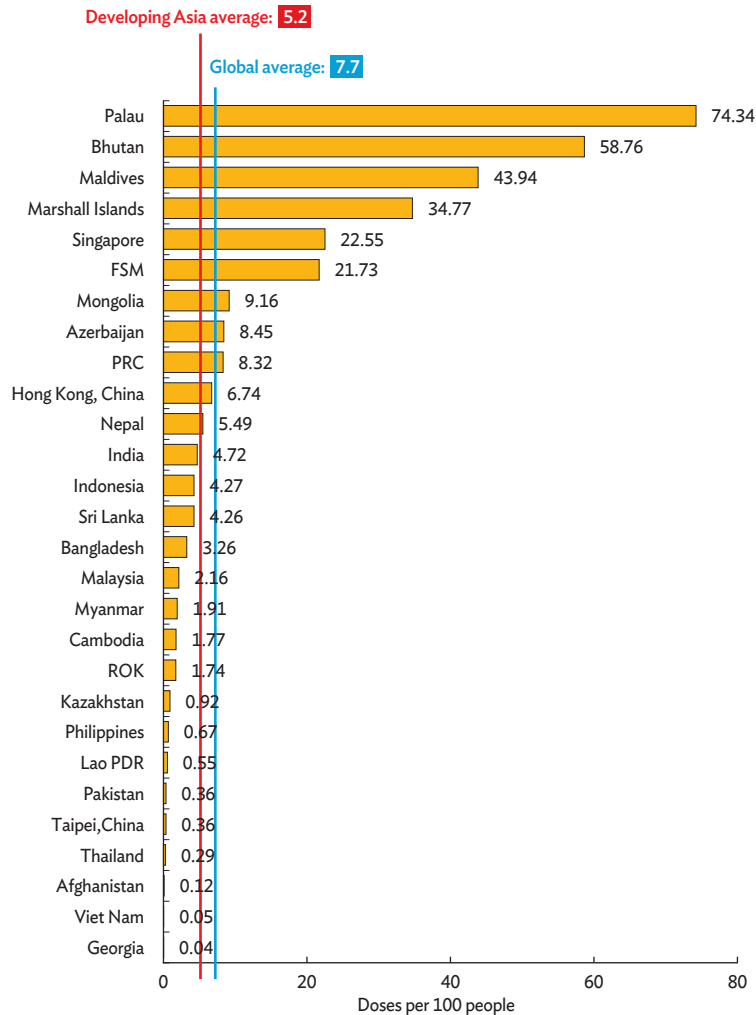
Source: Duke Global Health Innovation Center. Launch & Scale Speedometer. <https://launchandscalefaster.org/covid-19/vaccineprocurement> (accessed 2 April 2021).

Developing economies are likely to continue facing difficulties in speeding up vaccination due to vaccine supply issues and a lack of health-care facilities and workers. By the end of March, developing Asia had administered about 214 million doses, or an average of 5.2 doses per 100 people, led by the People's Republic of China (PRC), India, Indonesia, and Bangladesh (Figure 1.1.3). Data on the number of fully vaccinated adults in the region are sparse and available for only 15 ADB developing member economies. Out of these, the share of populations fully vaccinated exceeds 5.0% only in Palau (29.2%), the Marshall Islands (13.5%), the Federated States of Micronesia (8.4%), and Singapore (6.6%).

Supply-side vaccine constraints are currently binding. COVID-19 vaccination rollouts in the region face several major challenges in addition to the limited supply of vaccines. These include transport, storage, and logistics, which are particularly important for vaccines that need to be stored in ultralow temperature freezers, the capacity of health facilities, the availability of medical personnel, and safety monitoring.

Figure 1.1.3 COVID-19 vaccination doses administered per 100 people

Vaccination progress is uneven and in its early stages in most of developing Asia's larger economies.



COVID-19 = Coronavirus Disease 2019, FSM = Federated States of Micronesia, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, ROK = Republic of Korea.

Notes: The developing Asia average is weighted by 2020 population. Data as of 31 March 2021.

Sources: Bloomberg. Covid-19 Vaccine Tracker. <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/> (accessed 1 April 2021); CEIC Data Company (accessed 5 April 2021).

In the G3 economies, where vaccine rollouts are largely underway, signs of a strong recovery are already emerging. As the COVID-19 curve flattened, and containment measures were relaxed and mobility resumed, economic activity in the G3 rebounded strongly in the third quarter of 2020. But following a surge in COVID-19 infections and renewed mobility restrictions, year-on-year gross domestic product (GDP) growth dipped again in the euro area in the fourth quarter, while the pace of recovery slowed in the US (Figure 1.1.4). Even so, the purchasing managers' index (PMI) shows global manufacturing activity steadily increasing through the second half of 2020 and into the first quarter of 2021, with global PMI readings firmly expansionary (Figure 1.1.5).

Progress on vaccine rollouts supported this positive momentum.

Developing Asia's economy shrank by 0.2% in 2020 in line with the global recession caused by the COVID-19 pandemic. The contraction—the first in 6 decades—cut regional growth by 5.4 percentage points relative to the prepandemic forecast in the December *Asian Development Outlook 2019 Supplement*. The impact was widespread, with 32 of 46 ADB developing member economies recording negative growth. Those that succeeded in quickly containing domestic outbreaks fared better. Other factors—such as the availability of a strong information and communication technology (ICT) infrastructure allowing a significant share of workers to work from home (Box 1.1.1)—also proved important in increasing resilience.

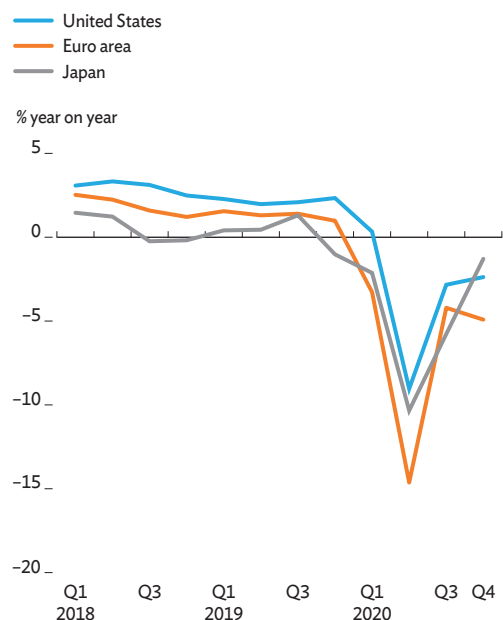
Unequal growth patterns emerged within developing Asia. By subregion, South Asia posted the largest contraction on the back of an 8.0% fall in India's GDP. Southeast Asia also shrank substantially, led by contractions of 9.6% in the Philippines and 6.1% in Thailand. Economic activity declined in Central Asia as commodity prices and remittances fell, and plunging tourist arrivals drove the Pacific into recession. East Asia bucked the trend with positive growth in 2020, boosted by the fast rebound and 2.3% expansion in the PRC (Figure 1.1.6).

Gains in consumption, investment, and net exports supported developing Asia's recovery in late 2020, but to varying degrees. As COVID-19 outbreaks were controlled and restrictions eased, the fourth quarter saw year-on-year growth rates improve in eight of the region's 10 largest economies, with particularly large gains in India and the PRC (Figure 1.1.7). The contribution of consumption to overall growth improved in the fourth quarter in seven of the 10 economies, and the contribution of investment also strengthened in seven. Net exports provided a bigger boost to growth in the fourth quarter than in the first three quarters for seven of the 10 economies, with Thailand being a notable exception.

On the supply side, across-the-board improvements in industry contrasted with the muted recovery of services. Industry's contribution to year-on-year GDP growth rose in the fourth quarter in the region's 11 largest economies (Figure 1.1.8). The contribution of services to growth also improved in most economies, but the sector continued to be a drag on growth as COVID-19 containment measures hobbled contact-intensive, transportation, and hospitality services. The relative success of controlling COVID-19 in the PRC; Taipei, China; and Viet Nam allowed services to contribute positively to growth in the fourth quarter of 2020 in these economies.

Figure 1.1.4 GDP growth in the major industrial economies

Recovery took hold in the G3, but was slowed by new COVID-19 outbreaks in late 2020.

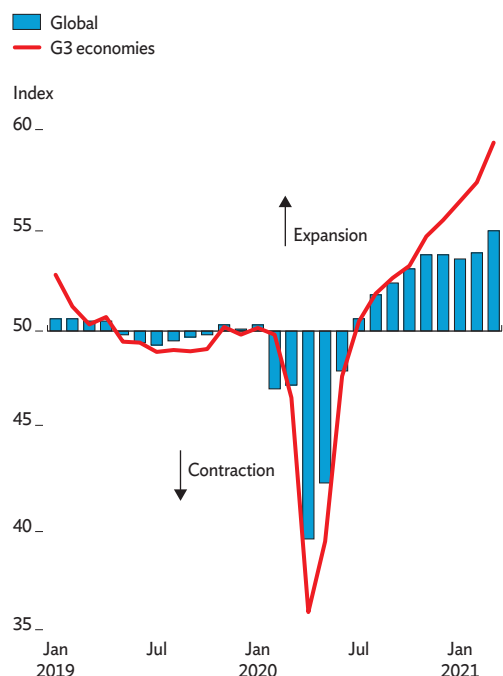


COVID-19 = Coronavirus Disease 2019, GDP = gross domestic product, Q = quarter.

Source: Haver Analytics (accessed 31 March 2021).

Figure 1.1.5 Manufacturing purchasing managers' index

Progress on vaccination supported manufacturing growth in early 2021.



Notes: Data are seasonally adjusted. Manufacturing purchasing managers' index for G3 economies weighted by gross national income, Atlas method.

Source: CEIC Data Company (accessed 2 April 2021).

Box 1.1.1 ICT and economic resilience during COVID-19: Cross-country analysis

Because internet access is a prerequisite for all online economic activity, economies with better internet access can shift more of their offline activities online to cushion the adverse effect of the COVID-19 pandemic on economic activity.

While information and communication technology (ICT) has been around for some time, COVID-19 has intensified its use. Working from home has become more pervasive during the pandemic even though this has been possible since the advent of the internet. Indeed, ICT has been playing a vital role in keeping economies afloat since the outbreak of COVID-19. Office workers are working at home rather than commuting to the physical office. Consumers are shopping online rather than going to the shops. Businesspeople are using Zoom and other video conferencing services rather than taking business trips and holding face-to-face meetings. Other examples of extensive digitalization include distance education, remote health care, and movie streaming apps. Another clear sign of the shift of economic activity from offline to online is the rapid growth in digital products and services since the outbreak of COVID-19.

The most immediate economic benefit of ICT is a sharp reduction in the cost of information and communication. An almost limitless amount of information is available to anyone with internet access. The increasing digitalization of economies in 2020 suggests that another important benefit of ICT is economic resilience, which is especially valuable during pandemics.

The COVID-19 crisis has shown that the shift from offline economic activity to online can mitigate the negative economic impact of lockdowns, social distancing restrictions, and other containment measures. The beneficial impact of ICT on economic resilience suggests that economies that have strong ICT infrastructure should have fared better during the COVID-19 pandemic than economies with weak ICT infrastructure.

To test this, a cross-country empirical analysis of 117 economies—86 emerging markets and 31 advanced economies—was conducted using a linear estimation. Two measures of the impact of COVID-19 on gross domestic product (GDP) growth were constructed—the latest projected 2020 GDP growth rate minus the actual 2019 GDP growth rate and the latest projected 2020 GDP growth rate minus the prepandemic projected 2020 GDP growth rate. These growth deceleration measures are the dependent variables. The independent variable of interest is internet access per capita, used as a proxy for ICT infrastructure. The analysis controls for several other variables that influence the economic impact of the pandemic, most notably the prevalence of COVID-19, the stringency of containment measures, and mobility reduction due to these measures. Several other controls are also included; among them, trade openness, economic structure, and average GDP growth since 2000. The main results pertaining to internet access and the three control variables related to COVID-19 are shown in the box table.

Internet access and GDP growth deceleration during COVID-19

Independent variables	Dependent variables	
	Actual 2019 growth – 2020 growth forecast (20 Oct)	2020 growth forecast (19 Oct) – 2020 growth forecast (20 Oct)
COVID-19 prevalence, total cumulative COVID-19 infections/population	314.3*** (85.09)	328.0*** (90.03)
Interaction of internet access and COVID-19 prevalence	-3.541*** (0.955)	-3.898*** (1.021)
Numbers of observations	117	
R ²	0.251	0.291

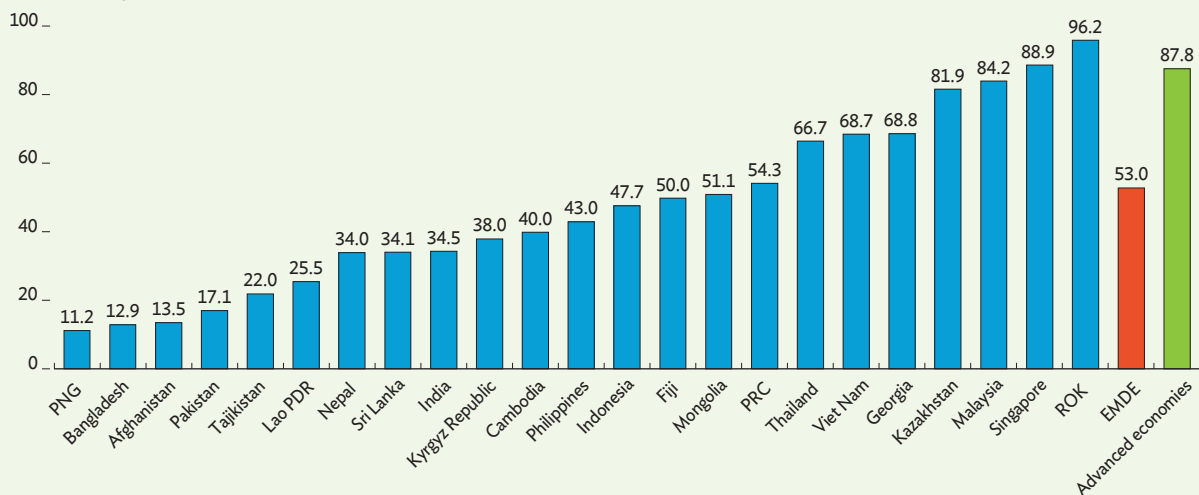
* p<.05, ** p<.01, *** p<.001, COVID-19 = Coronavirus Disease 2019, GDP = gross domestic product.

Notes: Robust standard errors in parentheses. COVID-19 prevalence is the total cumulative COVID-19 infections/population. The estimation also controls for mobility reduction (decline in the movement of people due to lockdowns, stay-at-home orders, and other social restrictions to contain COVID-19); the stringency index (Oxford measure of stringency of COVID-19 containment measures); and internet access (the share of the population using the internet). Their coefficients are statistically insignificant and not reported. Economic significance: based on the estimates in the table and the mean COVID-19 infections per population, an improvement in internet access per population from the level of emerging and developing economies (52.96%) to the level of advanced economies (87.83%) should help cut by half the former's growth reduction due to COVID-19. The basis of that statement is as follows: the average of estimates of COVID-19 in the table is 321.15 [314.3, 328.0]. The mean COVID-19 infection is 0.02% for the whole sample. The product is 321.15 x 0.02 = 6.423%; this is the estimated growth reduction due to COVID-19. The average of estimates of internet access * COVID-19 is -3.7195 [-3.541, -3.898]. The difference in internet access between advanced economies (87.83%) and developing economies (52.96%) is 34.87%. The product evaluated at the mean COVID-19 infection is -3.7195 x 34.87 x 0.02 = -2.59. Therefore, improved internet access should help cut by half (|-2.59|/6.42) the growth reduction due to COVID-19 in developing economies.

Source: Authors.

Box 1.1.1 Continued**Share of population with internet access in developing Asia**

Individuals using internet, % of population



EMDE = emerging and developing economies, Lao PDR = Lao People's Democratic Republic, PNG = Papua New Guinea, PRC = People's Republic of China, ROK = Republic of Korea.

Note: Country groupings follow the International Monetary Fund's country groupings.

Source: World Bank data. <https://data.worldbank.org/indicator/IT.NET.USER.ZS> (accessed 26 February 2021).

Internet access, the key variable of interest, which is proxied by the share of the population that uses the internet, is not statistically associated with slower GDP growth during the COVID-19 pandemic. However, the interaction term between internet access and COVID-19 prevalence reduces the deceleration of GDP growth, and the effect is statistically significant. For any given level of COVID-19 prevalence, greater internet access will reduce the economic damage from COVID-19. The results indicate that COVID-19 prevalence increases economic damage, but the stringency of containment measures and mobility reduction, and their interactions with internet access, are statistically insignificant.

Overall, the results are broadly in line with expectations and, most significantly, lend some support to the notion that countries with better ICT infrastructure have been more successful in cushioning the economic shock of the COVID-19 pandemic by shifting more economic activity online. The coefficient estimates in the table and the sample average COVID-19 infection rate imply that an improvement in internet access per population from the emerging-market average (52.96%) to the advanced-economy average (87.83%) helps cut the former's growth deceleration by half.

The box figure shows the share of populations with internet access in developing Asia (Japan and the United States are included for comparison purposes).

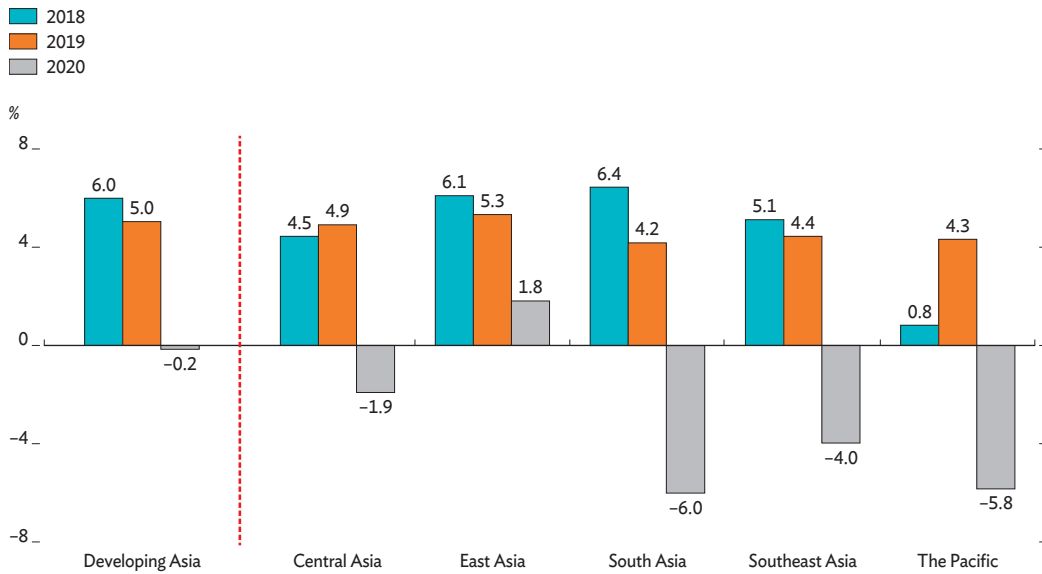
The natural policy implication of the empirical evidence is that investments in ICT infrastructure foster economic resilience during pandemics. The huge economic cost of COVID-19 highlights the vast potential benefits of these investments.

Developing Asian economies vary widely in their ICT infrastructure, proxied by per capita internet access in the box figure. The governments of economies with underdeveloped ICT infrastructure should invest more in this infrastructure to create a conducive environment for private investment. Even well-connected economies should continuously invest in upgrading the quality—the speed and reliability—of their ICT infrastructure. Otherwise, they risk being left behind amid fast-changing global ICT developments, evident in the ongoing 5G revolution.

This box was written by Yothin Jinjarak, Donghyun Park, and Shu Tian of the Economic Research and Regional Cooperation Department, ADB, Manila, and Jungsuk Kim, consultant, Economic Research and Regional Cooperation Department, ADB, Manila.

Figure 1.1.6 Growth by subregion in developing Asia

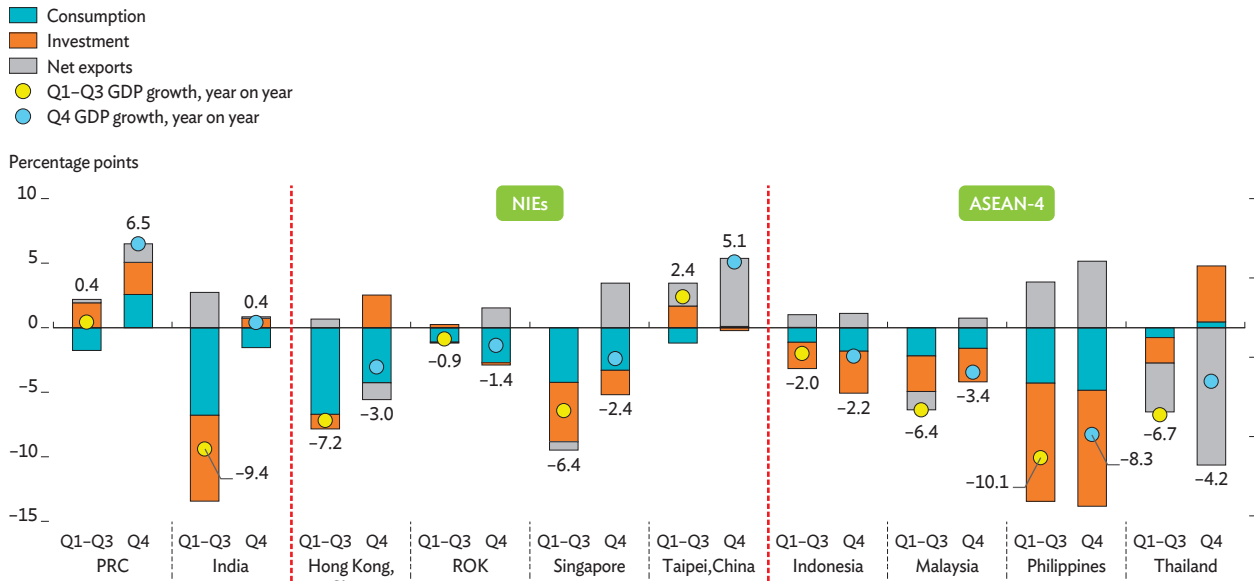
Growth contractions showed unequal patterns across subregions.



Source: Asian Development Outlook database.

Figure 1.1.7 Demand-side contributions to growth, 2020

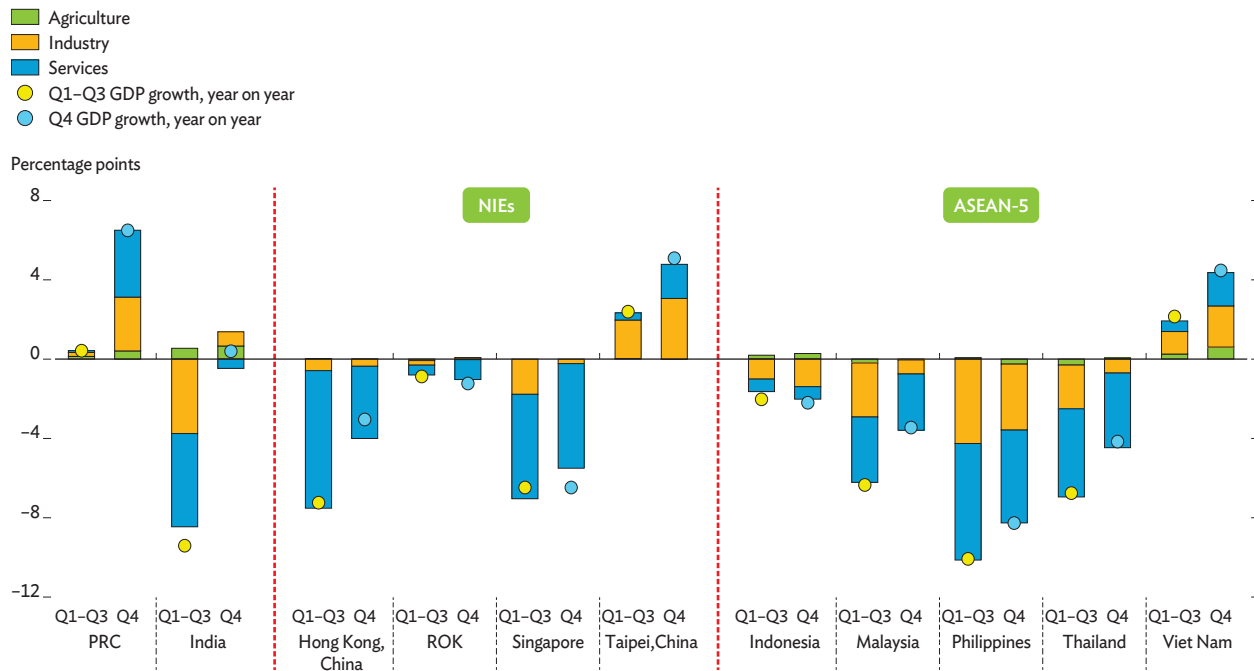
Growth improved in most large regional economies in Q4, but to varying degrees, supported by improving domestic and external conditions.



ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, NIEs = newly industrialized economies, PRC = People's Republic of China, ROK = Republic of Korea, Q = quarter.

Notes: Data refers to calendar-year quarters. Components may not sum to GDP growth because statistical discrepancy was excluded.

Source: CEIC Data Company (accessed 8 April 2021).

Figure 1.1.8 Supply-side contributions to growth, 2020*Industry's improvement contrasted with muted gains in services.*

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, NIEs = newly industrialized economies, PRC = People's Republic of China, Q = quarter, ROK = Republic of Korea.

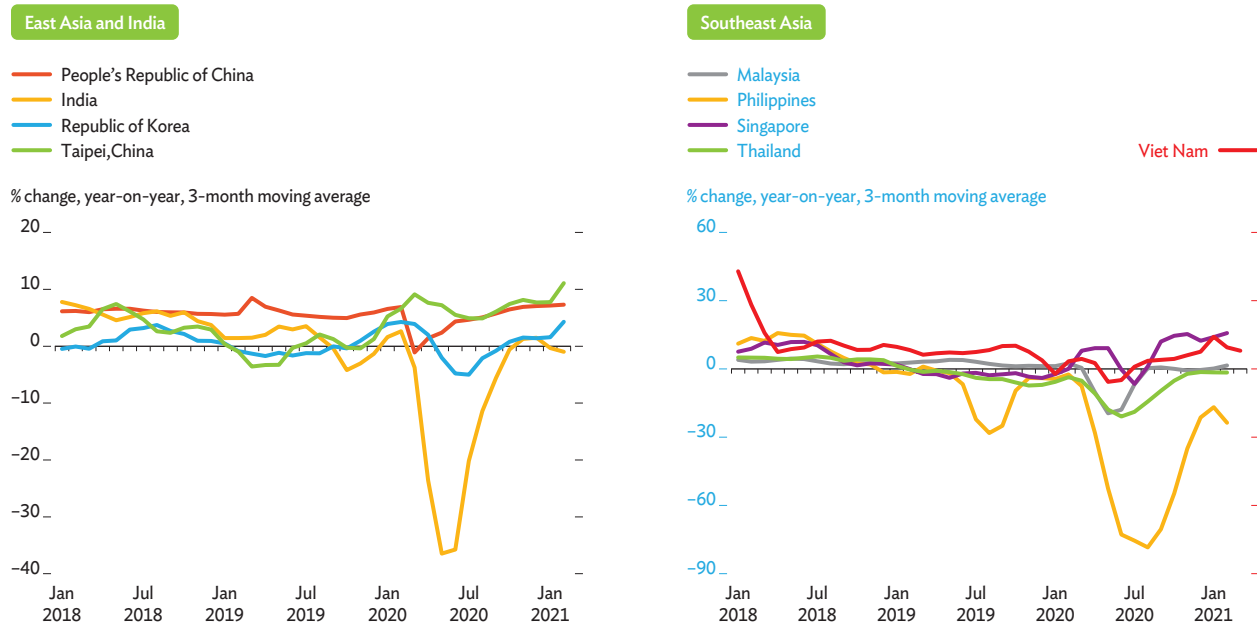
Notes: Data refers to calendar year quarters. Components may not sum to GDP growth because taxes on products less subsidies were excluded.

Source: CEIC Data Company (accessed 8 April 2021).

The positive growth momentum into early 2021 is visible in industrial production and business activity indicators. The second half of last year saw a healthy recovery in manufacturing activity, particularly in the PRC; the Republic of Korea; Singapore; Taipei, China; and Viet Nam, led by rebounding electronics production (Figure 1.1.9). Leading indicators suggest the upturn in manufacturing continued in early 2021. The March 2021 PMI shows a broad-based recovery in manufacturing since the fourth quarter of 2020, with most economies in developing Asia remaining above the 50-threshold that separates expansion from contraction (Figure 1.1.10). In particular, strong demand for electronics continued to support growth in the Republic of Korea and Taipei, China. Manufacturing activity increased faster in Indonesia and Viet Nam. Because of COVID-19's resurgence and containment restrictions, the recovery moderated in India, the Philippines, and the PRC, and Thailand's manufacturing activity continues to contract due to weak demand.

Figure 1.1.9 Industrial production

Healthy recovery in industrial activity continued into early 2021.



Source: CEIC Data Company (accessed 2 April 2021).

Figure 1.1.10 Markit purchasing managers' index in selected economies

Manufacturing activity continued to improve in early 2021.

Manufacturing purchasing managers' index, seasonally adjusted

Economy	2020												2021		
	Q1			Q2			Q3			Q4			Q1		
PRC	51.1	40.3	50.1	49.4	50.7	51.2	52.8	53.1	53.0	53.6	54.9	53.0	51.5	50.9	50.6
India	55.3	54.5	51.8	27.4	30.8	47.2	46.0	52.0	56.8	58.9	56.3	56.4	57.7	57.5	55.4
Indonesia	49.3	51.9	45.3	27.5	28.6	39.1	46.9	50.8	47.2	47.8	50.6	51.3	52.2	50.9	53.2
Malaysia ^a	51.8	51.5	51.4	34.3	48.6	54.0	53.0	52.3	52.0	51.5	51.4	52.1	51.9	50.7	52.9
Philippines	52.1	52.3	39.7	31.6	40.1	49.7	48.4	47.3	50.1	48.5	49.9	49.2	52.5	52.5	52.2
Republic of Korea	49.8	48.7	44.2	41.6	41.3	43.4	46.9	48.5	49.8	51.2	52.9	52.9	53.2	55.3	55.3
Taipei, China	51.8	49.9	50.4	42.2	41.9	46.2	50.6	52.2	55.2	55.1	56.9	59.4	60.2	60.4	60.8
Thailand	49.9	49.5	46.7	36.8	41.6	43.5	45.9	49.7	49.9	50.8	50.4	50.8	49.0	47.2	48.8
Viet Nam	50.6	49.0	41.9	32.7	42.7	51.1	47.6	45.7	52.2	51.8	49.9	51.7	51.3	51.6	53.6

Services purchasing managers' index, seasonally adjusted

PRC	51.8	26.5	43.0	44.4	55.0	58.4	54.1	54.0	54.8	56.8	57.8	56.3	52.0	51.5	54.3
India	55.5	57.5	49.3	5.4	12.6	33.7	34.2	41.8	49.8	54.1	53.7	52.3	52.8	55.3	54.6

PRC = People's Republic of China, Q = quarter.

^a For Malaysia, the series is adjusted by adding 3 points, as historical experience suggests that a value above 47 is consistent with expansion.

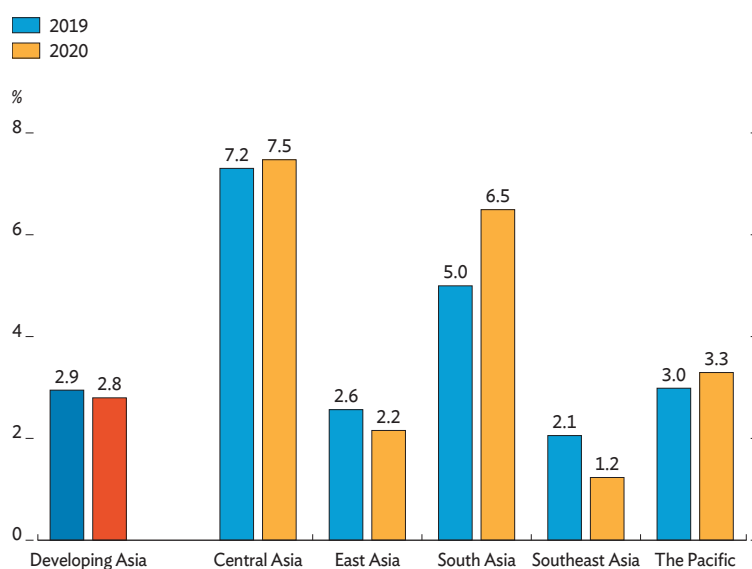
Source: CEIC Data Company (accessed 8 April 2021).

Headline inflation in developing Asia inched down from 2.9% in 2019 to 2.8% in 2020. Growing economic slack and falling international oil and commodity prices put downward pressure on prices in the first half of 2020, but this was offset by high food price inflation, particularly in the PRC and South Asia. This led to only a marginal decline in headline inflation. The inflation rate in Southeast Asia almost halved last year, turning negative in Malaysia, Singapore, and Thailand. Inflation fell by about one-fifth in East Asia, but rose by one-tenth in the Pacific. Central Asia's inflation rate of 7.5% in 2020 remained the highest of all the subregions, although it was well below the average of the previous 5 years. South Asia's inflation rate rose as prices accelerated in all countries except Maldives. India, Nepal, and Pakistan saw the sharpest inflation increases in the subregion, because of pandemic-related supply-chain disruptions and lower harvests due to pest infestation and floods (Figure 1.1.11).

Global oil and food prices rebounded in the second half of 2020 as the world economy recovered. The World Bank food price index started rising in the second half of 2020, and by the first quarter of 2021 had reached levels not seen since 2014 (Figure 1.1.12). Although still below peaks in 2008 and 2012, the index in March 2021 was 29.5% higher than in the same month last year, boosted by sustained increases in the prices of edible oils, meals, and grains. The World Bank's energy index, which considers primarily crude oil, was back to its prepandemic level in February 2021. Despite rising global food and energy prices, inflation remained subdued in developing Asia in the first 2 months of 2021 (Figure 1.1.13).

Figure 1.1.11 Inflation in developing Asia

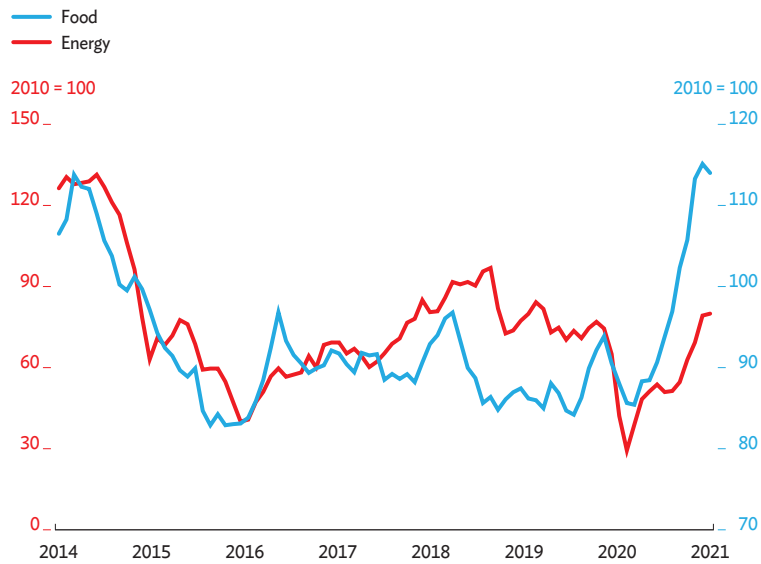
Headline inflation inched lower in 2020.



Source: Asian Development Outlook database.

Figure 1.1.12 Global food and energy price indexes

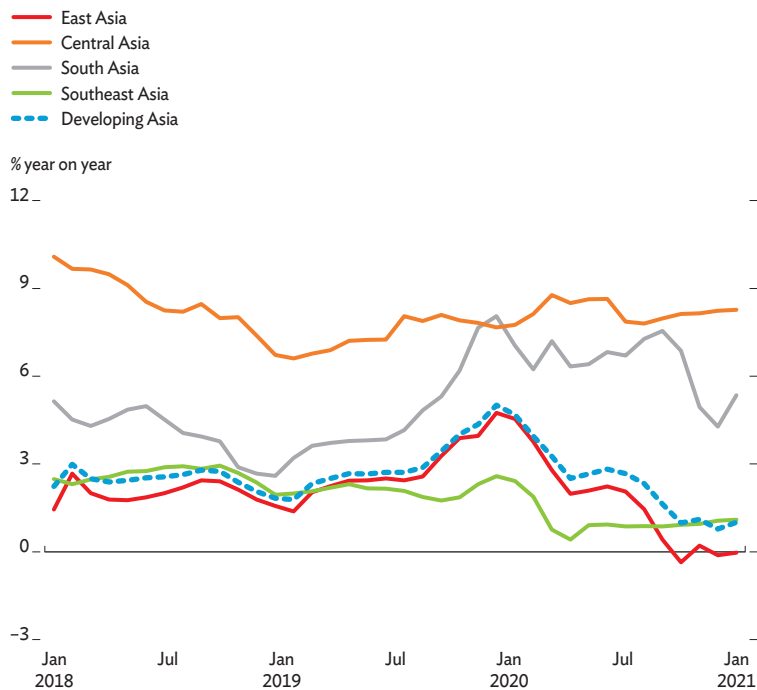
After dipping in early 2020, food and energy prices have risen sharply.



Source: World Bank. Commodity Markets, Pink Sheet data. <https://www.worldbank.org/en/research/commodity-markets> (accessed 3 April 2021).

Figure 1.1.13 Headline inflation in developing Asia

Lower in 2020, but with substantial variation across subregions.



Note: The Pacific is excluded because data are not available.

Source: CEIC Data Company (accessed 3 April 2021).

Trade bounced back strongly from the pandemic-induced dive

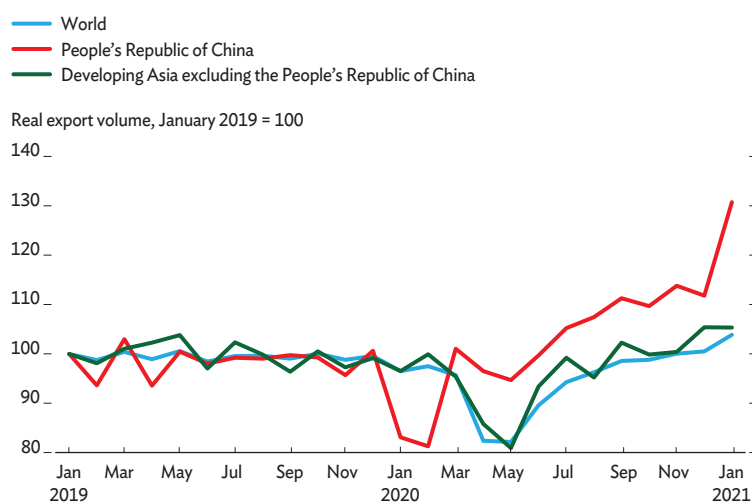
The steep fall in global trade in early 2020 was partly offset by a strong recovery in the second half of the year. Global merchandise exports declined by 5.2% in 2020 (Figure 1.1.14). As is often the case during crises, trade initially fell sharply (–17.5% at the trough in May 2020 relative to December 2019). The recovery, however, was quicker and stronger than expected (22.4% in December 2020 relative to May), with global trade volume in January 2021 exceeding December 2019 by 4.3%. The strong rebound even resulted in a bottleneck in shipping, with freight rates at historical highs in February.

Developing Asia's exports were more resilient than global trade, mostly due to the PRC. The bounce-back in exports resulted in a modest 0.5% decline in the region's exports in 2020. The PRC largely drove the rebound, with exports rising by 2.8% in 2020, and they continued to increase in January 2021. The recovery in exports was less pronounced for other economies in the region, but it was still stronger than the global performance, with exports falling by 3.6% in 2020.

Surging demand for goods related to the COVID-19 pandemic and electronics drove the rebound in developing Asia's exports. Demand for protective equipment and medical supplies soared last year—and for some of these products, the increase was spectacular: 541% for face masks and 227% for diagnostic tests and laboratory reagents (Figure 1.1.15).

Figure 1.1.14 Real exports

Exports recovered faster than expected.

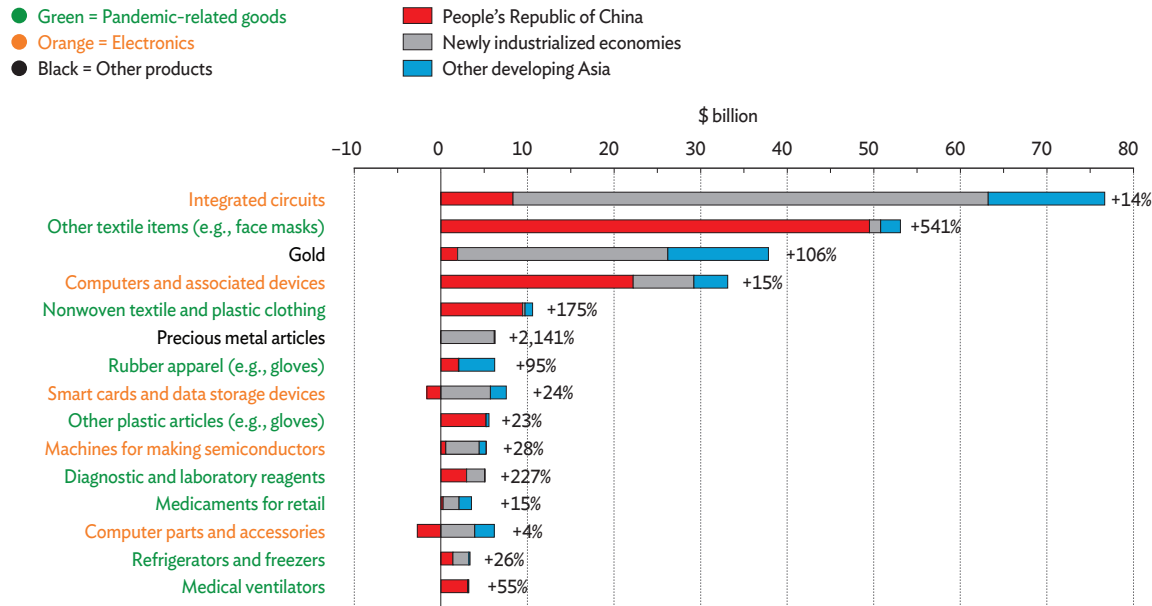


Note: Developing Asia excluding the People's Republic of China comprises Hong Kong, China; India; Indonesia; the Republic of Korea; Malaysia; Pakistan; the Philippines; Singapore; Taipei, China; Thailand; and Viet Nam.

Source: CPB Netherlands Bureau for Economic Policy Analysis. World Trade Monitor database. <https://www.cpb.nl/en/worldtradedmonitor> (accessed 31 March 2021).

Figure 1.1.15 Top 15 products by export increase from developing Asia, 2020

Trade rebounded on COVID-19 pandemic-related products and electronics.



COVID-19 = Coronavirus Disease 2019.

Notes: Newly industrialized economies are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Products are defined using the Harmonized Commodity Description and Coding System at the 4-digit level. Percentage labels report export growth in 2020.

Export growth is calculated using data for a sample of 12 economies: Armenia; Azerbaijan; Hong Kong, China; India; Kazakhstan; Malaysia; Pakistan; the Philippines; the People's Republic of China; the Republic of Korea; Singapore; and Uzbekistan.

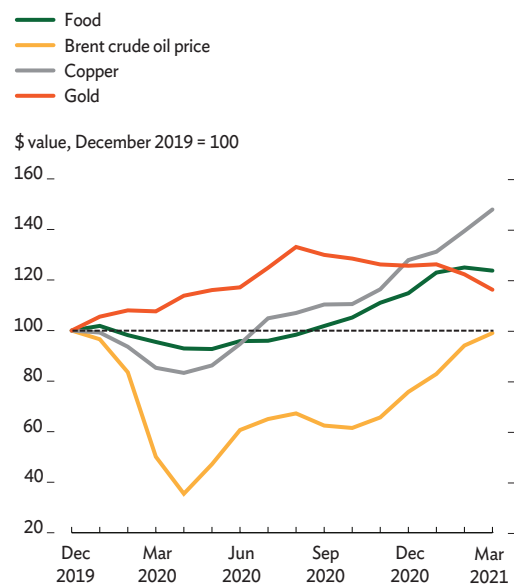
Sources: United Nations Comtrade Database. <https://comtrade.un.org/>; International Trade Centre. Trade Map. <https://www.trademap.org/>; Observatory of Economic Complexity. <https://oec.world/> (all accessed 15 April 2021).

The PRC was able to supply the vast majority of developing Asia's additional exports of pandemic-related goods due to rapid adjustments in its manufacturing capacity. COVID-19 containment measures boosted demand for electronic devices for work and leisure in the home. The PRC supplied the largest share of additional exports of final products, such as computers, while the Republic of Korea, Singapore, and Taipei, China supplied most inputs, such as integrated circuits, data storage units, and semiconductors.

Metal-exporting economies benefited from favorable prices, but oil and gas exporters suffered from low energy prices. Precious and base metal prices increased in 2020, with copper up 28% and gold up 26% (Figure 1.1.16). In developing Asia, the big beneficiaries of this were Armenia, the Lao People's Democratic Republic, and Thailand. Demand for precious metals increased as investors hedged against market uncertainty, but prices have slipped since their peak in August 2020 as demand for safe assets abated. The rebound in manufacturing, with prices still rising in March 2021, drove demand for base metals. Food prices increased 15% in 2020 due

Figure 1.1.16 Commodity prices

Nonenergy commodity exporters benefitted from favorable conditions.



Source: World Bank. Commodity Markets, Pink Sheet data. <https://www.worldbank.org/en/research/commodity-markets> (accessed 3 April 2021).

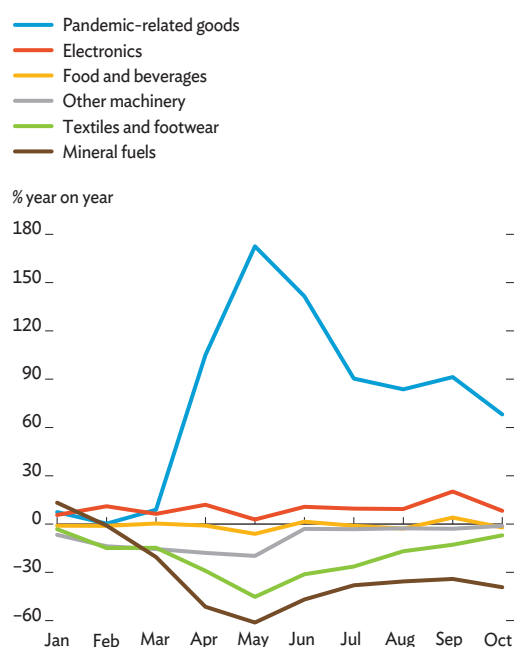
to adverse weather conditions in the Americas, strong demand for forage in the PRC, supply chain disruptions, and precautionary stockpiling. But the recovery in energy prices was not as strong as in other commodities, and this weighed on the exports of the region's commodity exporters, including Azerbaijan, Kazakhstan, and Malaysia. After the Organization of the Petroleum Exporting Countries and its partners (OPEC+) cut oil production by about 10%, oil prices started to rise in April 2020, but only recovered to their prepandemic level in March 2021.

Export declines and recoveries differed across products. Besides pandemic-related goods, electronics, and food and beverages, the exports of most products decreased in the first half of 2020 (Figure 1.1.17). However, the depth of these declines and the pace of recoveries differed across products. In the figure, the decline in the category “other machinery,” which includes vehicles, was moderate and the recovery quick. For textiles and footwear—hit hard by falling global garment sales due to the closure of “nonessential” retail stores during the COVID-19 pandemic—the collapse was deeper, and exports had not recovered to their precrisis levels even in October. Last year's mineral-fuel exports partly recovered from the trough in May, but remained weak.

Product specialization largely determined the performance of exports across subregions. South Asia suffered the deepest export decline in 2020 because of its specialization in textiles and footwear (Figure 1.1.18). This sector alone explains practically the entire collapse in exports in Bangladesh, Nepal, Pakistan, and Sri Lanka, where it accounts for more than half of total exports. Still, the rebound was quick and total exports were back to normal by September. East Asia and Southeast Asia's exports were more resilient. In East Asia, they hit their trough in January 2020 because of the earlier timing of the COVID-19 pandemic in the PRC. By June, East Asia's exports had exceeded their level in the same month in 2019. The decline in exports was moderate in most economies in Southeast Asia, with exports recovering by September, supported by regional demand for intermediate electronic products, such as integrated circuits, computer parts, and data storage devices. Central Asia's exports declined on the fall in oil prices and remained low throughout the second half of 2020.

Figure 1.1.17 Export growth in selected sectors, 2020

Developing Asia's exports were boosted by COVID-19 pandemic-related goods and electronics, but dragged down by textiles and mineral fuels.



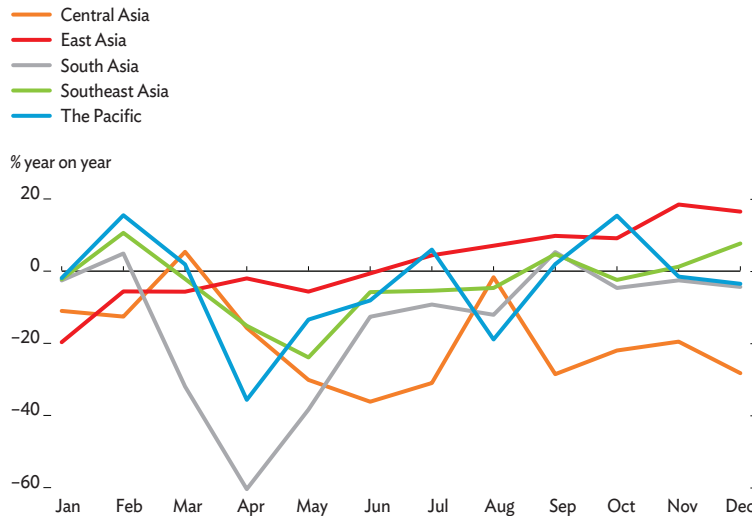
COVID-19 = Coronavirus Disease 2019.

Note: Export growth is calculated using data for a sample of 12 economies: Armenia; Azerbaijan; Hong Kong, China; India; Kazakhstan; Malaysia; Pakistan; the Philippines; the People's Republic of China; the Republic of Korea; Singapore; and Uzbekistan.

Source: United Nations Comtrade Database. <https://comtrade.un.org/>; International Trade Centre. Trade Map. <https://www.trademap.org/>; Observatory of Economic Complexity. <https://oec.world/> (all accessed 15 April 2021).

Figure 1.1.18 Export growth in developing Asia, 2020

Central and South Asia's exports suffered the most; East and Southeast Asia's exports were more resilient.



Note: East Asia excludes Taipei, China and the Pacific excludes the Cook Islands and Niue.

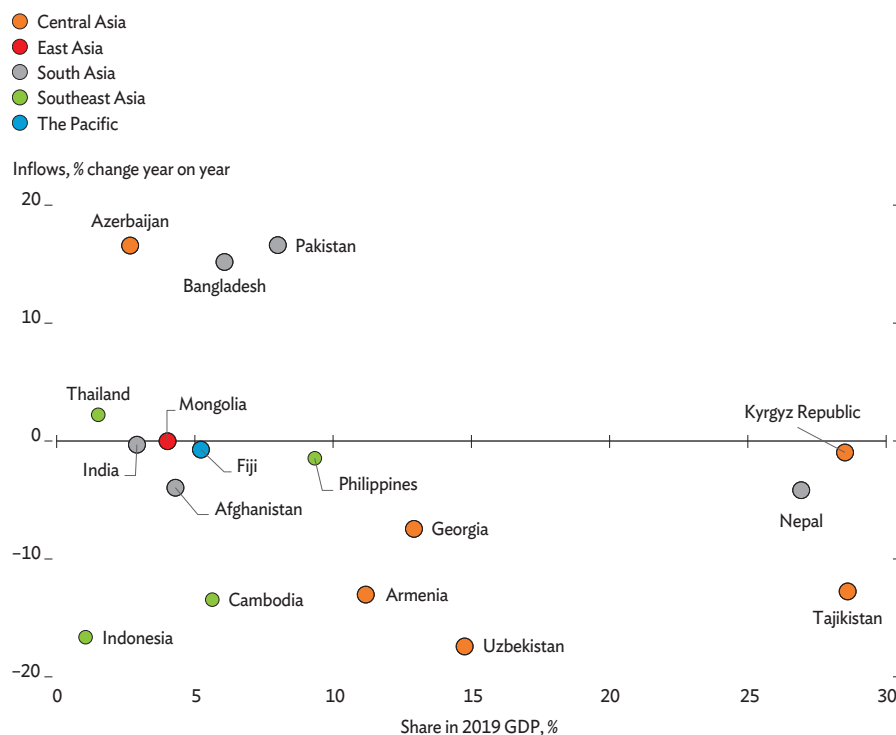
Source: International Monetary Fund, Direction of Trade Statistics. <https://data.imf.org/> (accessed 31 March 2021).

Remittances were more resilient than expected in 2020, despite wide variations across economies. For the 21 ADB developing members for which data are available, remittances increased by 0.7% on average from the first to the third quarter of 2020 year on year. For many economies, remittances only slightly declined, but they increased noticeably in Bangladesh (15.2%) and Pakistan (16.6%)—two of Asia's largest recipients of remittances (Figure 1.1.19). As discussed in Box 1.1.2, this resilience was not anticipated. Even so, remittances fell sharply in some of the economies where these inflows matter the most, notably in Central Asia. Remittances fell by a notable 13% in Tajikistan, where they account for 29% of GDP. This was largely the result of the low levels of social protection for Central Asian migrants in the Russian Federation, their main destination. These remittances were also depressed by the ruble's 16% depreciation against the US dollar and the travel ban that prevented many seasonal workers from returning to the Russian Federation.

Tourism collapsed in all economies, dragging the most tourism-dependent ones into severe recessions. COVID-19 containment measures and travel restrictions hurt most sectors, but tourism was the most affected. Between January and April 2020, international tourist arrivals plummeted in a synchronized manner to almost zero across most of Asia and the Pacific, and they have yet to recover (Figure 1.1.20).

Figure 1.1.19 Remittances share in GDP and changes in remittance inflows, Q1–Q3 2020

Remittances fell in most developing Asian economies, particularly those where remittances matter the most, but they also increased sharply in some economies.



GDP = gross domestic product, Q = quarter.

Notes: The sample is restricted to economies where remittances accounted for at least 1% of GDP in 2019. Remittances are defined as the sum of “compensation for employees” and “personal transfers” in the balance of payments.

Sources: International Monetary Fund. Balance of Payments and International Investment Position Statistics. <https://data.imf.org/>; World Bank. World Development Indicators Database. <https://data.worldbank.org/> (both accessed 31 March 2021).

Box 1.1.2 Remittances in the time of COVID-19: The collapse that did not happen

Remittances held up better than expected, both globally and in Asia. As lockdowns started to take their toll across economies in early 2020, expectations of remittances taking a big hit were widespread. In April, the World Bank projected that they would fall by 20% globally in 2020 (Ratha et al. 2020a). In August, an Asian Development Bank (ADB) study projected a 12% decline in remittances in Asia and the Pacific in 2020 (Kikkawa Takenaka et al. 2020). But as the COVID-19 crisis continued to unfold, it became increasingly clear that remittances were more resilient than expected. By October, the World Bank had revised its forecast to a 7.0% decline in remittances globally and a 7.4% drop in Asia and the Pacific (Ratha et al. 2020b). Available balance-of-payment data show that remittances in fact declined by close to 2.3% globally from the first to the third quarter of 2020, and even recorded a 0.7% increase in developing Asia, as box figure 1 shows.^a

Remittances still declined in most Asian economies as overseas workers faced income losses. Remittances fell by more than 10% in some economies that are heavily reliant on them—such as Armenia, Cambodia, Tajikistan, and Uzbekistan—as COVID-19 pandemic containment measures disproportionately affected migrant workers. Seasonal workers were often unable to travel, while preliminary evidence suggests the income of diaspora migrants declined given their vulnerability in the labor market to linguistic, informational, and institutional barriers, and often to discrimination. Diaspora migrants also tend to have lower-skilled occupations, and work under temporary and short-term contracts, as well as informal arrangements (Amo-Agyei 2020).

Box 1.1.2 Continued**1 Estimated changes in remittances in 2020 and observed changes from Q1 to Q3**

The anticipated collapse of remittances did not happen.



IMF = International Monetary Fund, KNOMAD = Global Knowledge Partnership on Migration and Development, PRC = People's Republic of China, Q = quarter. Note: The sample is restricted to Asian Development Bank developing members for which both KNOMAD and IMF data are available.

Sources: KNOMAD. Remittances Data. <https://www.knomad.org/data/remittances>; International Monetary Fund. Balance of Payments and International Investment Position Statistics. <https://data.imf.org/> (both accessed 31 March 2021).

Migrants are also typically underrepresented in public sector jobs, which have been sheltered the most (Lewis, Liu, and Edwards 2014). In the United States, migrant men became less likely to be employed than native men in April 2020, while the reverse is historically true (Borjas and Cassidy 2020). Similarly, Fasani and Mazza (2020) estimate that 33% of non-European Union (EU) workers in the EU may become unemployed due to the COVID-19 pandemic—much more than the EU's unemployment rate (8.1% in January 2021). The vulnerability of migrant workers was, however, mitigated by their sectoral specialization. Fasani and Mazza (2020) show that migrant workers tend to concentrate in “essential” sectors that were allowed to operate despite containment measures, including agriculture, construction, and household, childcare, and health care services. They find that 42% of non-EU migrant workers are essential—according to the European Commission's classification—compared with 35% of natives.

Migrant workers in advanced economies fared better. Migrants in advanced economies—excluding the Middle East—were somewhat sheltered from income losses as social protection systems are more developed, the fiscal packages in response to the COVID-19 pandemic were larger, and informal employment is less frequent. For example, remittances to the Philippines from advanced economies (excluding the Middle East) increased by 1.0% in 2020, while they decreased by 10.6% from the Middle East.^b Similarly, remittances to Armenia from the US increased by 63%, while they decreased by 22% from the Russian Federation.^c This preliminary evidence is consistent with the resilience of remittances in the Pacific, with many migrants in Australia and New Zealand, and South Asia and Southeast Asia, with many migrants in the US. Conversely, the sharp decline in remittances in Central Asia is consistent with the Russian Federation being the main source of remittances for these countries.

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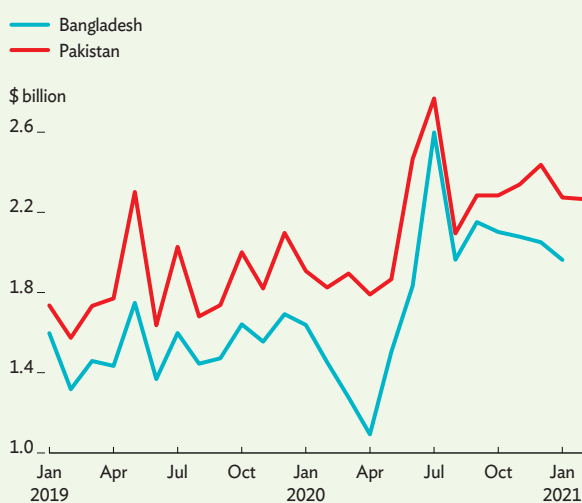
Box 1.1.2 Continued

Several possible common drivers of remittance dynamics across economies have been advanced. Although the evidence is still very preliminary, factors that may have contributed to the resilience of remittances include:

- (i) **The counter-cyclical behavior of migrants.** Some evidence shows that migrants increase their support when economic conditions at home are tough (Chami et al. 2008). But remittances also depend on migrants' income and are, therefore, procyclical with respect to host countries (Frankel 2011). Thus, the net effect is ambiguous, especially during a global crisis, such as the COVID-19 pandemic.
- (ii) **Reallocation from consumption.** Containment measures drastically reduced migrants' consumption opportunities, including nonessential shopping, catering, and travel. Part of this forgone consumption may have been reallocated to increase their support to families at home.
- (iii) **Switch to official channels.** Recorded remittances were artificially boosted due to a statistical artifact induced by travel controls, as they forced overseas workers to remit money through official channels, such as banks and money transfer services, rather than in person, or through personal connections. Thus, the resilience of documented remittances also partly reflects better measurement in 2020.

2 Remittances in Bangladesh and Pakistan

Remittances spiked in July 2020 during hajj.



Sources: Bangladesh Bank. Macroeconomic and Financial Data. https://www.bb.org.bd/econdata/nsdp/nsdp_bb.php; State Bank of Pakistan. Country-wise Workers' Remittances. <https://www.sbp.org.pk/ecodata/Homeremit.pdf> (both accessed 31 March 2021).

Country-specific factors likely played a major role in the increase of over 15% in remittances in 2020 to Azerbaijan, Bangladesh, and Pakistan. The war between Azerbaijan and Armenia from September to November may have stimulated remittances to Azerbaijan, although this seems inconsistent with the 13% decline in remittances to Armenia. For Bangladesh and Pakistan, a “hajj effect” has been hypothesized to explain the sharp increase in remittances in July (Ratha et al. 2020b), as illustrated in box figure 2. Due to travel bans, pilgrims were unable to travel to perform the hajj and might have sent home some of the money saved. For Bangladesh, the increase in remittances might have also been fueled by devastating floods during the monsoon. In the case of Pakistan, remittances were also supported by the doubling of the cash reimbursement of money transfer charges by the government for transfers between \$100 and \$200.

The short-term outlook for remittances remains cloudy even though they exceeded expectations in 2020. New migration flows plummeted last year, while return migrations increased as workers lost their jobs in host countries due to the COVID-19 pandemic. The one-off repatriation of savings by returning migrants supported remittances in 2020, but a smaller stock of migrants will weigh on remittances in 2021 (Ratha et al. 2020b). And in turn, even if transitory, the decline in remittances may affect investment in physical capital and education—thus adding to the long-term scars of the pandemic.

^a Data for the fourth quarter of 2020 are available for eight ADB developing members. For this subset, remittances increased more during the whole year (7.7%) than between the first and the third quarter (6.2%), suggesting that remittances across developing Asia might have increased by more than 0.7% in 2020.

^b Bangko Sentral ng Pilipinas. Cash Remittances, by Country and by Source. <https://www.bsp.gov.ph/SitePages/Statistics/External.aspx?TabId=1> (accessed 31 March 2021).

^c Central Bank of Armenia. Transfers of Individuals Sent to and Received from Abroad Through Commercial Banks of RA. <https://www.cba.am/EN/SitePages/statexternalsector.aspx> (accessed 31 March 2021).

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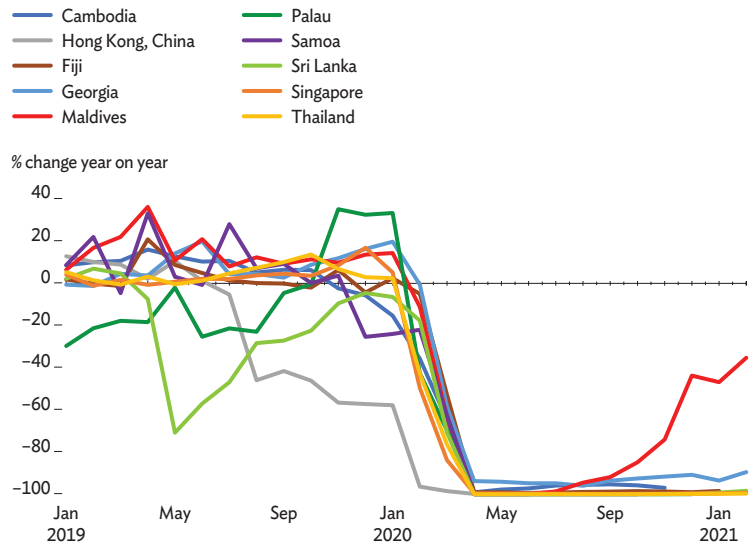
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This box was written by Jules Hugot and Matteo Lanzafame of the Economic Research and Regional Cooperation Department, ADB, Manila.

Figure 1.1.20 Tourist arrivals

Tourist arrivals collapsed from January to April 2020 and have not recovered.



Note: The sample is restricted to economies where tourism accounted for at least 5% of gross domestic product in the latest year with available data during 2017–2019.

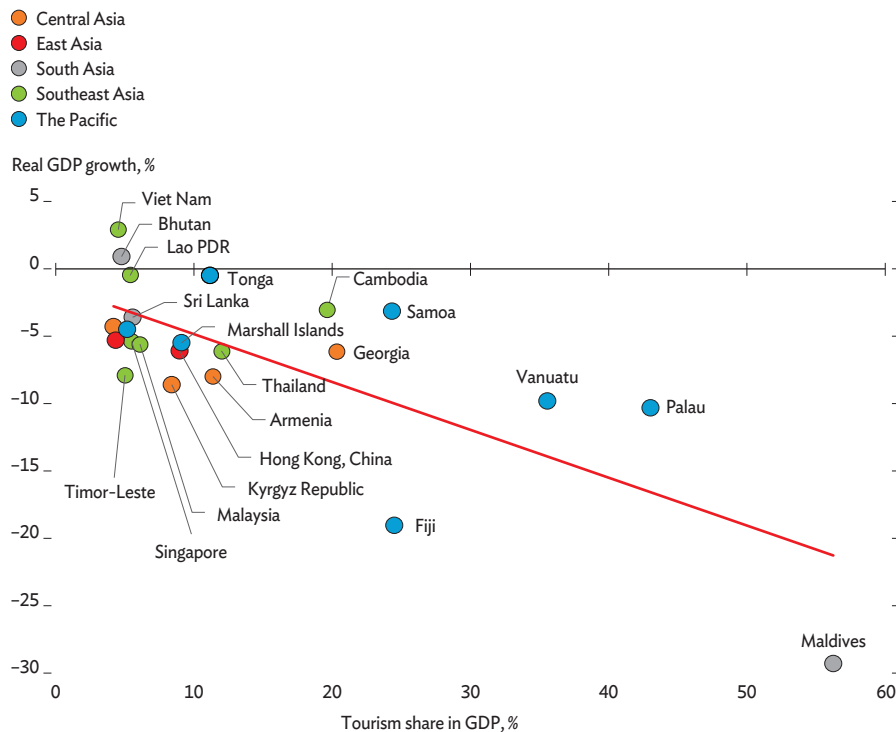
Sources: CEIC Data Company; national sources (all accessed 5 April 2021).

Some economies, including Georgia and Indonesia, remained partly open for tourists, but even there arrivals fell by more than 90%. The Maldives stands out as tourism began to recover in August. Since the reopening of borders in mid-July, tourists have been allowed to enter Maldives without mandatory quarantine and regardless of their country of origin.

The risk-aversion of travelers, loss of income, and COVID-19 containment measures also constrained domestic tourism, which could not compensate for the collapse of international arrivals, even in countries where tourism only accounts for a small share of GDP. A few regional travel bubbles were put in place—for example, those linking Indonesia and Malaysia, Indonesia and Singapore, and the Cook Islands and New Zealand—but they have met with limited success. The virtual halt of international tourism was a key factor behind severe recessions in tourism-dependent economies, including Georgia, Maldives, and several Pacific island economies, where tourism accounts for more than 20% of GDP (Figure 1.1.21).

Figure 1.1.21 Share of tourism in GDP and GDP growth in 2020

Deep recessions in tourism-dependent economies.



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Notes: The share of tourism in GDP is computed using the latest data available during 2017–2019. The sample is restricted to economies where the share of tourism in GDP was at least 4% of GDP.

Sources: Asian Development Outlook database; World Bank. World Development Indicators database. <https://databank.worldbank.org/> (accessed 31 March 2021).

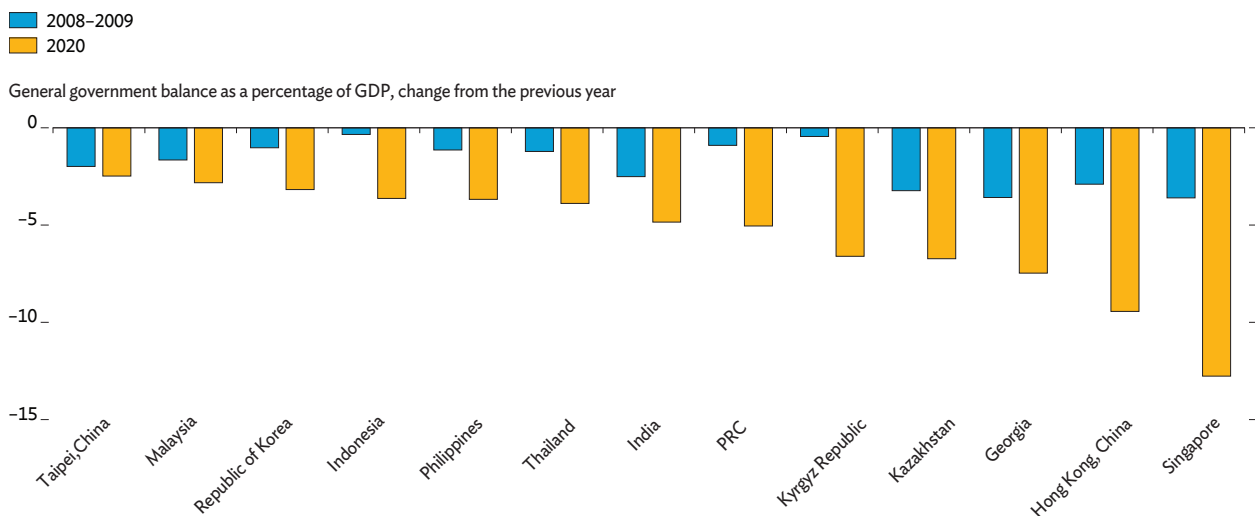
Policy response

Governments across developing Asia responded decisively to the economic shocks caused by the COVID-19 pandemic. Policy makers used a large number of channels to support firms, workers and households—among them, providing liquidity via government loans to the private sector, direct income or revenue support through government transfers, loan cancellations, and tax cuts or forbearances.

In most regional economies, fiscal support has been substantial, both in absolute terms and relative to previous crises. This is evident from changes in the general government balance as a percentage of GDP—a measure of fiscal response that takes account of discretionary fiscal intervention and automatic stabilizers. A rising general government balance is consistent with fiscal consolidation; a fall indicates fiscal expansion. By this measure, the overall fiscal policy response in 2020 was much larger than during the global financial crisis of 2008–2009 in many economies (Figure 1.1.22). The use of structural or cyclically-adjusted government balances—which try to remove the effect of automatic stabilizers—shows a broadly similar picture. One caveat to relying on the general government balance as a measure of fiscal stance is that off-budget fiscal stimulus, such as borrowing by state-owned enterprises to finance investment, is not captured by this measure.

Figure 1.1.22 Fiscal policy responses to the COVID-19 pandemic in selected Asian economies

In many economies, fiscal policy responses in 2020 were larger than during the global financial crisis.



COVID-19 = Coronavirus Disease 2019, GDP = gross domestic product, PRC = People's Republic of China.

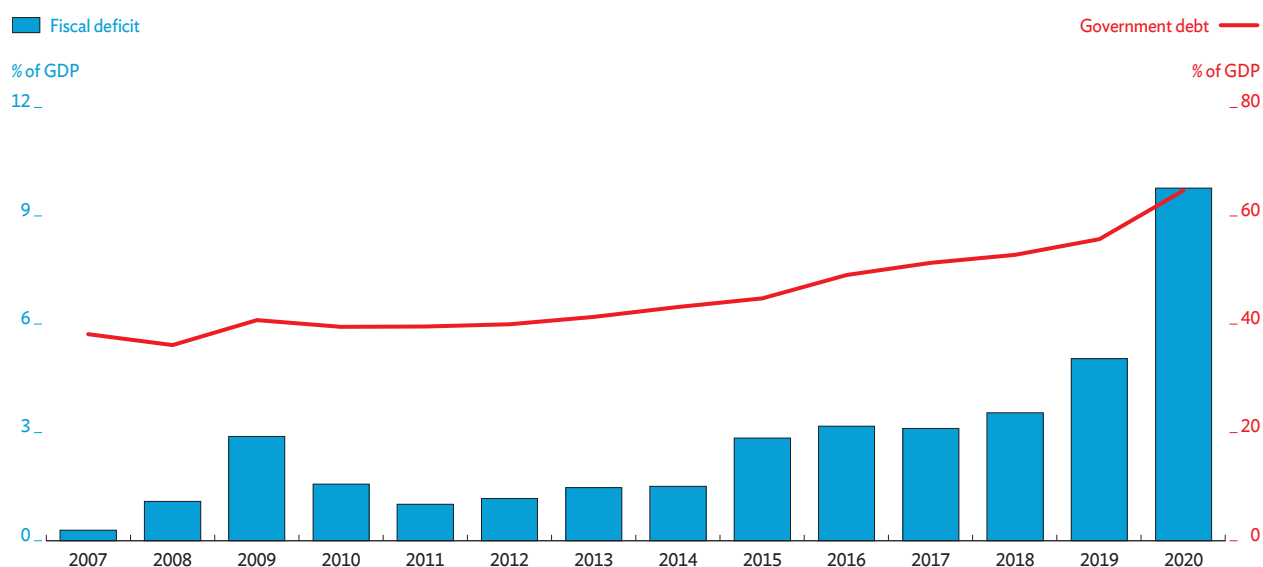
Note: Data for 2008–2009 refer to the average change over the 2 years.

Source: International Monetary Fund. World Economic Outlook Databases. <https://www.imf.org/en/Publications/WEO/weo-database/2021/April> (accessed 6 April 2021).

With government spending rising and tax revenue falling, budget deficits and public debt increased significantly last year (Figure 1.1.23). Available data for 42 economies, accounting for almost 100% of total GDP in developing Asia, indicates that the aggregate fiscal deficit as a share of total GDP widened from 5.0% in 2019 to 9.8% in 2020 for the region as a whole. Similarly, the average ratio of government debt to GDP increased by a sizeable 9.0 percentage points in 2020 to 64.7%. By comparison, the region's average fiscal deficit was 2.9% in 2009 during the global financial crisis, and public debt averaged 40.7%. The fiscal policy response to the COVID-19 crisis—while indispensable for avoiding much larger economic and social costs—also produced a combination of higher budget deficits and public debt, which deserves close monitoring. An additional concern is that the reduced fiscal space may hamper government actions that support a green and inclusive recovery. This reinforces the view that private capital should play a significant role in filling the funding gap for a sustainable and inclusive economic revival once the pandemic passes—as argued in the theme chapter of this report.

Figure 1.1.23 Fiscal deficits and government debt in developing Asia

Fiscal deficits widened and public debt increased during the COVID-19 pandemic.



COVID-19 = Coronavirus Disease 2019, GDP = gross domestic product.

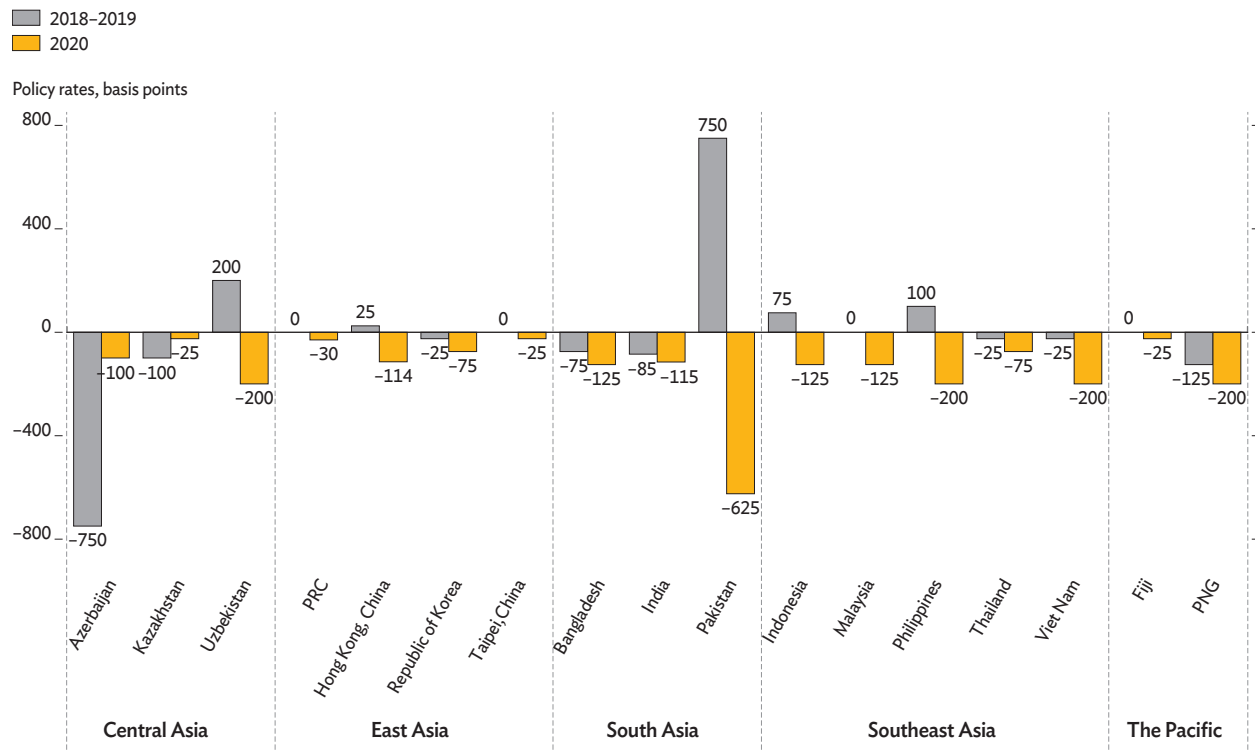
Notes: The data refer to 42 economies. GDP-weighted average values computed using the US dollar value of GDP.

Source: Haver Analytics (accessed 12 April 2020).

Accommodative monetary policy complemented expansionary fiscal policies. In many cases, central banks across developing Asia had already loosened policy to some extent in 2018 and 2019, and they reacted quickly by further cutting rates in early 2020 and maintaining an expansionary monetary policy throughout the year. In line with expectations that the COVID-19 pandemic and mobility restrictions would take a huge toll, all major economies reduced their policy rates at least once in 2020 to bolster liquidity conditions (Figure 1.1.24). Pakistan loosened the most, albeit on the back of significant tightening over the previous 2 years. The State Bank of Pakistan cut policy rates five times since March 2020 by a cumulative 625 basis points (bps) to 7.0%. Papua New Guinea, the Philippines, Uzbekistan, and Viet Nam also substantially loosened policy, cutting 200 bps each.

Figure 1.1.24 Monetary policy responses in selected Asian economies

Rate cuts in March 2020 were maintained or followed by further reductions, keeping monetary policy loose.



PNG = Papua New Guinea, PRC = People's Republic of China.

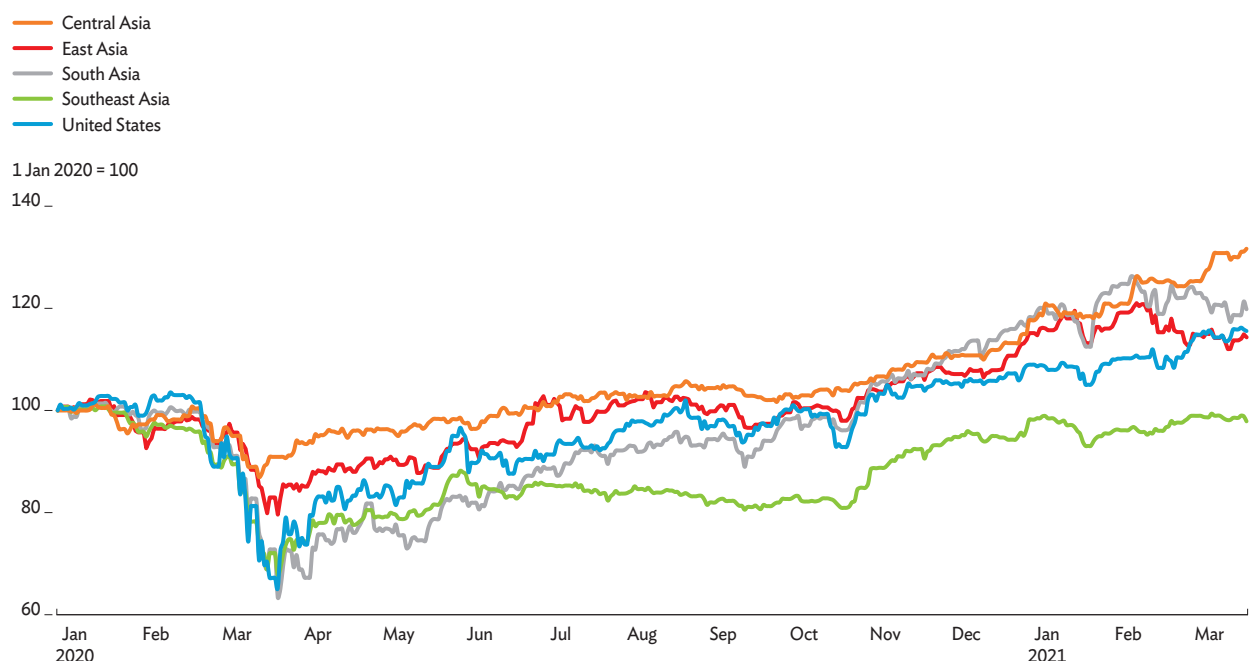
Sources: Bloomberg; CEIC Data Company (both accessed 6 April 2021).

Financial conditions remained buoyant

Developing Asia's equity markets have risen since October 2020, while risk premiums have gradually receded. Regional equity markets have rallied on the back of economic recovery and accommodative monetary policies (Figure 1.1.25). Progress on vaccine development has further strengthened investor sentiment. From 1 October 2020 to 31 March 2021, Central Asia's equity market led the region, gaining 28.8%, followed by South Asia (27.4%), and Southeast Asia (20.1%). Bond markets also benefited from improved investor sentiment (Figure 1.1.26). The J. P. Morgan Emerging Markets Bond Index's stripped spread—a proxy for risk premiums in bond markets—has continued to decrease in major regional markets since October 2020. The spread narrowed to 216 bps on 31 December from 271 bps on 1 October 2020, with Pakistan, down 109 bps, posting the largest decline. As of 31 March 2021, the average bond yield spread had further narrowed to 193 bps, reflecting improved investor sentiment on economic recovery and vaccine rollouts. As long-term government bond yields in the US rose rapidly on the back of recovery and inflation expectations there during the first quarter of 2021, risk sentiment heightened over a possible early change in the easing stance of monetary policy and concerns over another “taper tantrum.” Indeed, bond yield spreads briefly widened in many regional markets in March.

Figure 1.1.25 Equity market indexes, US and developing Asia subregions

Equity markets soared since October 2020 on a rosier economic outlook.



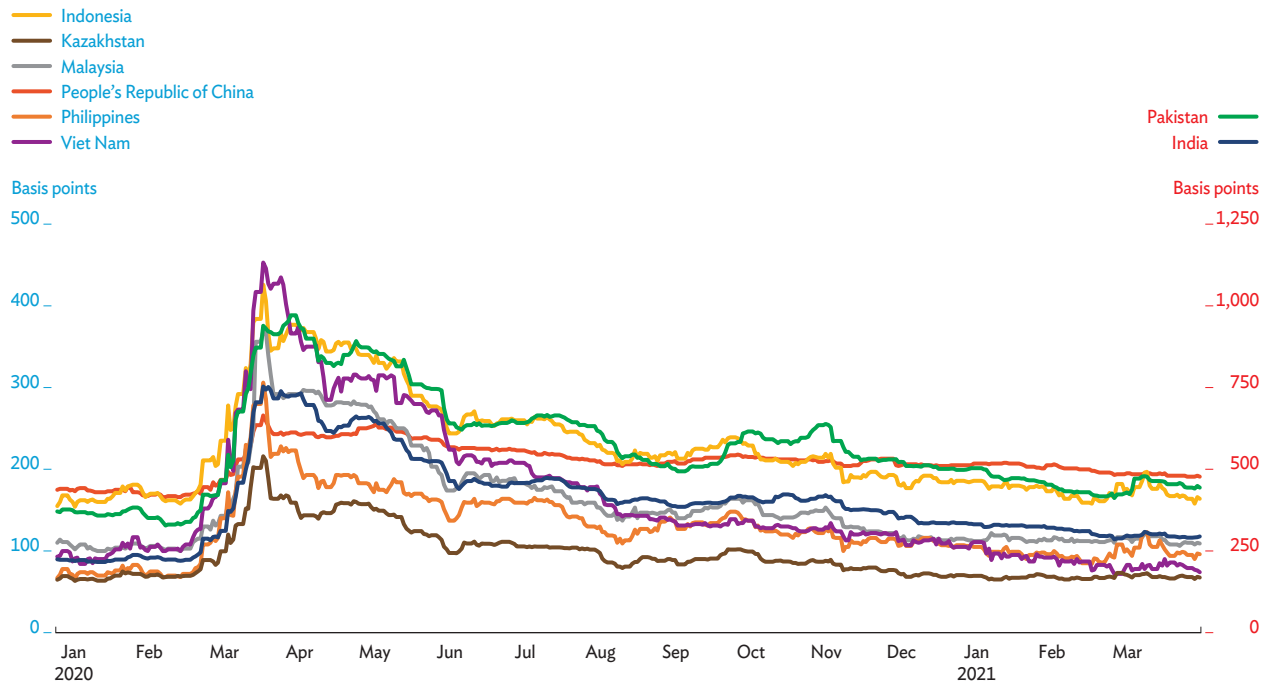
US = United States.

Note: Economies are aggregated by subregion using 2019 market capitalization.

Source: CEIC Data Company (accessed 1 April 2021).

Figure 1.1.26 J. P. Morgan EMBI stripped spreads, selected economies

Risk premiums continued to recede since late 2020, but widened slightly in March on rising US bond yields.



EMBI = Emerging Markets Bond Index, US = United States.

Note: Stripped spreads capture yield differences between US and emerging market government debt securities.

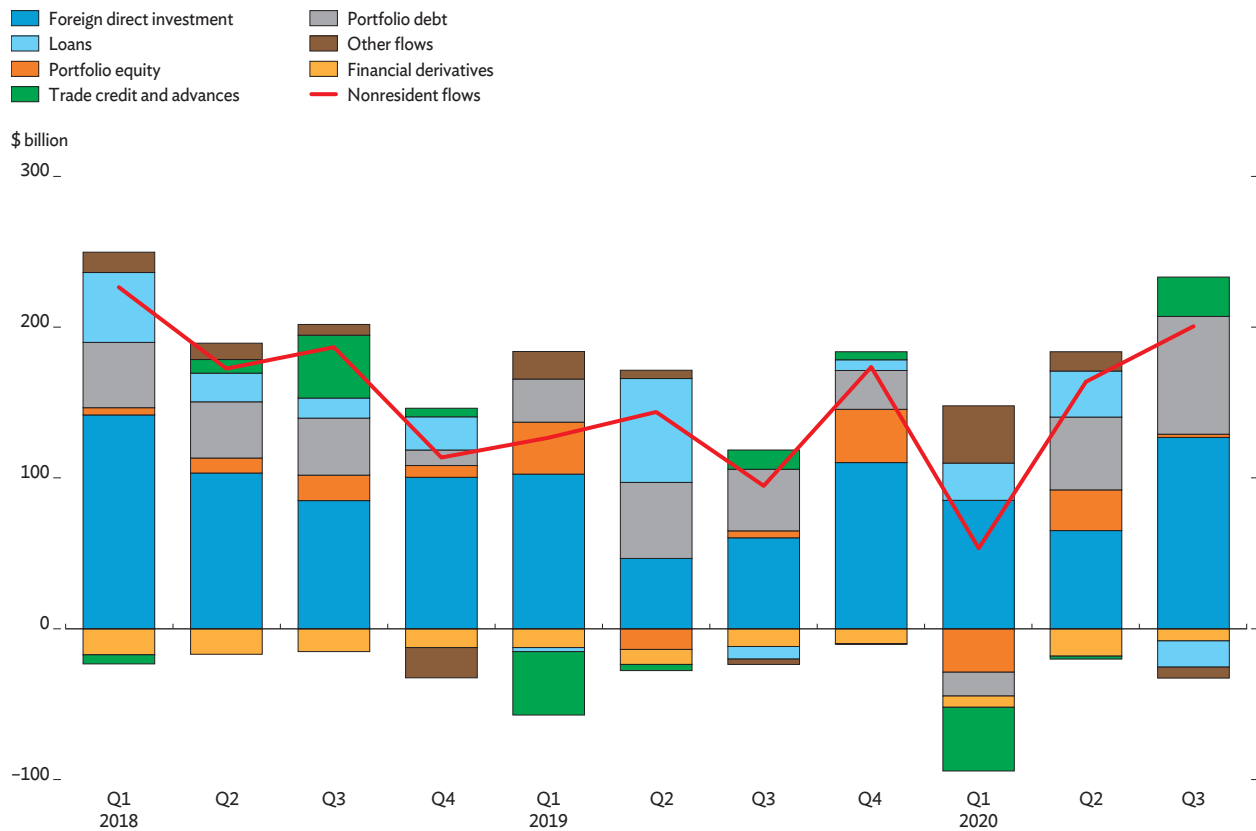
Source: Bloomberg (accessed 1 April 2021).

Foreign direct investment in developing Asia in 2020 was robust, while foreign portfolio inflows continued. Foreign direct investment flows in the first three quarters exceeded the same period of 2019 (Figure 1.1.27). The region saw significant portfolio outflows in the second quarter of last year, mostly in March. Trade finance flows declined in the first quarter, but quickly stabilized and picked up in the second and third quarters. Portfolio inflows into the region strengthened in the fourth quarter, but were volatile in early 2021 (Figure 1.1.28). Portfolio inflows to emerging Asia—benefiting from improved investor sentiment—peaked in November but remained strong through early January. In February and March, investor concerns about inflationary pressures and a repeat of 2013’s taper tantrum weighed on sentiment. Capital outflows resumed in these months, although nowhere near the extent of the outflows in 2020.

Most Asian currencies strengthened or remained stable since the fourth quarter of 2020, but a few depreciated on country-specific vulnerabilities. From 1 October 2020 to 31 March 2021, most Asian currencies appreciated or held their value against the US dollar (Figure 1.1.29). But some weakened, including the local currencies of the Lao People’s Democratic Republic, Myanmar, Sri Lanka, and several central Asian currencies.

Figure 1.1.27 Foreign capital flows by type to developing Asia

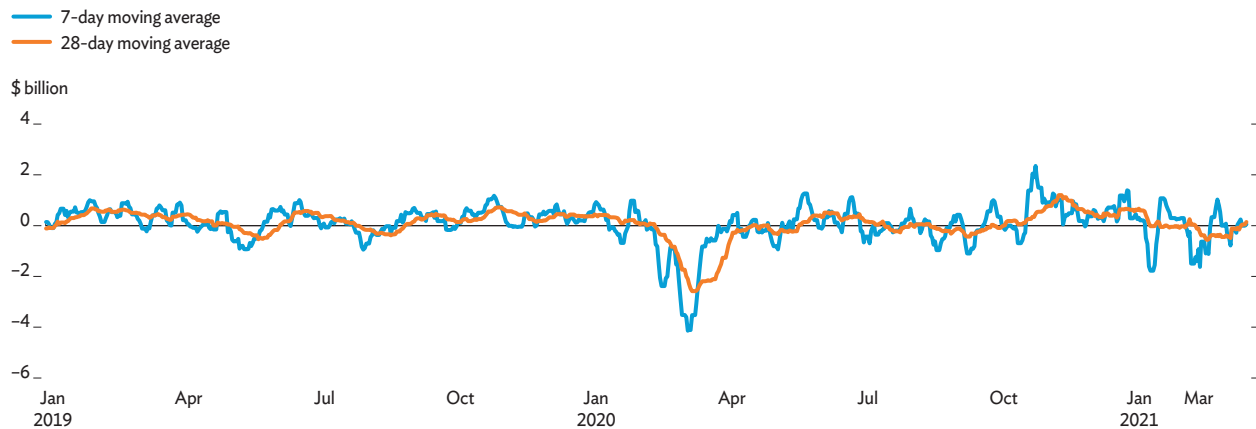
FDI was resilient during the first three quarters of 2020.



FDI = foreign direct investment, Q = quarter.
Source: Haver Analytics (accessed 5 April 2021).

Figure 1.1.28 Portfolio flows into selected developing Asian economies

Foreign portfolio flows returned in October 2020, with big swings in 2021.

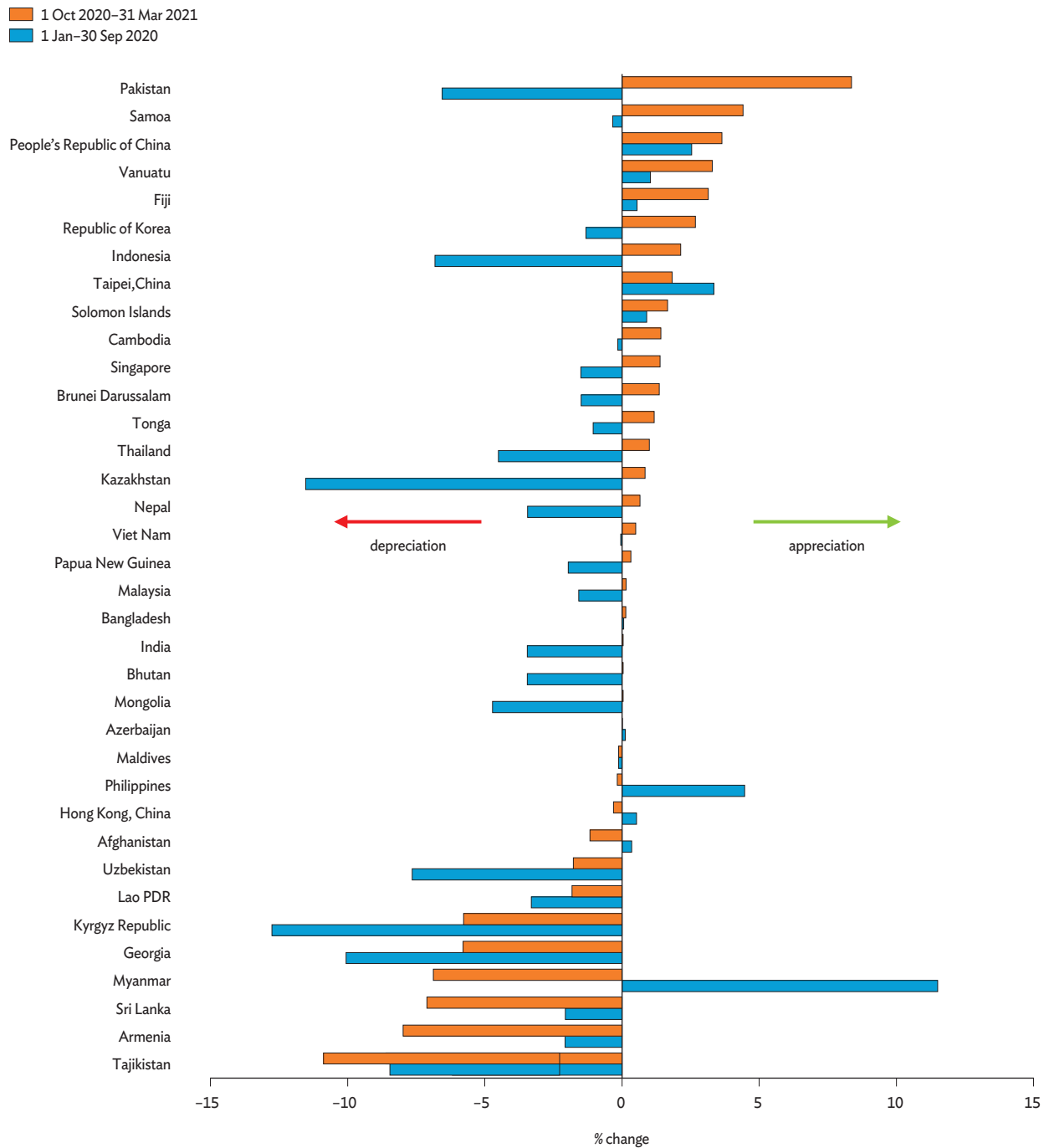


Note: Data refer to total portfolio flows to India; Indonesia; Pakistan; the People's Republic of China; the Philippines; the Republic of Korea; Sri Lanka; Taipei, China; Thailand; and Viet Nam.

Source: Institute of International Finance. Capital Flows Tracker. <https://www.iif.com/Research/Capital-Flows-and-Debt/Daily-Flows-and-Flows-Alerts> (accessed 5 April 2021).

Figure 1.1.29 Exchange rates

Most regional currencies strengthened against the US dollar since Q4 2020, but a few continued to depreciate.



Lao PDR = Lao People's Democratic Republic, Q = quarter, US = United States.

Note: Local currency against US dollars.

Source: Bloomberg (accessed 5 April 2021).

Growth momentum returns to developing Asia

Economic prospects will continue to be dictated by how the COVID-19 pandemic unfolds. The successful control of outbreaks will allow domestic demand to recover and economic activity to gradually pick up, which will accelerate economic growth across the region.

Progress on vaccination programs and recovering global demand are expected to support growth. Vaccinations are generally proceeding much faster in advanced economies. Widespread vaccination is expected to be achieved in the US and many other advanced economies in the second half of 2021. This should promote the herd immunity that will allow these economies to reopen and speed the normalization of economic activities. Base effects will also boost growth this year in the US, euro area, and Japan, which all have a lot of lost ground to recover in 2021 and 2022 after the massive plunge in 2020. The recovery in the major advanced economies is expected to be led by a strong rebound in the US, propelled by the \$1.9 trillion fiscal stimulus package that President Joe Biden signed into law in March. Growth in these economies is forecast to bounce to 5.3% in 2021 and 4.1% in 2022—and this will help the recovery in global demand (Table 1.1.2).

Table 1.1.2 Baseline assumptions on the international economy

Improved global demand expected as growth returns in advanced economies.

GDP growth, %	2020	2021	2022
Major industrial economies	-4.8	5.3	4.1
United States	-3.5	6.5	4.4
Euro area	-6.7	4.3	4.2
Japan	-4.8	2.9	2.4
Brent crude spot prices, average, \$ barrel	42.35	64.00	61.00

Note: Major industrial economies average growth rates are weighted by gross national income, Atlas method (current \$).

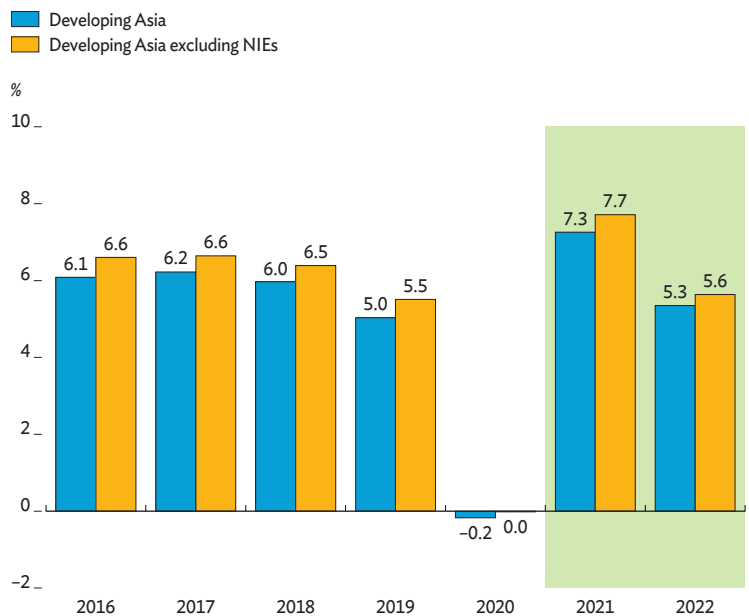
Sources: Bloomberg; CEIC Data Company; Haver Analytics (all accessed 5 April 2021); Asian Development Bank estimates.

COVID-19 vaccination plans vary greatly in developing Asia. The speed of vaccination is expected to vary widely across the region, with some higher-income economies, such as Singapore, aiming to vaccinate the entire population by the end of 2021, while others expect this to happen only by the end of 2022 or later. The baseline assumes that vaccination programs will proceed as planned. But whether this happens will depend on the capacity and ability of countries to procure vaccines, including dealing with the logistics, distribution, and management challenges associated with administering doses, and, later, with the substantial vaccine hesitancy in some economies.

Growth in developing Asia is expected to rebound in 2021 and 2022, but it will take some time before economic activity returns to its pre-pandemic trend. GDP is projected to grow by 7.3% in 2021 and 5.3% in 2022 after contracting 0.2% in 2020 (Figure 1.1.30). For the regional aggregate excluding the newly industrialized economies—Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China—output stagnated in 2020 and is forecast to grow by 7.7% this year and 5.6% in 2022. Despite the expected strong growth rates this year, GDP levels will not return to their pre-pandemic trend within the forecast horizon (Figure 1.1.31, panel A).

Figure 1.1.30 Growth outlook in developing Asia

Growth to rebound after the first contraction since the early 1960s.



NIEs = newly industrialized economies.

Source: Asian Development Outlook database.

Figure 1.1.31 Projected recovery path in developing Asia

The region contracted mildly as resilience in the PRC offset weaknesses elsewhere.



COVID-19 = Coronavirus Disease 2019, GDP = gross domestic product, PRC = People's Republic of China.

Source: Asian Development Outlook database.

Growth patterns vary significantly across developing Asia. Average growth in the region suffered only a mild contraction last year due primarily to the PRC's strong economic performance (Figure 1.1.31, panels A and B). Excluding the PRC, the region's GDP contracted by 3.8% in 2020. India's large economic contraction last year will prevent GDP from converging to its prepandemic trend, even though growth is forecast at 11% this year (panel C). The rest of the region will only return to its prepandemic level by the end of 2021 (panel D). The momentum of growth also varies across subregions: Central Asia, Southeast Asia, and the Pacific will see growth gradually increase over the forecast horizon, while some deceleration is expected in East Asia and—mainly due to India—South Asia (Table 1.1.3).

Table 1.1.3 GDP growth rate, % per year*The outlook is positive, but recovery paths vary.*

	2019	2020	2021	2022
Central Asia	4.9	-1.9	3.4	4.0
Armenia	7.6	-7.6	1.8	3.0
Azerbaijan	2.5	-4.3	1.9	2.5
Georgia	5.0	-6.2	3.5	6.0
Kazakhstan	4.5	-2.6	3.2	3.5
Kyrgyz Republic	4.6	-8.6	3.5	5.0
Tajikistan	7.5	4.5	5.0	5.5
Turkmenistan	6.3	1.6	4.8	4.9
Uzbekistan	5.8	1.6	4.0	5.0
East Asia	5.3	1.8	7.4	5.1
Hong Kong, China	-1.2	-6.1	4.6	4.5
Mongolia	5.2	-5.3	4.8	5.7
People's Republic of China	6.0	2.3	8.1	5.5
Republic of Korea	2.0	-1.0	3.5	3.1
Taipei, China	3.0	3.1	4.6	3.0
South Asia	4.2	-6.0	9.5	6.6
Afghanistan	3.9	-5.0	3.0	4.0
Bangladesh	8.2	5.2	6.8	7.2
Bhutan	4.3	0.9	-3.4	3.7
India	4.0	-8.0	11.0	7.0
Maldives	7.0	-32.0	13.1	14.0
Nepal	6.7	-1.9	3.1	5.1
Pakistan	1.9	-0.4	2.0	4.0
Sri Lanka	2.3	-3.6	4.1	3.6
Southeast Asia	4.4	-4.0	4.4	5.1
Brunei Darussalam	3.9	1.2	2.5	3.0
Cambodia	7.1	-3.1	4.0	5.5
Indonesia	5.0	-2.1	4.5	5.0
Lao People's Democratic Republic	4.7	-0.5	4.0	4.5
Malaysia	4.3	-5.6	6.0	5.7
Myanmar	6.8	3.3	-9.8	...
Philippines	6.1	-9.6	4.5	5.5
Singapore	1.3	-5.4	6.0	4.1
Thailand	2.3	-6.1	3.0	4.5
Timor-Leste	1.8	-7.9	3.4	4.3
Viet Nam	7.0	2.9	6.7	7.0
The Pacific	4.3	-5.8	1.4	3.8
Cook Islands	5.3	-5.9	-26.0	6.0
Federated States of Micronesia	1.2	-5.4	-1.8	2.0
Fiji	-0.4	-19.0	2.0	7.3
Kiribati	2.4	0.6	-0.2	2.3
Marshall Islands	0.7	-5.5	-1.4	2.5
Nauru	1.0	0.8	1.5	1.0
Niue	...	...	...	...
Palau	-1.8	-10.3	-7.8	10.4
Papua New Guinea	5.9	-3.3	2.5	3.0
Samoa	3.6	-3.2	-9.2	3.1
Solomon Islands	1.2	-4.5	1.0	4.5
Tonga	0.7	-0.8	-5.3	1.8
Tuvalu	4.1	0.5	2.5	3.0
Vanuatu	3.5	-9.8	2.0	4.0
Developing Asia	5.0	-0.2	7.3	5.3
Developing Asia excluding NIEs	5.5	0.0	7.7	5.6

... = not available, GDP = gross domestic product, NIEs = newly industrialized economies.

Source: Asian Development Outlook database.

The PRC leads East Asia's recovery. After the initial shock of COVID-19, the PRC recovered rapidly throughout 2020. The economy expanded by 6.5% year on year in the fourth quarter, bringing 2020's annual growth to 2.3%. A further upturn in private demand and exports, as well as low base effects, are projected to raise the PRC's GDP growth to 8.1% this year, making up for much of the output loss in 2020 relative to trend. Growth is expected to normalize to 5.5% in 2022, as industry and services return to normal after a rapid recovery this year, and the contribution of net exports to growth moderates.

Growth in most other East Asian economies is also expected to normalize next year. Growth in 2021 will be supported by COVID-19 vaccine rollouts, the global economic recovery, improving consumer sentiment, and fiscal and monetary support. In Mongolia, growth will rebound in 2021 as mining and investment pick up and accelerate in 2022. In the newly industrialized economies, growth will moderate toward their long-term trend in 2022.

India's growth rate will rise sharply this year and moderate in 2022. Growth is forecast at 11.0% in 2021 before settling at 7.0% in 2022. The strong recovery is being driven by an economy normalizing from last year's deep contraction—and this will be backed by a large COVID-19 vaccine rollout. A sharp increase in capital expenditure and accommodative financial policies will also support the rebound. Rising demand in the US supported by the fiscal stimulus package will help India's growth, as the US is its largest export market. But India's COVID-19 cases have resurged since February 2021, and if not controlled, they present a considerable downside risk to the recovery.

Growth will continue to strengthen gradually in South Asia's other economies. Because Bangladesh was much less affected by the COVID-19 pandemic than other economies in the subregion, it will see growth edge up this year and next on strong demand for exports. Afghanistan, Pakistan, and Nepal will return to growth in 2021 as economic activity normalizes and buoyant remittances boost consumption and foster growth in industry and services. The pandemic severely hit Sri Lanka and Maldives last year, but they are expected to rebound quickly in 2021 on recovering demand for tourism and other economic activities as vaccination rollouts progress. In Bhutan, however, GDP is expected to contract by 3.4% in 2021 on stringent pandemic containment measures, the exodus of much of its expatriate labor force, and the loss of tourism. Bhutan will return to growth in 2022.

A recovering Southeast Asia is forecast to grow at 4.4% in 2021 and 5.1% in 2022. The rollout of COVID-19 vaccines will increase consumption and investment in much of the subregion. Monetary and fiscal policies will remain accommodative to encourage domestic demand. And faster growth in major trading partners will boost demand for exports. Growth in Indonesia,

Malaysia, and Singapore will resume on vaccine rollouts and accommodative policies. In the Philippines, fiscal stimulus from spending on infrastructure and social assistance will help the economy bounce back. Cambodia, Lao People's Democratic Republic, Thailand, and Timor-Leste will resume growth after these economies contracted in 2020; growth in Brunei Darussalam and Viet Nam will expand further in 2021 and 2022. But GDP in Myanmar will contract sharply in 2021 as continued disruptions of government operations and mass political protests worsen the woes of an economy already reeling from the pandemic.

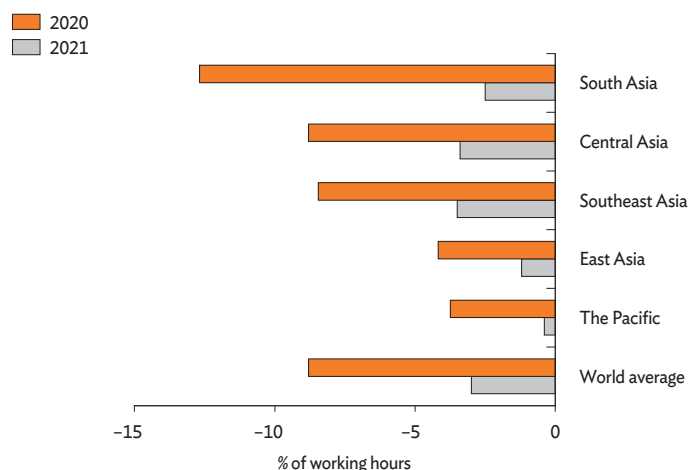
Economic activity will pick up in Central Asia over the forecast horizon. Growth is expected to uniformly pick up across Central Asia, as the subregional economy stabilizes and stronger global demand boosts commodity exports. Central Asia's GDP is forecast to rise by 3.4% in 2021 and 4.0% in 2022. Higher oil prices, particularly in 2021, will accelerate growth in Azerbaijan, Kazakhstan, and Turkmenistan. Stronger global demand will hasten recoveries in Georgia, the Kyrgyz Republic, Tajikistan, and Uzbekistan. But subdued investment will limit growth in Armenia in 2021.

The Pacific will return to growth in 2021. The subregion is forecast to grow moderately at 1.4% in 2021 before accelerating to 3.8% in 2022. Papua New Guinea and Fiji, the subregion's two largest economies, will grow moderately this year. The overall growth rate in the Pacific will likely be dampened by contractions in the smaller tourist-dependent economies, including the Cook Islands, Palau, Samoa, and Tonga. But the return of tourists and restarted infrastructure projects in these smaller economies should accelerate economic activity in 2022.

The unequal impact of the COVID-19 pandemic on developing Asia's recovery prospects is reflected in its domestic labor markets. The pandemic's severe economic impact caused rising unemployment across the region. Inactivity as a result of stringent mobility restrictions caused large losses in working hours, which were as severe in developing Asia as in other parts of the world. Some 8.8% of global working hours were lost on average last year relative to the fourth quarter of 2019. Developing Asia lost about 8.0%. Central Asia, Southeast Asia, and South Asia bore the brunt of lost working hours, at 8.8%, 8.5%, and 12.7%, respectively (Figure 1.1.32). The rebound in economic activity expected in 2021 should recover some of these lost working hours, with South Asia regaining the most on a strong rebound that should see the subregion's GDP growing by 9.5%.

Figure 1.1.32 Estimated working-hour losses, 2020 and 2021

Working-hour losses in Asia were as severe as in other parts of the world.



Notes: Working-hour loss covers all workers (ages 15–64) and refers to annual averages based on estimates modeled by the International Labour Organization (ILO). These are computed as a percentage of a counterfactual scenario of the Coronavirus Disease 2019 pandemic having not happened in the fourth quarter of 2019. For example, a 10% loss indicates that hours worked were 10% below what would have been expected without the pandemic. Regions and subregions are based on ILO country groupings.

Source: ILO. 2021. *ILO Monitor: COVID-19 and the World of Work*. Seventh edition.

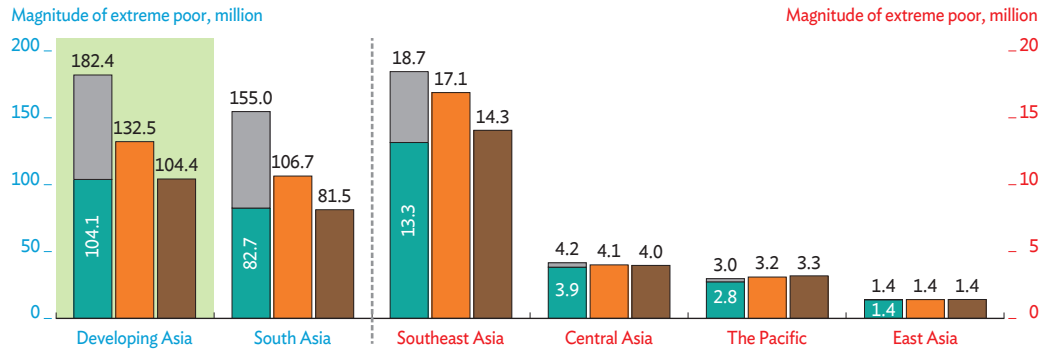
The COVID-19 pandemic wreaked havoc on poor communities, but the recovery will restart the process of poverty reduction in developing Asia. Over the past 3 decades, developing Asia made good progress in reducing the number of people living in extreme poverty—defined as those living below the income threshold of \$1.90 a day (2011 purchasing power parity). ADB simulations suggest the number of extreme-poor in the region would have declined to 104.1 million in 2020 had there been no COVID-19 (Figure 1.1.33, panel A). In the event, massive drops in economic activity due to the pandemic interrupted progress in reducing poverty last year and pushed an additional 78.3 million people into extreme poverty, increasing the estimated number to a total of 182.4 million. South Asia and Southeast Asia bore the brunt of the surge due to the pandemic, with an estimated increase of, respectively, 87.5% and 40.3% relative to the no-pandemic scenario. Based on current GDP growth forecasts, the projected rebound in economic activity over the forecast horizon is expected to kick start a resumed reduction in extreme poverty in developing Asia—to 132.5 million people in 2021 and to 104.4 million in 2022. The largest declines are expected in South Asia, where extreme poverty is projected to fall by 31.2% in 2021 and 23.6% in 2022, as this subregion is forecast to grow much faster than the others. Similar patterns are observed when poverty is measured using the higher threshold of \$3.20 a day, but with poverty declining at a faster rate in East Asia over the forecast horizon (Figure 1.1.33, panel B).

Figure 1.1.33 Poverty estimates in developing Asia

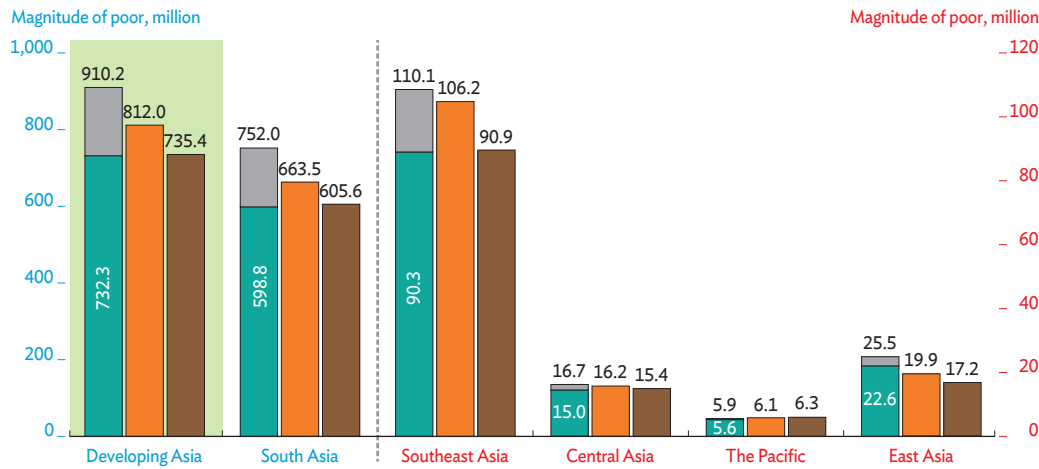
Poverty reduction was set back in 2020, but it will resume this year and next.

- 2020 without COVID-19
- 2020 with COVID-19
- 2021
- 2022

A. \$1.90/day poverty line



B. \$3.20/day poverty line



COVID-19 = Coronavirus Disease 2019.

Notes: In this figure, East Asia excludes Hong Kong, China; Republic of Korea; and Taipei, China. South Asia excludes Afghanistan. Southeast Asia excludes Brunei Darussalam, Cambodia, and Singapore. The Pacific excludes the Cook Islands, the Marshall Islands, Niue, and Palau.

Sources: World Bank. PovcalNet Database. March 2021 update. <http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx> (accessed 17 March 2021); Asian Development Bank estimates.

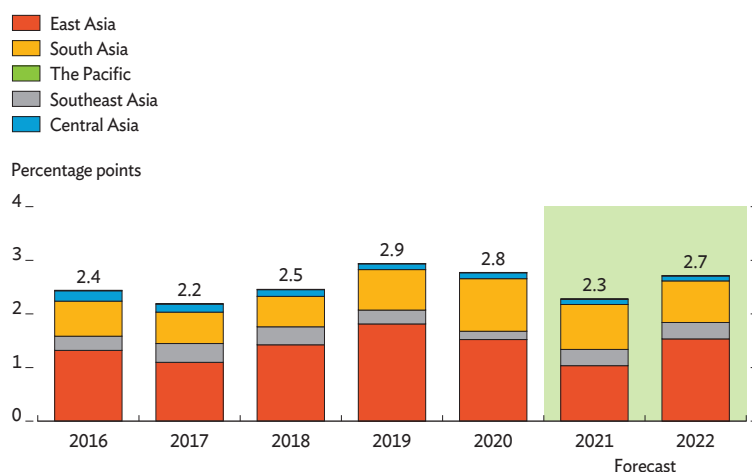
Inflation to remain benign, but current account balances will gradually worsen

Despite rising international commodity prices, price pressures in developing Asia will remain subdued—but with differing trends. In most economies, the impact of higher international oil and commodity prices will be outweighed by muted inflationary pressures as activity remains below potential in much of the region. As noted earlier, labor market losses mean unemployment and underemployment are still above normal levels. Production capacity is probably still not fully utilized, especially in economies where COVID-19 mobility restrictions are still in place. Average inflation in the region is forecast to fall to 2.3% in 2021 from 2.8% in 2020, driven mostly by more stable prices in Central Asia and slower price increases in India and the PRC. Regional inflation is forecast to rise to 2.7% in 2022, but inflation will be lower in Central Asia and South Asia (Figure 1.1.34).

The decline in regional inflation in 2021 will be mainly driven by slower inflation in the region's economic powerhouses, the PRC and India. In the PRC, pork-price deflation following African swine fever outbreaks in 2019 and 2020 will bring inflation down to 1.5% in 2021. The low base this year and the continuing recovery in domestic and global demand will raise inflation to a forecast 2.3% in 2022. In India, food-price inflation surged in 2020 on supply disruptions amid COVID-19 mobility restrictions. Inflation should soften over the forecast horizon, due to a high base effect and expectations of a normal monsoon leading to more stable food prices. Price trends in the PRC and India will shape the inflation path in their respective subregions.

Figure 1.1.34 Inflation in developing Asia

Economic slack due to the COVID-19 pandemic will dampen inflation in 2021.



COVID-19 = Coronavirus Disease 2019.

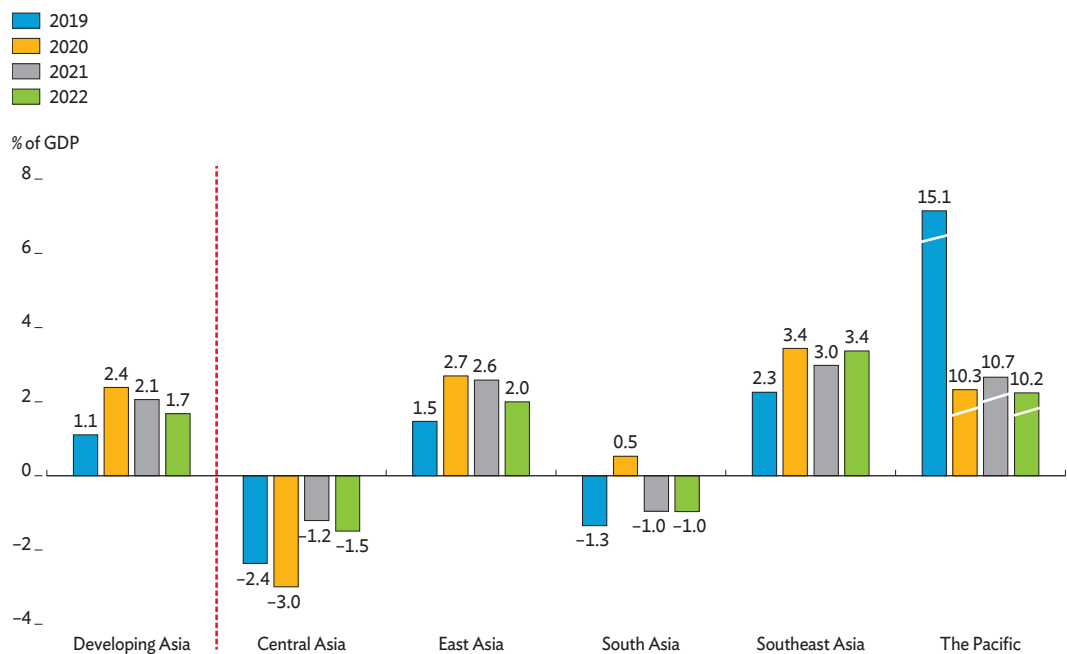
Source: Asian Development Outlook database.

Price dynamics are expected to be heterogeneous in the rest of the region due to different inflation drivers. In Central Asia, inflation will soften over the forecast horizon because of more stable expectations on exchange rates and food prices. Inflation is projected to be steady, at 2.4%, in most Southeast Asian economies as agriculture output benefits from favorable weather conditions, but prices in Indonesia, Malaysia, Singapore, and Viet Nam are expected to creep up until 2022, due mainly to higher international commodity prices. Prices in the Pacific—which are heavily influenced by those in Fiji and Papua New Guinea—are expected to rise steadily over the forecast horizon as economic activity recovers in the subregion.

The current account surplus in developing Asia will narrow over 2021 and 2022. After current account improvements due to large falls in imports last year, gradually healthier domestic activity will lead to imports growing faster than exports in most economies. As a result, the region's current account surplus is forecast to narrow to the equivalent of 2.1% of GDP in 2021 from 2.4% in 2020, and further to 1.7% in 2022 (Figure 1.1.35). The decline, however, will not affect all economies. Commodity-exporting economies, such as those in Central Asia, will see an improvement in their current account balances. The signing, in November 2020, of the 15-member Regional Comprehensive Economic Partnership is not expected to change the regional trade environment during the forecast horizon (Box 1.1.3).

Figure 1.1.35 Current account balances in developing Asia

Current accounts will worsen as imports pick up.



Source: Asian Development Outlook database.

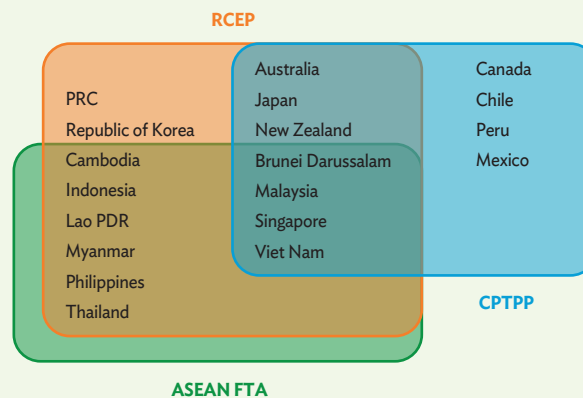
Box 1.1.3 The Regional Comprehensive Economic Partnership: A stepping-stone toward deeper market integration in Asia

The Regional Comprehensive Economic Partnership (RCEP) creates the largest regional trade bloc in terms of output. The 15 countries that signed the RCEP agreement on 15 November 2020 comprise the 10 members of the Association of Southeast Asian Nations (ASEAN), Australia, Japan, New Zealand, the People's Republic of China (PRC), and the Republic of Korea. The RCEP covers countries accounting for 31% of global gross domestic product—more than the United States-Mexico-Canada free trade agreement (FTA) (28%), the European Union (18%), and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (13%).

The RCEP is the first FTA between the PRC and Japan—the second and third largest economies globally. India withdrew from RCEP negotiations in November 2019, but it has access to a fast-track procedure allowing it to join the agreement at any time from its entry into force while other applicants will need to wait 18 months.

The RCEP will compete with an existing network of FTAs (box figure 1)—and its impact may be limited as 84% of trade among RCEP economies is already taking place between countries linked by FTAs (box figure 2). For example, ASEAN, beyond its own FTA, has bilateral FTAs with all other RCEP members—the ASEAN+1 FTAs—and most of these countries have FTAs with each other and with individual ASEAN members.

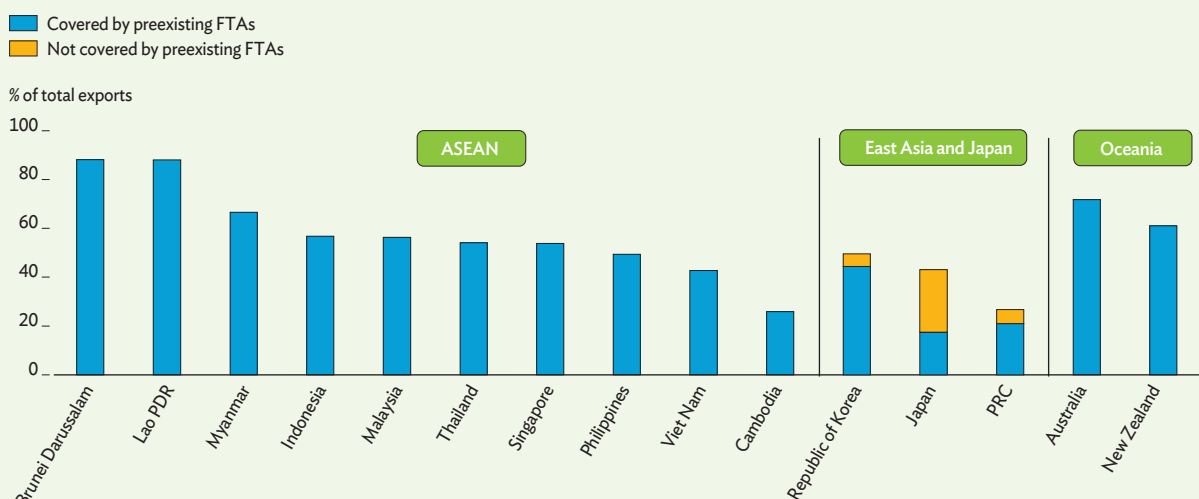
1 RCEP members and selected regional trade agreements



ASEAN FTA = Association of Southeast Asian Nations Free Trade Area, CPTPP = Comprehensive and Progressive Agreement for Trans-Pacific Partnership, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, RCEP = Regional Comprehensive Economic Partnership. Source: Asian Development Bank.

The RCEP is the first FTA that Japan will have with the PRC and the Republic of Korea—and it will considerably reduce tariffs among these countries. For example, the share of Japanese products subject to tariffs in the PRC will fall from 86% to 8%. Petri and Plummer (2020) estimate these three countries will capture 82% of the RCEP's \$182 billion annual income gains by 2030. In terms of relative income gains, the

2 Share of exports to other RCEP countries, 2019



ASEAN = Association of Southeast Asian Nations, FTA = free trade agreement, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China, RCEP = Regional Comprehensive Economic Partnership.

Note: The five East Asian economies covered in *Asian Development Outlook 2021* do not include Japan.

Sources: International Monetary Fund, Direction of Trade Statistics. <https://data.imf.org/>; World Trade Organization, Regional Trade Agreement database. <https://rtais.wto.org/> (both accessed 18 February 2021).

Box 1.1.3 Continued

Republic of Korea, Japan, and Malaysia are expected to be the major winners.

RCEP provisions on rules of origin could boost intraregional trade. As in any FTA, only goods originating from RCEP members will be granted preferential tariffs. But determining origin is not easy given the fragmentation of value chains. The RCEP allows exporters to cumulate inputs originating in any RCEP country (diagonal cumulation) to comply with the partnership's regional value content requirements. The RCEP's broad country coverage will therefore make it easier for exporters to meet regional value content thresholds. This may incentivize firms to source inputs from other RCEP members, thereby fostering the development of intraregional value chains (Crivelli and Inama 2021). Dib, Huang, and Poulou (2020) estimate this provision alone could generate \$90 billion in annual income gains.

Rules of origin and related administrative requirements will remain complex. In principle, the RCEP allows the self-certification of product origin by any exporter. But this provision only comes into force in 10–20 years, depending on the countries, and it can be further delayed through a notification to other member countries. In the meantime, certificates of origin can only be issued by government bodies or exporters that they have approved, leaving scope for diverging practices by national customs administrations. Furthermore, many practical details on the implementation of rules of origin—the handling of direct consignments, for example—are either not included in the RCEP agreement or still have to be addressed in a transparent and predictable manner (Kang et al. 2020; Sawada 2020). Adding to this complexity is that rules of origin, although common for all members, vary across products. Some are eligible for preferential tariffs if they include at least 40% regional value content. Others need to be sufficiently transformed to change their tariff classification; for example, from cotton fabric to a shirt.

The RCEP contains limited changes in key areas, relative to other recent and deeper FTAs that go beyond just removing tariffs. Overall, tariff reductions and trade facilitation provisions are less ambitious than in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (Petri and Plummer 2020). The RCEP focuses on tariff reductions, while provisions on nontariff barriers, labor and environmental standards, and trade in services mostly reaffirm World Trade Organization rules.

The RCEP does not include an investor–state dispute settlement mechanism. It targets the removal of only 90% of tariffs, excluding many food products for which market access tends to be the most restricted. The practicality of the RCEP agreement for exporters will be limited in that certain countries may apply different preferential tariffs for different countries of origin within the RCEP. The phasing-in period will also be long, with tariffs being lowered gradually over a period up to 36 years for certain countries and products.

More research is needed to quantify the RCEP's benefits beyond the network of existing FTAs in Asia. The practicality of trade rules will be crucial to ensure that businesses actually use them to their full extent. Most importantly, the current agreement is a work in progress, and its implementation is likely to face challenges to deepen its provisions and expand its coverage through its built-in work plan (Petri and Plummer 2020; Crivelli and Inama 2021).

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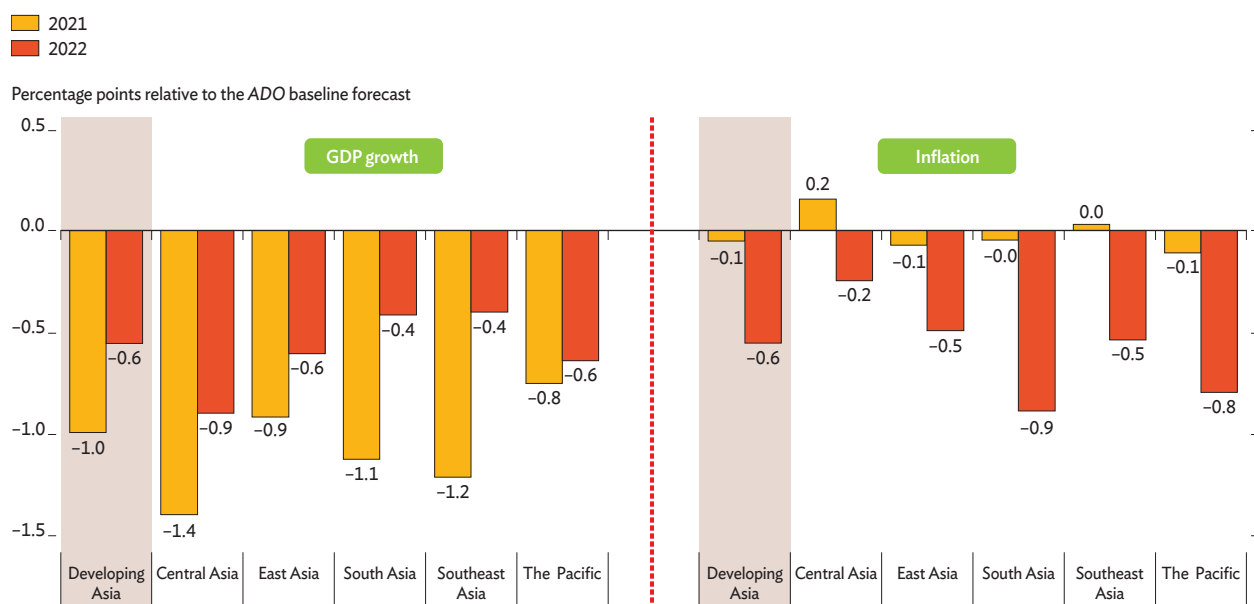
This box was written by Pramila Crivelli and Jules Hugot of the Economic Research and Regional Cooperation Department, ADB, Manila; and Reizle Platitas, consultant, Economic Research and Regional Cooperation Department, ADB, Manila.

Risks: COVID-19 continues to cast a large shadow

The biggest risk to developing Asia's recovery is an unfavorable turn in the COVID-19 pandemic. Outbreaks brought about by coronavirus variants might require renewed mobility restrictions and may render existing vaccines less effective. Vaccine rollouts are still in their early stages in many economies, and procurement, distribution, and vaccine hesitancy are just a few of the challenges they face. One way to quantify the economic impact of a slow vaccine rollout in developing Asia is to use the Global Economic Model of Oxford Economics. In this scenario, slow progress results in the delayed normalization of economic activity, leading to declining consumption, higher unemployment, lower disposable incomes, and depressed consumer confidence. Investment takes a hit as investor sentiment deteriorates on rising uncertainty over the recovery's trajectory. Under this scenario, GDP growth in 2021 is about 1 percentage point lower in developing Asia than the baseline used in this report (Figure 1.1.36). In 2022, growth in the region remains lower than the baseline, while subdued aggregate demand slows inflation by 0.6 percentage points below the baseline. Recovery strengthens in 2023 and beyond, once progress on vaccination becomes more substantial.

Figure 1.1.36 Impact of delayed COVID-19 vaccine rollouts

Delayed vaccination would depress growth in developing Asia in 2021 and 2022.

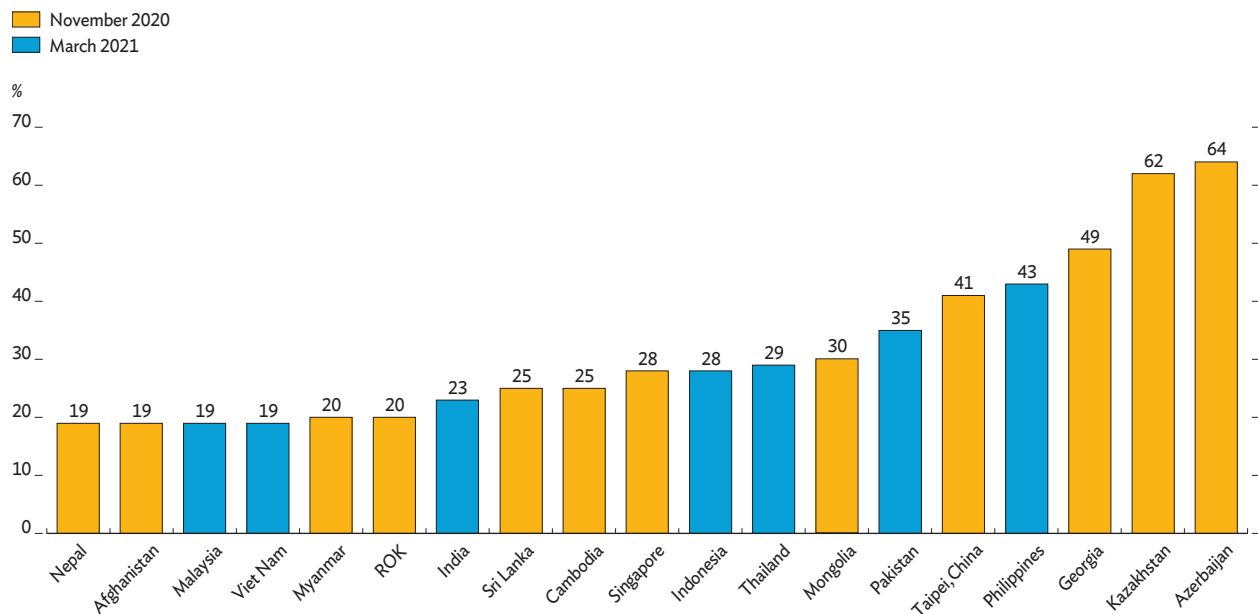


ADO = Asian Development Outlook, COVID-19 = Coronavirus Disease 2019, GDP = gross domestic product.
Source: Oxford Economics.

Vaccine hesitancy may be a worry in some economies. One downside risk is that even if the availability of vaccines improves, vaccine hesitancy can hamper vaccination efforts. Hesitancy rates vary within the region going by several surveys on COVID-19 vaccination intent. Those conducted in November 2020 and March 2021 find the share of the unvaccinated population that will not take a COVID-19 vaccine when available varies from 19% to 64% (Figure 1.1.37). An Ipsos global survey for the World Economic Forum in February 2021 found resistance to getting vaccinated in the PRC and the Republic of Korea is low. In a follow-up survey of nine Asian economies in March 2021 by YouGov, the percentage of respondents who said they will not get vaccinated or have not already done so was above 30% in Hong Kong, China; Indonesia; the Philippines; Taipei, China; and Thailand.

Stimulus in the US raises concerns about a taper-tantrum repeat. Of the \$1.9 trillion stimulus package, equal to 9.1% of US GDP, \$1.1 trillion (5.3% of GDP) will be spent in the current fiscal year. Given the already robust recovery of the US economy, the stimulus package has generated concerns about possible overheating and inflationary pressures. From the start of 2021 to the end of March, yields on 10-year US Treasury notes surged 82 bps to 1.74%. Although a repeat of 2013's taper tantrum is possible and merits careful monitoring, the risk of this developing remains manageable at present.

Figure 1.1.37 Share of population who will not take a COVID-19 vaccine when available



COVID-19 = Coronavirus Disease 2019, ROK = Republic of Korea.

Note: Data from surveys conducted from 9–23 November 2020 and from 1–15 March 2021.

Source: Johns Hopkins University Center for Communications Programs. Vaccine Acceptance. <https://ccp.jhu.edu/kap-covid/vaccine-acceptance/> (accessed 8 April 2021).

US Treasury note yields remain below 2% and are still close to historical lows even with the recent increase in yields. Much of the rise in long-term yields reflects expectations about a strong economic recovery rather than compensation for inflation. The US Federal Reserve has anyway changed its policy stance to be more tolerant of higher inflation, suggesting that policy rate increases are not imminent. And external conditions in developing Asia are more favorable than they were during 2013's taper tantrum. Capital-flow positioning is modest, as net portfolio flows to the region over the past 3 years have been less than in the years before 2013. Current account balances are stronger, and real exchange rates have not appreciated as much.

Other risks could stifle the recovery. A renewed flare-up in tensions between the US and the PRC over trade, technology, and security could once again lead to damaging economic consequences in the region and beyond (Box 1.1.4). Other risks to the regional outlook include political turmoil and production bottlenecks that could put supply-side pressure on prices.

Box 1.1.4 PRC-US tensions will continue to cloud the outlook for developing Asia

In 2018, the United States restricted exports of software and hardware to manufacture semiconductors to entities in the People's Republic of China (PRC) deemed to be "acting contrary to the national security or foreign policy interests of the United States." These restrictions were then expanded to certain industry leaders in the PRC, including Huawei and Semiconductor Manufacturing International Corporation (Brown 2020). The restrictions were further expanded in August 2020 to ban non-US companies from selling components developed using US technology to blacklisted PRC entities. This forced the largest global chip manufacturers—including TSMC and Samsung—to stop supplying Huawei.

Policies in the PRC and the US to increase self-reliance in key sectors could further contribute to the PRC-US decoupling. By impeding access to advanced US technology, export restrictions may hamper the development of the PRC's semiconductor manufacturing sector. Chips are crucial for the PRC because electronics account for about 50% of exports and the country's electronics industry still largely relies on imported chips.

To close the technology gap, the PRC's Fourteenth Five-Year Plan—approved in March 2021—plans to ramp up research and development spending by at least 7% a year. Xiaomi—the PRC's second largest smartphone manufacturer after Huawei—has already expanded its stakes in PRC companies involved in chip supply chains (Ting-Fang and Li 2021a). In February, US President Joe Biden directed the government to address vulnerabilities in supply chains

for semiconductors, rare earths, pharmaceuticals, and batteries. President Biden has also emphasized coordination with the US car industry—which heavily relies on chips—and with Congress to pass legislation supporting the domestic semiconductor manufacturing sector. Although the consequences of these initiatives remain uncertain, they may lead to further decoupling with the PRC through public support to expand US manufacturing capacity and strengthen linkages with producers in allied nations.

The race to deploy 5G networks may further raise PRC-US tensions. 5G technology has many potential uses, including for remote medicine, self-driving cars, and military equipment. By the end of 2020, 175 million people were expected to have signed up for 5G in the PRC compared with less than 15 million in the US (Ericsson 2020). The PRC is leading in the production of 5G equipment as Huawei owns the largest number of 5G "standard essential patents" (Ting-Fang and Li 2021b). In the US, freeing up spectrum capacity and allotting it to mobile service providers is essential to accelerate the deployment of 5G. To facilitate this, the Federal Communications Commission auctioned 5G licenses for a record \$81 billion in early 2021 (FCC 2021). The commission also created a \$9 billion fund in October 2020 to support the deployment of 5G in rural areas (FCC 2020). 5G deployment might be further accelerated through the infrastructure investment plan proposed by the Biden administration.

The Biden administration did not signal sweeping changes in trade relations with the PRC.

Box 1.1.4 Continued

The administration and PRC officials held their first talks in March. In this two-day round, the US leadership did not show intent to relax the tariffs put in place by the previous administration and these remained largely untouched by the Phase One deal signed in January 2020. The COVID-19 pandemic and US export restrictions derailed PRC commitments to buy an additional \$200 billion per year of US goods and services, such that as of December 2020, only 58% of the Phase One deal target had been fulfilled (Brown 2021). This could further delay a possible relaxation of bilateral tariffs.

The strategic rivalry between the PRC and the US is intensifying in Asia. The Interim National Security Strategy Guidance, released by the Biden administration in March, acknowledges a “growing rivalry” and sets an agenda to ensure that the US “prevails in strategic competition” with the PRC. The guidance also calls for deepening strategic partnerships beyond US core allies to ASEAN members, India, and New Zealand, among other countries (White House 2021). For its part, the Government of the People’s Republic of China remains committed to developing the Belt and Road Initiative and building a regional trading system, notably through the Regional Comprehensive Economic Partnership (Box 1.1.3).

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This box was written by Jules Hugot of the Economic Research and Regional Cooperation Department, ADB, Manila, and Reizle Platitas, consultant, Economic Research and Regional Cooperation Department, ADB, Manila.

The possibility that COVID-19 will leave persistent economic scars also casts a shadow over the outlook for the forecast horizon and beyond, although this is hard to evaluate at the moment. As noted earlier, rising public debt from pandemic-related policy interventions may hinder efforts to build back a greener and more sustainable economy—a crucial objective for more inclusive growth in developing Asia, as argued in the theme chapter of this report. Furthermore, while slower physical capital accumulation can be offset by higher investment after the crisis, the considerable damage to human capital caused by the pandemic will be harder to recoup. This can happen through workers who drop out of the labor force after prolonged unemployment, and through learning and earning losses generated by COVID-19 causing school closures, as analyzed by the *Special Topic* in this report.

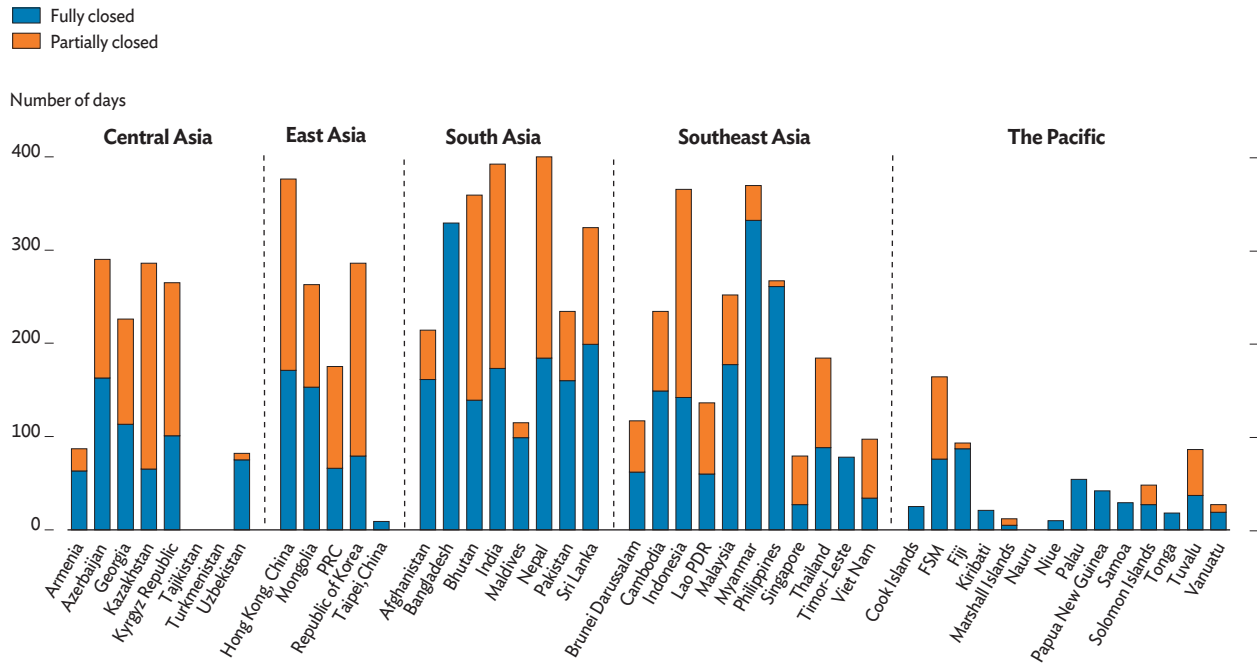
Learning and earning losses from COVID-19 school closures in developing Asia

COVID-19 led to prolonged school closures to varying degrees across developing Asia. These disruptions will affect the skills students acquire and eventually their productivity as future workers. Various distance learning strategies are being used, but they are only partially effective. Thus, school closures come at the price of learning. Learning losses range from 8% of a learning-adjusted year of schooling in the Pacific, where schools have mostly stayed open, to 55% in South Asia, where school closures have been longest. Learning losses will reduce the future productivity and lifetime earnings of affected students. The present value of these losses is estimated at \$1.25 trillion for developing Asia, equivalent to 5.4% of the region's 2020 gross domestic product (GDP).

Schools closed due to COVID-19

The COVID-19 pandemic led many countries to close schools, in part or in full to help contain the virus. By April 2021, schools had been closed for about 1 year or more in eight of 46 economies in developing Asia. In 11 other economies in the region, schools had been closed for 200–300 days (Figure 1.2.1). Full school closures have been longest in Bangladesh and Myanmar; both countries have had over 300 days of government-mandated closures. In the Philippines, all schools have been closed for more than 200 days. Most economies in developing Asia implemented partial closures, such as closing schools only in certain regions or for some grade levels and age groups. In some instances, schools have combined reduced class time with distance learning (UNESCO 2021). Only three economies in developing Asia had not closed schools by April 2021, and in most Pacific economies, schools have been closed for 50 days or less.

This section was written by Rhea Molato Gayares of the Economic Research and Regional Cooperation Department (ERCD), ADB, Manila. It benefited from comments from Abdul Abiad, Donald Jay Bertulfo, Elisabetta Gentile, Rana Hasan, Ryotaro Hayashi, Matteo Lanzafame, Yasuyuki Sawada, Milan Thomas, and Paul Vandenberg, and participants at a seminar organized jointly by the Asian Development Bank's Education Sector Group and ERCD on 17 March 2021. The author is grateful for useful conversations with João Pedro Azevedo from the World Bank, who shared information that helped develop the *Special Topic*.

Figure 1.2.1 Number of days schools partially or fully closed, February 2020 to April 2021

FSM = Federated States of Micronesia, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: UNESCO COVID-19 Response. <https://en.unesco.org/covid19/educationresponse> (accessed 30 March 2021); for Hong Kong, China and Taipei, China, Oxford COVID-19 Government Response Tracker. www.bsg.ox.ac.uk/covidtracker (accessed 14 April 2021).

School closures mean students lose opportunities to learn vital cognitive, social, physical, and emotional skills. Students also tend to forget part of what they have learned when they take a break from school (Cooper et al. 1996). From a life-cycle perspective, the skills that children learn at a younger age set the stage for acquiring more advanced skills as they get older. When young students miss out on opportunities to learn these skills, the total skill level that they acquire in their lifetime is at risk of being lower (Meyers and Thomasson 2017; Gibbs et al. 2019; Andrabi, Daniels, and Das 2020). For this reason, this analysis focuses on students at the preprimary, primary, and secondary levels of education.

Remote learning strategies used

Economies all over the world have used alternative learning options to make up for lost school days. A UNESCO, UNICEF, and World Bank survey of education ministry officials conducted from April to October 2020 shows that online and television platforms have been the predominant modes of instruction in economies in developing Asia during the COVID-19 pandemic (Table 1.2.1). Online platforms include government websites that provide learning content and video

Table 1.2.1 Remote learning modes

Subregion	Economy	Survey month	Online platforms	Television	Radio	Take-home packages
Central Asia	Armenia	August	■	■	■	■
	Azerbaijan	September	■	■		
	Georgia	August	■	■		
	Kazakhstan	April, May, or June	■	■	■	
	Kyrgyz Republic	September	■	■	■	■
	Uzbekistan	August	■	■	■	
East Asia	Hong Kong, China	September	■			■
	Mongolia	July	■	■		
	PRC	September	■	■	■	■
	Republic of Korea	October	■	■		■
South Asia	Afghanistan	August	■	■	■	
	Bangladesh	April, May, or June		■	■	
	Bhutan	August	■	■	■	
	India	April, May, or June	■	■	■	■
	Maldives	August	■	■		
	Nepal	August	■	■	■	■
	Pakistan	October	■	■	■	■
	Sri Lanka	August	■	■	■	■
Southeast Asia	Cambodia	September	■	■		■
	Indonesia	April, May, or June	■	■		■
	Lao PDR	July	■	■	■	■
	Malaysia	April, May, or June	■	■		■
	Myanmar	April, May, or June	■	■	■	■
	Philippines	April, May, or June	■	■	■	■
	Singapore	August	■			■
	Thailand	July	■	■		■
	Timor-Leste	April, May, or June	■	■	■	■
	Viet Nam	July	■	■		■
The Pacific	Cook Islands	July	■			■
	Fiji	April, May, or June	■	■	■	■
	Kiribati	April, May, or June	■			
	Niue	April, May, or June				■
	Palau	April, May, or June	■			■
	Papua New Guinea	April, May, or June	■	■	■	
	Samoa	October	■	■	■	
	Solomon Islands	August	■	■	■	■
	Tonga	July	■	■	■	■
	Tuvalu	August	■	■	■	■
Vanuatu	August	■	■	■	■	

Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: UNESCO, UNICEF, and World Bank. 2020. Survey on National Education Responses to COVID-19 School Closures, Round 1 (April–June) and Round 2 (July–October). <http://tcg.uis.unesco.org/survey-education-covid-school-closures/> (accessed 13 April 2021).

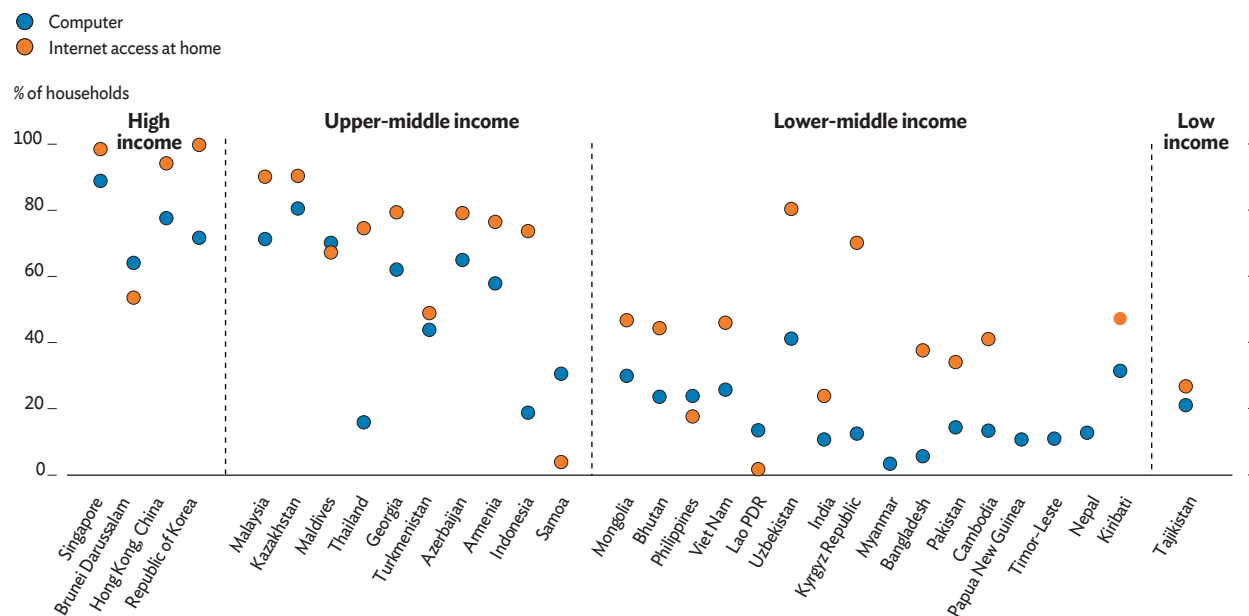
conferencing platforms, such as Zoom and Google Meet. Some video lessons are also delivered via YouTube. Social media facilitates communication. Educational television programs are being made by both governments and the private sector. Another common practice is to distribute paper-based learning modules and worksheets as a complement or substitute for students who have no access to television or the internet.

The day-to-day operations of distance learning are largely the responsibility of teachers and parents or caregivers, who do the teaching and monitor progress. The sudden closure of schools because of the COVID-19 pandemic left teachers and parents with little time to prepare for home schooling. Teachers in the economies of developing Asia were provided support in the form of special training, instructions on remote learning, and, in some cases, information and communication technology tools and free connectivity (UNESCO, UNICEF, and World Bank 2020a). Parents or caregivers face the challenge of supervising their children's distance learning in addition to other responsibilities, such as housework and work-from-home. Parents or caregivers were given guidance materials for home-based learning to support their new role (UNESCO, UNICEF, and World Bank 2020a).

It is too early to gauge the effectiveness of the distance learning strategies adopted during the COVID-19 pandemic. But the task of remotely delivering mass education has not only been enormous but also had to be done practically at a moment's notice. Three reasons point to why remote learning strategies taken during the COVID-19 pandemic could be less effective than prepandemic distance learning—their unplanned nature, the involvement of younger-age children, and distractions at home that keep children from being able to focus on studying. As Toquero (2021) puts it, the strategies deployed in response to sudden school closures were “emergency remote education.”

Evidence from France and Italy show that parents see their children making slower progress using distance learning during pandemic-induced lockdowns than when they were in school (Champeaux et al. 2020). Online learners in developing countries have been found to score lower in tests than learners in developed countries, and they have far higher attrition rates (Kizilcec and Halawa 2015). Because of this, learning outcomes are likely to have been lower and attrition rates higher among distance learners in developing countries during the pandemic.

Access to remote education will of course depend on households having the necessary equipment. Computer ownership and internet access at home varies considerably across developing Asia (Figure 1.2.2). While 76% of households in high-income economies have computers and 86% internet access, average access to computers and the internet in upper-middle-income economies is only 52% and 68%, respectively.

Figure 1.2.2 Share of households with computer and internet access at home

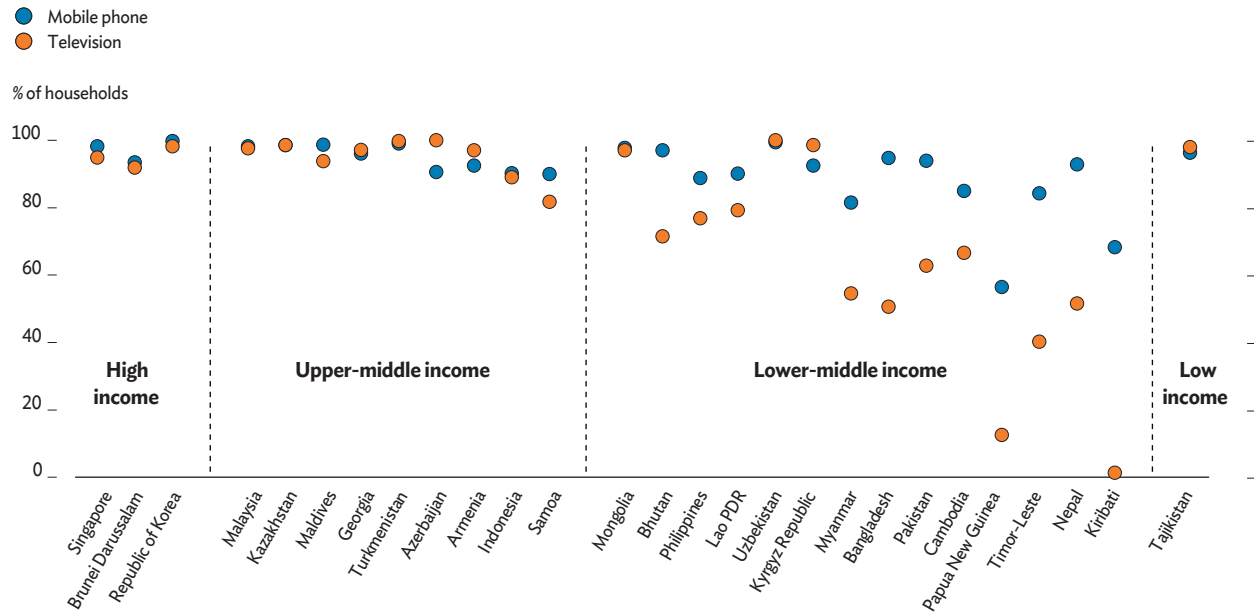
Lao PDR = Lao People's Democratic Republic.

Note: Economies within each income group are arranged by 2019 gross domestic product per capita, highest to lowest. Data on access to computers and the internet are for 2019 except Bhutan (2017), India (2018), Kiribati (2018), the Lao PDR (2017), Maldives (2016), Myanmar (2017), Nepal (2016), Papua New Guinea (2016), Samoa (2016), Tajikistan (2017), Timor-Leste (2016). In Uzbekistan and Viet Nam, data on computer access are from 2019 and data on internet access from 2018.

Source: International Telecommunication Union. World Telecommunication/ICT Indicators Database. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (accessed 06 April 2021).

In lower-middle income economies, only 18% of households on average have a computer and 41% have internet access at home.

Mobile phones and television are available in most households in developing Asia, albeit less so in lower-income economies (Figure 1.2.3). Because of this and the relatively low computer ownership, online learning is likely being mainly done by mobile phone. Ministries of education in 15 economies in developing Asia have implemented programs to make remote education accessible through mobile phones. In 11 economies, education authorities distributed subsidized or free devices to access online education. Governments in 17 economies in developing Asia negotiated with internet providers to grant connectivity at subsidized or zero cost for the purpose of accessing education materials (UNESCO, UNICEF, and World Bank 2020a).

Figure 1.2.3 Share of households with mobile phone and television

Lao PDR = Lao People's Democratic Republic.

Note: Economies within each income group are arranged by 2019 gross domestic product per capita, highest to lowest. Data on access to mobile phones and television are for 2019 for Armenia, Azerbaijan, Bangladesh, Kazakhstan, the Kyrgyz Republic, Malaysia, Mongolia, the Republic of Korea, and Turkmenistan; 2018 for Brunei Darussalam, Georgia, Kiribati, Thailand, and Uzbekistan; 2017 for Bhutan, Cambodia, Indonesia, the Lao PDR, Myanmar, Pakistan, the Philippines, Singapore, and Tajikistan; and 2016 for Maldives, Nepal, Papua New Guinea, Samoa, and Timor-Leste.

Sources: International Telecommunication Union. World Telecommunication/ICT Indicators Database. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (accessed 6 April 2021). For television access in Indonesia, Multiple Indicator Cluster Survey and Demographic and Health Survey data. https://public.tableau.com/profile/unicefdata#!/vizhome/EduViewv1_0/home (accessed 03 March 2021).

Learning losses

A lost year of schooling comes at the price of learning. So, how much do students learn in 1 year of going to school? The Organisation for Economic Co-operation and Development estimated an average gain of 40 percentage points in the Programme for International Student Assessment (PISA) test. This is a lower-bound estimate because it captures only the learning aspects measured by PISA tests—cognitive aspects—and not the noncognitive aspects like social and emotional skills. At the very least, students lose this learning gain with every year of school closure.

Remote learning can mitigate these losses, but the success of this strategy depends on access to learning materials and the effectiveness of these materials. Evidence on both in developed economies and limited access to these materials in developing Asia suggest that remote learning during the COVID-19 pandemic has been less effective than classes at school. Because there are currently no precise estimates on the effectiveness of remote learning during the pandemic, three effectiveness scenarios are considered—optimistic, intermediate, and pessimistic—by country income group (high,

Table 1.2.2 Effectiveness of remote learning relative to classroom learning in developing Asian economies, %

Scenario	High income economies	Upper-middle income economies	Lower-middle income economies	Low income economies
Optimistic	88	67	38	17
Intermediate	66	50	29	13
Pessimistic	37	28	16	7

Source: Asian Development Bank estimates.

upper-middle, lower-middle, low). The assumptions in these scenarios are based on literature estimates of online-learning effectiveness (Paul and Jefferson 2019; McKinsey & Company 2020), internet access, access to television, the effectiveness of television relative to online learning, and the relative shares of students undergoing online and television-based learning (Technical Appendix A1). Table 1.2.2 summarizes the assumptions on the effectiveness of remote learning for different income groups and effectiveness scenarios.

The COVID-19 pandemic has also had an indirect effect on learning through income shocks. The economic contraction in 2020 led to higher unemployment and lower incomes, forcing more people into poverty. The Asian Development Bank estimates that because of COVID-19, 162 million more people in developing Asia are living below the \$3.20 a day poverty threshold (ADB 2020; Martinez, Sebastian, and Bulan 2020). Against this backdrop, an increasing number of households have been unable to continue supporting their children's education—and because of this, more children have dropped out of school during the pandemic, which is lowering the average learning achievement of affected countries. An estimated 506,130 more students out of 800 million preprimary, primary, and secondary school students in developing Asia dropped out of school during the pandemic in 2020. The increase in the dropout rate is computed by applying the decline in 2020 GDP per capita to the income elasticity of dropout rates (Technical Appendix A1). The change in the dropout rate is then multiplied by the number of students to estimate the rise in out-of-school youth.¹

¹This may be an underestimate for two reasons. First, it considers the effect of falling household incomes only and does not capture students who drop out of school for other reasons, such as taking care of elderly family members, household work, lack of adult supervision on remote learning, helping augment household incomes, or being the victims of domestic abuse (UNESCO 2020). Second, it uses the decline in average GDP per capita notwithstanding that unemployment and wage losses have been larger for lower-income workers, many of whom work in contact-intensive services and industry jobs and have no recourse to work-from-home.

Learning losses can be measured in terms of learning-adjusted years of schooling (LAYS), which capture both the quantity and quality of education. LAYS are measured as the number of years of schooling a child can expect to obtain by age 18, adjusted by a country's average student achievement. This is measured using standardized test scores that are harmonized across countries (Patrinos and Angrist 2018). Figure 1.2.4 shows how LAYS adjust the average years of schooling to account for the quality of learning.

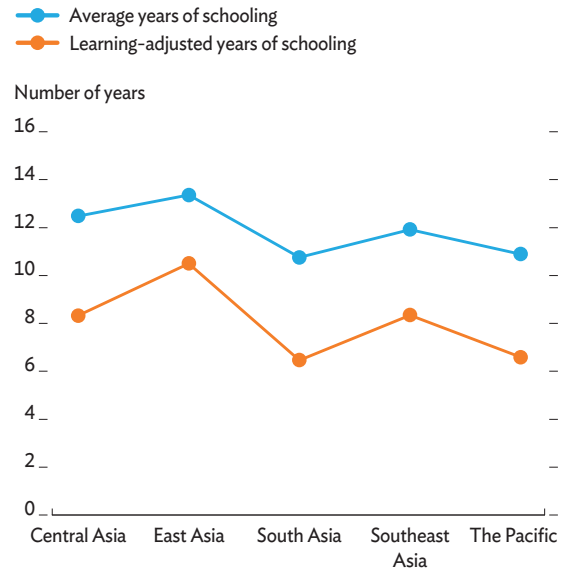
LAYS apply to preprimary, primary, and secondary education. Tertiary students are excluded in this analysis of learning losses for three reasons. First, they have, in principle, already acquired the basic skills taught at the lower levels. Second, because they are more heterogeneous in terms of age and degree programs, using averages may not be a good representation of this group. And third, some tertiary students were already working while studying so they may have lost current income on top of future earning losses. UNESCO (2020) estimates that tertiary students are more likely to drop out of school during the pandemic than students in other education levels. So, because tertiary students are excluded in this analysis, the learning and earning losses are likely to be underestimated.

The framework of Azevedo et al. (2021) is used to measure the losses in learning and potential earnings of students affected by COVID-19 school closures (Technical Appendix A1). This framework assumes that school closures affect LAYS through its two components—the expected years of schooling (quantity effect) and harmonized test scores (quality effect). Both effects are mitigated by the effectiveness of remote learning. The indirect effect of income shocks also reduces the expected years of schooling.

In 2020, developing Asia had an average of 7.72 LAYS based on the World Bank's Human Capital Index. Because of school closures during the COVID-19 pandemic, students in the region lost an estimated 29% of a learning-adjusted year of schooling in the intermediate scenario for the effectiveness of remote learning (Table 1.2.3). In the best-case scenario, they lost about 23% of a learning-adjusted year of schooling and in the worst case, 38%.

Learning losses vary by subregion. In South Asia, where school closures have been longest, the loss in learning is equivalent to 0.55 LAYS or 8.6% of 2020's baseline LAYS. In the Pacific, however, only 0.08 of a learning-adjusted year of schooling (1.3% of the baseline) was lost (Table 1.2.3). Here, schools have mostly stayed open during the COVID-19 pandemic. Estimates by economy show that learning losses vary with the length of school closures (Figure 1.2.5).

Figure 1.2.4 Average and learning-adjusted years of schooling, 2020



Source: World Bank. Human Capital Index. <https://datacatalog.worldbank.org/dataset/human-capital-index> (accessed 11 February 2021).

Table 1.2.3 Average learning losses

Subregion	Average loss in LAYS			% decline in LAYS			Baseline
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic	LAYS 2020
Central Asia	0.19	0.24	0.32	2.24	2.93	3.86	8.32
East Asia	0.23	0.39	0.59	2.18	3.67	5.64	10.50
South Asia	0.49	0.55	0.65	7.56	8.56	9.99	6.46
Southeast Asia	0.27	0.35	0.45	3.26	4.20	5.45	8.34
The Pacific	0.06	0.08	0.11	0.97	1.28	1.70	6.59
Developing Asia	0.23	0.29	0.38	2.96	3.78	4.88	7.72

LAYS = learning-adjusted years of schooling.

Note: These estimates do not include the following economies because data are not available for at least one estimation parameter: the Cook Islands; Maldives; Niue; and Taipei, China.

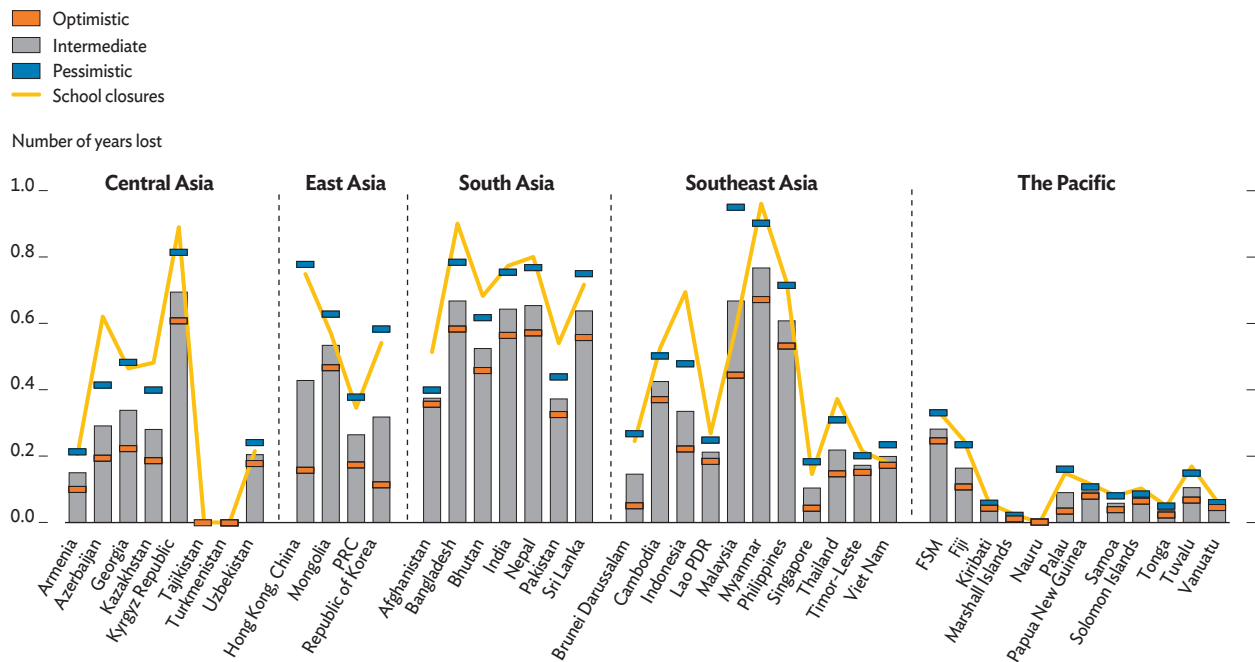
Sources: World Bank. Human Capital Index for 2020 LAYS; Asian Development Bank estimates.

Each day of a partial school closure in this analysis is assumed to be equivalent to half a day of full closure. This is only a rough approximation because the form and extent of partial closures vary across economies and over time. Even within economies, partial closures vary across locations and grade levels. School closures during the COVID-19 pandemic have been intensified or relaxed depending on changes in the status of community transmission. Anecdotal evidence from media reports and government advisories (Australian Government 2020; Inquirer Net 2021; Chopra 2021; Yoon 2020; Dagur 2021) provide the basis for setting the weight of partial school closures at 0.50 of a full closure. Allowing for the possibility that the actual degree of closures can be greater than or less than 0.50, Technical Appendix A2 gives a sensitivity analysis with alternative weights of partial school closures.

Losses in potential earnings

It is well-established that a person's earnings increase with more years of schooling. On average, every additional year of schooling increases a person's annual earnings by 9.7% (Montenegro and Patrinos 2014). Thus, every year of schooling lost is equivalent to 9.7% less in potential earnings. This is the average rate of return to every learning-unadjusted year of schooling, and if this rate is applied to LAYS, it likely underestimates the returns to each quality-adjusted year of schooling. Because LAYS are a new concept—they came out in 2018—no study has yet measured the average returns to every learning-adjusted year of schooling. This analysis takes the economy-specific returns to every year of schooling based on the latest literature (Montenegro and Patrinos 2014; Psacharopoulos and Patrinos 2018), distinguishing the returns

Figure 1.2.5 Losses in learning-adjusted years of schooling



FSM = Federated States of Micronesia, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: School closures are the number of days that schools are partially or fully closed, normalized by 365 days. Each day of partial closure is assumed to be equivalent to half a day of full closure.

Source: Asian Development Bank estimates.

between primary and secondary education where data are available, and then computing the loss in potential earnings that can arise from learning losses incurred during the COVID-19 pandemic.

On average, every student affected by school closures in developing Asia stands to lose an estimated \$180 every year, equivalent to a 2.4% drop in average annual earnings.² In dollar terms, potential earning losses per student are highest in East Asia (\$771), where average earnings before the COVID-19 pandemic were also highest. The percentage decline is highest in East Asia (4.0%) and in South Asia (4.0%), where school closures have been longest (Table 1.2.4).

² These estimates make a simple assumption—that in the absence of COVID-19 school closures, future workers would be earning the same as present-day workers. Actual wage dynamics depend on many factors affecting both the demand and supply sides of the labor market. During the pandemic, these factors have been moving in different directions and in different locations. Whether this assumption leads to an overestimate or underestimate of earnings cannot as yet be stated. Time will tell how actual earnings develop, both for students affected by school closures and those who were not.

Table 1.2.4 Potential earning losses per student

Subregion	Losses in earnings per student per year, current \$			% decline in earnings per student per year			Baseline average earnings per worker per year, current \$
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic	
Central Asia	39	56	78	1.1	1.6	2.2	3,552
East Asia	332	771	1,344	1.7	4.0	7.0	19,182
South Asia	68	78	92	3.5	4.0	4.7	1,948
Southeast Asia	105	167	247	1.2	1.9	2.9	8,663
The Pacific	30	42	58	0.5	0.6	0.9	6,509
Developing Asia	99	180	286	1.3	2.4	3.8	7,637

Notes: These estimates do not include the following economies because data are not available for at least one parameter: Afghanistan; Bhutan; the Cook Islands; Kiribati; Maldives; the Marshall Islands; the Federated States of Micronesia; Niue; Palau; Papua New Guinea; Solomon Islands; Taipei, China; Tonga; and Tuvalu. Because data on baseline earnings are not available for Tajikistan and Turkmenistan, they are not included in the baseline average for Central Asia.

Sources: ILOSTAT for baseline average earnings per worker; Asian Development Bank estimates.

These losses are aggregated by applying the earning losses to all students affected by school closures. To account for the possibility that not all students will be in gainful employment later, the aggregate losses are adjusted by the expected adult survival rate and human capital utilization rate, both from the World Bank's Human Capital Index. The present value of total losses is calculated to reach \$1.25 trillion for developing Asia.³ This is equivalent to 5.4% of the region's GDP in 2020. In the optimistic scenario for the effectiveness of remote learning, total losses are equivalent to \$0.8 trillion (3.6% of 2020 GDP) and \$1.8 trillion (7.6% of GDP) in the pessimistic scenario (Table 1.2.5). Technical Appendix A3 gives the estimates of learning and earning losses by economy and subregion.

These losses in potential earnings cover only private returns to education—they do not capture the full social returns nor the long-term benefits of education on health. Society at large tends to benefit from each person's education on top of a person's own gains in productivity and earnings. If the full social returns to education are considered, then the value of lost learning will likely be even higher.

The long-term effects of school closures on learning and earnings have been documented in previous settings, including World War II (Ichino and Winter-Ebmer 2004) and the Chinese Cultural Revolution of 1966–1977 (Meng and Gregory 2000). It will be many years from now before the precise effects of COVID-19 school closures on the actual earnings of today's students will be fully observed. But current students can benefit from policy interventions that help abate their potential losses.

³ Assumed is a discount rate of 3%, a working life of 45 years, and current students enter the work force 10 years from now on average.

Table 1.2.5 Aggregate earning losses

Subregion	Losses in lifetime earnings, current \$ million			Losses in lifetime earnings, % of 2020 GDP		
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic
Central Asia	8,127	11,361	15,572	2.2	3.1	4.2
East Asia	551,989	896,251	1,340,785	3.3	5.4	8.1
South Asia	171,866	195,787	230,083	5.1	5.9	6.9
Southeast Asia	109,454	147,503	197,366	3.6	4.9	6.5
The Pacific	169	247	349	2.5	3.7	5.2
Developing Asia	841,604	1,251,149	1,784,155	3.6	5.4	7.6

GDP = gross domestic product.

Note: These estimates do not include the following economies because data are not available for at least one parameter: Afghanistan; Bhutan; the Cook Islands; Kiribati; Maldives; the Marshall Islands; the Federated States of Micronesia; Niue; Palau; Papua New Guinea; Solomon Islands; Taipei, China; Tonga; and Tuvalu.

Source: Asian Development Bank estimates.

Policies to minimize learning and earning losses

Adequate policy responses can mitigate the potential damage to lost learning and earnings, and ensure that postpandemic education systems are better than they were before. The policy priority must be to bring COVID-19 under control so that all students can safely return to in-person instruction. The decision to reopen should be evidence-based, context-specific, and account for both earnings and health losses in weighing costs against benefits (Raitzer et al. 2020).

Where school closures remain necessary and education continues to rely on remote learning, government and supporting stakeholders should take the following actions to mitigate learning losses:

(i) Create a structured learning plan and set clear directions and realistic expectations. It will not be possible to cover the same curriculum as in normal times, and there should be no expectations to do this. Although it might be tempting to focus scarce resources on all numeracy and literacy skills, a distance-learning curriculum that gets students to think deeply about core topics in science, the humanities, civics, and so on is likely to boost student engagement, while also building language and analytical skills.

(ii) Continue strengthening information and communication technology infrastructure. Heavy connectivity use during the COVID-19 pandemic has tested the limits of these networks in several countries.

(iii) Continue to use diverse modalities to provide accessible learning experiences for students in remote areas. Where online learning is not possible, these modalities can include television, radio courses, and paper-based learning.

(iv) Continue to provide devices for children from disadvantaged backgrounds and more affordable devices for all families, especially those with more than one child.

(v) Provide systematic training on digital literacy for students and parents, and effective remote pedagogy for teachers.

(vi) Develop and maintain a feedback loop between developers and administrators of remote learning platforms and end users to improve the quality and effectiveness of remote learning systems.

(vii) Encourage social interaction between students, teachers, and parents within the remote learning environment.

(viii) Develop more inclusive tools to make digital learning resources accessible to people with disabilities.

The end to the global COVID-19 pandemic will take a while. Given the high level of uncertainty over containing the pandemic, comprehensive plans must be developed for remote learning that have contingencies for full-time remote learning and hybrid approaches.

Where COVID-19 outbreaks are sufficiently contained, reopening schools should be considered on the basis of local health conditions and school-specific information. These include local transmission and vaccination rates, size of the student body, ability to divide students into smaller cohorts, and the physical condition of school buildings (Bi et al. 2020). School reopenings should prioritize preprimary and primary education since the returns to early childhood education are the highest (Knudsen et al. 2006). The following precautions will help maintain safety within school premises and lower the risk of incurring additional learning losses from school reclosures:

(i) Convert additional space into larger classrooms to enable physical distancing by students and teachers.

(ii) If facilities cannot be expanded, use staggered daily calendars to prevent crowding.

(iii) Group students together in protective bubbles—that is, small groups that stay together throughout the school day. This will involve staggering lunch and break times in and outside the classroom so that bubbles do not mix.

(iv) Build WASH—water, sanitation, and hygiene—facilities; encourage behavior change, mask wearing, and hand washing; and install hand sanitizer dispensers.

(v) Open lines of communication between school administrators and families to track COVID-19 cases and put classes on hold when necessary.

When reopening, schools need to conduct “simple, fast, cheap, and low-stakes” diagnostic tools to “meet children where they are and start teaching from there” (Teaching at the Right Level 2021). Learning gaps can be recouped through remedial education programs that have proven effective in

some contexts (Banerjee et al. 2007). School curricula must evolve to pick up where students have left off and adjustments must be made based on the results of regular tracking of student progress (Duflo, Dupas, and Kremer 2011).

The COVID-19 pandemic is an opportunity to reimagine and rebuild education systems. Multimedia tools tapped during the pandemic can be integrated into regular education systems, taking advantage of high mobile phone penetration, for instance, to maximize reach. Teachers must be equipped to use multimedia effectively by enhancing their digital skills (Panth and Xu 2021), building their capacity for more effective pedagogy, providing lifeline support to help solve any technological question they may have, facilitating peer-to-peer learning, and setting healthy boundaries to help them avoid burnout (Barron et al. 2021).

This is an opportune time to transform the way countries deliver education and strive to meet Sustainable Development Goal 4—to ensure inclusive and equitable quality education for all by 2030. School curricula are ripe for transformation. This is also the time to harness the momentum of parents' involvement with their children's education—they can, for example, take part in simple educational activities with their children at home and become more involved in exchanging information on their children's learning. The importance of digital infrastructure and connectivity is underscored by the remote learning phase. Investing in this will pay dividends long after the COVID-19 pandemic ends.

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Technical Appendix

A1 Estimating learning losses

The framework of Azevedo et al. (2021) is used to calculate the losses in learning-adjusted years of schooling (LAYS) associated with school closures. Learning losses occur via the two components of LAYS: the expected years of schooling (EYS) and harmonized test scores (HTS), where

$$LAYS = EYS \times HTS.$$

The length of school closures reduces a country's average EYS (quantity effect). Its effect on EYS is mitigated by the effectiveness of remote learning strategies for students who remain in the education system. Students who drop out of school because of income shocks during the COVID-19 pandemic bring down a country's average EYS. The change in EYS is thus:

$$\Delta EYS = -s_c \times (1 - m_c) \times (1 - \Delta d_c) - (\Delta d_c \times EYS_o),$$

where s_c is the length of school closures in country c , m_c is the effectiveness of remote learning, Δd_c is the change in the dropout rate in country c , and EYS_o is the baseline value of EYS.

The effectiveness of remote learning is based on assumptions by scenario and country income group (Table 1.2.2). These assumptions are calibrated as follows:

First, effectiveness of remote learning in the high-income country group (HIC) is given by online-learning effectiveness multiplied by average internet penetration in the HIC. The optimistic scenario for online-learning effectiveness is based on Paul and Jefferson (2019), who found no significant difference in student performance between online and face-to-face teaching for a sample of students in the United States. Intermediate and pessimistic scenarios are based on McKinsey & Company (2020), which estimates that distance learning over a 12-month period causes a learning penalty of 3 months if students receive remote instruction of average quality and 7 months if remote instruction is of lower quality. The intermediate scenario takes the 3-month learning penalty—equivalent to 75% effectiveness—and the pessimistic scenario takes the 7-month penalty—equivalent to 42% effectiveness.

Second, effectiveness of remote learning in upper-middle (UMIC), lower-middle (LMIC), and low-income (LIC) country groups is equal to the remote-learning effectiveness in the HIC multiplied by an adjustment factor. This adjustment factor, F_k , for country group $k \in \{UMIC, LMIC, LIC\}$, is computed as

$$F_k = w \times \frac{IP_k}{IP_{HIC}} + (1 - w) \times \frac{TVP_k}{TVP_{HIC}} \times \frac{TVE_k}{OLE_k},$$

where w is the weight of online learning relative to the television (TV) mode of instruction, IP_k and IP_{HIC} are average internet penetration in country group k and the HIC , respectively, TVP_k and TVP_{HIC} are average TV penetration in country group k and the HIC , respectively, and TVE_k and OLE_k are effectiveness of TV and online learning, respectively, in country group k .

The weight w is taken from the average share of online learners relative to students who use the TV mode of instruction during school closures in developing Asian economies (UNESCO, UNICEF, and World Bank 2020a). Data on internet penetration and TV penetration are based on the International Telecommunication Union's World Telecommunication/ICT Indicators Database. Estimates of the effectiveness of TV and online learning are based on the share of countries in each income group that perceived TV/online learning as "very effective" (UNESCO, UNICEF, and World Bank 2020b). Data on perceived effectiveness is available for only nine low-income countries. Given this small sample, the average effectiveness in the LMIC group is applied on the two low-income countries covered in this analysis.

The change in the dropout rate is a function of income shock and dropout-income elasticity in country c . The dropout-income elasticities of children ages 4–11 (preprimary and primary) and 12–17 (secondary) are calculated using individual data from Labor Force Surveys in Cambodia, Fiji, India, Nepal, Pakistan, the Philippines, and Sri Lanka, which contain information on children in these two age groups. The dropout-income elasticity of children in age group j is computed using the following linear probability model:

$$\Pr(o_{ij} = 1) = \alpha_j + \beta_j \ln y_{ij} + \varepsilon_j,$$

where o_{ij} is a binary variable that takes the value 1 if child i is out-of-school and 0 if in school, α_j is the intercept, y_{ij} is income per capita in child i 's household, and ε_j is the error term. In economies with no Labor Force Survey data on children in these age groups, the average dropout-income elasticity of the seven countries just mentioned is imputed. With this specification, the change in the dropout rate for age group j is computed as

$$\Delta d_{c,j} = \beta_j \times \log((100 + g_c)/100),$$

where g_c is the income shock in country c . Data on income shocks are based on *Asian Development Outlook 2020* estimates of the percentage change in gross domestic product (GDP) per capita. The change in country c 's dropout rate, Δd_c , is computed as the weighted average of the two age groups' change in dropout rates.

The length of each economy's school closure is taken from the UNESCO's COVID-19 Response data for 44 out of 46 economies in developing Asia and the Oxford COVID-19 Government Response Tracker for Hong Kong, China and

Taipei, China. This is expressed in annual terms by normalizing the number of days by 365. Each economy's data on baseline EYS is taken from the World Bank's 2020 Human Capital Index.

School closures reduce harmonized test scores (quality effect) by as much as the country's average school productivity, p_c , or what students learn in 1 year of going to school. This HTS loss is also mitigated by remote-learning effectiveness. Thus,

$$\Delta HTS = -p_c \times s_c \times (1 - m_c).$$

School productivity is taken from OECD (2010, 2014) estimates of "grade effects" or the Programme for International Student Assessment score-point difference associated with 1 year of schooling. This is available for Azerbaijan, Indonesia, Kazakhstan, the Kyrgyz Republic, Malaysia, the Republic of Korea, Singapore, Thailand, Viet Nam, and Hong Kong, China. In cases where an economy has "grade effects" estimates in both OECD 2010 (for reading) and OECD 2014 (for mathematics), the higher estimate is taken. For the rest of the economies of developing Asia, the calibrations of school productivity by country income group by Azevedo et al. (2021) are applied. Consistent with the standard way of calculating LAYS, school productivity is normalized by 625 points, the threshold for advanced achievement.

A2 Sensitivity analysis

This sensitivity analysis shows what happens to learning and earning losses if partial school closures were not equivalent to half a day of full closure. The form and extent of closures vary over time. Some economies in developing Asia have left the decision to local government units, so no comprehensive accounts exist of how partial closures were implemented in practice. The best that can be done is to make assumptions on the degree of partial closures, and here alternative weights are considered.

If each day of partial closure is equivalent to 0.75 of a full closure, the average learning losses in developing Asia reached one-third of a learning-adjusted school year in the intermediate scenario (Table A2.1). In the optimistic scenario for the effectiveness of remote learning, students in the region lost 25% and in the pessimistic case 42% of a learning-adjusted year of schooling. But if partial closures are closer to full reopening than full closure, such that their weight is 0.25, students in the region lost about one-quarter of a year in learning. In the optimistic scenario, they lost one-fifth of a year and one-third in the pessimistic scenario.

Total losses in potential earnings could reach \$1.5 trillion if partial school closures are more similar to full closures, with a weight of 0.75 relative to full closures (Table A2.2). These losses are equivalent to 6.3% of developing Asia's 2020 GDP.

The present value of losses in future earnings can reach up to 9.0% of GDP in the pessimistic scenario for the effectiveness of remote learning. But if partial school closures were equivalent to one-fourth of full closures, developing Asia stands to lose \$1.0 trillion over the working life of present-day students, equal to 4.4% of 2020 GDP. Total losses in potential earnings are 3.0% of GDP in the optimistic scenario and 6.3% in the pessimistic scenario.

Table A2.1 Average learning losses in LAYS under alternative weights of partial school closures

Subregion	Partial closure weight = 0.75			Partial closure weight = 0.25		
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic
Central Asia	0.20	0.27	0.36	0.17	0.22	0.29
East Asia	0.29	0.44	0.64	0.21	0.30	0.42
South Asia	0.55	0.62	0.73	0.43	0.48	0.56
Southeast Asia	0.30	0.38	0.50	0.25	0.32	0.41
The Pacific	0.07	0.09	0.12	0.06	0.08	0.10
Developing Asia	0.25	0.33	0.42	0.20	0.26	0.33

LAYS = learning-adjusted years of schooling.

Note: These estimates do not include the following economies because data are not available for at least one parameter: Afghanistan; Bhutan; the Cook Islands; Kiribati; Maldives; the Marshall Islands; the Federated States of Micronesia; Niue; Palau; Papua New Guinea; Solomon Islands; Taipei,China; Tonga; and Tuvalu.

Source: Asian Development Bank estimates.

Table A2.2 Aggregate earning losses in developing Asia, by weight of partial closures

Weight of partial closures	Loss in lifetime earnings, current \$ million			Loss in lifetime earnings, % of 2020 GDP		
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic
0.75	980,952	1,468,572	2,102,112	4.2	6.3	9.0
0.50	841,604	1,251,149	1,784,155	3.6	5.4	7.6
0.25	701,867	1,032,919	1,464,485	3.0	4.4	6.3

GDP = gross domestic product.

Note: These estimates do not include the following economies because data are not available for at least one parameter: Afghanistan; Bhutan; the Cook Islands; Kiribati; Maldives; the Marshall Islands; the Federated States of Micronesia; Niue; Palau; Papua New Guinea; Solomon Islands; Taipei,China; Tonga; and Tuvalu.

Source: Asian Development Bank estimates.

A3 Learning and earning losses in developing Asian economies

Table A3.1 Learning losses in developing Asian economies

	Learning losses						
	Average loss in LAYS			% decline in LAYS			Baseline
	Optimistic	Intermediate	Pessimistic	Optimistic	Intermediate	Pessimistic	LAYS 2020
Central Asia	0.19	0.24	0.32	2.24	2.93	3.86	8.32
Armenia	0.10	0.15	0.21	1.25	1.87	2.67	7.99
Azerbaijan	0.19	0.29	0.42	2.43	3.51	5.01	8.28
Georgia	0.22	0.34	0.48	2.80	4.08	5.85	8.27
Kazakhstan	0.19	0.28	0.40	2.34	3.07	4.38	9.13
Kyrgyz Republic	0.61	0.69	0.82	7.62	8.02	9.43	8.65
Tajikistan	0.00	0.00	0.00	-0.03	-0.04	-0.04	6.79
Turkmenistan	0.00	0.00	0.00	-0.03	-0.04	-0.04	...
Uzbekistan	0.18	0.20	0.24	2.23	2.24	2.64	9.13
East Asia	0.23	0.39	0.59	2.18	3.67	5.64	10.50
Hong Kong, China	0.16	0.43	0.78	1.98	3.60	6.55	11.89
Mongolia	0.47	0.53	0.63	5.85	5.83	6.87	9.15
People's Republic of China	0.17	0.26	0.38	2.17	2.84	4.09	9.27
Republic of Korea	0.11	0.32	0.58	1.43	2.72	5.00	11.68
South Asia	0.49	0.55	0.65	7.56	8.56	9.99	6.46
Afghanistan	0.36	0.37	0.40	4.47	7.41	7.91	5.05
Bangladesh	0.58	0.67	0.79	7.31	11.14	13.12	5.99
Bhutan	0.46	0.52	0.62	5.74	8.29	9.77	6.33
India	0.57	0.64	0.76	7.07	9.06	10.63	7.10
Nepal	0.57	0.65	0.77	7.16	9.04	10.65	7.23
Pakistan	0.33	0.37	0.44	4.08	7.33	8.65	5.08
Sri Lanka	0.56	0.64	0.75	6.99	7.54	8.88	8.46
Southeast Asia	0.27	0.35	0.45	3.26	4.20	5.45	8.34
Brunei Darussalam	0.05	0.15	0.27	0.64	1.58	2.91	9.22
Cambodia	0.37	0.42	0.50	4.64	6.21	7.34	6.84
Indonesia	0.22	0.33	0.48	2.78	4.28	6.13	7.83
Lao PDR	0.18	0.21	0.25	2.31	3.38	3.98	6.25
Malaysia	0.45	0.67	0.95	5.57	7.51	10.71	8.89
Myanmar	0.67	0.77	0.90	8.41	11.30	13.30	6.79
Philippines	0.53	0.61	0.72	6.66	8.11	9.55	7.49
Singapore	0.04	0.10	0.18	0.54	0.81	1.43	12.81
Thailand	0.15	0.22	0.31	1.84	2.51	3.57	8.68
Timor-Leste	0.15	0.17	0.20	1.89	2.73	3.21	6.29
Viet Nam	0.17	0.20	0.23	2.17	1.86	2.20	10.68
The Pacific	0.06	0.08	0.11	0.97	1.28	1.70	6.59
Federated States of Micronesia	0.25	0.28	0.33	3.08	3.91	4.61	7.19
Fiji	0.11	0.16	0.23	1.35	2.35	3.38	6.95
Kiribati	0.04	0.05	0.06	0.54	0.67	0.79	7.38
Marshall Islands	0.01	0.02	0.02	0.14	0.29	0.40	5.66
Nauru	0.00	0.00	0.00	0.02	0.02	0.02	6.51
Palau	0.04	0.09	0.16	0.44	1.03	1.86	8.69
Papua New Guinea	0.08	0.09	0.11	1.00	1.52	1.79	6.00
Samoa	0.04	0.06	0.08	0.49	0.79	1.12	7.25
Solomon Islands	0.06	0.07	0.09	0.81	1.57	1.84	4.68
Tonga	0.02	0.03	0.05	0.30	0.49	0.70	7.14
Tuvalu	0.07	0.10	0.15	0.86	1.74	2.50	6.00
Vanuatu	0.05	0.05	0.06	0.57	0.92	1.07	5.62

... = not available in the World Bank Human Capital Index, Lao PDR = Lao People's Democratic Republic, LAYS = learning-adjusted years of schooling.

Sources: World Bank Human Capital Index for LAYS 2020; Asian Development Bank estimates.

Table A3.2 Earning losses in developing Asian economies

A = Optimistic, B = Intermediate, C = Pessimistic

Economies and subregions	Loss in earnings per student per year, current \$			% decline in earnings per student per year			Baseline average earnings per worker per year, current \$	Loss in lifetime earnings, current \$ million		
	A	B	C	A	B	C		A	B	C
Central Asia	39	56	78	1.1	1.6	2.2	3,552	8,127	11,361	15,572
Armenia	6	9	13	0.2	0.3	0.5	2,828	24	36	51
Azerbaijan	78	117	168	1.7	2.6	3.7	4,481	1,421	2,130	3,043
Georgia	87	131	188	1.7	2.6	3.7	5,059	557	841	1,206
Kazakhstan	83	124	177	1.5	2.2	3.2	5,552	3,814	5,713	8,156
Kyrgyz Republic	10	12	14	4.4	5.0	5.9	233	143	163	191
Tajikistan	0	0	0	0.0	0.0	0.0	...	0	0	0
Turkmenistan	0	0	0	0.0	0.0	0.0	...	0	0	0
Uzbekistan	46	52	62	1.4	1.7	2.0	3,157	2,168	2,478	2,926
East Asia	332	771	1,344	1.7	4.0	7.0	19,182	551,989	896,251	1,340,785
Hong Kong, China	352	952	1,734	1.5	4.1	7.5	23,189	785	2,126	3,871
Mongolia	218	249	293	4.3	4.9	5.8	5,065	1,585	1,809	2,132
PRC	182	276	397	1.8	2.7	3.9	10,169	503,147	762,687	1,096,668
Republic of Korea	576	1,608	2,953	1.5	4.2	7.7	38,306	46,471	129,628	238,114
South Asia	68	78	92	3.5	4.0	4.7	1,948	171,866	195,787	230,083
Bangladesh	70	80	94	3.9	4.5	5.2	1,793	23,420	26,736	31,481
India	59	67	79	3.5	4.0	4.7	1,676	125,529	142,870	167,736
Nepal	91	103	122	4.4	5.1	6.0	2,045	4,339	4,954	5,836
Pakistan	42	48	57	2.2	2.5	3.0	1,898	15,030	17,176	20,256
Sri Lanka	79	90	106	3.4	3.9	4.5	2,331	3,548	4,051	4,773
Southeast Asia	105	167	247	1.2	1.9	2.9	8,663	109,454	147,503	197,366
Brunei Darussalam	94	267	495	0.5	1.3	2.5	19,816	87	248	459
Cambodia	36	41	49	1.3	1.5	1.7	2,838	1,570	1,799	2,129
Indonesia	41	62	89	2.5	3.8	5.4	1,629	25,599	38,545	55,168
Lao PDR	48	55	65	1.4	1.6	1.9	3,427	464	530	624
Malaysia	394	590	841	4.3	6.4	9.2	9,180	27,681	41,500	59,151
Myanmar	111	126	149	6.7	7.6	9.0	1,658	10,243	11,688	13,757
Philippines	115	131	155	3.4	3.9	4.5	3,404	26,904	30,696	36,138
Singapore	146	349	617	0.4	0.9	1.5	40,139	733	1,758	3,105
Thailand	44	66	93	0.8	1.1	1.6	5,875	6,604	9,784	13,881
Timor-Leste	93	106	125	2.4	2.7	3.2	3,862	365	416	488
Viet Nam	34	39	46	1.0	1.1	1.3	3,465	9,202	10,538	12,466
The Pacific	30	42	58	0.5	0.6	0.9	6,509	169	247	349
Fiji	69	104	150	1.1	1.6	2.3	6,403	133	201	289
Nauru	0	0	0	0.0	0.0	0.0	...	0	0	0
Samoa	23	34	49	0.4	0.6	0.8	6,005	10	14	20
Tonga	19	28	39	0.2	0.3	0.5	8,260	5	8	11
Vanuatu	26	30	35	0.5	0.6	0.6	5,368	22	24	28

... = not available in ILOSTAT, Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: ILOSTAT for baseline average earnings per worker; Asian Development Bank estimates.

Annex: Global growth to rebound as vaccines help bring COVID-19 under control

The major advanced economies of the United States, the euro area, and Japan are expected to recover in 2021 and 2022 from the severe downturn in 2020 caused by the COVID-19 pandemic. The vaccine rollouts that began in 2021 will allow economies to reopen and normalize. In aggregate, growth in the major advanced economies is expected to rebound to 5.3% in 2021 and 4.1% in 2022 (Table A1.1).

Table A1.1 Baseline assumptions on the international economy

	2019	2020	2021	2022
	Actual		ADO 2021 Forecast	
GDP growth, %				
Major industrial economies ^a	1.6	-4.8	5.3	4.1
United States	2.2	-3.5	6.5	4.4
Euro area	1.3	-6.7	4.3	4.2
Japan	0.3	-4.8	2.9	2.4
Prices and inflation				
Brent crude spot prices, average, \$/barrel	64.03	42.35	64.00	61.00
Consumer price index inflation, major industrial economies' average, %	1.4	0.7	1.9	2.0
Interest rates				
United States federal funds rate, average, %	2.2	0.4	0.1	0.8
European Central Bank refinancing rate, average, %	0.0	0.0	0.0	0.0
Bank of Japan overnight call rate, average, %	-0.1	0.0	-0.1	-0.1
\$ Libor ^b , %	2.2	0.5	0.1	0.8

ADO = Asian Development Outlook, GDP = gross domestic product.

^a Average growth rates are weighted by gross national income, Atlas method.

^b Average London interbank offered rate quotations on 1-month loans.

Sources: Bloomberg; CEIC Data Company; Haver Analytics (all accessed 5 April 2021); Asian Development Bank estimates.

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Recent developments in the major advanced economies

United States

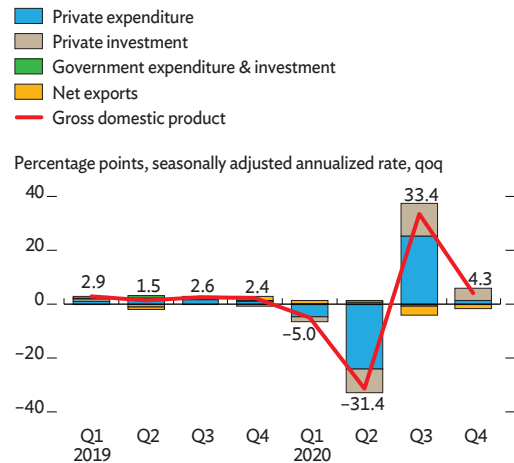
Gross domestic product (GDP) in the US shrank by an estimated 3.5% in 2020 as economic activity slowed due to the COVID-19 pandemic. Most of the contraction was in the second quarter, when consumption and investment fell sharply, and economic activity started to resume in the third quarter (Figure A1.1). For the year as a whole, consumption fell by 3.9% and investment by 5.2%. Government spending grew by 1.1%, mainly due to a large stimulus package to cushion the pandemic's impact on the economy. Both merchandise and services trade plunged in the second quarter, but while trade in goods rebounded strongly when economic activity picked up in the third quarter, trade in services did not because the pandemic continued to restrict cross-border travel. Economic activity continued to improve in the fourth quarter, although at a slower pace.

Consumption, the largest contributor to GDP, fell sharply in the first half of 2020 as measures to contain COVID-19 crippled the economy. Moves to normalize economic activity and generous stimulus payments helped support a rapid rebound in retail sales and consumption in the third quarter, which continued into the fourth quarter (Figures A1.1 and A1.2). But consumer confidence remained subdued, reflecting worries over successive waves of COVID-19 and the incomplete recovery in employment. The fall in investment in 2020 was driven by a steep drop in mining and transport investment in the second quarter. A significant rebound in investment in the following two quarters, supported by spending on machinery and equipment, was not enough to recover the large decrease in the first half.

Recent data indicate the strong momentum for investment will continue over 2021. The robust expansion in industrial production and the purchasing managers' index (PMI) evident in the last months of 2020 continued in January 2021 (Figure A1.2). Retail sales also remained strong in January as the number of new COVID-19 cases had fallen considerably by then and fiscal stimulus continued. These trends suggest a further expansion of the US economy and are consistent with continued improvements in the labor market. By March, the unemployment rate had fallen to 6.0% from its peak of 14.8% in April 2020, although it was still above its prepandemic level of 3.5% and does not reflect the substantial number of workers who have dropped out of the labor force.

Figure A1.1 Demand-side contributions to growth, United States

Quick rebound in Q3 2020 continued to Q4.

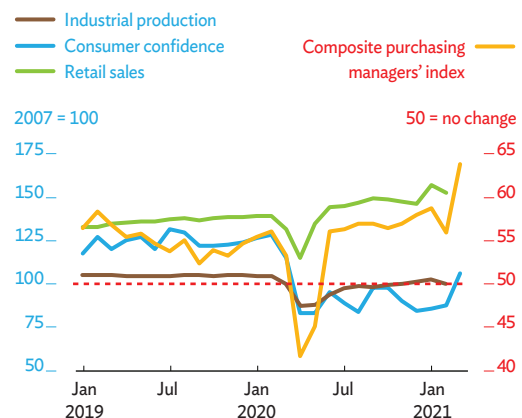


qoq = quarter on quarter; Q = quarter.

Sources: US Department of Commerce, Bureau of Economic Analysis. <http://www.bea.gov>; Haver Analytics (both accessed 5 April 2021).

Figure A1.2 Business activity, United States

Private activity is picking up pace.



Note: A purchasing managers' index reading <50 signals deterioration, >50 improvement.

Source: Haver Analytics (accessed 31 March 2021).

The decline in new COVID-19 cases since early January 2021 is expected to continue as the country's mass vaccination program, which started in late December 2020, is underway (Figure A1.3). On 11 March 2021, the US passed a \$1.9 trillion stimulus package, equivalent to 9.1% of GDP. Of this, \$1.1 trillion (5.3% of GDP) will be disbursed in fiscal year 2021 (FY2021, ending 30 September 2021); \$460 billion in FY2022; and the rest spread over the decade. The stimulus package, along with declining new COVID-19 infections, will help to restore consumer confidence and give a substantial boost to consumption and investment.

Despite the positive momentum, the output gap has kept inflation muted, with headline and core inflation at 1.4% in January 2021 (Figure A1.4). This trend may change because the stimulus package could stoke higher prices. The US Federal Reserve, however, is committed to maintaining its loose monetary policy stance and seems willing to accept temporarily high inflation to guarantee a return to a lower unemployment rate.

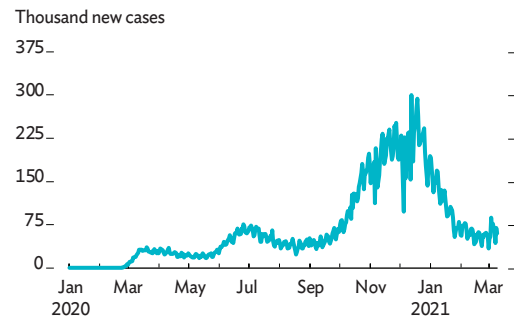
Given these prospects, GDP growth in the US is forecast to accelerate substantially to 6.5% in 2021, before moderating to 4.4% in 2022. GDP is expected to return to its prepandemic level by the second quarter of this year, supported by the disbursement of \$1,400 per person stimulus checks, a continuation of \$300 weekly unemployment benefits, and other stimulus measures. Inflation is forecast to creep up to 2.7% in 2021 and 2.8% in 2022, but the federal funds rate is expected to remain at 0.1% over 2021 before increasing gradually to an average of 0.8% in 2022. Risks to the forecast are tilted to the downside and depend mainly on the effectiveness of vaccines in containing the COVID-19 pandemic. Growth may be slower if mass vaccination falters or fails to contain the spread of COVID-19 when the new variants emerge. An inflationary impact of the \$1.9 trillion stimulus package, if it goes uncontained, might also slow the growth momentum ahead.

Euro area

The euro area economy contracted by 6.7% in 2020—the deepest recession in the history of the currency bloc. After GDP growth at a seasonally adjusted annualized rate (saar) of 59.9% (–4.2% year on year) in the third quarter, GDP declined by 2.6% saar (–4.9% year on year) in the fourth quarter as renewed COVID-19 outbreaks and tighter containment measures eroded consumer sentiment, which affected retail sales and household spending (Figure A1.5). Industrial production increased by 0.3% year on year in December, but labor market conditions remained fragile, with the unemployment rate at 8.1% in that month. All the

Figure A1.3 COVID-19 daily cases, United States

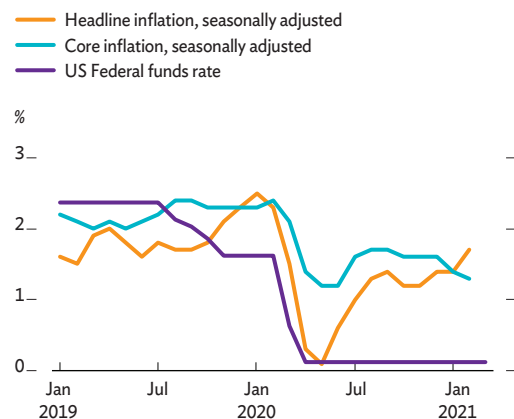
COVID-19 cases taper as new infections decline.



Source: CEIC Data Company (accessed 31 March 2021).

Figure A1.4 Inflation and the US Federal Reserve rate, United States

Interest rate remains low as inflation is muted.



Source: Haver Analytics (accessed 31 March 2021).

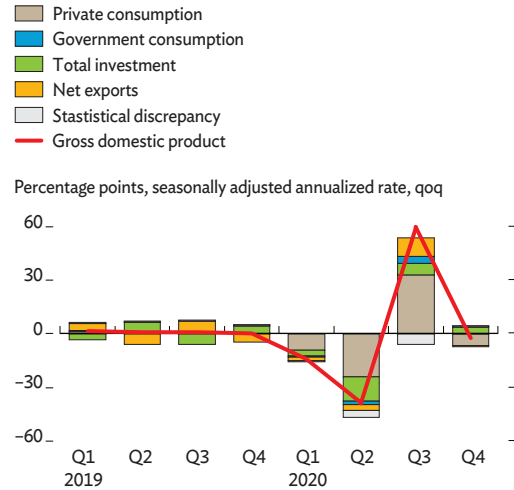
major euro area economies performed weakly. France's GDP fell by 5.7% saar (-4.9% year on year) in the fourth quarter after the reimposition of lockdown measures in October, and Italy's slumped 7.5% saar (-6.6% year on year) on renewed COVID-19 outbreaks and mobility restrictions hitting the services sector. Growth in Germany slowed to 1.4% saar (-3.6% year on year) on a poorly performing services sector, despite strong manufacturing activity. In Spain, growth weakened to 0.1% saar (-8.9% year on year) as a second wave of COVID-19 infections dampened consumer and business confidence.

The weak outturn in the fourth quarter of 2020 persisted at the beginning of 2021, reflecting tighter COVID-19 restrictions due to infection rates that are still at a worryingly high level and the risks posed by new coronavirus variants. However, leading indicators suggest economic activity probably started to pick up toward the end of the first quarter of 2021. The composite PMI improved from 48.8 in February to 52.5 in March, but the services PMI remained contractionary at 48.8 in March as COVID-19 restrictions took their toll on the services sector. In contrast, the manufacturing PMI surged to a record high of 62.5 in March from 57.9 in February, indicating burgeoning manufacturing activity, and highlighting the divergence between the performance of the manufacturing and services sectors. The economic sentiment indicator for the euro area fell to 91.5 in January from 92.4 in December 2020, but picked up to 93.4 in February and further to 101.0 in March, as sentiment in the industry and construction sectors improved (Figure A1.6).

Growth in the euro area is projected to recover to 4.3% in 2021 and 4.2% in 2022, benefiting from rising domestic and external demand. This outlook is shaped by expectations on the pandemic's development and the vaccine rollout, with widespread vaccination anticipated by the end of summer. The tight containment measures that were still in place in the first quarter are seen progressively easing in the second quarter and more markedly from the third as an increasing share of the adult population gets vaccinated. As a result, domestic demand is poised to recover in 2021 and 2022, buttressed by improving consumer spending and investment activity. The recovery in consumer spending will be supported by a large stock of accumulated savings, favorable financing conditions, and job-protection policies safeguarding household incomes in most euro-area economies. Economic uncertainty will continue to weigh on investment in the short-run, but the disbursement of funds from the NextGenerationEU program to help economies and society recover from the pandemic, highly accommodative monetary policy, and targeted government support schemes

Figure A1.5 Demand-side contributions to growth, euro area

Growth shrank in Q4 2020 amid renewed COVID-19 outbreaks.

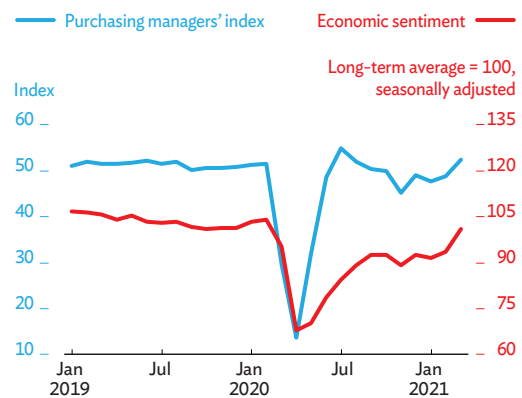


qoq = quarter on quarter, Q = quarter.

Source: Haver Analytics (accessed 14 March 2021).

Figure A1.6 Economic sentiment and purchasing managers' indexes, euro area

Weakness lingered in Q1 2021 as tighter COVID-19 restrictions remained in place.



Q = quarter, COVID-19 = Coronavirus Disease 2019.

Sources: CEIC Data Company; Haver Analytics (both accessed 31 March 2021).

should bolster investment prospects in the euro area in 2021 and 2022. Exports are expected to rebound in both years, with the upturn in global merchandise trade and tourism flows resuming in the second half of 2021. Even so, euro area GDP will return to its precrisis level only in 2022, and the pace of recovery across economies in the currency bloc will vary significantly due, in part, to different fiscal policy stances.

Lifted by rising oil prices, headline inflation increased to 1.3% in March 2021 from 0.9% in February (Figure A1.7). Meanwhile, core inflation edged down slightly to 1.0% in March from 1.2% in the previous month. Consumer price inflation averaged 0.3% in 2020, significantly undershooting the target of the European Central Bank (ECB) of below but close to 2.0%. In response to the expected economic fallout from the second wave of COVID-19, the ECB, in December 2020, approved a further broad set of monetary policy easing measures and left interest rates unchanged in January. In March, the ECB pledged to significantly step up asset purchases in the first quarter to avoid a rise in bond yields that might translate into tighter credit conditions. While temporary supply-side factors will push prices up in 2021, the large economic slack is expected to be only gradually taken up by the projected rebound in growth. On balance, inflation is forecast at 1.4% in 2021 and 1.2% in 2022.

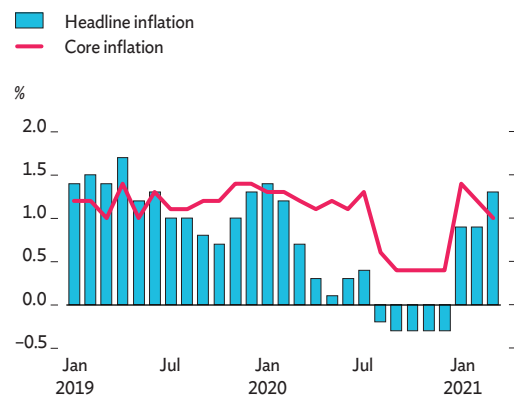
Risks to the outlook are associated with how the COVID-19 pandemic develops. While a faster-than-expected vaccine rollout is an upside risk, renewed mobility restrictions due to more contagious coronavirus variants—or a slow rollout of COVID-19 vaccines—would adversely affect the speed and trajectory of the economic recovery. In this scenario, increasing tensions in the banking sector and financial markets are an additional downside risk since a prolonged pandemic could lead to growing unemployment, nonperforming loans, insolvencies, and bankruptcies.

Japan

After falling into recession in early 2020 due to the COVID-19 pandemic, the economy rebounded strongly in the third quarter, when GDP grew by 22.8% saar. This was underpinned by private consumption rising 22% on easing pandemic-related restrictions in July and substantial fiscal support that included cash payments to individuals and small- and medium-sized enterprises, and subsidies for domestic tourism. The quarter also saw strong export growth of 33.2%, driven by robust demand for semiconductors and related machinery from the People's Republic of China (Figure A1.8). Private investment, however, contracted 8.4% as business sentiment remained weak.

Figure A1.7 Headline and core inflation, euro area

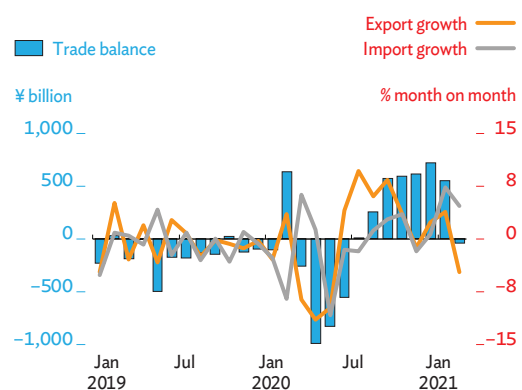
Inflation rebounded with rising oil prices in January 2021.



Source: Haver Analytics (accessed 31 March 2021).

Figure A1.8 Trade indicators, Japan

Export growth and declining imports in Q3 2020 boosted GDP.



GDP = gross domestic product.

Source: Haver Analytics (accessed 7 April 2021).

Despite the third-quarter rebound, the economy lost momentum toward the end of 2020. GDP growth moderated to 11.7% saar in the fourth quarter after a surge in COVID-19 infections from November. This affected the full-year growth performance, with GDP contracting by 4.8%—the worst contraction since the global financial crisis of 2008–2009. Overall, the dynamics of growth in 2020 were led by a rebound and subsequent slowdown in private consumption, government consumption, and net exports in the second half of the year (Figure A1.9).

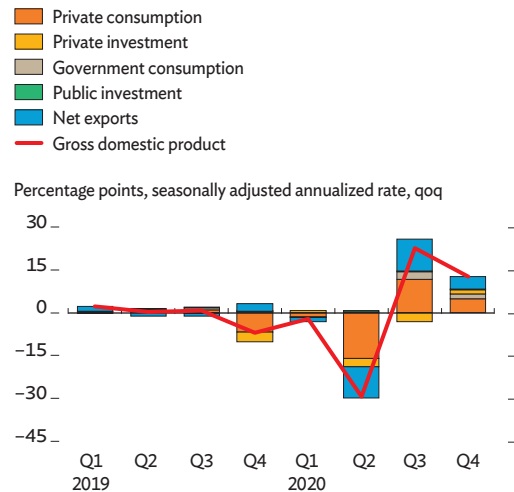
Weak economic activity pushed prices down. Headline inflation averaged 0.3% in the first three quarters of 2020, then turned negative in October and was at –1.2% in December, the lowest since January 2010. Temporary factors largely caused this, including the government’s travel subsidy program dragging down tourism-related prices. The Bank of Japan maintained its easy monetary policy stance amid these developments, extending its COVID-19 response program of corporate bond purchases and financing support to small and medium-sized enterprises to September 2021.

Continued COVID-19 outbreaks caused a slow economic start to 2021. A state of emergency was declared on 7 January as COVID-19 infections continued to rise. And tighter restrictions that led to reduced mobility dented consumer confidence in January. But the economy is now improving. The restrictions contained the wave of infections, with the number of new daily cases falling substantially in early February. This and resilient retail numbers suggest that consumer spending will not fall as much as initially expected in the first quarter. Wages rebounded in January and are expected to improve further as the labor market tightens, providing an additional boost to consumption. Other leading indicators also show a promising picture: industrial production grew 3.1% month on month in January and the manufacturing PMI rose to 51.4, breaching 50 for the first time since April 2019 (Figure A1.10).

To further support the recovery, the government approved a new round of stimulus in early December, amounting to ¥73.6 trillion, equivalent to 14% of GDP. The vaccine rollout, which began on 16 February 2021, will also support growth. With the positive developments in leading indicators and continued policy support, GDP growth is forecast at 2.9% 2021 and 2.4% in 2022. Inflation will rise gradually, and is forecast at –0.1% in 2021 and 0.5% in 2022. The main risks to the outlook are all related to COVID-19. They include a slower-than-expected vaccine rollout and renewed outbreaks of more resilient coronavirus variants that could hamper growth.

Figure A1.9 Demand-side contributions to growth, Japan

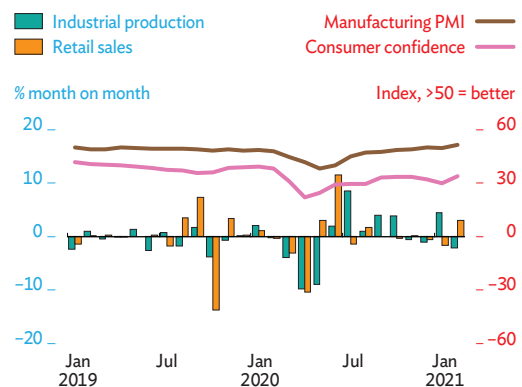
After growth collapsed in Q2 2020, the economy rebounded strongly driven by private consumption and net exports.



Source: Economics and Social Research Institute, Cabinet Office, Government of Japan. https://www.esri.cao.go.jp/en/sna/data/sokuhou/files/2020/qe204_2/gdemenua.html (accessed 31 March 2021).

Figure A1.10 Consumption and business indicators, Japan

While consumer confidence dipped following a renewed COVID-19 outbreak in November, other leading indicators remain upbeat.



COVID-19 = Coronavirus Disease 2019, PMI = purchasing managers' index.

Notes: A purchasing managers' index reading <50 signals deterioration, >50 improvement. A consumer confidence reading >50 signals better condition.

Source: CEIC Data Company (accessed 7 April 2021).

Recent developments and outlook in nearby economies

Australia

The economic recovery in the second half of 2020 was faster than initially expected, with GDP growth surging from -25.2% saar in the second quarter to 13.1% in the fourth (Figure A1.11). Household consumption, the main driver of the bounce-back, expanded by 18.1%. Fixed investment increased by 15.0% and exports expanded by 16.3%. Seasonally adjusted retail sales expanded by 10.0% in the fourth quarter. In October, the consumer sentiment index climbed and has remained above the 100-threshold, indicating a positive outlook. The performance of manufacturing index rose to 58.8 in February 2021 from a low of 35.8 in April 2020, implying an expansion in manufacturing. The recovery led to improved labor market conditions, with the unemployment rate declining from a 22-year high of 7.5% in July 2020 to 5.8% in February 2021. Headline inflation has decelerated, from 1.6% in 2019 to 0.9% last year.

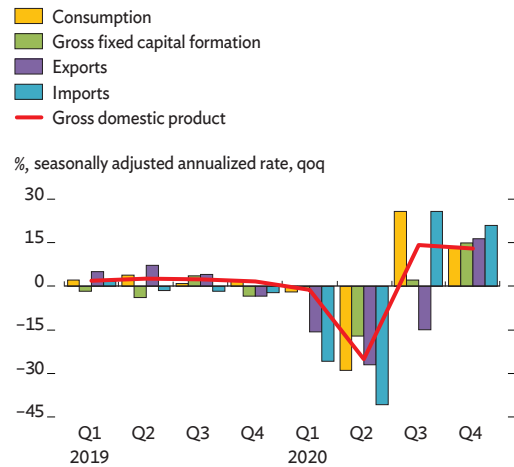
Substantial fiscal and monetary support, and the progress made in tackling COVID-19, aided these positive economic developments and outlook. As of March 2021, the government had pledged \$136.5 billion in income support measures that include boosting cash flow for employers and the JobKeeper program. The Reserve Bank Board extended the bond purchase program beyond mid-April by procuring an additional A\$100 billion of government bonds. In March, the cash target rate was retained at 0.1%. Low locally transmitted COVID-19 infections have allowed restrictions to be lifted, and the country commenced its vaccine rollout on 22 February. Consensus Forecasts, as of 25 March 2021, had GDP growing by 4.3% in 2021 and 3.1% in 2022.

New Zealand

A post-lockdown rebound is underway, although the momentum has slowed. GDP growth surged to 70.8% saar in the third quarter of 2020 but contracted by 5.9% in the fourth (Figure A1.12). Private consumption expanded by 4.2% in the fourth quarter, while fixed capital formation declined by 5.4% in the same quarter. Net exports subtracted 10.2 percentage points from GDP growth. Border restrictions adversely affected the important tourism sector in the peak season, with visitor arrivals falling by 99%. The seasonally adjusted unemployment rate increased during the pandemic, although it softened slightly from 5.3% in the third quarter

Figure A1.11 Demand-side growth, Australia

Consumption fuelled a faster than initially expected recovery.

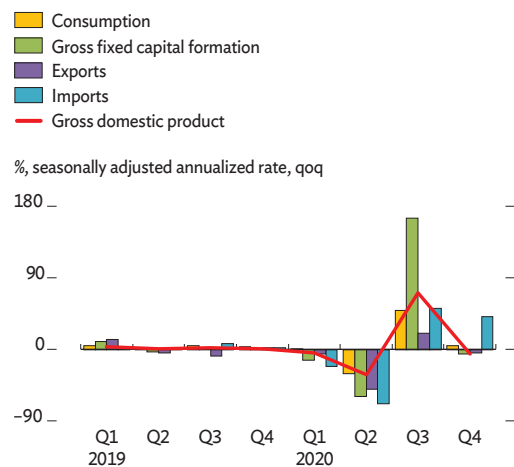


qoq = quarter on quarter, Q = quarter.

Source: CEIC Data Company (accessed 31 March 2021).

Figure A1.12 Demand-side growth, New Zealand

Growth surged as the post-lockdown rebound started.



qoq = quarter on quarter, Q = quarter.

Source: CEIC Data Company (accessed 31 March 2021).

to 4.9% in the fourth. Inflation in the fourth quarter, at 1.4%, was below the Reserve Bank of New Zealand's 2.0% target.

Fiscal and monetary stimulus, and effective containment measures, supported New Zealand's economy. A wage subsidy scheme mitigated job losses and buttressed household spending. In February 2021, the central bank's Monetary Policy Committee retained the official cash rate at 0.25%. Other measures include a NZ\$100 billion asset purchase program and a lending program that commenced in December 2020 that provides loans to businesses and households at the 0.25% official cash rate. New Zealand's COVID-19 containment measures have been largely successful in eliminating locally transmitted infections; the country commenced its vaccine rollout on 19 February. Consensus Forecasts, as of 25 March 2021, had GDP growing by 4.7% in 2021 and 2.8% in 2022.

Russian Federation

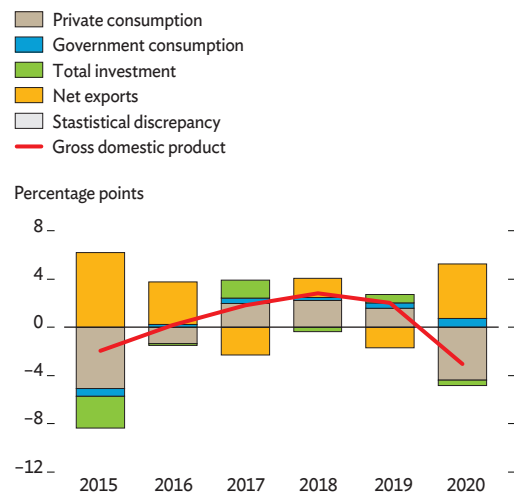
With GDP contracting by 3.1% in 2020, the recession in the Russian Federation was milder than in other commodity exporters. This was due to shorter and less severe containment measures, and the country having a small services sector and a large public sector (Figure A1.13). The production cuts agreed in the Organization of the Petroleum Exporting Countries Plus (OPEC+) framework ensured oil prices stayed above \$40/barrel in the second half of the year—but they also caused a 30% contraction in exports and a reduction in the current account surplus, from 3.2% in 2019 to 1.7% of GDP in 2020.

Inflation rose above the Central Bank of the Russian Federation's target toward the end of 2020 and further accelerated to 5.8% in March, driven by the global surge in food prices and the ruble's depreciation. In the same month, the central bank raised the policy rate to 4.5%, and further money tightening is expected.

Developments in oil markets, fiscal policy, and the COVID-19 pandemic will shape the outlook. Global oil demand should remain subdued in 2021 and OPEC+ production cuts stay in place. Both factors will weigh on growth as oil and gas account for 20% of GDP. Fiscal consolidation should further limit growth, with the budget deficit expected to narrow to 2.0% of GDP in 2021 from 3.8% in 2020. Although lockdowns are unlikely to return in 2021, consumption will remain subdued until the domestic COVID-19 outbreak is contained. The Russian Federation's vaccination campaign began in early December 2020, but its rollout has been slow, hampered by manufacturing capacity constraints and vaccine skepticism. Consensus Forecasts, as of 6 April 2021, had GDP growing by 3.0% in 2021 and 2.6% in 2022.

Figure A1.13 Demand-side contributions to growth, Russian Federation

The recession was mitigated by net exports and government spending.



Source: Federal State Statistics Service. <https://eng.rosstat.gov.ru/> (accessed 7 April 2021).

Oil prices

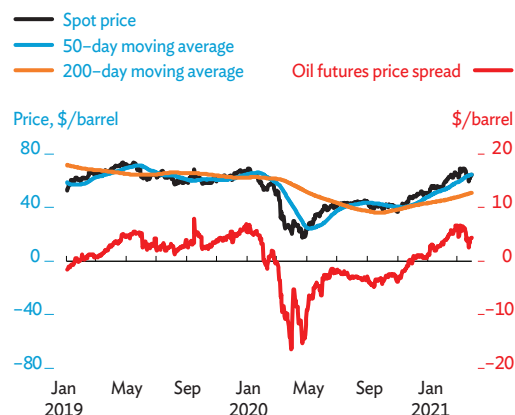
Brent crude oil prices continued their gains in the last 2 months of 2020. From \$36.90/barrel at the end of October, they rose by 38.7% to end the year at \$51.17/barrel (Figure A1.14). On 3 December 2020, OPEC+ agreed to raise crude production in monthly increments of up to 500,000 barrels a day, substantially less than previous plans to boost output by up to 2 million barrels a day. In addition, Saudi Arabia volunteered to cut 1 million barrels a day of crude output in February and March 2021. On 4 March, OPEC+ agreed to keep March's production quotas for another month, but with the Russian Federation and Kazakhstan exempted from this arrangement. Saudi Arabia will also roll over its voluntary cut until April. US production also flatlined in the first quarter—although the oil rig count has continuously increased since September 2020, it is still half the number than at the start of 2020. Given these developments and the renewed optimism over the outlook for global demand, oil prices have further strengthened to above \$60/barrel.

While spot prices are advancing, there have also been sharp movements in the structure of the futures curve, with prices for near-term oil deliveries higher relative to prices for delivery further in the future. This association has put upward pressure on prices as traders are willing to pay more for immediate access to oil, which bolsters prices by whittling down supply.

The International Energy Agency has noted that the oil market's rebalancing remains fragile and will be highly dependent on the success of vaccine rollouts and the easing of travel restrictions in the world's major economies. Slow progress in the vaccine rollout or new variants of the coronavirus hindering the recovery in oil demand will continue to temper the upward pressure on oil prices. And as supply reacts to higher prices, increasing oil inventories and excess production capacity will also limit upward pressure on oil prices through much of the forecast period. The growth in oil demand is expected to slow sharply in 2022 after 2021's pent-up demand has been satisfied. Given these developments and the recent strength in oil prices, Brent crude's price is forecast to average \$64/barrel in 2021 and \$61 in 2022 (Figure A1.15).

Figure A1.14 Brent crude prices and futures price spread

Oil prices continue their uptrend.



Note: The oil futures price spread is the difference between the front-month futures price and the 12th month futures price for Brent crude.

Sources: Bloomberg (accessed 31 March 2021); Asian Development Bank estimates.

Figure A1.15 Oil price forecast path

Oil prices forecast to fall back to below \$60 by end-2022.



Sources: Bloomberg (accessed 31 March 2021); Asian Development Bank estimates.



2

FINANCING A GREEN AND
INCLUSIVE RECOVERY

Financing a green and inclusive recovery

Green and inclusive recovery from COVID-19 requires both public and private capital. The large investments needed to build back better are often beyond the means of the public sector alone. Promisingly, green and social finance from private sources has grown rapidly in recent years, both regionally and globally.

The growth of private green and social finance is increasingly driven by financial considerations. While it was investors' environmental and social goals that initially drove global growth in sustainable finance, financial motives are coming to the fore. After Australia's ratification of the Kyoto Protocol, for instance, the debt costs of high-emitting Australian companies increased by an average of 5.4%, and equity costs by 2.5%, relative to low-emitting companies. Green and social finance helps meet the sustainable preferences of stakeholders, hedge and mitigate sustainability risks, and deliver greater resilience. Green and social finance also creates positive recognition among investors, thus broadening the financing base.

Evidence confirms the positive environmental and social impacts of sustainable finance. Asian firms that issue green bonds improve their environmental performance by 17% after 1 year and by 30% after 2 years on average, as measured by corporate environmental ratings. At the market level, green bond issuance is associated with reduced carbon emissions attained in response to rising awareness of the Sustainable Development Goals and increased commitment to achieving them. Social impacts are more varied, but innovative financing instruments such as impact bonds show potential.

Engaged public policy is central to nurturing social and green finance. Governments can use a range of policy options both to shape the markets and to participate in them. Regulations that enforce common standards for impact measurement and information disclosure are the most powerful policy option to support the development of green and social finance.

This chapter was written by Shu Tian and Donghyun Park, with substantive contributions from Marina Lopez Andrich, Fredric Asseline, Dina Azhgaliyeva, Virender Kumar Duggal, Bradley Hiller, Yothin Jinjarak, Sung Su Kim, Anouj Mehta, Go Nakata, Kosintr Puongsophol, Cynthia Castillejos Petalcorin, Pilipinas Quising, Katharine Thoday, and Mai Lin Villaruel. Strategic guidance from Abdul Abiad is gratefully acknowledged.

2.1 Mobilizing resources for a green and inclusive recovery

Asia's phenomenal development over several decades often adopted a "grow first, worry about cleanup and equality later" approach. Well before the outbreak of COVID-19, sustainable development that protected the environment and benefited the broader population was already becoming a priority for many Asian governments. The pandemic has since caused regional gross domestic product (GDP) to contract for the first time in more than 6 decades and had a disproportionate impact on the health and livelihoods of poor Asians. It clearly demonstrated that abnormal risks can and do become reality, driving home the need to prepare for future risks, the most dire of which is worsening climate change. COVID-19 disruption to development has underscored the importance of pursuing green and inclusive recovery that will strengthen resilience under future shocks. In short, the COVID-19 pandemic gave society additional impetus to build back better.

Building back better for environmentally and socially sustainable recovery is, however, a costly endeavor. Financing sustainable recovery is therefore an important challenge facing Asia in the wake of COVID-19. It is the central theme of this chapter.

How can the region secure the vast resources required for green investments such as clean energy and for social investments such as strong public health infrastructure? Resource requirements are often beyond the means of the public sector alone. Promisingly, green and social finance from private sources has grown rapidly in recent years, including in Asia.

Global growth in private green and social finance is increasingly driven by financial considerations, which suggests that it can be sustained. While it was investors' environmental and social goals that initially drove this growth, financial motives are coming to the fore, as this report shows. After Australia's ratification of the Kyoto Protocol imposed restrictions on emissions in that country, for instance, the debt costs of high-emitting companies there increased by an average of 5.4%, and their equity costs by 2.5%, relative to low-emitting firms. This report also shows that firms that tap green finance tend to deliver superior returns and exhibit resilience during a crisis, thanks to greater patience in their investor base. Further, green and social finance creates positive recognition among investors, thus broadening the financing base.

New evidence confirms the positive environmental and social impact of sustainable finance. Asian firms that issue green bonds improve their environmental performance by 17% within 1 year and by 30% within 2 years on average, as measured by corporate environmental ratings. At the market level, green bonds are associated with reduced carbon dioxide (CO₂) emissions attained through rising awareness of the United Nations Sustainable Development Goals (SDGs) and increased commitment to achieving them. Social impacts are more varied, but innovative financing instruments such as impact bonds show potential.

This theme chapter first explains why sustainable recovery after COVID-19 requires catalyzing private capital and defines the basic concepts of sustainable finance. It then explores the key drivers of private green and social finance. It goes on to examine the actual impact green and social finance has on sustainable outcomes. A section explores complementary financing modes—public sector financing, microfinance, and carbon pricing—for cleaner and more inclusive recovery. As engaged public policy is central to nurturing green and social finance, the chapter closes with a wide range of policy options available to Asian policy makers.

2.1.1 Broad capital mobilization vital to sustainable development

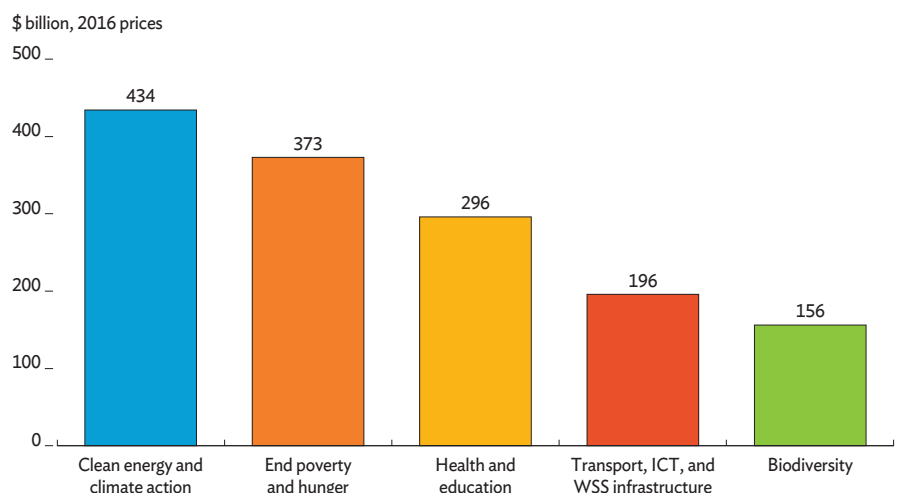
While there is a strong and growing consensus favoring the SDGs, achieving them comes at a huge cost. The investment cost to developing countries globally to meet the SDGs has been estimated at \$3.3 trillion–\$4.5 trillion annually from 2015 to 2030 (UNCTAD 2014). As current annual investment is about \$1.4 trillion, the annual financing gap is \$2.5 trillion. The top three areas with the largest financing requirements are electric power infrastructure at \$950 billion annually, climate change mitigation at \$850 billion, and transportation infrastructure at \$770 billion (Dolumbia and Lauridsen 2019).

Asia and the Pacific require annual investment estimated at \$1.5 trillion from 2016 to achieve the SDGs by 2030 (UNESCAP 2019). This equals about 4% of regional GDP. Within the estimate, the SDGs are classified into five broad areas (Figure 2.1.1). The largest area is clean energy and climate action, which requires \$434 billion per year. The region also needs to invest \$373 billion annually to end poverty and hunger, \$296 billion to improve health and education, \$196 billion to expand public infrastructure, and \$156 billion to safeguard biodiversity.

The vast amount of investment needed to meet the SDGs is beyond the means of the public sector alone. In fact, public and private sources alike make substantial investments that promote environmental and social sustainability.

Figure 2.1.1 Annual investment requirements in Asia and the Pacific, 2016–2030

Huge investments in green and social projects are needed to achieve the Sustainable Development Goals by 2030.



ICT = information and communication technology, WSS = water supply and sanitation.

Source: UNESCAP 2019.

Private finance provided 56.3% of average annual climate investment in 2017 and 2018, according to the Climate Policy Initiative (2019). The same report noted that scarce public resources must be used to maximize synergies between public and private investors and align financing from both sources with the SDGs. Further, mobilizing resources from a broader private sector base fosters risk sharing on green and social projects across the public and private sectors.

The COVID-19 squeeze on fiscal space in developing Asia makes it even more imperative to mobilize private capital for green and social investment. The economic downturn caused by the pandemic has undercut tax revenue collection in developing Asia (Nagata 2021). Tax relief is an integral part of fiscal stimulus packages launched by Asian governments to support growth in the face of the downturn, but it further reduces tax revenue. In addition, increased government spending to tackle the health and social impacts of the pandemic on top of the economic impact leaves even fewer fiscal resources available for meeting the SDGs. Increased government debt in recent years is another reason to mobilize private capital to build back better and achieve the SDGs.

To sum up, private capital is vital to close the funding gap for building back better toward a sustainable Asia. Even before the advent of COVID-19, the sheer amount of funding required for the SDGs inevitably meant a large role for private financing. The tightening of fiscal space under the COVID-19 pandemic squeezes available resources and thus further strengthens the case for catalyzing capital from private sources to help finance green and inclusive recovery from COVID-19.

2.1.2 What is green and social finance?

Financial markets have long recognized the importance of corporate social responsibility (Carroll 2008). Only relatively recently, though, do they aim to achieve specific social and environmental impacts on top of generating a financial return. Because of its short history, green and social finance is institutionally underdeveloped and lacks in a consistent definition, terminology, or set of agreed reporting and disclosure standards, let alone common metrics for measuring impact. A review of similarities and differences in the definitions and taxonomies of sustainable finance currently in use across five major markets suggests that a proper definition and taxonomy would deliver benefits by enhancing market clarity, building investor confidence, and facilitating measurement and tracking (OECD 2020).

Despite different definitions, some consistency of terminology has coalesced around the construct “sustainable finance.” According to the European Commission, sustainable finance generally refers to “the process of taking due account of environmental, social and governance (ESG) considerations when making investment decisions in the financial sector, leading to increased longer-term investments into sustainable economic activities and projects.” Highlighting these three objectives, sustainable finance is often described as using an ESG lens to help investors make investment decisions and assess asset performance according to both financial and sustainable criteria.

The market for sustainable finance can be divided into two subcategories. *Negative* sustainable finance aims to “do no harm” by screening out investments that fall short on the three ESG dimensions, thus avoiding investments in, for example, gambling, tobacco, or alcohol. *Positive* sustainable finance seeks out investments identified as having potential for significant positive social or environmental impact, typically aligned with the SDGs, such as green bonds and sustainability bonds.

The three ESG themes commonly identified in practice are *environmental* for green finance, *social* for impact finance, and *governance* for stakeholder finance. Each ESG theme can adopt either a positive approach to align or integrate investments with the SDGs or a negative approach to exclude or minimize investments that violate ESG criteria. A taxonomy of sustainable finance can therefore be organized in terms of the three ESG themes broken down into negative or positive investment strategies (Figure 2.1.2).

Figure 2.1.2 Taxonomy of sustainable finance

Sustainable finance approaches its three themes with both positive and negative strategies.

ESG theme	Environmental		Social		Governance	
Type of finance	Green finance		Impact finance		Stakeholder finance	
Investment approach	Negative: exclusionary	Positive: integrated	Negative: exclusionary	Positive: integrated	Negative: exclusionary	Positive: integrated
Example: investment theme	Carbon neutral	Carbon reduction	Do no harm	Address social market failure	Follow ILO standards	Corporate purpose
Example: investment focus	Divestment	New green technologies	Pay above minimum wage	Girls' education	Effective health and safety regulations	Employee board representation

ESG = environmental, social, and governance, ILO = International Labour Organization.

Source: Nicholls 2021a.

From an ESG perspective, positive green finance typically focuses on innovation and new technologies that address environmental issues such as the climate crisis and pollution. These investments typically align with climate change mitigation and adaptation, the environmentally sustainable management of natural resources, biodiversity conservation, renewable energy, energy efficiency, clean transportation, and pollution prevention and control (ICMA 2019). Negative green finance typically avoids investments that fail to be carbon neutral.

Positive social finance requires the deployment of capital for deliberate, additional social impact. As such, impact investment has emerged as a new model of positive social finance, in that it helps deploy capital to address social issues directly. Negative social finance disinvests in corporate behavior deemed to violate the corporate social responsibility framework, thereby disassociating the investor from business activities that generate undesirable social consequences.

Governance finance is concerned with the effects of investment in a firm on a range of key stakeholders around it. The most distinctive features of positive stakeholder finance consider a firm's organizational ownership and forms of legal incorporation. The ultimate aim is to improve the quality of corporate governance.

While governance is one of the three components of sustainable finance, this study focuses on the other two, green finance and social finance, because the chapter's primary interest is to explore how developing Asia can finance environmentally and socially sustainable recovery from COVID-19. Green and social finance is capital deployed in a range of investments designed to achieve specific and measurable environmental or social objectives.

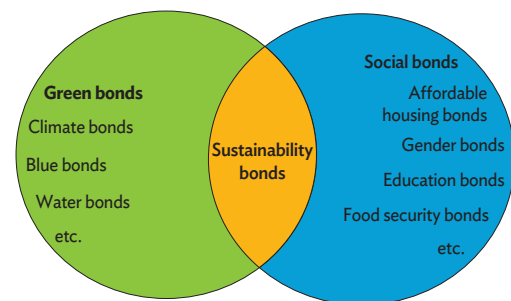
Focusing on green finance, the Asian Development Bank (ADB) defines it, for the purposes of an innovative facility for the Association of Southeast Asian Nations called the ASEAN Catalytic Green Finance Facility, as all financing instruments, investments, and mechanisms that contribute to a “climate plus” approach, promoting both climate and environmental sustainability goals. One can examine the distinct components of green finance—and parallel components of social finance for socially sustainable goals—and analyze them separately.

A distinctive feature of green and social finance is the variety of types of capital available to be deployed and co-invested for environmental and social impact. The spectrum of green and social finance includes all types of capital that are deployed for sustainable impact, such as blended or catalytic finance, debt, equity, funds, and grants. While negative green and social finance typically utilizes equity and debt instruments that aim for a market return, positive green and social finance has access to a wider range of instruments: grants, foundation assets deployed as program- or mission-related investment, blended or catalytic finance, impact investment for either submarket and market return, development finance, and green and social bonds. Green, social, and sustainability bonds are noteworthy as positive green and social finance instruments that offer a market return, thus attracting investors from capital markets worldwide. Positive ESG finance has been on the rise since 2015 (Broadridge 2020). The diversity of finance models in the green and social finance spectrum offers opportunity for the further development of innovative financial instruments for more impact toward sustainability.

Capital markets now play a growing role in green and social finance. Bond markets in particular are emerging as major sources of financing for green and social projects. Green, social, and sustainability bonds are fixed-income debt instruments whose proceeds are used for eligible projects with positive environmental and/or social outcomes. As outlined in Figure 2.1.3, sustainability bonds contain both green and social elements. Subsets of green bonds include climate bonds, water bonds, and blue bonds, and subsets of social bonds include affordable housing bonds, gender bonds, education bonds, and food security bonds. One recent innovative instrument is the sustainability-linked bond, a performance-based debt instrument with an interest rate tied to a designated sustainability outcome. A full taxonomy of eligible bonds is outlined by the International Capital Market Association, which has developed distinct green bond principles, social bond principles, sustainability bond guidelines, and sustainability-linked bond principles to improve consistency and integrity for policy makers, issuers, and investors (ICMA 2018a, 2018b, 2020a and 2020b).

Figure 2.1.3 The green, social, and sustainability bond universe

Sustainability bonds deliver both environmental and social impacts.



Source: Asseline and Hiller 2021.

Another novel debt instrument in the capital market is the transition bond. Unlike green, social, or sustainability bonds that finance projects with green and/or social impacts, transition bonds help high-emitting “brown industries” such as steel and mining reduce their emissions. At least three transition bonds were issued in 2019. An example is Marfrig, a Brazilian food processor, that raised \$500 million using a transition bond in 2019 to reduce emissions attributable to its beef products by purchasing cattle from ranchers that complied with certain sustainable criteria (ADB 2020). Meanwhile, green securitization is attracting increased interest, allowing green bond holders to refinance by selling their green bonds through a securitization structure.

2.1.3 Recent developments in green and social finance in Asia

Green and social finance can help the region address the colossal challenge of achieving greener and more inclusive growth. Promisingly, green and social finance, especially from private sources, has grown rapidly across the world in recent years, accompanied by a great deal of innovation.

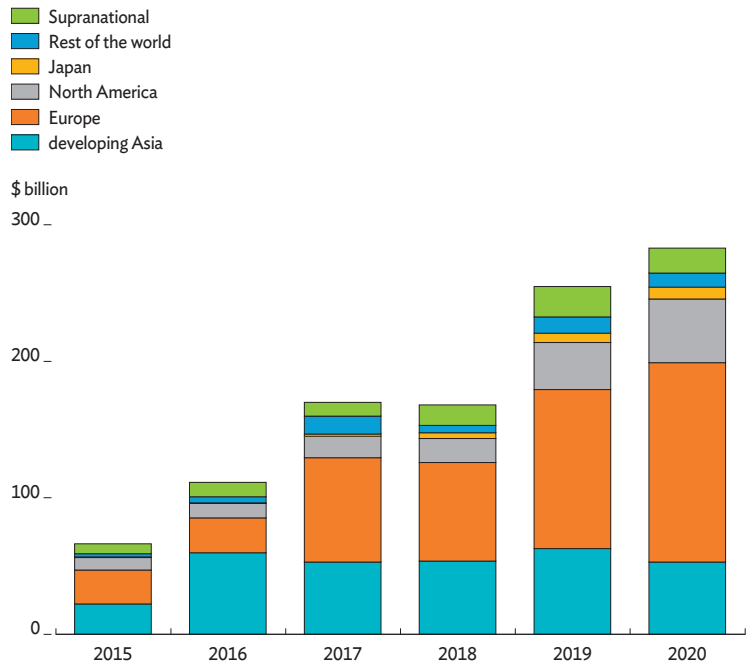
ESG investment is becoming a prominent feature of global asset management. Sustainable debt including loans, bonds, and asset-backed securities reached a new record of \$655 billion in 2020, driven largely by rapid expansion in social- and sustainability-linked bonds (Institute of International Finance 2021). Global green, social, and sustainability bond issuance reached \$491 billion and is expected to expand further to \$650 billion in 2021 (Moody's 2021a).

COVID-19 will likely have a long-term impact on investment preference for ESG assets. A survey found that a quarter of surveyed financial advisors report increased client interest in such financial instruments during the pandemic and believe that the ESG share of clients and assets will double in the next 2 years (Broadridge 2020). Also noted was that investors and stakeholders might shift their focus to social issues because COVID-19 had highlighted the risks posed by such social shortcomings as weak public health systems (The Asset 2021).

While advanced economies still dominate the global green and social finance landscape, Asian economies have been active players in this market (Figure 2.1.4). COVID-19 has influenced institutional investors in Asia regarding their approach to ESG issues, with 95% of surveyed institutions in Asia and the Pacific indicating that ESG considerations were of high or moderate importance in their investment strategies (Bfinance 2021). The comparable percentages were 91% in Europe and 70% in North America.

Figure 2.1.4 Green bond issuance by global region

Asia contributed about 20% of global green bond issuance in 2020.



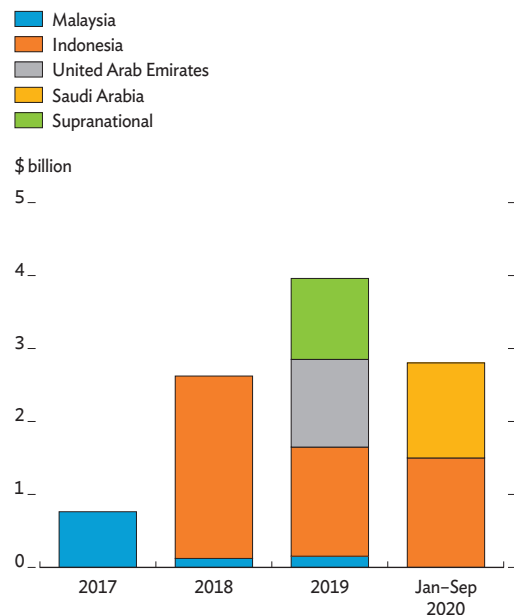
Source: Bloomberg (accessed 15 January 2021).

Along with Europe and North America, Asia has become a hub of global green bond markets. With the People's Republic of China (PRC) and Japan leading the way, the region now accounts for around a fifth of global green bond issuance (Figure 2.1.4).

Asia also leads in markets for green *sukuks*, or Islamic bonds, which use their proceeds to fund environmentally friendly projects while observing Sharia restrictions. Following the first green *sukuk* issued by Malaysia in June 2017, annual issuance of green *sukuks* increased fivefold to reach \$4 billion in 2019 (Figure 2.1.5). Globally in 2019, green *sukuk* issuance accounted for 2.4% of all *sukuks* issued that year and 1.7% of all green bonds. From 2017 to September 2020, \$10 billion worth of green *sukuks* had been issued by 11 entities in four countries: Indonesia with 54% of the total, Saudi Arabia with 13%, the United Arab Emirates 12%, and Malaysia 10%. Indonesia attained its lead position with active government issuance. Malaysia has the largest number of private issuers, which are supported by tax incentives and subsidies for green bonds (Azhgaliyeva 2021).

Figure 2.1.5 Green Islamic bond issuance

Developing Asia is a major player in the global green Islamic bond market.

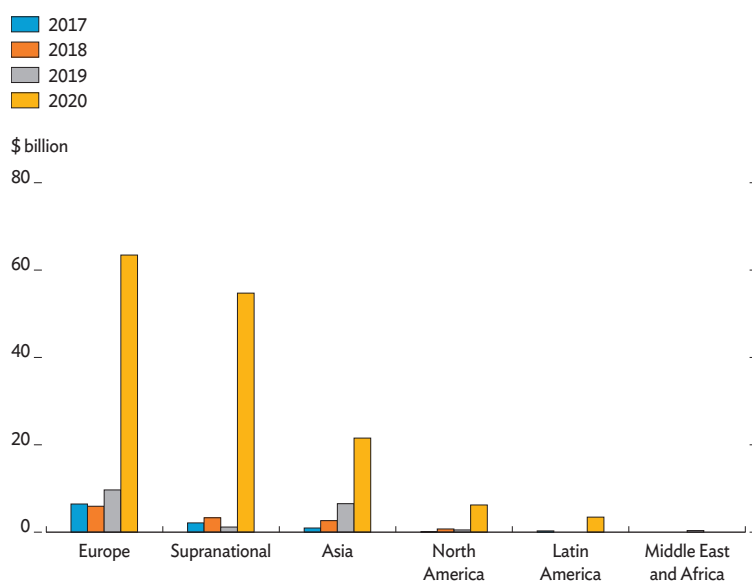


Source: Azhgaliyeva 2021.

Social bonds are an emerging component of sustainable finance. In 2020, social bond issuance grew rapidly both within the region and beyond, at least partly in response to the social challenges of COVID-19. Data on annual social bond issuance reveal that Asia has consistently lagged behind Europe in recent years. However, led by Japan and the Republic of Korea (ROK), social bond issuance in the region has grown to the extent that Asia is now, leaving aside supranational entities, the world's second-largest issuing region by a wide margin (Figure 2.1.6).

Figure 2.1.6 Global social bond issuance by year and region

Asia is the second-largest social bond market in the world.



Source: ADB 2021.

In addition to leading the developing world in green and social finance, Asia has been at the forefront in introducing regulations and policy guidance on green and social finance. Of the 41 emerging market members of the Sustainable Banking Network, 17 are in Asia and the Pacific. So are 14 of the 75 member institutions of the Network of Central Banks and Supervisors for Greening the Financial System, including two of the eight founding members: the Monetary Authority of Singapore and the People's Bank of China.

Financial authorities in many Asian economies have made significant progress toward aligning their financial systems with sustainable development goals (Volz 2018): Bangladesh; the PRC; Hong Kong, China; India; Indonesia; Japan; Mongolia; Singapore; and Viet Nam. Other Asian economies are working on it but less far along: Cambodia, the Lao People's Democratic Republic, Nepal, Pakistan, the Philippines, Sri Lanka, and Thailand.

A conducive regulatory and policy environment has contributed to the rapid growth of green and social finance in the region—growth that has continued since the COVID-19 outbreak. Strong growth is consistent with growing awareness in the Asian finance industry of the importance of green and inclusive recovery after COVID-19.

Such recovery requires that green and social finance be expanded by recruiting new sources, especially in the private sector, to finance investments toward achieving the SDGs. Fostering greater equity in the wake of COVID-19 will require significant investment in key social sectors such as health and education. At the same time, tackling climate change will require substantial investment in adaptation and mitigation, such as into clean energy and disaster-resilient infrastructure, especially in Asian economies already prone to flooding, notably Bangladesh, the Philippines, Thailand, and Viet Nam (Prakash 2018).

The bottom line is that major challenges remain in developing green and social finance. On the supply side, investable deals are lacking in some areas—notably infrastructure, health, and education—and the pipeline of projects available for investment is inadequate. Weak market infrastructure and ecosystems also pose challenges. In terms of market infrastructure, transaction costs are high for lack of commonly accepted reporting and disclosure standards or clearly defined metrics for measuring impact. In terms of ecosystems, Asian markets still suffer inconsistent sustainability ratings, and independent verifiers have limited capacity. These shortcomings generate concerns about transparency, disclosure, and potential for green- and social-washing. Policies that can help address these shortcomings are discussed in section 2.5.

Looking forward, green and social finance is set to expand further in Asia and beyond, as shown in the next section. This is because a number of economic and other factors are boosting both demand for these types of finance and their supply. These factors include changing stakeholder preferences, the need to hedge and mitigate sustainability risks, and a desire to build greater resilience.

2.2 The drivers of green and social finance

Green and social finance has grown rapidly in recent years, with private capital playing a large and growing role. Many factors direct capital into green and social finance, some economic, others not: (i) changes in stakeholders' preferences for sustainable goals, (ii) hedging and mitigating sustainability risks, and (iii) a desire for greater shock resilience. Each of them is discussed in turn with evidence on the role they play in expanding green and social finance. Also explored is the signaling role of green and social finance to garner for businesses positive investor recognition.

2.2.1 Stakeholders' changing preferences for sustainable goals

A key driver of emerging sustainable finance is change in the preferences and mandates of various stakeholders—investors, managers, shareholders, clients, and society at large—in favor of the Sustainable Development Goals. Over the past decade, sustainable investment has become an important investment strategy all around the world. At the beginning of 2018, for example, assets in the US worth \$12 trillion were managed using ESG investment strategies, a 38% increase in the 2 years from the beginning of 2016. These assets accounted for 26% of all professionally managed assets in the US. A similar pattern emerges worldwide. More than \$30 trillion in assets under management globally in 2018, about one-third of the total, were subject to some form of the sustainability or ESG framework, a 34.3% increase from 2016 (Landberg, Massa, and Pogkas 2019).

Similar patterns of preferences are observed in individual investors. A survey of millennials—younger investors expected to inherit \$68 trillion over the next decade—found 45% of them saying they wanted to invest their funds in ways that helped other members of society and that they counted social responsibility as a factor in investment decisions (Kelly 2019). An examination of the portfolio choices of active participants in employee saving plans in France, which were driven by participants' personal values, found that, when such funds included responsible equity options in their menu, participants raised their equity allocations by 2.1% (Brière and Ramelli 2020). A study of ESG investor sentiment showed that both millennials and older generations such as Gen Xers and baby boomers paid attention to socially responsible investing.

Nearly two-thirds of millennials and about half of older investors indicated that ESG was a key factor in their investment decisions (Allianz Life 2019).

Changing stakeholder preferences for sustainable goals help attract to green and social finance capital that is more patient and less sensitive to financial return. Investors forgo financial return when they invest in sustainable and responsible mutual funds, which bear higher management fees and offer lower return. Capital flow into sustainable and responsible mutual funds is more persistent than flow into conventional funds because it is partly driven by client considerations other than financial return (Białkowski and Starks 2016). Similarly, mutual fund flow is less sensitive to fund performance when more assets are invested on the basis social responsibility, because clients appreciate their nonfinancial benefits (Ghoul and Karoui 2017). Firms issuing green bonds tend to attract more long-term investors (Flammer 2021a).

Changing stakeholder preferences can similarly shape decisions made by businesses. Investors can influence corporate actions and environment and social (E&S) performance through different mechanisms: voting as shareholders, active shareholder engagement, monitoring, and otherwise conveying a preference for improved E&S performance (Chen, Dong, and Lin 2020; Dyck et al. 2019). Institutional investors influence the E&S performance of the companies they invest in (Dyck et al. 2019). Such impact is more pronounced when institutional investors are more E&S activist and based in countries with strong social norms.

2.2.2 Hedging and mitigating sustainability risks

Green and social finance helps investors hedge and mitigate sustainability risks. The Task Force on Climate-Related Financial Disclosures (2017) delineates the two key climate-related risks: physical risks and transition risks. Transition risks include policy and legal risks that stem from changes in regulations and litigation, technology risk arising from creative destruction in green technology, market risk that accompanies climate-related changes in market supply and demand, and reputational risk generated by stakeholders' changing perceptions of green development. Physical risks fall into two categories: acute risk from hazards and chronic risk caused by climate-change patterns.

Uncertainties tied to climate change affect equilibrium asset prices and risk premiums (Giglio, Kelly, and Stroebe 2020). Empirical evidence shows that climate-related risks have already been priced in across various asset classes such as equities, bonds, real estate, and mortgages. Greater exposure to climate-related risk affects not only firms' operations but also investors' perceptions of companies, which has financial implications for them.

Using the Paris Agreement as an impending regulation change in climate-related risk, Seltzer, Starks, and Zhu (2020) found a causal relationship between regulatory change and risk assessment, which influences the financing costs borne by issuers of corporate bonds. After the passage of the Paris Agreement, newly regulation-sensitive issuers suffered downgraded credit ratings and widening yield spreads relative to bonds issued by firms without environmental concerns.

Another international agreement on climate change is the Kyoto Protocol, through which participating countries made specific commitments to reduce carbon emissions toward satisfying national reduction targets (UNEP 2006). The protocol was adopted in Kyoto, Japan, in December 1997 and took effect in February 2005. Box 2.2.1 provides new empirical evidence that the ratification of the Kyoto Protocol in Australia significantly increased the cost of capital for emitters relative to other firms.

For investors and other financing entities, climate-related risk can be mitigated and hedged by making environmentally friendly investments. Thus, private capital has both social and economic incentives to favor green and social finance.

2.2.3 Greater shock resilience

Demand for green and social finance can come from its insurance-like benefits against shocks, either firm-specific or to the whole market. Market shocks, such as from a pandemic or global financial crisis, affect all market participants. Firm-specific shocks realize vulnerabilities that arise from a firm's own business operations, as through a negative corporate incident such as an environmental violation.

Firms build social capital, or trust in their economic activities, by practicing social responsibility (Lins, Servaes, and Tamayo 2017). Thus, well-built social capital strengthens the perception of trustworthiness among stakeholders. Such social capital pays off during a market crisis, which pummels confidence overall, enhancing the value of trust. Lins, Servaes, and Tamayo (2017) documented that, during a crisis, firms with higher reputations for social responsibility performed better than their peers in terms of profitability, productivity, and fund-raising ability. One possible reason is that they were supported by stakeholders' commitment to help through credit lines and consumer sales. Similarly, Albuquerque, Koskinen, and Zhang (2019) showed that the profits of firms with strong social responsibility policies were less affected by aggregate shocks, which mitigated market risk exposure and sustained higher corporate valuations.

Such social capital also provides a hedge against firm-specific shocks such as negative corporate incidents. Businesses' voluntary actions to improve social conditions create moral capital that provides insurance-like benefits and earns a positive reputation among stakeholders (Godfrey, Merrill, and Hansen 2009).

Box 2.2.1 The Kyoto Protocol and capital costs: company-level evidence from Australia

A firm's climate-related risk exposure can be affected by transition risk, for example, when a country joins a global initiative on climate change, such as the Kyoto Protocol, that imposes restrictions on annual emissions. Evidence has emerged from a quasi-experiment in Australia that found polluting firms tending to face higher costs for capital because of such risk. The result can be explained by two channels: cash-flow risk and investor recognition.

On 3 December 2007, Australia formally ratified the Kyoto Protocol, restricting its average annual greenhouse gas emissions over the 2008–2012 commitment period to 8% above their 1990 levels and imposing stricter environmental regulations on businesses (Ramiah, Martin, and Moosa 2013). The government's commitment to Kyoto Protocol ratification (KPR) in December 2007 therefore served as an exogenous shock that significantly intensified the climate-related risk confronting high carbon emitters compared with low carbon emitters or non-emitters.

Using a sample of publicly listed companies in Australia over the period 2002–2013, difference-in-differences analysis was conducted to examine how the cost of capital changed for emitters relative to non-emitters before and after KPR.

To gauge the cost of capital, the cost of debt was measured using the interest rate spread, and the cost of equity capital was proxied using a return that equates the current stock price with the discounted values of future earnings.

The box table reports the results of regressions of the cost of debt and the cost of equity on high emitters (*Emitter*) and post-KPR dummies (*Post*), and an interaction term between the two. Columns 2 and 4 show that, relative to non-emitters, emitters experienced an increase in the interest rate spread of 5.4% and an increase in the implied cost of equity of 2.5% in the post-KPR period. The interest rate difference is equal to 50.5% (0.054/0.107) of the sample mean, and the cost of capital difference to 11.6% (0.025/0.215).^a The stronger impact of climate-related risk on the cost of debt may reflect lenders' lack of diversification options because carbon-intensive firms such as those in energy, materials, and utilities have long been their traditional borrowers.

Climate-related risk can increase firms' cost of capital through higher cash-flow risk. Exposure to climate-related risk increases firms' vulnerability to legal penalties and reputational loss, both of which hurt firm performance.

Kyoto Protocol and the cost of capital

After the ratification of the Kyoto Protocol in Australia, high emitters there faced increases in capital costs relative to non-emitters.

Variable	Cost of debt		Cost of equity	
	(1)	(2)	(3)	(4)
<i>Emitter</i> × <i>Post</i>	0.062** (2.95)	0.054* (2.50)	0.030* (2.40)	0.025* (2.02)
<i>Emitter</i>	-0.018 (-1.28)		-0.028** (-2.74)	
<i>Post</i>	0.018 (1.34)		-0.035** (-5.93)	
Firm attributes	Yes	Yes	Yes	Yes
Industry fixed effects	No	Yes	No	Yes
Year fixed effects	No	Yes	No	Yes
Observations	6,578	6,578	3,169	3,169
Adjusted R-squared	0.013	0.030	0.610	0.648

* = statistically significant at 10%, ** = at 5%.

Notes: t-statistics based on robust standard errors clustered by firms are provided in parentheses. Detailed definitions of all variables are in Zhang (2021).

Source: Zhang 2021.

continued on next page

Box 2.2.1 Continued

For example, carbon-intensive firms are more likely to violate environmental regulations because they underinvest in pollutant abatement, thereby triggering customer boycotts and lawsuits (Delmas and Toffel 2004; Habib and Bhuiyan 2017; Brekke and Pekovic 2018). Under tightened carbon policies, such firms may be forced to forgo potentially profitable projects because they would emit a lot of carbon. Climate-related risk can erode firms' future revenue while increasing their operating leverage. Both effects heighten cash-flow risk and thus push up the cost of capital. This mechanism is referred to as the *cash-flow risk channel*.

Climate-related risk may additionally affect the cost of capital through negative investor recognition. As carbon emissions are an important criterion for firms' ESG ratings, socially responsible investors may abstain from investing in carbon-intensive firms. A more general observation is that investors avoid stocks with poor ESG performance (Hong and Kacperczyk 2009; Chava 2014; Riedl and Smeets 2017; Gibson and Krueger 2018; Ramelli, Ossola, and Rancan 2020; Hsu, Li, and Tsou 2020; Seltzer, Starks, and Zhu 2020). This means that firms with high carbon emissions have a smaller investor base and hence less investor recognition. One example comes from 2020, when the Japanese companies Sumitomo and Kansa wrote off their investment in Bluewaters, Australia's newest coal-fired power plant, built in 2009, because they struggled to refinance its senior loans due in August 2020. Banks are becoming increasingly reluctant to finance coal projects after being advised by regulators to take climate-related risk into account when making loans (Guardian 2020). Longstanding investor recognition theory holds that firms that are less recognized by investors incur higher costs for capital (Merton 1987). This mechanism is referred to as the *investor recognition channel*.

To understand these two economic channels through which climate-related risk increases the cost of capital—the cash-flow risk channel and the investor recognition channel—two sets of tests were performed. To test the cash-flow risk channel, several proxies for cash-flow risk were used: financial distress risk measured by the probability of default; future cash-flow volatility; exposure to market risk, as measured by their market beta, or exposure to market risk; and firm-specific risk measured by their idiosyncratic volatility.

Further tests found that these cash-flow risk proxies increased significantly for emitters after KPR relative to non-emitters. This confirmed that cash-flow risk is a channel that contributes to the higher cost of capital in the post-KPR period. High emitters experienced higher default probability, greater cash-flow volatility, firm-specific risk, and market risk.

To test the investor recognition channel, institutional ownership was used as a proxy for investor recognition. Evidence showed that levels of institutional ownership significantly declined for emitters after KPR relative to non-emitters. Moreover, during the post-KPR period, emitters were less likely to be financed by major banks. These results are consistent with the notion that institutional investors are able to perceive relatively well any threats from ESG issues to their portfolio values. Hence, they can incorporate changes in these risks, especially emerging environmental regulatory risks, into their investment decisions (Chava 2014; Riedl and Smeets 2017; Dyck et al. 2019; Krueger, Sautner, and Starks 2020). Consequently, reduction in investor recognition increased the cost of capital for emitters.

Thus, firm-level evidence from Australia indicates that those firms that pollute more than others face higher costs for capital as a result of transition risk. The underlying reason is that lenders and investors are cognizant of the higher risk associated with heavy polluters during the transition to lower-carbon growth.

Note:

- ^a The coefficient is compared with the denominator, which is the sample means, to give a sense of the average magnitude of the impact. The coefficients in columns 2 and 4 are estimated impact for emitters in the post-KPR period.

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Box 2.2.1 Continued

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In the event of a negative corporate incident, this goodwill mitigates negative judgement and sanctions, thus reducing loss in shareholder value. Empirical evidence shows that, compared with firms that adhere to E&S initiatives, firms without E&S practices incur larger costs from negative incidents (Ho, Nguyen, and Vu 2020) and suffer greater reputational damage and larger reductions in corporate value (Aouadi and Marsat 2018).

Green and social finance thus confers greater shock resilience. Empirically, Nemoto and Lian (2020) showed that Japanese firms with higher corporate social responsibility rankings demonstrated greater resilience during market turmoil caused by COVID-19 in the first quarter of 2020. Amundi (2020) found that, during the market selloff in March 2020, ESG-themed funds showed greater resilience than did conventional funds, with 62% of large ESG funds outperforming the Morgan Stanley Capital International (MSCI) World Index. Similarly, green bond issuers have demonstrated greater resilience during the pandemic (Box 2.2.2).

Demand for green and social finance is not the only thing affected by changing stakeholder preferences, the hedging and mitigating of sustainability risk, or the quest for resilience. So is supply. More firms may choose to tap green and social finance to attract patient capital and to become preferred by certain stakeholders. They may opt for green and social finance to hedge and mitigate sustainability risks to their operations. And, as firms recognize the benefits of earning social capital, they may tap sustainable finance to garner greater resilience during shocks.

Box 2.2.2 Greater resilience of green bond issuers under COVID-19

New empirical evidence is presented here on performance during the COVID-19 pandemic by firms that have previously tapped green and social finance. Analysis using a comprehensive dataset of more than 40,000 firms in 60 major economies around the world—52% of the firms in Asia—revealed that firms issuing green bonds have withstood the pandemic more successfully than others, in terms of less cratering when stock prices crashed and higher return throughout the period.

Company stock performance was measured as a percentage change in price in the first half of 2020. Maximum drawdown was measured by the largest observed loss from a peak to a trough before a new peak was reached in the same period. The two stock return performance variables were regressed on a green finance indicator, represented as a dummy variable equal to one if the firm had ever issued green bonds, otherwise zero. Other independent variables that were considered were company size, return on assets, degree of leverage, and cash holdings. The empirical specification included country and industry fixed effects. The box table reports regression results.

The stock prices of firms that issued green bonds fared better than others through the financial turmoil caused by the COVID-19 pandemic in the first half of 2020. Column 1 of the box table, in which green

bond issuance is the only explanatory variable for stock price change, reveals a positive and statistically significant coefficient estimate of 0.213, with a t-statistic of 3.23. This means that, compared with firms that did not tap the green bond market, green bond issuers sustained a higher stock return by 0.21% in the first half of 2020, which included a sharp market downturn in March. This finding remained robust after controlling for firm characteristics such as size, return on assets, leverage, and cash holdings (columns 2 and 3). The coefficient for green bond issuers in column 3, which includes all four firm characteristics as control variables, is 0.154. This suggests that green firms' stock prices outperformed other firms by 0.15% in the first half of 2020.

Similarly, these green bond issuers saw smaller stock price declines during the worst financial turmoil. In columns 4–6, the dependent variable is the maximum drawdown that a firm suffered during the COVID-19 pandemic. A larger maximum drawdown indicates that a stock suffered a larger negative price shock. Statistically significant negative coefficient estimates were found for all three model specifications, showing that the stocks of green bond issuers suffered smaller drawdowns during the market shock than did the stocks of other firms.

Stock performance during the COVID-19 pandemic

Green bond issuers demonstrated better stock performance and less drawdown during market turmoil in the first half of 2020.

	Stock price change January–June 2020			Maximum drawdown January–June 2020		
	1	2	3	4	5	6
Green finance	0.213*** (3.23)	0.155** (2.26)	0.154* (1.73)	-0.052*** (-5.48)	-0.021** (-2.11)	-0.038*** (-2.78)
Size		0.040*** (16.45)	0.040*** (9.34)		-1.883*** (-9.92)	-2.186*** (-10.39)
Return on assets		0.001*** (4.83)	0.001 (1.01)		-0.514*** (-13.95)	-0.478*** (-12.66)
Leverage		-0.003*** (-9.42)	-0.004*** (-5.15)		12.974*** (8.99)	10.872*** (5.44)
Cash holdings			0.001 (0.54)			-8.967*** (-5.72)
Observations	63,748	56,296	49,591	33,172	29,696	26,179
R-squared	0.009	0.015	0.016	0.094	0.171	0.188
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes

* = statistically significant at 10%, ** = at 5%, *** = at 1%, FE = fixed effect.

Note: The numbers in the parentheses are t-statistics based on robust standard errors.

Source: Tang 2021.

continued on next page

Box 2.2.2 Continued

The coefficient in column 6, which includes all four firm attributes, is -0.038 , with a t-statistic of -2.78 , indicating that green stocks experienced 0.038% less maximum loss than other stocks.

This evidence shows firms that had tapped green finance demonstrating greater resilience than other firms during the COVID-19 crisis. The finding is consistent with similar analysis of the global financial crisis of 2008–2009 (Lins, Servaes, and Tamayo 2017) and earlier analysis of the COVID-19 pandemic that, instead of focusing on green finance as here, used a broad ESG measure (Ding et al. 2020). Both of these comparable studies used sizable international samples and independently reached the same conclusion: Stocks of green firms are more resilient during crises.

References:

- Ding, W. et al. 2020. Competition Laws, Norms and Corporate Social Responsibility. *Working paper*. Social Science Research Network. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3605990.
- Lins, K. V., H. Servaes, and A. Tamayo. 2017. Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *Journal of Finance* 72(4).
- Tang, D. 2021. *The Effects of Green and Social Finance on Firms, Markets, and the Economy*. Asian Development Bank.

2.2.4 The signaling role of green and social finance

Research reported here measures the role of green and social finance in signaling corporate virtue to investors and its consequences. From the supply side, public and private financing entities can signal their commitment to the Sustainable Development Goals by tapping green and social finance, thereby attracting positive investor recognition and broadening their investor base (Ghoul et al. 2011; Chava 2014). The literature shows that firms beset by environmental issues have less diversified investor bases and pay higher costs for capital (Seltzer, Starks, and Zhu 2020; Painter 2020; Battiston and Monasterolo 2020; de Greiff, Delis, and Ongena 2018; Ng and Rezaee 2015; Beirne, Renzhi, and Volz 2020). By contrast, firms that tap green and social finance can signal to investors their awareness of positive green and social outcomes and their commitment to achieving them.

Companies signal environmental commitment by issuing green bonds, and such signaling brings positive investor recognition. Flammer (2021a) documented the growing popularity of corporate green bonds around the world and found that the stock market responded positively to the issuance of corporate green bonds and, further, that the issuing companies actually did reduce CO₂ emissions after their issuance. Tang and Zhang (2020) examined stock market reactions to green bond issuance by global public firms and found that public companies' stock prices increased and trading liquidity improved after the company announced green bond issues. Such evidence suggests that green bonds generate both financial and environmental benefits, and thus may be a powerful instrument in the fight against climate change.

The studies mentioned above focus on global markets. Much less is known specifically about Asian markets. Box 2.2.3 focuses on green bonds issued by Asian companies and examines market reaction to them. Results for Asian markets are qualitatively similar to those for global markets. Evidence shows that Asian stock markets respond positively to the issuance of corporate green bonds.

Box 2.2.3 Equity market reaction to green bond issues in Asia

To assess how the equity market responds to announcements of corporate green bond issues in Asia, an event study was conducted to quantify the change in the issuing companies' stock price in response to green bond issues. A sample of 414 Asian corporate green bonds issued from 2013 to 2018 was obtained from Bloomberg. Of them, 374 with a combined issuance amount of \$100.4 billion were in developing Asia.

For each green bond, the date on which the firm announced green bond issuance was used as the event date. As the announcement date is when green bond information is released to the public, it is intuitively the date when stock market participants update their perception of the firm's prospects going forward. On the day of actual issuance, by contrast, additional information is rarely made available to the public. After merging with stock market data, the sample comprised 134 green bonds issued by publicly listed firms in 115 unique events—a lower number of events because multiple green bonds were announced on the same day.

As in Flammer (2021a), stock market performance was examined in an event window that started 5 trading days before the announcement—the event date, or day 0—and ended 10 trading days after the

event. Including the previous 5 trading days covered the possibility that information on issuance may have leaked to the public shortly before the announcement. The inclusion of the subsequent 10 trading days allowed for the possibility that the market might have needed a few days to fully digest the implications of green bonds on stock value.

For each day within the window from -5 to 10 , the abnormal return (AR) was computed as the daily stock return—the actual percentage change in the issuer's stock price during the day—minus the “normal” return predicted by the market model.^a Intuitively, AR captures the change in the stock price left unexplained by market fluctuations that may coincide with the event. The cumulative abnormal return (CAR) was then computed by summing up ARs across all days within the 16-day window. As such, the CAR quantified the extent to which the issuer's stock price responded to the event, considering contemporaneous market fluctuations that might have confounded the response.

The box table provides the results of the event study. For a variety of event windows, the table reports the average CAR across all 115 events, along with the standard error and corresponding p-value. The average CAR in the $[-5, 10]$ event window is 0.5%.

Stock market response to corporate green bond issuance in Asia

Asian equity markets positively react to companies' green bond issuance announcements.

Event window	Observations	Average cumulative abnormal return	Standard error	p-value
$[-30, -21]$	115	-0.138	0.539	0.798
$[-20, -6]$	115	0.032	0.429	0.941
$[-5, 10]$	115	0.504	0.365	0.168
$[11, 20]$	115	0.099	0.271	0.713
$[21, 60]$	115	-0.142	0.176	0.420

Source: Flammer 2021b.

continued on next page

Box 2.2.3 Continued

That is, the issuer's stock price increases by 0.5% during this time interval on a market-adjusted basis. This 16-day return corresponds to a substantial annualized return of about 8% on the basis of 252 trading days.

Event study results indicate overall that the stock market responds positively to Asian companies that issue green bonds. That is, stock market investors see green bonds as adding value. It is worth noting that valuation gains are unlikely to reflect solely any expected benefits from the green projects to be financed by green bond proceeds. Indeed, benefits are likely too small to affect stock market valuation significantly. More probably, investors see green bonds as credible signals of a company's commitment to the

environment going forward. As such, the positive stock market response indicates that investors see such a commitment as enhancing value.

Note:

^a For a technical description of the computation of AR, see Flammer (2021a).

References:

- Flammer, C. 2021a. Corporate Green Bonds. *Journal of Financial Economics*. <https://www.sciencedirect.com/science/article/pii/S0304405X21000337>.
- . 2021b. *Corporate Green Bonds in Asia*. Asian Development Bank.

Not surprisingly, issuers often highlight the signaling role of their green bonds. In a February 2020 press release announcing its fifth green bond issue, for example, Toyota Financial Services emphasized that green bonds were “an important component” of the firm’s “diversified funding program and serve to enhance Toyota’s extensive commitment to environmental causes.” It further noted that the Toyota Financial Services green bond program was “unique in the auto industry” and enhanced “Toyota’s reputation for leadership in green innovation across industries” (Toyota 2020).

Positive investor recognition achieved through green and social finance has been shown to help broaden the investor base. Empirical evidence indicates that green bond issuances help sovereign and corporate borrowers attract new types of investors such as ethical investors and socially responsible investment funds, as well as investors with long-term investment horizons. When issuing green bonds, companies see increased bond ownership among long-term and ethical investors (Flammer 2021a). Firms also see domestic institutional ownership increase after green bond issuances (Tang and Zhang 2020). Summarizing a number of studies conducted by major investment banks, Giudice (2017) found that 89% of all investors expressed interest in or were familiar with sustainable investments, and 65% of them already engaged in sustainable investing.

Further, the literature has documented a possible cost advantage for green and social finance that could foster growth in the supply of green and social projects. Some recent evidence suggests that ESG benefits financing entities by lowering their financing costs. A study found that firms with strong ESG scores paid lower costs for capital relative

to firms with poor ESG scores in both advanced economies and emerging markets during a 4-year period ending on 29 November 2019 (MSCI 2020). This result held for the cost of both debt and equity. A comprehensive literature review of the relationship between cost and sustainability found better sustainability performance linked to lower cost of capital (Gianfrate, Schoenmaker, and Wasama 2015).

Corroborating evidence is found in the green bond market. Evidence shows that green bonds have costs similar to or lower than those of matched conventional bonds (Ehlers and Packer 2017; Baker et al. 2018; Hachenberg and Schiereck 2018; Zerbib 2019). Moreover, strong commitment to the environment—as evidenced by green labels, green bond certification, and independent verification—generates significant cost advantages for green bond issuers. Such issuers benefit from a yield reduction of 8 basis points compared with conventional bonds (Gianfrate and Peri 2019) and 6 basis points relative to other green bonds without these features (Hyun, Park, and Tian 2020). One key driver of the lower yield of green bonds is high demand for green bonds relative to their limited supply (CBI 2019). The Climate Bonds Initiative has frequently reported oversubscription for new green bond offerings in its series of market monitoring reports, indicating excess demand for green bonds relative to supply.

Green bonds enjoy a similar cost advantage over bank loans. Alonso-Conde and Rojo-Suárez (2020) evaluated the impact of financing with green bonds versus conventional bank loans on the profitability of environmentally friendly projects, finding that investments financed by green bonds earned higher internal rates of return for shareholders. Higher return was driven by the lower financing costs of green bonds relative to bank loans. The conclusion was that green finance provides economic and financial incentives for shareholders of green projects and helps align shareholders' objectives with the Sustainable Development Goals.

Finally, green finance may foster innovation in green technology while advances in green technology further boost the need for green finance. Evidence shows companies that tap green and social finance tend to be more innovative. A novel dataset of firms in the Republic of Korea was found to show green bond issuance positively associated with innovation, as reflected in higher market values for issuing firms' research and development patents (Lee, Park, and Tian 2021). Similarly, green bond issuances were positively associated with company innovation capacity, as evident in growth year on year in research and development as a share of operational income (Zhou and Cui 2019).

2.3 Impacts of green and social finance

Green and social finance strives to contribute to climate, environmental, and social sustainability goals. To what extent does it succeed? The impacts of green and social finance can be measured scientifically to determine whether existing instruments contributed to environmental and social outcomes and how any impacts can be managed.

2.3.1 Measuring and managing the impact of green and social finance

It is no small challenge to measure and manage the impact of green and social finance. A few basic impact models exist and are presented below along with discussion of the issues affecting impact disclosure, particularly the need for common standards and coherent guidelines for measurement and reporting.

2.3.1.1 Green and social impacts

The Impact Management Project, which is dedicated to building a global consensus on impact measurement and management, defines impact in the context of green and social finance as *a change in an important positive or negative outcome for people or the planet*.

Green impacts typically hinge on changes to variables that are relatively easy to measure and scientifically quantify. Examples include reduced emissions of carbon or nitrous oxide, improved water quality, and greater biodiversity in a specific locality. Carbon emissions, for example, can be measured by calculating the carbon footprint, or the total output of greenhouse gas emissions caused by an organization, event, product, or person. Similarly, pollutants in the air can be quantified according to an air quality index. Water quality data are calculated by a range of measures including temperature, acidity, dissolved solids, suspended sediments, dissolved oxygen, and hardness or mineral content (Public Lab Organization 2017).

However, while an established set of scientific measures captures environmental impact data, they may not capture all the effects of green investment. This is because environmental impacts typically have a social element as well. These too need to be assessed to robustly gauge the whole impact of green investment. This is particularly true of pollution externalities in the form of social costs.

Compared with climate and environmental impacts, social impacts are more varied and sometimes difficult to measure. They typically hinge on changes to human welfare, of either individuals or communities, and cut across a potentially large range of issues. Measuring such effects may demand complex sets of impact data that are difficult to verify.

2.3.1.2 Impact measurement and management

Impact measurement and management are essential for allocating social and green finance. Measuring impact enables better assessment of proposals for funding and investment, adds credibility, facilitates decision making, guides future resource allocation, and creates models and benchmarks. Current practice in impact measurement and management remains institutionally underdeveloped, though, lacking common standards for impact metrics, information disclosure, and regulatory structure.

Impact data are important for making investment decisions in social and green finance. The ecosystem of impact measurement includes a range of stakeholders that intermediate between investees as data producers and investors as data consumers. The World Economic Forum (2019) identified eight key stakeholders: companies, standard setters, assurance providers, data providers, investment banks, investors, regulators, and research and knowledge management organizations.

These stakeholders typically fail to collaborate with one another, however, to agree on common units of analysis. Other areas of disagreement include the temporal dimensions of the effects, or when and for how long impact should be measured and reported; the scope of analysis, or who and what should be included or excluded; the role of externalities, or how one outside factor positively or negatively influences another; and standards for impact attribution and causality, or how much impact can be claimed (Nicholls 2009; Maheshwari, Avendano, and Stein 2016).

Because metrics for green finance impacts are relatively well defined, their impact measurement tends to be more straightforward than for social finance. As carbon is both traded on emission cap-and-trade exchanges and subject to taxation in some countries, it has a market value that translates into its monetized price. For nitrous oxide emissions and water pollution, prices are set not by a market but by calculating their negative externality costs (Marten and Newbold 2011; Walton 2019). Biodiversity can be monetized based on the value of ecosystem services: plant pollination, the protection or restoration of habitat for migratory species, water storage and retention, soil formation, storm protection, and flood control (Costanza et al. 1998).

Effective impact measurement is a prerequisite for improving impact management. Optimizing the impact of green and social finance must be linked strategically to both. Effective impact measurement and management are integral to effectively deploying sustainable finance investment.

2.3.1.3 Impact models

Two well-established models are often used in strategic planning to identify the processes by which an investment or project can have impact: the Logic Model and the Theory of Change (Box 2.3.1).

Box 2.3.1 Impact models: Logic Model and Theory of Change

The Logic Model is a linear and multistage model for measuring a specific impact. It consists of five stages of analysis that refer to both the process of implementation and the change (Twersky, Nelson, and Ratcliffe 2010). Each stage requires different measurement approaches and units of analysis. Implementation stages involve inputs, activities, and outputs, and change stages are outcomes over the short or long term (box figure).

True to the definition of impact as evidence of change, the Logic Model measures the impact of inputs, activities, and outputs solely in terms of outcomes, which come at the end of the process. Further, measuring outcomes can be complex and time consuming, prompting organizations and investees to measure, manage, and report data from other stages as intermediate measures of progress toward impact.

The Theory of Change (TOC) follows the same linear format as the Logic Model but adds analytic complexity with respect to the set of assumptions on how a particular action or set of actions will create an impact in the short, medium, and long term (Brown 2020). The TOC includes more granular detail on specific operational activities and their expected effects. It is usually developed as a multistage, predictive, and heuristic model that allows an organization to conceptualize how an intended impact may be achieved over time (Mettgenberg-Lemiere 2016).

Creating an effective TOC typically engages a variety of stakeholders, including investors and other funders, senior management, employees, beneficiaries, and other partners. A well-formulated TOC helps simplify the complex process of generating desired outcomes by breaking it into clear stages of action. It allows an organization to build a narrative to communicate better with investors and other stakeholders. As a strategic management model, the TOC requires more careful design than the Logic Model but may be a more useful guide to decisions about a particular project.

References:

Brown, M. 2020. Unpacking the Theory of Change. *Stanford Social Innovation Review*. https://ssir.org/articles/entry/unpacking_the_theory_of_change.

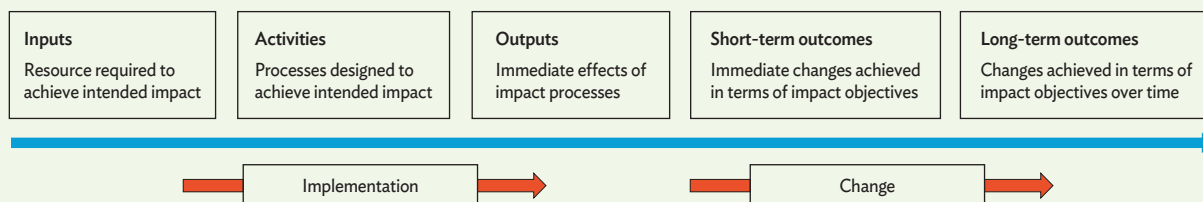
Mettgenberg-Lemiere, M. 2016. *A Guide to Effective Impact Assessment*. Asian Venture Philanthropy Network. <https://avpn.asia/insights/a-guide-to-effective-impact-assessment/>.

Nicholls, A. 2021. *Impact Measurement and Management in Sustainable Finance*. Asian Development Bank.

Twersky, F., J. Nelson, and A. Ratcliffe. 2010. *A Guide to Actionable Measurement*. Bill & Melinda Gates Foundation.

Logic Model

The Logic Model measures the impact of inputs, activities, and outputs in terms of outcomes.



Source: Nicholls 2021.

Each model follows a linear path that sets out how various types of action relate to one another causally with respect to an overall impact pathway. Typically, the models are used before implementation to inform an impact proposal, but they can also be used as management tools during the life of an investment or project. Moreover, both models can help develop impact metrics for the various stages of the impact pathway. Both models are widely used but sometimes criticized for being overly simplistic and deterministic.

2.3.1.4 Impact disclosure: principles and standards

No internationally agreed standards yet exist for impact measurement or information disclosure to guide green and social finance. The consequences are a lack of common impact metrics and a scarcity of consistent and reliable data, adding complexity and transaction costs to selecting investments and measuring their impact.

Investors face a challenge in funding investments that generate certain social outcomes without being given clear definitions or assessment criteria for these social benefits (MSCI 2021). The absence of such information makes it difficult to discern which type of investment generates the largest impact and hard to address more complex questions, such as how impact performance relates to financial performance?

Effective impact measurement and management demand coherent guidelines on how to measure, report, compare, and improve the outcomes of projects and investments. In the absence of such guidelines, some progress is being made toward addressing this market failure by devising measurement standards and generating consistent and relevant data on impacts and outcomes.

A range of competing international, regional, and national standards and initiatives aim to capture sustainable finance and ESG performance (Table 2.3.1). Some efforts have been made to consolidate them. Transnational networks such as the Impact Management Project, for example, work to consolidate existing standards around a common set of agreed principles. International Finance Corporation principles offer initiatives that engage existing ESG models at the fund level, as do SDG standards at the deal level. Other significant steps toward common standards are European Union regulations on nonfinancial information disclosure and a consultation on sustainable disclosure under the International Financial Reporting Standards.

All of the sustainable finance impact disclosure principles and standards listed in Table 2.3.1 may apply to Asia, but it is less clear that any of them have been widely adopted in the region.

Table 2.3.1 Existing impact disclosure principles and standards

Asia is getting acquainted with international impact disclosure standards and principles.

Impact disclosure standards and principles	Selected examples
Principles	Equator Principles Principles for Responsible Investment International Integrated Reporting Council Principles
Organizational standards	Global Reporting Initiative Sustainable Accounting Standards Board Harmonized Indicators for Private Sector Operations
Green finance standards	Carbon Disclosure Project Natural Capital Declaration
Green finance regulation	European Union Non-Financial Reporting Directive
Social finance standards	Impact Reporting and Investment Standards of the Global Impact Investing Network Impact Management Project Dimensions of Impact
Transnational standards	International Finance Corporation Operating Principles for Impact Management United Nations Development Programme SDG Impact Standards
Legal forms	Community interest company Benefit corporation European Union cooperative society
Certification schemes	B corporation Fair trade

SDG = Sustainable Development Goal.

Source: Nicholls 2021b.

For example, of the 106 signatories to International Finance Corporation Operating Principles for Impact Management, only two are in Asia: UOB Venture Management in Singapore and the Osiris Group in Hong Kong, China. Demand seems to be growing in Asia for investor training and education on these issues, which suggests that the region is still learning about and getting acquainted with them.

2.3.1.5 Opportunities and challenges

Effectively measuring and managing the impact of sustainable finance is of central importance to the efficient allocation of capital for optimized outcomes. Looking forward, some important opportunities and challenges loom on the horizon.

With many sustainability standards currently available for investors and organizations, agreement on common principles, methodologies, or units of analysis is largely absent. Divergent standards, reporting and disclosure frameworks, and impact measurement matrixes cause information asymmetry and abet regulation arbitrage, which undermines investor confidence and efficient capital allocation.

In this context, the opportunity for regulated disclosure of impact data is significant. While the International Financial Reporting Standards consultation offers a global opportunity for standardization, it does not mandate disclosure. Policy makers can fill the gap and advance the national and regional development of sustainable finance markets by regulating information disclosure in alignment with an agreed set of standards as they emerge. Even in the absence of common standards, policy makers can still move forward with impact disclosure regulation, as have the European Union and the PRC. New technology offers an important set of opportunities to make impact measurement more efficient and effective.

Many challenges remain to generating reliable impact data. Data integrity is one, especially as it relates to accusations of green- or social-washing, or corporate posing with overstated green or social impacts (2 Degrees Investing Initiative 2019). A lack of clear regulation on impact reporting and disclosure, and the absence of any common impact standards or metrics, allow investors and financiers to exaggerate their impact—always a material issue. Despite heady growth in green and social finance in recent years, substantial concerns remain about transparency, disclosure, and the potential for green- and social-washing.

2.3.2 Tangible positive impacts associated with green finance

Tapping green finance can be a credible signal of commitment to sustainable impact in financial markets. Corporations issue green bonds to send signals to investors and other interested stakeholders that they are committed to the Sustainable Development Goals (SDGs), and indeed they achieve higher environmental performance ratings globally in the years that follow (Flammer 2021a).

Similar evidence has been documented for Asian green bond issuers (Flammer 2021b). Matching environmental rating scores from Thomson Reuters' ASSET4 with the Asian green bond sample in section 2.2.4 above, Table 2.3.2 shows that, on average, Asian green bond issuers improved their environmental performance after green bond issuance. Environmental ratings rose by 17% (p-value = 0.01) 1 year after issuance and by 29.9% (p-value = 0.12) 2 years after.

Table 2.3.2 Environmental performance change after corporate green bond issues in Asia

Asian green bond issuers improved their environmental performance after green bond issuance.

Change in the ASSET4 environmental score	Observations	Mean	Standard error	p-value
1 year after issuance	19	17.0%	6.2%	0.01
2 years after issuance	8	29.9%	17.1%	0.12

Source: Flammer 2021b.

While this does not warrant an interpretation of causality, it shows green bonds associated with environmental benefits. At minimum, improved environmental performance after issuance indicates that green bonds are probably not a form of green-washing. Indeed, if it were green-washing, one would not expect to see any tangible improvement in environmental performance after issuance. Despite the various challenges facing the green bond market, the evidence is encouraging and suggests that green bonds have potential to be powerful tools to counter climate change. This finding confirms that corporate tapping of green finance in Asia is a reliable signal of environmental commitment.

While many studies of the environmental impacts of green finance focus on CO₂ emissions, another important environmental performance measure is the air quality index, which captures the amount of pollution in the air. Box 2.3.2 presents novel evidence on how the use of green bonds relates to changes in air quality using urban data from the PRC.

Table 2.3.2 shows that green financing sends a credible signal of an individual company's environmental commitment, and Box 2.3.2 suggests the same for municipalities. Box 2.3.3 extends the observation to the whole market.

Empirical evidence associates the tapping of green finance with positive environmental and social impacts. It is thus important to take into account positive social outcomes when green finance incurs additional costs. When both environmental and social outcomes are factored in, it becomes more likely that the benefits of green finance exceed its costs. The same is true for social finance.

2.3.3 Innovative social finance instruments and their contributions to social impacts

In social finance, social and environmental returns are typically defined and measured in advance (World Economic Forum 2013, Calderini, Chiodo, and Michelucci 2018). According to the last 2020 Annual Impact Investor Survey, the impact investment market has grown in size, depth, and sophistication over time to reach a current market size of \$715 billion (GIIN 2020).

Social finance encompasses a broad range of instruments. An emerging instrument is the impact bond, which offers innovative funding mechanisms for social programs. While green and social bonds are debt instruments, impact bonds are futures contracts structured as partnerships of investors, investee service providers, and outcome payers. Through impact bonds, investors provide up-front working capital, service providers use the invested capital to deliver services, and outcome payers repay investors their capital plus a return conditional on the achievement of agreed outcomes.

Box 2.3.2 Green finance and sustainable impact: evidence from the People's Republic of China

Data from 265 cities in the People's Republic of China (PRC) from 2015 to 2018 were examined for evidence of green finance usage being associated with positive environmental impacts. Green finance usage in a city was measured by green bond issuance as a fraction of all bond issuance. As total bond issuance reflects the amount of financing with debt securities, the share of green bond financing in it gauges the extent to which businesses in the city signal their environmental commitment to the public. If such signals of environmental commitment are credible, cities that use more green bond financing should experience improved air quality. To capture the change in air quality, data on both the air quality index (AQI) and fine particulate matter below 2.5 micrometers (PM_{2.5}) were examined. Higher AQI and PM_{2.5} indicators indicate more polluted air.

To empirically examine whether a city's green bond financing was associated with future improvement in air quality, the following model specification was employed:

$$AQ_{i,t+12} = \alpha + \beta_1 \text{Greenbond}_{i,t} + \beta_2 \text{GDP Growth}_{i,t} + \beta_3 \text{Weather}_{i,t+12} + \gamma C_i + \delta M_t + \varepsilon_{i,t+12}$$

where $AQ_{i,t+12}$ represents air quality indicators (AQI and PM_{2.5}) for city i in month $t+12$, or a year after green bond issuance. $\text{Greenbond}_{i,t}$ is a vector of green bond

usage variables, including green bond issuance of city i as a share of all bond issuance of city i in month t , as well as city i 's ratios of certified and uncertified green bond issuance to all bond issuance in month t . The specification includes other explanatory variables as controls: GDP growth in city i in the current month ($\text{GDP Growth}_{i,t}$) and weather indicators such as relative humidity, wind speed, precipitation, and wind direction 12 months later ($\text{Weather}_{i,t+12}$). City (C_i) and time (month) fixed effects (M_t) are included to capture time-invariant city attributes and changes in overall economic conditions. The error term is $\varepsilon_{i,t+12}$.

Box Table 1 reports empirical results. One finding is that a city with more green bond financing in a given month sees significantly lower AQI and PM_{2.5} concentration after 12 months. In particular, columns (1) and (2) show that an increase by one standard deviation in green bond finance as a share of all bond finance is associated with decreases by 0.58% in AQI from the mean 70.4 and by 0.82% PM_{2.5} from the mean 39.7.^a

Green bonds are independently certified by a third party to ensure that proceeds are used for the green project. Certified green bonds are shown to have a stronger signaling effect (Flammer 2021). Consistent with the signaling argument in Flammer (2021), columns (3) to (6) show the signaling effect coming largely from certified green bonds.

1 Green bond financing and air quality

Cities with more green bond financing witnessed improved air quality.

	(1)	(2)	(3)	(4)	(5)	(6)
Variable	AQI	PM _{2.5}	AQI	PM _{2.5}	AQI	PM _{2.5}
Greenbond	-5.53** (-2.47)	-4.39** (-2.36)				
Certified_Greenbond			-5.87** (-2.23)	-3.84* (-1.76)		
Uncertified_Greenbond					-4.47 (-1.06)	-5.65 (-1.62)
Observations	5,344	5,344	5,344	5,344	5,344	5,344
Adjusted R-squared	0.813	0.811	0.813	0.811	0.813	0.811
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
City and month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

* = statistically significant at 10%, ** = at 5%, AQI = air quality index, PM_{2.5} = fine particulate matter below 2.5 micrometers.

Note: The numbers in the parentheses are t-statistics based on robust standard errors.

Source: Luo, Tian, and Yang 2021.

continued on next page

Box 2.3.2 Continued

Green finance may also have social impacts. As environmental improvement may contribute to positive social outcomes such as better health, this study further examined how green finance might address the negative social costs of air pollution, focusing on mortality. To examine whether green bond financing was associated with the mortality rate, annual provincial panel data was analyzed using the following empirical model specification:

$$MR_{i,t+1} = \alpha + \beta_1 GB_{i,t} + \beta_2 GDP\ Growth_{i,t} + \gamma P_i + \delta Y_t + \varepsilon_{i,t+1}$$

where $MR_{i,t+1}$ is the mortality rate or the ratio of the number of deaths to average annual population of province i in year $t+1$. $GB_{i,t}$ is green bond issuance in province i as a share of all bond issuance in year t . Similarly considered were the ratios of certified green bond and uncertified green bond issuance in a province to all bond issuance. $GDP\ Growth_{i,t}$ is the output growth rate for province i in year t , P_i the province fixed effect, and Y_t the year fixed effect. The error term is $\varepsilon_{i,t+1}$. The database is province-year panel data consisting of 124 observations covering 31 provinces in the PRC.

The empirical evidence is reported in Box Table 2. Column (1) indicates a significant and negative relationship between green bond financing and the mortality rate. Column (2) considers certified green bond financing, and column (3) uncertified green bond financing. After controlling for province and year fixed effects, one standard deviation higher green bond finance as a share of total bond finance was associated with a 0.029% decrease in the mortality rate, and 1 standard deviation higher certified green bond finance as a share of total bond finance

was associated with a 0.027% decrease in the mortality rate.^b Again, uncertified green bond financing did not seem to contribute significantly to reduced mortality. While the magnitude of estimated coefficients is small, it is worth noting that the mortality rate tends to be stable. After all, many factors aside from air quality contribute to it. The direction and statistical significance of results confirm that the signaling effect of green finance is associated with positive social outcomes as well as with environmental gains.

Notes:

- ^a The magnitude is obtained using the product of the standard deviation of the independent variable times the estimated coefficient, then divided by the mean of the dependent variable. For example, in column 1, the standard deviation of green bond finance is 0.074 and the mean of the AQI in the sample is 70.4, which associates increased green bond finance by 1 standard deviation with AQI improvement by 0.58% ($= -5.53 \times 0.074 / 70.4$). In column 2, the mean of $PM_{2.5}$ is 39.7, which associates increased green bond finance by 1 standard deviation to $PM_{2.5}$ improvement by 0.82% ($= -4.39 \times 0.074 / 39.7$). Details of sample description are in Luo et al. (2021).
- ^b The magnitude is obtained using the product of the standard deviation of the independent variable times the estimated coefficient, then divided by the mean of the dependent variable.

References:

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2 Green bond financing and the mortality rate

Provinces with more green bond financing witnessed declines in their mortality rates.

Variable	(1)	(2)	(3)
Greenbond	-3.81*** (-2.96)		
Certified Greenbond		-5.51*** (-2.81)	
Uncertified Greenbond			-3.17 (-1.59)
Observations	124	124	124
Adjusted R-squared	0.517	0.512	0.483
Control variables, province and year fixed effects	Yes	Yes	Yes

*** = statistically significant at 1%.

Note: The numbers in the parentheses are t-statistics based on robust standard errors.

Source: Luo, Tian, and Yang 2021.

Box 2.3.3 Green bonds and sustainable impacts: cross-country evidence

As many countries now pursue carbon-neutrality by specific target dates, especially since the Paris Agreement on climate change came into force in 2016, their priority for environmental protection and addressing climate change has been to tackle carbon emissions. This box presents empirical analysis of the link between green finance signals, as represented by green bond issuance, and carbon emissions, using country-level data from 54 major economies around the world from 2007 to 2019.

Analysis reveals that CO₂ emissions at the country level fell on average after the first green bond issuance in the market. Beyond environmental outcomes, the evidence also suggests that signals sent by green bond issuances may be associated with social outcomes through high SDG awareness. In particular, the gender gap narrows after green bond issuance. It appears that, once people become more aware of specific SDGs signaled through green bond issuance, they pursue broader ESG practice and change their behavior accordingly.

The empirical methodology is a difference-in-differences approach, with green bond issuance as the treatment variable. As the treatment could be endogenous, reverse causality cannot be ruled out. To mitigate possible endogeneity bias, country fixed effects are included to capture unobserved time-invariant heterogeneities, and year fixed effects are included to account for changes in overall global conditions. In particular, an economy's CO₂ emissions in tons per capita is regressed on a treatment variable that indicates an economy's first green bond issuance.

As the timing of first green bond issuance varies across countries, the difference-in-differences approach is appropriate. Box Table 1 reports estimation results for two samples. In one column, the sample period is 2010–2019, which saw accelerated green bond issuance. The other column covers the entire sample period of 2000–2019.

Box Table 1 shows that CO₂ emissions normally declined by a statistically significant extent after the first green bond issuance (*Green Bond Issuance*Post*). The findings thus associate signals sent by green bond issuance with lower carbon emissions at the country level. The findings are consistent with firm-level evidence in Flammer (2021a and 2021b) and Fatica and Panzica (2020).

1 Green bond issuance and carbon emissions

After first green bond issuance, economies experienced declines in carbon emissions.

Carbon emission	Carbon dioxide emissions (tons per capita)	
	2010–2019	2000–2019
Green bond issuance*Post	-0.37*** (-2.77)	-0.77*** (-4.31)
Observations	374	914
Adjusted R-squared	0.982	0.961
Country and year fixed effects	Yes	Yes

*** = statistically significant at 1%.

Note: The numbers in the parentheses are *t*-statistics based on robust standard errors.

Source: Tang 2021.

continued on next page

In other words, impact bonds are a form of contingent future liability contract—or a payment-by-results contract¹—between an investor, a service provider, and an outcome payer that directly links return to the investor to clear measures of social impact. They allow private investors to fund development projects through outcome-oriented social interventions. The Brookings Global Impact Bonds Database shows that 206 impact bonds were contracted from 2010 to the end of 2020 and raised \$434 million in 35 countries.

¹ In the US, they are also known as pay-for-success contracts.
Source: <https://www.air.org/resource/pay-success-social-impact-bonds/>.

Box 2.3.3 Continued

Beyond environmental impacts on carbon emissions, green bond issuance may signal greater corporate and government awareness and commitment to the SDGs overall. It is therefore interesting to see whether there are changes in social performance traceable to increased SDG awareness as signaled by green finance. This was explored by analyzing the relationship between green bond issuance and gender equity, an important positive social outcome. Gender gap index data are from the *Global Gender Gap Report* by the World Economic Forum and show gender gaps in access to resources and opportunities in each country. The gender gap is regressed on the first green bond issues in a market in a difference-in-differences framework.

Box Table 2 reports the results. In column (1), the sample period covers 2010–2019. In column (2), the sample covers 5 years before and after first green bond issuance. Both coefficients on *Green Bond Issuance*Post* are negative and statistically significant, indicating that an economy typically saw its gender gap narrow by 0.5% after first green bond issuance. While the magnitude of the reduction may seem small, it is worth noting that gender gaps are very persistent and narrow only slowly.

2 Green bond issuance and gender equity

After first green bond issuance, economies narrowed their gender gaps.

Gender gap index	(1) 2010–2019	(2) [-5, +5]
Green bond issuance*Post	-0.005** (-2.25)	-0.006** (-2.46)
Observations	528	472
Adjusted R-squared	0.941	0.946
Country and year fixed effects	Yes	Yes

** = statistically significant at 5%.

Note: The numbers in the parentheses are t-statistics based on robust standard errors.

Source: Tang 2021.

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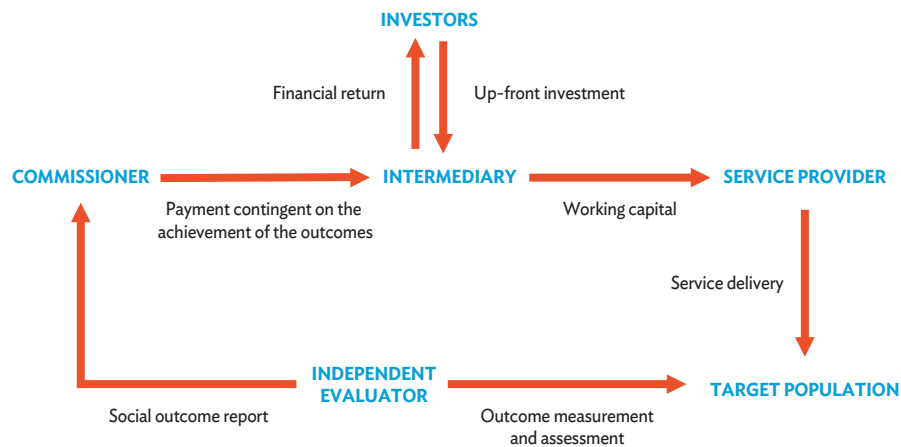
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Two important types are social impact bonds (SIBs) and development impact bonds (DIBs). SIBs leverage private investment for social interventions by transferring risk from governments and service providers to third-party investors that are reimbursed only if the desired social outcomes are achieved (Carè and De Lisa 2019; FitzGerald et al. 2019; Rania et al. 2020). DIBs are SIBs applied in low- or middle-income developing countries that finance development programs with money from private investors, which normally earn a return paid by a donor if the program is successful.

The classic SIB scheme is shown in Figure 2.3.1. In the model, investors provide the required up-front working capital to the service provider to start service delivery, and they receive a return only if the outcome is achieved. The partnership is usually managed by an intermediary—typically a conventional financial intermediary or a specialized social finance intermediary—that raises capital from investors and uses the funds to support service providers who have a plan to address the targeted problem. Intermediaries support all the involved parties and manage the partnership and its contract.

Figure 2.3.1 A typical social impact bond model

A social impact bond is a payment-by-results contract between investors, service providers, and outcome payers.



Source: Carè 2021.

The independent evaluator, an essential figure in any SIB or DIB project, ensures unbiased evaluation of outcome achieved according to the terms and conditions of the contract. Depending on the evaluator's final assessment at the end of implementation, the commissioner, or outcome payer, decides whether or not to repay the investors—paying only if the agreed social outcome is achieved.

Two DIBs that have been implemented in developing Asia are illustrative examples and outlined below.

2.3.3.1 Educate Girls Development Impact Bond

The Educate Girls DIB in India was a seminal international development project to improve education for girls. Because many young girls lack access to education for cultural and economic reasons, addressing this gap offers a substantial development opportunity. Designed as proof of concept, the Educate Girls DIB sought to increase enrollment and improve learning outcomes for children in Rajasthan, India. The DIB ran for 3 years from 2015 to 2018 (Agapitova and Moreno 2017).

It was structured as follows: UBS Optimus Foundation was the investor that provided \$270,000 in up-front working capital to fund service delivery programs. Educate Girls was the service provider. The Children's Investment Fund Foundation was the outcome payer, which promised to repay to the investor its original investment and an additional return if intended outcomes were achieved. Instiglio, a nonprofit financing intermediary, provided technical assistance to all parties during DIB design and implementation.

IDinsight, a nonprofit evaluation firm, assessed whether or not the intended outcomes were achieved during implementation (Gustafsson-Wright and Gardiner 2016; UBS 2018).

The target DIB outcomes were improved (i) enrollment and retention of marginalized girls and (ii) learning performance of children. The intervention identified children who were out of school through door-to-door surveys, explained the value of education to their parents, otherwise engaged with the households of unenrolled kids through multiple channels, and took other steps to improve school attendance and encourage kids not to drop out. In all, 7,300 children were reached. The outcome metrics were two main indicators, enrollment and learning gains, both evaluated annually by IDinsight.

The outcome payment structure had two components: an enrollment objective that targeted 79% of the girls who were otherwise out of school at the inception of the DIB, with \$935.64 paid for every percentage-point increase in enrollment above this baseline; and a learning objective that entailed completing the Annual Status of Education Report (ASER) test for English, Hindi, and mathematics in grades 3–5, with \$48.28 paid for each unit of improved learning relative to a control group.

To support the teaching programs offered by Educate Girls, the DIB trained a team of community volunteers to go door to door in villages to encourage families to enroll their kids in school, as well as to enhance curriculums in public schools. These volunteers worked in over 8,000 villages and 12,500 schools in Rajasthan (Instiglio 2015).

The DIB exceeded its targets in both enrollment and learning outcomes. By the end of 3 years, Educate Girls had enrolled 768 girls, or 92% of all girls found to be out of school and eligible for enrollment, exceeding the 79% target. Moreover, schoolgirls in program villages gained an additional 8,940 ASER learning units relative to comparable students in control villages, exceeding the learning target by 60%. Learning gains were larger for program students than for control students across all grades and subjects. The gains were larger in mathematics and English than in Hindi, and program effects were larger for students with longer exposure to the program. The third year of the Educate Girls DIB was particularly effective in increasing test scores, suggesting that the program had improved its models of education provision as it progressed (IDinsight 2018; Cox et al. 2018). The final evaluation report contains some impressive results, showing achievements in the final year at 116% of the enrollment target and 160% of the learning target (IDinsight 2018; UBS 2018).

With the success of the Educate Girls DIB, the UBS Optimus Foundation was repaid its initial investment in full and received in addition payments that constituted a 15% internal rate of return. The foundation subsequently plowed part of these receipts back into Educate Girls as a bonus payment, rolling over the rest into other programs (UBS 2018).

The key facts of the program are laid out in Table 2.3.3.

Table 2.3.3 Educate Girls Development Impact Bond

The Educate Girls Development Impact Bond improve girls' enrollment and learning performance.

Item	Project data
Launch date	2015
Raised amount	\$270,000
Duration	36 months
Policy area	Education and early year development
Target population	Marginalized school-age girls
Financial intermediary	Instiglio
Service provider	Educate Girls
Impact investor	UBS Optimus Foundation
Project internal rate of return	15%
Maximum outcome payments	\$994,282
Outcome funder	Children's Investment Fund Foundation
Independent evaluator	IDinsight
Overall objective	Improve enrollment and learning in 166 schools in 140 villages in Rajasthan
Outcome metrics	Outcome 1: Learning gains: Aggregate learning gains for all students in grades 3–5 as measured by ASER test scores relative to the control group Outcome 2: Enrollment: Student enrollment defined as girls aged 7–14 heretofore out of school still enrolled by the end of the third school year
Outcome targets	Outcome 1: Gain of >5,592 ASER learning units above control group Outcome 2: Enrollment of 79% of all eligible girls heretofore out of school
Outcome achieved	Outcome 1: Gain of >8,940 ASER learning units above control group Outcome 2: Enrollment of 92% of all eligible girls heretofore out of school

ASER = Annual Status of Education Report.

Source: Carè 2021.

2.3.3.2 Cambodia Rural Sanitation Development Impact Bond

Cambodia has one of the highest rates of open defecation in Southeast Asia. One in three Cambodians use water from unimproved sources, and many children are stunted and even killed by disease arising from sanitation- and water-supply shortcomings (UNICEF 2019). The Cambodia Rural Sanitation DIB uses results-based finance to help the Government of Cambodia achieve the SDGs by 2025 by bringing safe sanitation to some of the poorest and most vulnerable households in Cambodia. The program contributes to universal sanitation coverage in six provinces: Kampong Thom, Kandal, Oddar Meanchey, Prey Veng, Siem Reap, and Svay Rieng (USAID 2019). The deal arose out of a partnership between the Stone Family Foundation, service provider iDE, and the US Agency for International Development. Table 2.3.4 shows the key elements of the Cambodia Rural Sanitation DIB.

Table 2.3.4 Cambodia Rural Sanitation Development Impact Bond

The Rural Sanitation Development Impact Bond aims to extend universal sanitation coverage in six provinces of Cambodia.

Item	Project data
Launch date	November 2019
Time from initial design to launch	9 months
Duration	4 years, 2019–2023
Cohort size	1,600 villages
Policy area	Water, sanitation, and hygiene
Target population	Rural communities across six provinces: Kampong Thom, Kandal, Oddar Meanchey, Prey Veng, Siem Reap, and Svay Rieng
Overall objective	Increase sanitation coverage to 85% in line with the National Action Plan for Rural Water Supply, Sanitation, and Hygiene
Service provider	iDE
Impact investor	Stone Family Foundation
Maximum outcome payments	\$9,999,999
Outcome funder	United States Agency for International Development
Outcome metrics	Each village free of open defecation

Source: Carè 2021.

Program development followed previous work done by iDE in its Sanitation Marketing Scale-up Program, which increased latrine coverage in selected provinces of Cambodia from 29% to 67% over a 10-year period. The use of this kind of outcome-based contract pioneers a shift away from traditional donors to impact investors, in this case the Stone Family Foundation. The hope is that, if successful, the recovered investment and the return can be recycled into future impact investments.

The outcome metric adheres to the definition of “open defecation free” used by the Government of Cambodia: (i) no households practicing open defecation, (ii) at least 85% of households with access to functional improved latrines in their own homes, (iii) all households disposing of infant feces into owned or shared latrines, (iv) no evidence of human excreta in the village environment, (v) all households with handwashing facilities including soap, and (vi) community enforcement of formal and informal actions against open defecation (USAID 2019).

The Cambodian and Indian DIB cases show that impact bonds can have tangible positive impacts on the lives of poor and vulnerable people in developing countries, and that outcome-based programs contribute to achieving the SDGs. These new funding models can attract private investors looking to get the best social return from their investment. Through impact bonds, investors can achieve a social impact in a targeted community, earn a financial return, diversify their portfolio, and improve their reputation.

2.3.4 How multilateral development banks can foster green and social finance

Challenges and constraints in the emerging and underdeveloped green and social finance landscape indicate a role for multilateral development banks (MDBs). MDBs are ideally suited to advocate, enable, catalyze, and facilitate private capital for green and social finance because they straddle both worlds: global financial markets and the global development community. While their primary mandate is to foster development, MDBs interact extensively with private finance in their operations. The underdeveloped state of green and social finance in developing countries suggests that multilateral organizations can help unleash international private capital into green and social finance in the following ways.

First, MDBs can catalyze public and private capital.

In addition to investing their own capital directly, MDBs coinvest in green and social projects by leveraging public sector funds to attract more capital from private capital sources. MDBs can lead innovative financing structures and mechanisms through various financing facilities, funds, and risk management instruments. In this way, they reduce risk to private investors and make green and social infrastructure projects more bankable.

MDBs foster the supply of green and social finance by developing project pipelines as anchor or cornerstone investors, thereby enhancing project financing capacity and improving compliance with relevant disclosure standards, frameworks, and principles. Further, MDB participation enhances the perceived credibility of projects among other investors and demonstrates best practices for future projects. In this way, MDBs catalyze private capital, technologies, and management efficiencies toward projects with variously challenging risk profiles.

Second, MDBs can advocate and support the development of market infrastructure and ecosystems to boost both supply and demand for green and social finance. They can help reconcile impact disclosure and management principles, standards, and metrics, as well as strengthen market practices through improvements to regulation, the legal framework, and ecosystems for green and social finance. This helps build investor confidence in such investments. Other roles of MDBs are to help define asset classes, set impact management and disclosure standards and metrics, structure transactions, and attract investors. MDBs can contribute further through policy advice, capacity building, and knowledge products such as information platforms and international databases. These knowledge services and products educate financiers and investors, disseminate experience and best practices, and strengthen the capacity of regulators to address market failures. Box 2.3.4 describes the role of ADB in fostering green finance.

Box 2.3.4 Role of the Asian Development Bank in promoting green finance in Asia

Recognizing the need to develop green finance, especially by mobilizing private capital to close widening green financing gaps in the region, the Asian Development Bank (ADB) has undertaken both programmatic approaches and standard green projects that cover a range of activities, from building capacity and knowledge to catalyzing innovative finance for green projects.

One notable programmatic approach is the ASEAN Catalytic Green Finance Facility (ACGF). Launched in April 2019, the ACGF is a regional catalytic vehicle that leverages public sector funds to mitigate risk in green projects and thus attract capital from private capital sources to scale up green financing in member states of the Association of Southeast Asian Nations. The ACGF aims to approve projects with potential to reduce emissions by at least 150,000 tons of CO₂ equivalent annually. It uses an innovative loan product called two-step pricing, which creates an impetus for private capital mobilization. Clear bankability criteria ensure that well-prepared projects are attractive to private capital and feature green criteria specially prepared for the subregion. Since starting operations, the ACGF has seen four projects approved that together are worth \$1.7 billion. Three of them have climate financing components at more than 85% of the whole because they anticipate significant reductions in greenhouse gas emission, currently targeting cuts in carbon dioxide emission by 73,000 tons per year.

ADB invests in green projects across developing Asia. One example is the Cambodia Solar Park Project, which aims to build a 100 megawatt solar power park in Kampong Chhnang Province using public-private partnership. Another is the Shandong Green Development Fund, which leverages public funds to catalyze private capital for investment in a variety of climate subprojects. In addition, ADB helps to generate well-targeted knowledge products that can directly inform policy

inputs and projects. Such knowledge products are especially important for helping countries meet their Paris Agreement targets. One example is *Green Finance Strategies for Post-COVID-19 Economic Recovery in Southeast Asia*, a report developed in tandem with ongoing green finance projects in Thailand, which paved the way for ADB support for the first green, social, and sustainability bonds in the subregion targeting recovery after COVID-19.

ADB supports green finance market development by (i) issuing and investing in green, sustainable, and social bonds to create liquidity in the market and boost supply and demand; (ii) supporting sovereign issuers of green, sustainable, and social bonds; and (iii) building market ecosystems.

One innovative financing instrument with a highly visible role for ADB is theme bonds. ADB launched in 2010 its first theme bond for sustainable development, with water as the theme, in response to growing demand among its investor base. ADB water bonds support projects under the Water Financing Program, including agricultural irrigation in Cambodia and urban water systems in Tamil Nadu, India. ADB has expanded its theme bond offerings beyond water to health and gender. Health bonds are used to finance ADB projects tackling health challenges in Asia and the Pacific. These include improving access to health-care services for the poor in Mongolia and a COVID-19 emergency response project in the People's Republic of China (PRC). Gender bonds finance projects that promote gender equality and the empowerment of women. Examples include a smart transport system in Guizhou Province, PRC, and an agribusiness project in Bangladesh.

The ADB efforts briefly outlined above illustrate the potential for contributions from multilateral development banks to the development of sustainable finance in developing Asia.

2.4 Complementary financing instruments for a green and inclusive recovery

While private capital has played an important role in green and inclusive growth, other financing instruments and funding mechanisms have also contributed to sustainable development. Prominent among these complementary financing instruments are public funding, microfinance programs, and carbon pricing.

2.4.1 Public sector capital for SDG investments

Fiscal revenue remains a critical funding source for sustainable development because it finances public spending on the SDGs. The COVID-19 pandemic has made clear that developing economies need to prioritize significant investments in public services such as health care and education to promote inclusive growth, as well as in green energy and other green infrastructure to tackle environmental degradation. More broadly, SDG-oriented public spending—and tax revenue to finance it—will remain important in developing countries' pursuit of the SDGs. In Thailand, for example, corporate income tax has been linked to several environmental and social benefits through negative association with poverty, CO₂ damage, mortality, and undernourishment (Jinjarak et al. 2021).

In the aftermath of the global financial crisis of 2008–2009, many economies around the world launched stimulus packages with green development components, most notably the European Union, Japan, the PRC, the ROK, and the US. The COVID-19 crisis has lowered tax revenue, and Asian fiscal stimulus packages prioritize such urgent needs as public health and financial support for businesses and households. Nevertheless, some Asian governments still actively pursue SDG agendas. The ROK launched an economic stimulus package with a green component in July 2020, as did Japan in December. In July 2020, the PRC established its \$12.6 billion National Green Development Fund, and the following month Thailand issued sovereign sustainability bonds worth \$944.9 million to fund green infrastructure projects.

Evidence from the American Recovery and Reinvestment Act of 2009 (ARRA) indicates that green components of such legislation can direct an economy along a green trajectory over the long run by creating jobs (Popp, Vona, and Noailly 2020).

Green investments accounted for about 17% of all direct government spending under the ARRA. Specific investment areas included renewable energy, public transport and clean vehicles, energy efficiency, building retrofitting, and modernizing the electric grid. Green ARRA investments had persistent effects on job creation, and green ARRA investments boosted local demand for green skills, helping to reshape the economy toward green development.

Asia's green stimulus programs have so far been launched largely by richer economies such as Japan, the ROK, and Singapore, along with more developed emerging economies such as Malaysia and the PRC (Moody's 2021b). These programs center on the construction, utility, and transportation industries, which stand to benefit from long-term credit advantages. The PRC, for example, announced in April 2020 plans to spend \$1.42 billion to expand battery-charging networks for electric vehicles (Carbon Brief 2020). In June 2020, the ROK announced plans to spend ₩5.8 trillion on a green transformation of living infrastructure that takes in utilities, health facilities, and public housing; ₩5.4 trillion on renewable energy; and ₩1.7 trillion on green business models for small and medium-sized enterprises and job creation for a green COVID-19 recovery. The Government of the ROK has for years used public financing to support such enterprises through credit guarantee schemes (Box 2.4.1).

Box 2.4.1 Public funding for green development in the Republic of Korea

Green growth and development have emerged in recent years as policy priorities in the Republic of Korea (ROK). The government's environmental programs require large fiscal resources. This box briefly examines two of them.

Green financing through credit guarantee schemes

Small and medium-sized enterprises (SMEs) form an important driver of economic development. In Asia, SMEs account for over 95% of all firms, 50%–70% of employment, and 30%–60% of GDP (Yoshino and Taghizadeh-Hesary 2018). Nowadays, SMEs are increasingly getting involved in green projects with positive environmental outcomes. However, lenders and investors struggle to assess the creditworthiness of SMEs because of information asymmetry that exists for lack of solid accounting systems, documentation, or credit histories, limiting access to finance for SMEs (Yoshino and Taghizadeh-Hesary 2018).

In this regard, public financial agencies can contribute greatly to the development of green finance through credit guarantee schemes for SME green projects. A credit guarantee scheme encourages lenders to finance a specific target group or to increase their exposure to such a group by sharing credit risk.

In some cases, the need for a guarantee may end once a banking relationship has been established. This is the case when the perceived risk comes mainly from lack of knowledge about a new technology. In other cases, a guarantee may still be needed to enhance the creditworthiness of certain borrowers and projects to bypass structural barriers such as the absence of an asset-based lending framework. In the medium-to-long term, these schemes enable green projects to be financed without a guarantee. In short, the guarantee mitigates uncertainty at the initial phase of lending.

In the ROK, the Korea Credit Guarantee Fund and the Korea Technology Finance Corporation have facilitated SME access to funding for green projects through credit guarantees and advisory services. Their guarantees spur bank participation in the financing of start-ups. Most commonly, companies with green certification can get a loan guarantee from a credit guarantee scheme, or they can secure financial services from public banks that support SMEs with certified green business projects.

Box 2.4.1 Continued

The Korea Institute for the Advancement of Technology provides green certification of three types:

- (i) green technology, which includes 1,263 technologies divided into 10 categories;
- (ii) green business projects, with 92 of them in 9 categories; and
- (iii) green companies, so designated if at least 30% of revenue is obtained from green technologies or projects.

Green certification is fundamental to obtaining green financing. The most popular support for green technology certification derives from a loan guarantee granted by a public financial agency or from participation in a national R&D project. Public financial institutions provide public loans primarily to certified green business projects. As seen in the box figure, from 2010 to 2019, the Korea Institute for the Advancement of Technology received 10,564 green certification applications and certified more than 60% of them.

Green New Deal

In response to the economic downturn caused by COVID-19, the Government of the ROK launched the Korean New Deal in July 2020. Investment worth \$135 billion in green and digital projects is now being funded with \$96.3 billion from the Treasury, \$21.2 billion from local governments, and \$17.3 billion from the private sector.

In rolling out the financial package to support the program, the Korea Development Bank and credit guarantee schemes such as the Korea Credit Guarantee Fund and the Korea Technology Finance Corporation, mentioned above, will inject \$86.2 billion through loans and guarantees.

Apart from a plan to invest in advanced technology initiatives to create jobs, the Korean New Deal has a green component known as the Green New Deal. It will invest a projected \$1.5 billion to finance green SMEs, support technology development for environmental and energy SMEs, and build green industrial clusters. The whole Green New Deal is worth \$61.9 billion and aims to create 319,000 jobs by 2022 and 659,000 by 2025.

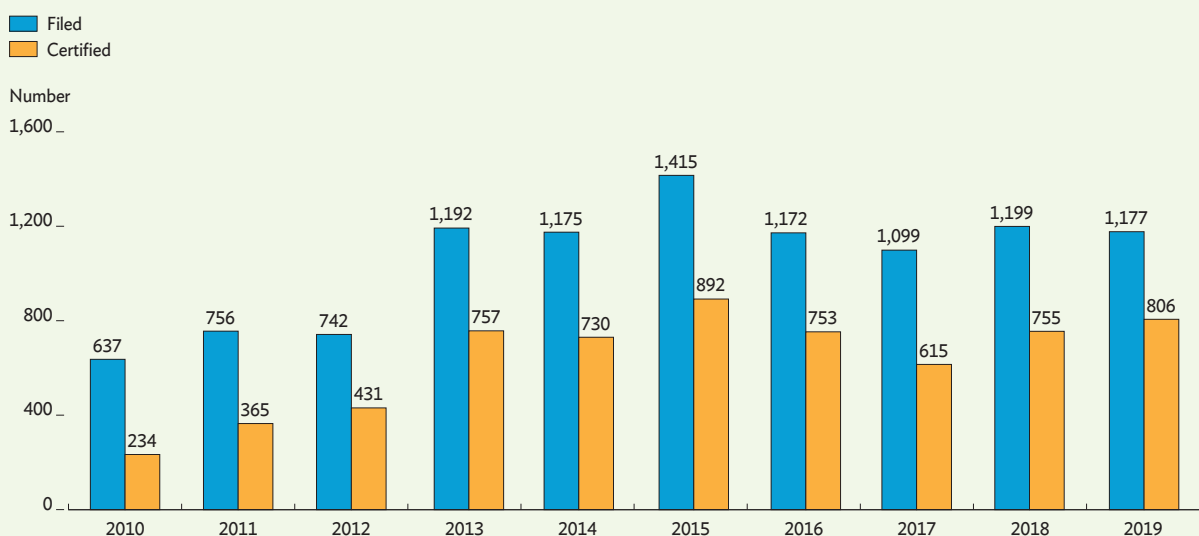
In addition to helping green SMEs in the ROK overcome barriers to finance, these efforts can provide useful insights for other countries in Asia and the Pacific as they formulate their own economic road maps for sustainable recovery after COVID-19.

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Green technology certification by the Korea Institute for the Advancement of Technology

The institute certified more than 60% of green certification applications received from 2010 to 2019.



Source: Kim 2021.

2.4.2 Microfinance to address socioeconomic challenges

Lack of access to finance is among the main causes of poverty in developing economies. The poor often have no collateral with which to obtain conventional financial services, and transaction costs for small loans are too high to make lending profitable for financial institutions. One mechanism with potential to extend financial services to marginalized groups is microfinance, which covers an array of financial services: microcredit, micro-savings, microbanks, micro-remittances, micro-guarantees, money transfers, and microinsurance (Armendáriz and Morduch 2010). Microfinance services complement bank services by providing vital financial services to underserved and disadvantaged populations: women, the disabled, the elderly, and the unemployed (Hansen, Huis, and Lensink 2020).

The main goal of microfinance institutions (MFIs) is to enhance social welfare. The social mandates of MFIs typically include a wide range of socioeconomic impacts, such as poverty alleviation, job creation, gender empowerment, rural financial inclusion, education, nutrition, disaster resilience, and health improvements. In 2018, some 916 MFIs existed worldwide. Their aggregate loan portfolio amounted to an estimated \$124 billion, serving 140 million active borrowers. Four-fifths of borrowers were women, and 65% were rural residents (Microfinance Barometer 2018). Unlike commercial banks, MFIs are generally evaluated not only on commercial criteria such as financial return but also on their social impact. Private capital is necessary to finance the expansion of microfinance, and MFIs may tap capital markets where their equity shares can be held by social investors who do not necessarily seek full financial return (Cull, Demirgüç-Kunt, and Morduch 2009). MFIs have a variety of corporate governance structures. MFIs in Bangladesh are mostly nongovernment organizations, for example, while next door in India many MFIs are commercially oriented private financial institutions.

Some studies have found positive effects from microfinance on various socioeconomic outcomes: job creation, rural financial inclusion, education, nutrition, disaster resilience, and health improvements (Wydick 2002; Tedeschi 2010; Garikipati 2012; Deloach and Lamanna 2011; Sinha 2012; Othman 2015; Samer et al. 2015; Hassan and Saleem 2017; Garikipati et al. 2017). Beneficial effects from microfinance have been documented in developing Asia, notably in Bangladesh, Pakistan, and Thailand (Kaboski and Townsend 2012; Sengsourivong and Mieno 2014; Rahman and Khan 2013; Rahman, Khanan, and Nghiem 2017; Imtiaz et al. 2014; Sehrawat and Giri 2016).

On the other hand, a number of studies reveal the limitations of microfinance. It has a questionable record in female empowerment (Karim 2011; Garikipati et al. 2017) and may push borrowers into over-indebtedness if interest rates are exorbitant (Guérin, Labie, and Servet 2015). Moreover, microcredit seems to benefit mainly the middle and upper poor, failing to reach the extremely poor and vulnerable (Adjei, Thankom, and Hossain 2009; Kondo et al. 2008; Banerjee et al. 2015), or else offers loans that are too small to establish a viable new business (Ibrahim and Bauer 2013).

The evidence of socioeconomic impact from microfinance is thus mixed. A contentious debate rages about whether microfinance programs contribute to poverty reduction. The debate was kicked off by Pitt and Khandker (1998), a seminal paper that found microcredit helping to reduce poverty, based on an analysis of a database of 1,800 households in Bangladesh. Then Roodman and Morduch (2009) analyzed the same database and failed to find significant poverty impact. The authors of the two papers have since engaged in a long-running but inconclusive debate. Another highly influential paper on the topic summarized the results of microfinance experiments in six countries: Bosnia, Ethiopia, India, Mexico, Mongolia, and Morocco (Banerjee, Karlan, and Zinman 2015). Published in the January 2015 issue of the *American Economic Journal: Applied Economics*, these six papers found that, in most economies, microfinance had a significant positive effect on credit access and business activity but no significant impact on income or social outcomes, while evidence was mixed regarding impact on consumption (Table 2.4.1). In sum, while microfinance aims to reduce poverty and achieve other social outcomes, evidence on its impact is still largely inconclusive and subject to debate.

Table 2.4.1 Impact of microfinance: evidence from six randomized control trials

Evidence on poverty reduction from microfinance remains inconclusive.

Criterion	Bosnia	Ethiopia	India	Mexico	Mongolia	Morocco
Credit access	+	+	+	+	+	+
Business activity	+	+	+	+	0	+
Income	0	0	0	0	0	0
Consumption	-	-	0	0	+	0
Social outcomes	0	0	0	+	0	0

+ = positive and statistically significant effect, - = negative and statistically significant effect, 0 = no statistically significant effect.

Source: Sandefur 2015.

2.4.3 Carbon pricing to mobilize fiscal resources and meet environmental goals

The market has failed in the past to manage greenhouse gas (GHG) emissions sustainably because their externalities are not typically incorporated into the prices of the goods and services that produce them. Because no one pays for GHG emissions, their negative effects have long been off the market. Carbon pricing addresses this market failure by internalizing the external costs of CO₂ emissions—by setting their price and requiring that someone pay, thereby shifting the cost of emissions from the shared environment to the emitters responsible for them in the first place.

While sending a clear signal to GHG emitters that the free ride is over, carbon pricing also presents them with the option to either reduce their GHG emissions or start paying for them. Carbon pricing thus creates economic incentives for industry to invest in and innovate toward low-carbon technologies, goods, and services.

Carbon pricing helps countries straddle both environmental and economic objectives, enabling the achievement of environmental goals in a flexible, efficient, and cost-effective manner. Well-designed carbon pricing policies can offer triple benefits by protecting the environment, driving investment in clean technology, and raising revenue for governments to invest in low-carbon technologies.

Carbon-pricing instruments

Carbon pricing can take many forms, including carbon taxes, emission trading systems (ETs), carbon-crediting mechanisms, and internal carbon pricing. Carbon pricing can work by punishing emitters through a carbon tax, rewarding reducers through carbon-crediting, or guiding an organization's decisions through internal carbon pricing (Duggal 2021). The two primary carbon-pricing policy instruments are carbon taxes and ETs.

- (i) **Carbon taxes** are directly imposed by governments, fixing a price on carbon by either taxing the carbon content of fossil fuels or specifying a tax rate for the CO₂ emitted during their combustion. They create financial liability for emitters, giving them incentives to innovate and transition toward clean energy and energy-efficient operations. Carbon taxes can effectively modify production and consumption in favor of low-carbon goods and services, while providing needed revenue with which the government can pursue sustainable development (Carbon Pricing Leadership Coalition 2016).

Additionally, carbon tax revenue can be redistributed to support low-income households or communities that are particularly hard hit by low-carbon transitions or the physical effects of climate change.

- (ii) **Emissions trading systems (ETSs)**, also known as cap-and-trade programs, create a market in which participants trade allowances, expressed in tons of CO₂ equivalent, under an emission cap that is gradually tightened to bring down emissions over time. The cap in a cap-and-trade program is typically set by the government, specifying a quantitative limit on the total amount of GHG emissions it will allow. Entities covered by the ETS can buy the additional allowances they need to comply with directives or sell allowances they have but do not need. Under a cap-and-trade program, the price of emissions is determined by market supply and demand (ADB 2015). A cap-and-trade program can be implemented regionally, nationally, or subnationally—or within a sector—to help meet quantitative emission-reduction targets cost effectively.

If designed and implemented properly, both approaches can efficiently and meaningfully reduce emissions. They can also mobilize private sector capital by creating incentives to reduce CO₂ emissions and switch to climate-friendly energy sources. Both instruments can generate fiscal revenue that countries can reinvest in climate mitigation and adaptation. It is imperative, though, that systems impose prices sufficient to compel emitters to internalize their external costs.

If sufficiently high, carbon prices can render unprofitable such carbon-intensive energy sources as coal. A meaningful carbon tax, at perhaps \$75 per ton of CO₂, is a powerful tool to reduce carbon emissions and generate additional benefits, including lower mortality from air pollution (IMF 2019a). However, carbon prices have so far remained too low to induce rapid reductions in CO₂ emissions that align with the goals of the Paris Agreement.

Carbon pricing around the world and in Asia

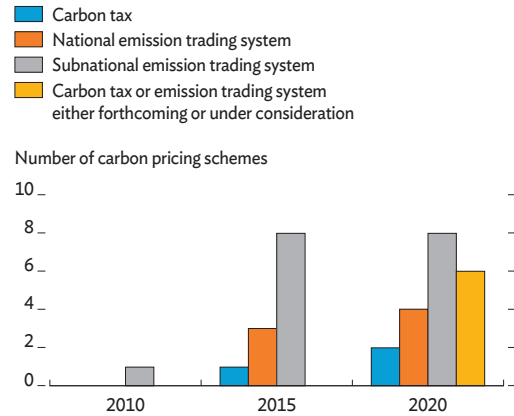
A number of economies around the world have used carbon-pricing instruments for years, and 61 carbon-pricing initiatives are either operating or scheduled for implementation, 31 of them ETSs and 30 of them carbon taxes (World Bank 2020a). The largest and most prominent ETS is the European Union ETS, which was launched in 2005, a month before the Kyoto Protocol came into force.

Momentum is growing for carbon-pricing instruments in Asia and the Pacific (Figure 2.4.1). Japan and Singapore are so far the only two economies in the region to have introduced carbon taxes. Asian economies have generally made greater use of market instruments such as ETSS. Australia, Kazakhstan, New Zealand, and the ROK have national ETSS, and subnational ETSS operate in Tokyo and several provinces and cities in the PRC. Box 2.4.2 briefly describes the ROK ETS and Singapore's carbon tax.

Despite disruption from COVID-19, Asian governments are accelerating low-carbon transitions with new carbon-neutral pledges and paving the way for a wider carbon-pricing role. Indonesia, Japan, and Viet Nam are planning national ETSS, and by February 2021 the PRC had already taken key steps toward launching its nationwide ETS (Xinhuanet 2021). In the Philippine House of Representatives, the Committee on Climate Change conditionally approved a cap-and-trade bill in February 2020 through House Bill 2184. Countries in developing Asia can build on regional experience with carbon pricing schemes to fully realize the benefits of carbon-pricing instruments to sustainable development in the region.

Figure 2.4.1 Carbon pricing instruments in Asia and Pacific

Carbon-pricing schemes are proliferating in Asia and the Pacific during its low-carbon transition.



Notes: Carbon taxes have been levied by Japan and Singapore. Emission trading systems have been implemented by Australia; Tokyo, Japan; Kazakhstan; New Zealand; Beijing, Chongqing, Guangdong, Hubei, Shanghai, Shenzhen, and Tianjin in the People's Republic of China; and the Republic of Korea. Carbon taxes or emission trading systems are under consideration or scheduled for implementation in Indonesia; Taipei, China; Thailand; and Viet Nam and for expansion nationwide in Japan and the People's Republic of China.

Source: Heubaum and Volz 2021.

Box 2.4.2 A carbon tax in Singapore and emission trading in the Republic of Korea

The Republic of Korea (ROK) launched Asia's first nationwide mandatory emission trading system (ETS) in 2015. Called the K-ETS, it is currently the second-largest system in the world, after the European Union ETS, and covers more than 600 of the country's largest emitters, which together emit almost 70% of ROK greenhouse gases (GHGs). Beset by early problems such as low market liquidity, the K-ETS implemented reform that progressively lowered emission caps and gradually phased out allocations of free allowances in favor of more auctioning of them (ADB 2018). The country aims to use the K-ETS to meet its nationally determined 2030 target of reducing GHG emissions by 37% below business as usual. The government has announced regulations for K-ETS Phase 3, which will be implemented from 2021 to 2025 with a notably stricter cap and further changes to how allowances are allocated (Duggal 2021).

Singapore introduced in 2019 a carbon tax for industrial facilities whose annual GHG emissions exceeded 25,000 tons of CO₂ equivalent. The tax thus targets the country's major emitters and will cover 80% of Singapore's GHG emissions. The rate has been set at S\$5 per ton of GHG emissions until 2023, with plans to increase the rate to S\$10–S\$15 by 2030. The Government of Singapore expects to spend nearly S\$1 billion in carbon tax revenue generated in the first 5 years on projects that abate carbon emissions.

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2.5 Nurturing green and social finance in Asia

Policy makers have many ways to shape green and social finance markets around their policy agendas. Innovative policy instruments are available to the government to mobilize public and private resources for sustainable development. And, perhaps more immediately, governments can reshape existing policy to align it better with local market conditions through various policy actions.

2.5.1 Policy instruments

Engaged public policy is central to accelerating the growth of green and social finance. Governments can use a range of policy options to shape markets as well as participate in markets through legislation, regulation, and fiscal resources such as direct investment, grants, co-investment, subsidies, tax incentives, and outcome-based commissioning and contracting.

Direct investment is the most straightforward way the public sector can participate in the market. One way is to issue green, social, and sustainability bonds, which improves market liquidity and encourages private investment. Further, governments can deploy grants to build capacity and invest in readiness on the supply side of the market, as well as fund research and knowledge sharing to build market infrastructure and ecosystems.

The public sector can participate in the market through co-investment or catalytic capital. Such co-investment may take the form of innovative impact deals and fund structures, such as guarantees or other subordinated finance at concessional rates. Catalytic capital thus leverages private capital into sustainable deals and funds. These innovative structures attract, through blended finance, a wider range of investors with different risk–return and impact profiles (OECD 2018).

The public sector can improve the risk–return profile of green and social projects with tax incentives and subsidies. Instead of paying for inputs or processes, public actors can pay for outcomes and impacts through such financial instruments as impact bonds, which can further catalyze supply and demand in the market.

Interest is growing in possibilities for developing legislation and regulation around green and social finance. Laws and rules clearly codify incentives for both supply and demand, as well as offer guidelines that help direct more investors into the market.

With green and social finance markets still institutionally underdeveloped, legislation and regulation can build a standard taxonomy and set guidelines for information disclosure and impact metrics. These efforts address concerns about self-serving green- and social-washing and thus strengthen investor confidence and foster market development.

2.5.2 Policy opportunities

Because an array of policy innovations already operate in one place or another around the world, adopting and reshaping them according to local market conditions can further catalyze capital for green and inclusive recovery. Looking ahead, the development of the sustainable finance market offers policy opportunities in the following five action areas: investment, catalytic financing, innovation, advocacy, and research.

Investment. The public sector can provide capital to meet shortfalls in funding for the SDGs. Significant scope exists for investment in deals and projects with environmental benefits like green energy and transport, clean water, and the broader blue economy, and with social benefits like poverty reduction, jobs, gender empowerment, and equitable access to health and education services. Considering that climate change threatens to be notably destructive in developing Asia—causing, for example, super typhoons and severe flooding in Bangladesh, the Philippines, Thailand, and Viet Nam—green finance offers the promise of both environmental and social impacts. Various policy options can be applied to these opportunities. Deploying grant capital can build supply capacity by making deals more readily investable. Direct investment in private debt and equity can focus on development finance and thereby combine impact with attractive risk-adjusted return.

Catalytic financing. Catalytic financing can be deployed in blended deals that leverage private capital to fund social and green finance. Specific instruments include credit guarantees, blended funds and deals, and other co-investment models that combine debt and equity or quasi-equity. Moreover, catalytic financing can enhance intermediary capacity by capitalizing investment platforms or institutions for wholesale sustainable finance.

Innovation. Innovative capital market instruments such as green, social, and sustainable bonds mobilize more capital to achieve the SDGs. The public sector can market these instruments to improve liquidity and bolster assets and investment pipelines. Further, they have a demonstration effect that educates and engages investors and issuers of the possibilities in the market. Innovative financing arrangements such as impact bonds are tailored to achieve specific measurable outcomes.

Advocacy. Various policy options can be used to advocate for the development of the sustainable finance market. Laws and regulations can guide financial institutions such as banks, pension funds, and insurance companies toward providing capital for sustainable finance. Legislation and regulation that enforce the disclosure of environmental, social, and governance (ESG) information and require standardized and transparent impact measurement can significantly improve the efficiency of capital allocation in the sustainable finance and to foster market development. Turning to fiscal policy, tax incentives and subsidies can be instituted to discourage harmful social or environmental activities or to reward positive ones.

Research. Policy makers can deploy grants for research that provides useful data or analysis to support the development of the green and social finance market. Research can facilitate the development of reliable databases that foster information dissemination and thus mitigate information asymmetry in the market. Grants can support knowledge transfer and build capacity through best practices in market infrastructure and ecosystem development.

2.5.3 Current policy that develops green and social finance in Asia and beyond

Various national, regional, and international policies exist to promote green and social finance in Asia and around the world.

The United Nations SDG framework provides the context for a global development agenda that includes recommendations for national, regional, and international policy frameworks. Such frameworks engage financing for the SDGs. A landmark international framework that engages green finance is the Paris Agreement on climate change, which includes a commitment from developed countries to mobilize annual funding of \$100 billion by 2020 for climate finance and to continue to invest at this rate until 2025.

As a region, the European Union has been a leader in developing sustainable finance. Examples of regional policy include the European Green Deal and the European Social Fund. In November 2019, the European Union introduced disclosure regulations on sustainable finance, most of which were scheduled for implementation in March 2021. These regulations require financial market participants and financial advisers to provide investors with ESG information on their financial products, such as on their integration of sustainability risks, consideration of adverse sustainability impacts, and alignment with sustainability principles (European Union 2019).

Developing Asia has similarly been active in using policy to develop the market. National policies and instruments related to green and social finance in four selected Asian economies are outlined in Box 2.5.1.

Box 2.5.1 National policies to develop sustainable finance markets in selected Asian economies

Four Asian countries—Bangladesh, India, Japan, and the Republic of Korea (ROK)—have established national advisory boards to participate in the network led by the Global Steering Group for Impact Investment (GSG-UNESCAP 2020). Their salient national level policies are described below.

Bangladesh. The sustainable finance market in Bangladesh remains at an early stage of development, still dominated by development finance institutions. As of 2019, these institutions had invested \$834 million of the market's total capitalization of \$955 million, mostly as debt.

In 2011, Bangladesh Bank, the central bank, issued a set of policy guidelines for green banking. The rules require banks to establish sustainable finance units to promote green and social investment and to commit 5% of their loan portfolios to debt or equity in green finance. The central bank also instructed all banks to contribute 10% of their corporate social responsibility budgets to a climate risk fund.

By 2016, the central government had launched the Bangladesh Climate Change Trust Fund, the Bangladesh Climate Resilience Fund, as well as the \$200 million Green Transformation Fund. Importantly, using Islamic finance for sustainable impact expands opportunities, as 20% of all deposits and 23% of all credit are Sharia-compliant.

India. The sustainable finance market in India consists primarily of equities. In 2012, the Securities and Exchange Board of India created a new category, the alternative investment fund, for the purpose of pooling international and domestic sustainable finance in new social venture funds. In 2014, the government catalyzed with a stake of about 20% the Inclusive Innovation Fund, which capitalizes enterprises that benefit the poor through job creation. By 2017, the sustainable finance market had reached \$30 billion, of which \$8.6 billion were green bonds (GSG 2019a).

Legislation is used to guide business activities toward the SDGs. The Indian Companies Act, 2013 requires every large corporation to implement a policy on corporate social responsibility and to spend on related activities at least 2% of its profit, defined as the average profit over the preceding 3 financial years. The government further introduced in 2018 its *National Guidelines on Responsible Business Conduct* (MCA 2018).

Efforts have been made to spur lending for sustainable development. In September 2020, the Reserve Bank of India, the central bank, revised its priority sector lending guidelines to align with the SDGs, under which all domestic commercial banks were required to provide at least 40% of their adjusted net bank credit to specified sectors, notably agriculture, education, social infrastructure, housing, renewable energy, and micro, small, and medium-sized enterprises (RBI 2020).

Japan. Japan has a well-developed sustainable finance market, with 18% of all assets under management in 2018 considered to be sustainable finance. The main focus has been on green finance, and the Ministry of the Environment played an important role by establishing guidelines for green bonds. The engagement of two large institutional investors was an important driver of growth in this market, with the Government Pension Investment Fund becoming a signatory in 2015 of the United Nations Principles for Responsible Investment, as did the Pension Fund Association the following year.

Japan also leads Asia's social bond market. By 2018, Japan had issued three social impact bonds, one each in the cities of Hachioji and Kobe and one as a partnership between Hiroshima Prefecture and six cities. Japan contributed 41% of social bond issuance in Asia by value from 2017 to 2020 (ADB 2021).

Republic of Korea. The market for sustainable finance has evolved significantly in the ROK over the past 5 years, with strong support coming from policy makers (GSG 2019b). The first green bond in the ROK was issued in 2013 by the Export-Import Bank of Korea. In 2017, Hyundai Capital raised \$500 million from green bonds, and the Korea Development Bank issued green bonds worth \$300 million. The market for green bonds is now well developed, and the ROK has the largest social bond market in Asia, contributing 49% of social bond issuance in Asia from 2017 to 2020 (ADB 2021).

The ROK Financial Services Commission issued in 2016 the voluntary Korea Stewardship Code to encourage the use of ESG in corporate decision-making. The next year, the government deployed \$2.7 billion in catalytic guarantees, loans, and equity into sustainable finance.

Box 2.5.1 Continued

In 2019, it established the Korea Social Value and Solidarity Foundation as a sustainable wholesale fund to leverage public capital in co-investments with the private sector, with the aim of investing \$250.5 million per year starting in 2020.

Municipal and provincial governments also provide sustainable finance. The Government of Seoul, for example, invested \$49.3 million in local sustainable projects. To date, two social impact bonds for special needs education have been issued by the governments of Seoul and Gyeonggi Province.

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2.5.4 Forward-looking policy directions to promote sustainable finance

Three strategic policy directions especially relevant in developing Asia are to (i) align finance with the SDGs while safeguarding financial stability, (ii) develop market infrastructure and ecosystems for sustainable finance and growth, and (iii) expand fiscal revenue to ensure green and inclusive recovery. While future policy actions are needed to further develop green and social finance in the region, recent regional developments in these three policy directions merit a closer look.

Strategy 1: Align finance with the SDGs while safeguarding financial stability. Environmental problems such as climate change, biodiversity loss, and soil, water, and air pollution threaten human well-being and sustainable livelihoods. It is now widely recognized that climate change and environmental degradation are serious dangers to economic activity, threatening both micro- and macrofinancial stability. Climate change can weaken individual companies' fundamentals, and such localized threats in every sector can eventually coalesce to threaten broader financial stability (Dafermos, Nikolaidi, and Galanis 2018). With respect to environmental risk, the focus has so far been primarily on the physical and transition risks of climate change (NGFS 2019; Bolton et al. 2020), but issues like biodiversity loss have recently garnered attention (van Toor et al. 2020; World Bank 2020b). The COVID-19 crisis has further highlighted the need for greater social resilience, which is now becoming a key focus for policy makers.

Financial supervisors have come to recognize sustainability risks to individual financial institutions and to the whole financial system, such that they perhaps pose a new type of shock to financial stability (Pereira Da Silva 2019). In response, the Network of Central Banks and Supervisors for Greening the Financial System developed its NGFS Climate Scenarios as a common starting point for analyzing climate risks to the economy and the financial system, and for individual financial institutions' analysis of environmental risk. The International Monetary Fund (2019b) reported that “ESG issues may have material impact on corporate performance and may give rise to financial stability risks via exposure of banks and insurers to large losses from climate change.” Recent years have seen discourse intensify on the need to incorporate sustainability risks into micro- and macroprudential policy frameworks to safeguard financial stability and to scale up finance for green and social investments. An emerging role of central banks and financial supervisory authorities is to align finance with sustainability goals and mitigate financial risk (Box 2.5.2).

Box 2.5.2 Incorporating sustainability risks into prudential frameworks

A growing number of central banks and financial supervisors have started to incorporate climate risks into micro- and macroprudential frameworks, formulating the way forward for safeguarding financial stability while supporting the transition to sustainable development (Dikau and Volz 2019). Through their regulatory oversight of money, credit, and the financial system, monetary and financial authorities are in a powerful position to support the development of sustainable finance and encourage financial institutions to price sustainability risks adequately (Volz 2017). Sustainable development needs to be embedded in the financial system in five areas: (i) enhancing market practices in terms of disclosure, analysis, and risk management; (ii) upgrading governance architecture; (iii) encouraging cultural transformation; (iv) harnessing public balance sheets; and (v) directing finance through policy (UNEP Inquiry 2015).

Toward enhancing transparency and facilitating analysis of climate and environmental risks, disclosure has become a key concern for sustainable finance. The Task Force on Climate-related Financial Disclosure, led by the Group of Twenty's Financial Stability Board, has emerged as a focal point for promoting disclosure. The task force highlights the importance of transparency in pricing risk to support

informed and efficient decisions on capital allocation (TCFD 2017). Its recommendations have been endorsed by many financial supervisors, some of which plan to integrate disclosure into prudential requirements.

Central banks in developing Asia were among the first to introduce sustainable finance policies and incorporate environmental risk into prudential frameworks (Volz 2019). The Reserve Bank of India, for example, advised commercial banks in 2007 to consider corporate social responsibility, sustainable development, and nonfinancial reporting to advance sustainable development. Bangladesh Bank issued its *Policy Guidelines for Green Banking* back in 2011 and its *Guidelines on Environmental and Social Risk Management for Banks and Financial Institutions in Bangladesh* in 2017, requiring sustainability risk management from banks and nonbank financial institutions (Bangladesh Bank 2011, 2017). In 2016, the People's Bank of China and six government agencies in the People's Republic of China (PRC) jointly issued *Guidelines for Establishing the Green Financial System*, which defined and described green finance, incentive systems, disclosure, products, and risk management measures (PBOC 2016).

Box 2.5.2 Continued

In the Association of Southeast Asian Nations (ASEAN), the Monetary Authority of Singapore introduced regulation that required banks to report on their sustainability practices in its supervisory assessment. Bank Negara Malaysia introduced a principle-based green taxonomy and label for banks and insurers. In the Philippines, Bangko Sentral ng Pilipinas launched a sustainable finance framework through which banks are expected to develop transition plans and integrate them into their corporate governance and risk management framework. ASEAN monetary authorities have worked together to develop the ASEAN Central Banks' Agenda on Sustainable Banking (ASEAN 2020a). The agenda can provide meaningful guidance to participants on the way forward to safeguard financial stability while supporting the transition to a low-carbon economy (ASEAN 2020b).

Central banks can also design policies to ensure that the financial industry addresses vulnerabilities arising from social issues, such as through small and medium-sized enterprise (SME) financing. Regulations on SME credit in the PRC, for example, improve SME access to finance, as evidenced by increases in the share of loans to new SME clients and the average size of SME loans (Huang and Wu 2021).

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Strategy 2: Develop market infrastructure and ecosystems.

Financial markets play a key role in channeling private sector funding to support SDG investments. Market practice can become distorted by unreliable ESG data, inconsistent reporting and disclosure standards for ESG information, and a lack of a clearly defined impact measurement framework. These shortcomings can abet regulation arbitrage as financial players take advantage of differences in disclosure standards. Regulations requiring a standardized taxonomy, clearly defined reporting and disclosure standards, and the use of impact measurement matrixes mitigate information asymmetry in the market. This can build confidence in investors by addressing concerns regarding the validity of claims about environmental and social outcomes and thus foster market development.

Financial market regulators and supervisors in developing Asia are adopting supportive policies to guide the green and social financial market. They have sought to promote sustainable finance by engaging with the financial industry through dialogue with multiple stakeholders, capacity building, and sustainable finance guidance. The Securities and Exchange Commission of Thailand, for example, approved its Sustainability Development Roadmap for Listed Companies in 2014, mandating sustainability reporting. The Indonesian Financial Services Authority launched in 2015 Regulation No. 51/2017 on the Application of Sustainable Finance to Financial Services Institution and, 2 years later, Regulation No. 60/2017 on Guidance for Green Bond Issuance in Indonesia. Securities Commission Malaysia introduced its Sustainable and Responsible Investment Roadmap for the Malaysian capital market.

The authorities in several countries have introduced green or sustainable taxonomies or are in the process of implementing them: the PRC in 2015, Bangladesh in 2017, Mongolia in 2019, and Malaysia in 2020. Some countries have issued their own standards for green or sustainable bonds: the PRC in 2015, India in 2016, and Indonesia and Japan in 2017. In 2017, the ASEAN Capital Markets Forum, which comprises capital market regulators from all 10 member states, issued *ASEAN Green Bonds Standards* to nurture this market and facilitate investment in green investments. In 2018, the forum published *ASEAN Social Bond Standards* and *ASEAN Sustainability Bond Standards* (ACMF 2018). The Securities and Exchange Commission of the Philippines introduced *Guidelines on the Issuance of Green Bonds under the ASEAN Green Bond Standard in the Philippines* (Securities and Exchange Commission 2019).

A viable market ecosystem is necessary to develop sustainable finance. In light of the dominance of banks in financial sectors in emerging Asia, the active involvement in green and social finance of different types of institutions—investment funds, rating agencies, external verifiers, investment banks, insurance companies, public finance institutions, and development banks—must be made integral to ecosystems for financing Asia’s sustainable development. Currently, the market suffers from inconsistent ESG ratings and inadequate capacity in external verifiers, which need to be further improved (Puongsophol 2021). In addition, supervisory efforts are required to reinforce the independence of rating and verifying agencies.

The long-term sustainability of a market requires a balance between supply and demand. In emerging Asian markets, public sector investors such as pension funds and social security funds can play a key role, through their investment policies, in creating demand for green, social, and sustainability bonds denominated in local currency. On the supply side, financial institutions are in a good position to tap capital markets by issuing thematic bonds to support smaller projects that generate positive environmental and social impacts—for example, green loans, concessional loans to SMEs, and asset-backed securities using a portfolio of green and social assets.

Public sector issuance may expand the supply of thematic bonds denominated in local currency to demonstrate how thematic bonds are issued and signal the importance of the SDGs as a national policy objective. Insufficient supply of such thematic bonds undercuts market awareness and discourages investment banks from developing the capability to underwrite thematic bonds, and institutional investors from honing the skills to assess them.

As developing Asia may have priorities regarding green and social projects that are different from those of more developed regions, it is important to build practices that fit the Asian context. Asian policy makers can work together to develop harmonized taxonomy, reporting, and disclosure standards, as well as an impact measurement matrix, that align with existing international standards, thus promoting sustainable finance as a regional agenda. ASEAN provides a good example. The ASEAN Capital Markets Forum aims to develop an ASEAN taxonomy with a more defined, sector-specific taxonomy. This would prevent green- or social-washing and attract more investment into sustainable projects. ASEAN central banks and monetary authorities have worked closely together to communicate member economies' common interests and unique circumstances. Extending the sharing of experiences and best practices among regional policy makers and stakeholders would help develop each economy's green and social financial market.

Strategy 3: Expand fiscal revenue to ensure green and inclusive recovery. International discourse on financing sustainable development has highlighted the need to unlock domestic resources. While foreign aid and foreign private capital can play vital roles in financing development, it is crucial to acknowledge limits on foreign investment in infrastructure and the financial vulnerabilities and risks associated with foreign finance. Equally important is to make better use of domestic savings in developing economies, many of which invest much of their savings abroad in advanced economies because capital markets closer to home are undeveloped and safe assets denominated in local currency are scarce. In light of this, domestic resource mobilization remains crucial to developing economies' achievement of the SDGs and their pursuit of sustainable, inclusive, and resilient recovery from COVID-19.

Fiscal resource mobilization is a core component of domestic resource mobilization because the government is a key player in green and social finance. Tax policy may be leveraged to promote wider policy objectives, including achieving the SDGs. While taxes are the major source of fiscal revenue in most countries in developing Asia, tax yields have not increased concomitantly with the region's strong and steady economic growth over the past few decades (Nagata 2021). Further, the economic downturn under the COVID-19 crisis has undercut tax collection across Asia. Many Asian economies consequently endure significant pressure on their national budgets and risk escalating public debt to fund large relief programs and tax forgiveness adopted for pandemic response and recovery. Some policy measures are available to regional governments to mobilize tax revenue against this uncertain fiscal backdrop (Box 2.5.3).

Box 2.5.3 Mobilizing tax revenue to finance sustainable recovery in developing Asia

Despite substantial efforts to strengthen tax revenue mobilization across developing Asia, many economies in the region still see their ratios of tax revenue to gross domestic product fall or stagnate. This signals that efforts to improve tax revenue performance will be challenging under the effects of the pandemic. Yet developing and implementing effective programs to mobilize fiscal revenue will help developing Asia achieve the Sustainable Development Goals.

To mobilize tax revenue for green, resilient, and inclusive recovery, Asian governments can adopt a number of policy measures to expand fiscal revenue: (i) broaden and protect the domestic tax base; (ii) enhance tax compliance by strengthening risk management, audit, and enforcement, as well as improving taxpayer services; (iii) develop more transparent and efficient tax administration with streamlined, digitalized business processes; (iv) strike a balance between raising tax revenue and promoting investment that contributes to robust recovery from the pandemic; and (v) strengthen international tax cooperation to address aggressive tax planning and outright tax evasion, and to tackle tax challenges that arise as the economy digitalizes.

In addition, fiscal policy measures such as tax incentives can improve sustainable development outcomes by, for example, promoting clean energy investments. Other options are to introduce taxes aligned with sustainable development policy objectives, including environmental taxes to achieve green development by incentivizing environment-friendly economic activities and so-called sin taxes to reduce the consumption of products that are harmful to health, such as tobacco and alcohol. Social security contributions are key to addressing the aging of Asian societies and other social development

challenges. While Asian governments may currently be preoccupied with tackling short-term COVID-19 challenges, it is still a good time for them to start planning how to secure adequate fiscal resources for sustainable post-pandemic recovery.

To support Asian governments as they address these challenges, the Asian Development Bank (ADB) announced at the 53rd Annual Meeting of its Board of Governors in September 2020 the creation of the Asia Pacific Tax Hub, a regional hub for domestic resource mobilization and international tax cooperation (ADB 2020). The tax hub will provide an open and inclusive platform for (i) strategic policy dialogue, institutional and capacity development, and exchanges of information and ideas through dialogue among ADB developing member countries; (ii) knowledge sharing across knowledge partners and international finance institutions and through revenue departments' bilateral mentoring with counterparts in Asia and the Pacific; and (iii) collaboration and development coordination across development partners. Through policy dialogue, research, capacity development, and knowledge sharing, the hub will help each ADB developing member country define goals for domestic resource mobilization and international tax cooperation that are appropriate to their circumstances and stage of development.

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2.5.5 Aligning Asian finance with the sustainable development agenda

Green and inclusive recovery after COVID-19 requires mobilizing public and private capital. Because it disproportionately affects the poor, the pandemic illustrates the enormous human toll that global shocks, including climate change, impose on top of their economic costs. Development disruption caused by COVID-19 demonstrated that abnormal risks, however seemingly remote, can indeed materialize, arguing for green and inclusive recovery to strengthen resilience under future shocks. Building back better requires vast investments that are often beyond the means of the public sector alone.

Promisingly, green and social finance from private sources has grown rapidly in recent years to become a major contributor to sustainable finance.

Growth in private green and social finance is increasingly driven by financial considerations. While it was investors' environmental and social goals that initially drove growth in sustainable finance, financial motives are coming to the fore. Key drivers include the changing preferences of various stakeholders, the use of green and social finance to hedge and mitigate sustainability risks, and the chance to build shock resilience, whether the shocks are at the market level or firm specific. For financing entities, green and social finance sends positive signals to investors, generating positive investor recognition and broadening their investor base.

The current social and green finance landscape remains institutionally underdeveloped, lacking reliable ESG data; consistent taxonomies, information disclosure, and reporting standards; or a clearly defined impact matrix. Nevertheless, evidence confirms that positive environmental and social impacts from sustainable finance are real. Reduced CO₂ emissions are documented from individual firms and in the broader market after green bond issuance, confirming that signals of environmental commitment bear results. By stimulating awareness of the SDGs, green finance offers as well such social benefits as better health outcomes and narrowing gender gaps. While social impact is more varied, some innovative financing instruments, such as impact bonds, have potential to achieve a wide range of social impacts.

Engaged public policy is central to nurturing green and social finance. Governments have a range of policy options available both to shape markets and to participate in them. Regulation that enforces common standards of information disclosure and impact measurement is the most powerful policy option. Policies that align finance with the SDGs, improve market infrastructure and ecosystems, and expand tax revenue for SDG-oriented public spending will enable Asian governments to pursue sustainability goals.

Finally, green and social finance is unavoidably integral to Asia's broader financial development. Regional financial systems have developed rapidly and now compare favorably with those in other parts of the developing world, though they still lag those in advanced economies. Therefore, by further developing the finance industry through strong yet nimble regulation that safeguards financial stability while promoting investment and innovation, the region will enhance its ability to meet the huge financial requirements of green and inclusive recovery.

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**ECONOMIC TRENDS
AND PROSPECTS
IN DEVELOPING ASIA**

CENTRAL ASIA

- Armenia
- Azerbaijan
- Georgia
- Kazakhstan
- Kyrgyz Republic
- Tajikistan
- Turkmenistan
- Uzbekistan

Armenia

The economy contracted in 2020 because of the pandemic and military confrontation. Weak demand contained inflation and narrowed the current account deficit, but fiscal response to COVID-19 notably expanded the budget deficit. With subdued investment, growth will likely be modest in 2021 before accelerating in 2022. Inflation and the current account deficit are expected to rise in 2021 before moderating in 2022. A digital transformation is essential for inclusive and sustainable growth.

Economic performance

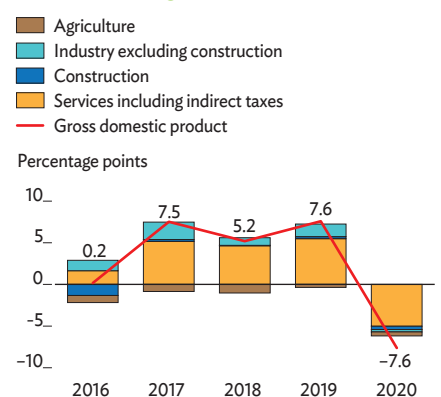
After surging by 7.6% in 2019, the economy contracted in 2020, by 7.6%, for the first time in 11 years, battered by a COVID-19 lockdown from mid-March to mid-May and a military confrontation with Azerbaijan in September–November.

Output declined across all sectors. Industry excluding construction reversed 8.3% growth in 2019 to contract by 1.5% as declines in manufacturing, electricity generation, and utilities for water and waste management outweighed a 12.0% rise in mining and quarrying. Construction shrank by 6.6% as households and firms curtailed capital outlays. Services followed 10.4% growth in 2019 with a 9.2% plunge reflecting double-digit declines in trade, recreation, accommodation, transportation, and food services. Agriculture deepened its 2.6% fall in 2019 with a further 4.0% decline (Figure 3.1.1).

On the demand side, private consumption, which provides about 80% of GDP, reversed 11.7% growth in 2019 with a 14.0% plunge as business closures and reduced income and remittances cut household spending. However, public consumption grew by 15.6% on government measures to mitigate the impact of COVID-19 and support economic activity. Investment, measured by gross fixed capital formation, dropped by 14.0%, reflecting a slowdown in government capital spending and caution among investors in a deeply uncertain economic and political situation. Net exports became less negative as imports fell more than exports in volume terms.

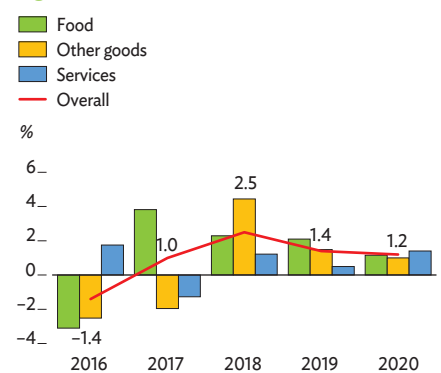
Average inflation eased from 1.4% in 2019 to 1.2%, reflecting weakened demand, both external and domestic. Price increases slowed from 2.1% to 1.2% for food and from 1.5% to 1.0% for other goods but accelerated from 0.5% to 1.4% for services (Figure 3.1.2). The 12-month inflation rate December

Figure 3.1.1 Supply-side contributions to growth



Source: Statistical Committee of Armenia.
<http://www.armstat.am> (accessed 31 March 2021).

Figure 3.1.2 Inflation



Source: Statistical Committee of Armenia.
<http://www.armstat.am> (accessed 31 March 2021).

2019–December 2020 was 3.7%, within the 2.5%–5.5% target band set by the Central Bank of Armenia.

Subdued inflation allowed the central bank to pursue accommodative monetary policy for most of 2020, until mid-December. It cut its policy rate by 125 basis points to 4.25% in September 2020 but raised it again to 5.5% in two steps from mid-December 2020 to February 2021, to contain inflationary expectations raised by 7.3% depreciation of the Armenian dram against the US dollar beginning in October 2020. Growth in broad money (M2X, which includes bank accounts in foreign currency) slowed from 11.2% in 2019 to 9.0% in 2020, as growth in credit to the economy slowed and net foreign assets declined (Figure 3.1.3).

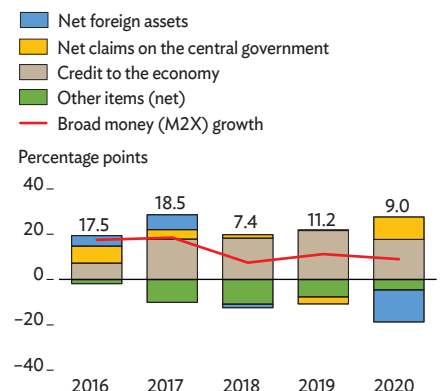
Moderate public debt enabled the government to pursue expansionary fiscal policy and implement countercyclical measures to counter multiple shocks to the economy in 2020. Parliament passed two revisions to the 2020 budget to widen the planned fiscal deficit from the equivalent of 2.2% of GDP to 5.0% in April and further to 7.4% in October 2020. To soften the impact of COVID-19, the government implemented a stimulus package equal to 3.5% of GDP. Measures included subsidies for small and medium-sized enterprises to support their employees, direct financial support to vulnerable households, and state-guaranteed loans to selected firms.

The actual 2020 deficit equaled 5.4% of GDP as expenditure rose by 16.3% and revenue remained virtually unchanged in nominal terms but rose as a percentage of GDP as the economy shrank (Figure 3.1.4). Reflecting in part dram depreciation and lower GDP, public debt climbed from the equivalent of 53.5% of GDP at the end of 2019 to 67.3% a year later, with external public debt rising by 14.0% to equal 51.2% of GDP and domestic debt rising by 35.8% to equal 16.1% of GDP (Figure 3.1.5). In February 2021, Armenia issued its fourth round of eurobonds, worth \$750 million and with a 10-year maturity and annual interest at 3.9%, the lowest rate on an issue so far. This followed the issuance of \$500 million in 10-year eurobonds in September 2019 at a 4.2% annual rate.

The current account deficit narrowed from the equivalent of 7.2% of GDP in 2019 to 3.1%, reflecting a smaller merchandise trade deficit and a surplus in the services account. The merchandise trade deficit narrowed from 13.2% of GDP in 2019 to 10.5% as imports fell more than exports. Weak external demand cut exports by 15.5%, with declines in food, manufactured goods, nonferrous metals, and precious stones and metals. Imports dropped by 19.5%, mainly from lower imports of mineral products, food, and chemicals (Figure 3.1.6).

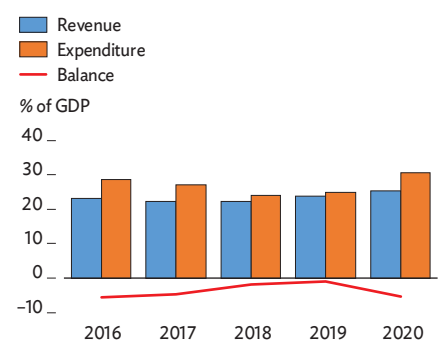
Gross international reserves, under pressure for most of the year, declined by 8.3% to \$2.6 billion at the end of 2020, or cover for 6.3 months of imports. The dram depreciated by about 9% against the US dollar over the full year (Figure 3.1.7). To stabilize

Figure 3.1.3 Contributions to broad money growth



Source: Central Bank of Armenia. <http://www.cba.am> (accessed 31 March 2021).

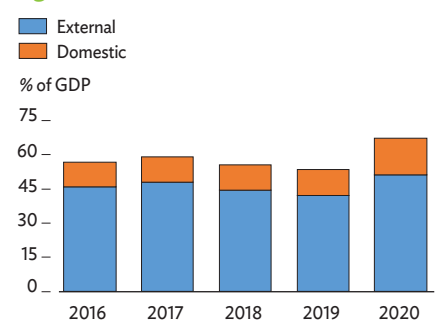
Figure 3.1.4 Fiscal indicators



GDP = gross domestic product.

Sources: Ministry of Finance. <http://www.minfin.am>; Statistical Committee of Armenia. <http://www.armstat.am> (both accessed 31 March 2021).

Figure 3.1.5 Public debt



GDP = gross domestic product.

Sources: Ministry of Finance. <http://www.minfin.am>; Statistical Committee of Armenia. <http://www.armstat.am> (both accessed 31 March 2021).

the dram, the central bank conducted several sales of foreign exchange in 2020 totaling \$238 million.

Economic prospects

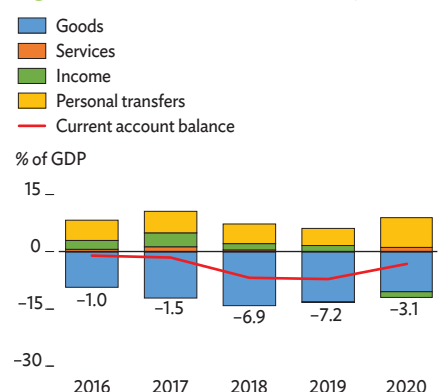
After two waves of COVID-19 infections in 2020, Armenia's transmission rate declined substantially in the first 2 months of 2021, only to start increasing again in early March. Amid heightened political uncertainty as the country heads to snap legislative elections in June 2021—and with recovery from the pandemic taking longer than expected but most restrictions eased—growth is projected at 1.8% in 2021, accelerating to 3.0% in 2022 (Figure 3.1.8 and Table 3.1.1).

On the supply side, all sectors are seen expanding moderately. Industry including construction is projected to grow by 1.8% in 2021 and 2.4% in 2022, mainly on recovery in manufacturing and construction. While reversing contraction in 2020, construction is projected to expand by only 1.0% in 2021 and 2.2% in 2022, constrained mainly by limited capital expenditure. Mining and quarrying could trim industry growth because production from a gold mine in northeastern Armenia has been suspended. Agriculture is projected to grow by 4.2% in 2021 and 5.3% in 2022, assuming normal weather and higher spending on government programs offering subsidies for smart livestock buildings, hail nets to protect crops, drip irrigation, intensive gardening, and machinery leasing. Plans to introduce in 2021 countrywide agricultural insurance programs for 11 crops, following a pilot program in 2019–2020, should provide additional impetus to growth in agriculture. With continued adverse impacts from COVID-19 on recreation, accommodation, transportation, and food services, growth in services is projected at only 1.0% in 2021 before accelerating to 4.7% in 2022 as pandemic impact fades.

On the demand side, private consumption is projected to increase by 3.0% in 2021 with only slow growth in household income and remittances, then rise by 4.7% in 2022 with higher remittances. As stimulus measures implemented in 2020 are wound down, growth in public consumption is forecast to slow abruptly to 2.4% in 2021 and edge back up to 3.4% in 2022. Investment will remain subdued because of lower government capital expenditure and sluggish private investment under a weak business climate.

Monetary policy is expected to tighten in 2021 to combat inflation, which is forecast to accelerate to 3.8% in 2021 because of the lagged impact of currency depreciation in 2020 and rising prices for imported oil and other commodities. Another inflationary pressure is increased tariffs under the Customs Code of the Eurasian Economic Union, affecting 642 items since January 2021 and 74 items beginning in January 2022, though inflation is seen moderating to 2.5% next year.

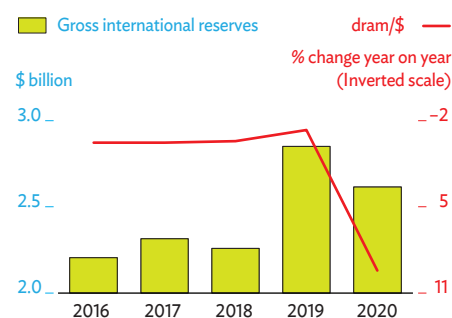
Figure 3.1.6 Current account components



GDP = gross domestic product.

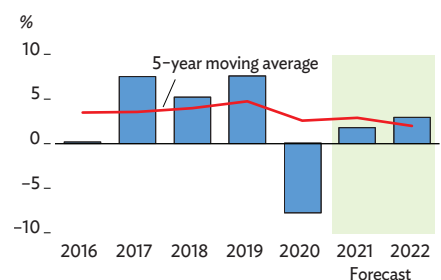
Sources: Central Bank of Armenia. <http://www.cba.am>; Statistical Committee of Armenia. <http://www.armstat.am> (both accessed 31 March 2021).

Figure 3.1.7 Reserves and effective exchange rates



Source: Central Bank of Armenia. <http://www.cba.am> (accessed 31 March 2021).

Figure 3.1.8 GDP growth



GDP = gross domestic product.

Sources: Statistical Committee of Armenia. <http://www.armstat.am> (accessed 31 March 2021); Asian Development Bank estimates.

The 12-month inflation rate from December to December is expected to approach the top of the central bank target range of 2.5%–5.5% at least in 2021. Inflation could be higher if the weather proves unfavorable.

The 2021 budget projects a deficit equal to 5.3% of GDP, with revenue falling to 23.6% of GDP and expenditure to 28.9%. With the issuance of eurobonds in February 2021 and additional borrowing during the year, total public debt is forecast to jump to about 70% of GDP by the end of 2021.

The current account deficit is forecast to widen to 5.8% of GDP in 2021 before narrowing to 5.5% in 2022 as higher income and service exports offset continued expansion of the merchandise trade deficit (Figure 3.1.9). A larger deficit and a negative balance in investment income are expected to outweigh modest growth in personal transfers. The merchandise trade deficit is forecast to widen to 11.5% of GDP in 2021 and 12.0% in 2022. Merchandise exports are projected to rise by 5.5% in 2021 and 8.5% in 2022 on gains in agricultural products, nonferrous metals, machinery, and equipment as the external environment improves. Imports are seen rising by 6.5% in 2021 and 7.5% in 2022 to meet somewhat higher domestic demand. Higher external demand for financial and information and technology services is expected to boost service exports. With the issuance of eurobonds in 2021, international reserves are projected to remain comfortable at least in 2021, providing cover for an estimated 5.0 months of imports.

External risks to the outlook stem from continuing pandemic-related global trade and travel disruption, volatile international commodity prices, laggard global recovery, and possibly slower growth in Armenia's main trade partners. Substantial downside domestic risks include high potential for political instability in 2021, revenue shortfalls, high public debt and resultingly limited fiscal space, weak investor and consumer confidence, and delays in implementing reform initiatives. However, growth could be higher with good response to an economic recovery package approved in February 2021, which is estimated at about \$380 million, of which about \$94 million is from the state budget. The coming into force of the Armenia–European Union Comprehensive and Enhanced Partnership Agreement on 1 March 2021 could provide further impetus to growth.

Policy challenge—leveraging digital transformation for inclusive and sustainable growth

Armenia's information and communication technology (ICT) industry is among the few that did not shrink because of COVID-19 in 2020. Its growth remained positive but slowed

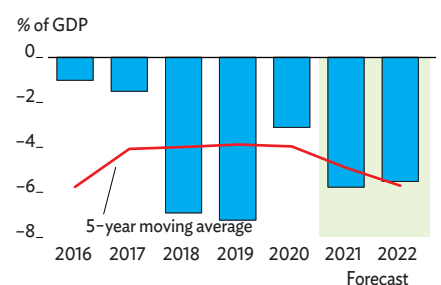
Table 3.1.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	7.6	-7.6	1.8	3.0
Inflation	1.4	1.2	3.8	2.5
Current acct. bal., share of GDP	-7.2	-3.1	-5.8	-5.5

GDP = gross domestic product.

Sources: Central Bank of Armenia; Asian Development Bank estimates.

Figure 3.1.9 Current account balance



GDP = gross domestic product.

Sources: Central Bank of Armenia. <http://www.cba.am>; Statistical Committee of Armenia. <http://www.armstat.am> (both accessed 31 March 2021); Asian Development Bank estimates.

from 11.8% a year earlier to 2.8% as expansion in ICT services decelerated from 10.2% in 2019 to 8.1%. Many government strategies and initiatives introduced since the 2000s have made ICT a priority, expanding computer usage and internet access and generally helping to create the infrastructure needed to digitalize the economy. Initiatives implemented by both public and private actors have established technological parks and incubators in selected cities, centers for innovative education after school, and engineering laboratories in most secondary schools. Despite considerable success with these initiatives, little has been done to digitalize the country as a whole toward achieving digital-led economic development.

The COVID-19 pandemic has highlighted the strategic importance of transforming Armenia into a digitalized economy with attractive potential to produce innovative goods and services. Such a transformation would help to restore and sustain economic growth, generate highly productive and well-paid jobs, and improve social well-being. In the long run, the use of digital technology would build resilience, ensure business continuity, and boost productivity and inclusion. Success depends on implementing the 5-year digitalization strategy the government approved in February 2021.

The pandemic has challenged the government to find innovative ways to make the public sector more efficient and effective. An e-government survey conducted by the United Nations in 2020 ranked Armenia among the countries with relatively high e-government development, at 68 of 193 countries surveyed and with more than 20 public online services in operation. However, it remains a challenge to address the gap in utilization, accelerate the pace and scope of digital public services, and achieve full digitization of services.

To help firms further digitize internal processes, boost productivity, and access new markets, the government should enact a favorable legislative framework to generate an enabling digital business climate for start-ups, offering support for digitization, research and development, and innovation. Creating Engineering City in 2020 as a venue for high-tech companies promises new impetus for ICT growth.

Developing digital skills is a prerequisite for successful digital transformation. To this end, the government should expand the scope and coverage of existing infrastructure to widen access, ensure the alignment of education with the needs of industry, and implement agile learning techniques to upgrade the workforce. This would address gaps in digital capability and enable economic opportunities from digitization.

Azerbaijan

The economy contracted in 2020, squeezed by the pandemic and reduced oil production. Inflation rose slightly, and the current account slipped into deficit as lower prices and production slashed oil exports. Growth is forecast to resume in 2021 and accelerate in 2022 as the pandemic eases and demand recovers, bringing somewhat higher inflation and restoring a current account surplus with higher oil prices and output. Small and medium-sized enterprises need better access to finance.

Economic performance

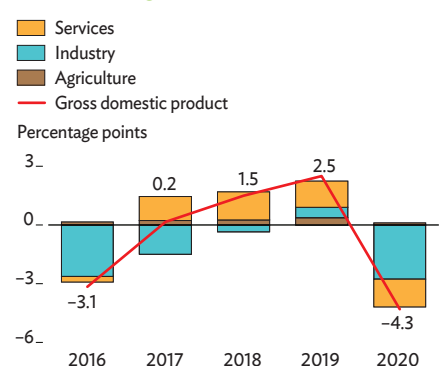
The economy reversed 2.5% growth in 2019 to contract by 4.3% because of the COVID-19 pandemic and oil output reduced in accordance with agreed production cuts (Figure 3.2.1). A 44-day military conflict with Armenia had little economic impact.

On the supply side, industry retreated from its 1.0% rise in 2019 to contract by 5.6% as mining, which comprises two-thirds of industry, shrank by 7.4%, mainly from lower oil production. Manufacturing grew by 10.4%, led by furniture, textiles, chemicals, and information technology hardware. Construction, which declined by 2.8% in 2019, contracted by a further 8.7% from lower investment. Services reversed 3.8% growth in 2019 with 3.9% contraction, led by a 58.9% plunge in tourism, while retail trade fell by 1.3%. Growth in agriculture slowed from 7.3% in 2019 to 1.9% despite livestock expanding by 3.1%.

On the demand side, for which data are available only for the first 9 months of 2020, private consumption reversed 6.9% growth in the same period of 2019 to shrink by 3.6% as three rounds of lockdowns in larger cities curbed demand. Public consumption rose by more than 10.0%, reflecting a 26.1% rise in new public employment that included 38,000 temporary jobs created as pandemic response. Investment, mainly from domestic sources, shrank by 8.3% as both public and private investment fell. Net exports plunged with lower hydrocarbon exports.

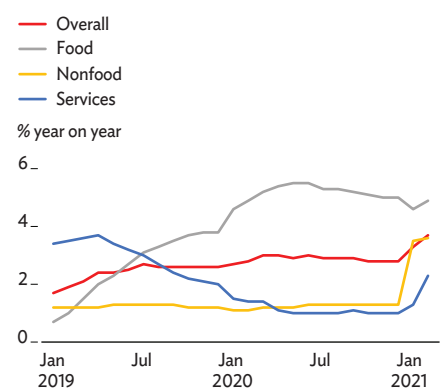
Inflation accelerated slightly from 2.6% in 2019 to 2.8%, mainly on higher food inflation, which increased from 3.8% in 2019 to 5.0%. Prices rose by only 1.3% for other goods and 1.0% for services as the pandemic interrupted demand (Figure 3.2.2). Expectations in the first quarter of 2020 of higher inflation were subsequently curbed as lower demand, a stable exchange

Figure 3.2.1 Supply-side contributions to growth



Source: State Statistical Committee of the Republic of Azerbaijan. <https://www.stat.gov.az/?lang=en> (accessed 31 March 2021).

Figure 3.2.2 Monthly inflation



Sources: State Statistical Committee of the Republic of Azerbaijan. <https://www.stat.gov.az/?lang=en>; Haver Analytics (both accessed 31 March 2021).

rate, and price controls restrained inflation in the second half of the year.

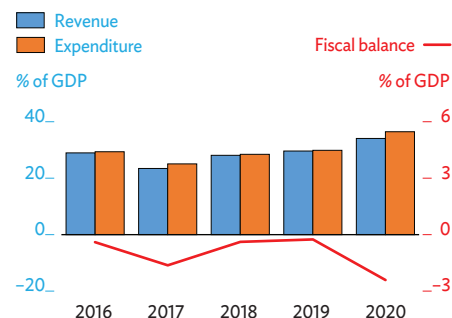
Fiscal policy was expansionary in 2020 as the state budget deficit widened from the equivalent of 0.3% of GDP in 2019 to 2.4% (Figure 3.2.3). This reflected budget revision in August 2020 that authorized a 2% rise in expenditure and a 7% rise in transfers from the State Oil Fund of Azerbaijan (SOFAZ), the sovereign wealth fund, to offset expected declines in revenue from taxes and other nontax sources. Expenditure rose from the equivalent of 29.9% of GDP in 2019 to 36.5% as the government deployed medical and social support packages to mitigate pandemic effects and suspended a fiscal rule limiting annual growth in consolidated budget spending to 3%. Revenue rose from the equivalent of 29.6% of GDP in 2019 to 34.1%, much of the increase reflecting higher transfers from SOFAZ, which provided 49.0% of all revenue. However, contrary to expectations, government initiatives on tax declaration and formalizing the shadow economy helped raise non-oil tax revenue in 2020. Public debt, both domestic and external, rose from the equivalent of 20.6% of GDP at the end of 2019 to an estimated 23.4% a year later.

With inflation within the central bank target band of 2%–6%, monetary policy was accommodating. Citing lower inflation and a stable exchange rate despite slowing hard currency inflow, the central bank reduced its policy rate from 7.25% to 6.25% in several steps during the year (Figure 3.2.4). Growth in broad money plunged from 20.0% in 2019 to 1.1% as total credit to the economy declined by 5.0% amid slowing economic activity (Figure 3.2.5). Decreased demand for imports and regular deposit auctions by the central bank to reduce liquidity helped the Azerbaijan manat hold its value against the US dollar but not against the euro or the Japanese yen. Meanwhile, the manat appreciated by 6.3% in trade-weighted nominal effective terms and by 4.1% in real effective terms, taking into account higher inflation rates in trade partners.

Most banks remained well capitalized, with total bank capital equal to 14.0% of total assets in 2020, though four banks closed after falling below the minimum capital requirement of AZN50 million. Banks were profitable overall, and improved banking supervision helped cut nonperforming loans from 8.3% of the total at the end of 2019 to 6.1% a year later. However, dollarization in the banking system remained high even as the share of deposits in foreign currency fell from 60.9% in 2019 to 56.3% in 2020 and loans denominated in foreign currency fell from 34.6% to 29.7%. Interest rates averaged 5.7% for deposits, and average lending rates declined by more than one third to 9.3%, reflecting easier monetary policy.

The current account reversed a surplus equal to 9.1% of GDP in 2019 with a deficit estimated at 0.5% as a 36.6% decline in exports outpaced falling imports. Oil and gas exports

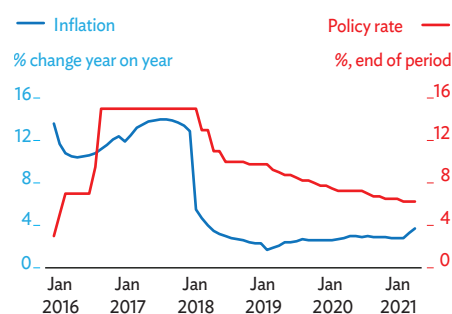
Figure 3.2.3 Fiscal indicators



GDP = gross domestic product.

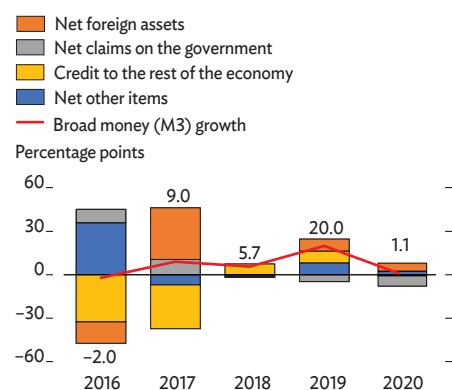
Source: Ministry of Finance of the Republic of Azerbaijan. <http://www.maliyye.gov.az/en> (accessed 31 March 2021).

Figure 3.2.4 Inflation and policy rate



Sources: Central Bank of the Republic of Azerbaijan. <https://www.cbar.az/home?language=en>; State Statistical Committee of the Republic of Azerbaijan. <https://www.stat.gov.az/?lang=en>; Haver Analytics (all accessed 31 March 2021).

Figure 3.2.5 Contributions to money supply growth



Source: Central Bank of the Republic of Azerbaijan. <https://www.cbar.az/home?language=en> (accessed 31 March 2021).

plunged by 32.6% as oil production was cut by 8.7% to comply with controls agreed by the Organization of the Petroleum Exporting Countries and other leading producers, and as prices dropped by 33% to an average of only \$43 per barrel. Imports declined by 11.1%, reflecting lower demand, and the service deficit expanded by 8.6% as the pandemic severely affected receipts from transportation and in particular from tourism. Remittances in 2020 picked up by 17.1% with the Russian Federation accounting for 55.4% of total receipts. Foreign direct investment grew by 27.0%, mainly for oil and gas projects. Gross international reserves including SOFAZ assets rose from \$49.5 billion at the end of 2019 to \$50.0 billion a year later (Figure 3.2.6).

Economic prospects

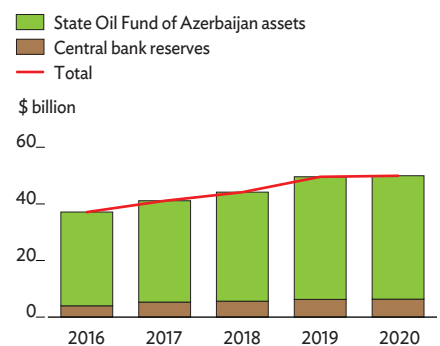
Growth is forecast to return in 2021 at 1.9% and accelerate to 2.5% in 2022 as demand improves at home and abroad (Figure 3.2.7 and Table 3.2.1). As consumer confidence is restored and petroleum receipts become available for public investment, growth in the petroleum industry is expected to be outpaced by expansion in the rest of the economy. Azerbaijan has diverse providers of COVID-19 vaccines and has started inoculations, expecting to vaccinate 20% of the population by the end of 2021.

On the supply side, industry is forecast to expand by 2.1% in 2021 and 2.9% in 2022, led by higher gas production and recovery in construction. Agriculture is expected to grow by 3.5% in both years on state support and easy farmer access to finance, including a new subsidy to cut production costs. Government plans to reconstruct territory scarred by the Azerbaijan–Armenia conflict will boost construction in 2021 and 2022. Recovery in retail trade and tourism is projected to boost services by 2.8% in 2021 and 4.0% in 2020.

On the demand side, consumption is expected to grow by 2.1% in 2021 and 2.5% in 2022 as higher wages and public spending boost household income. The end of COVID-19 containment and sustained government support to private firms will increase private consumption. Higher outlays will raise government consumption, particularly in 2021, but increased revenue will allow the government to raise public investment, and private investment will also expand with an improved macroeconomic outlook. Net exports should increase in 2021 and 2022 as oil exports rise on higher prices and the completion of the Trans Adriatic Pipeline boosts gas exports to Europe. Rising domestic demand will fuel imports, but exports are projected to grow faster.

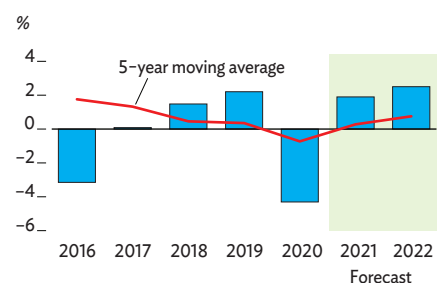
Inflation is forecast to accelerate to 3.5% in 2021, reflecting price increases of 10% for gasoline and 33% for diesel and a doubling of household water charges (Figure 3.2.8). A projected decline in domestic food prices should trim inflation in 2022 to

Figure 3.2.6 State oil fund assets and central bank reserves



Sources: Central Bank of the Republic of Azerbaijan. <https://www.cbar.az/home?language=en>; State Oil Fund of Azerbaijan. <http://www.oilfund.az> (both accessed 31 March 2021).

Figure 3.2.7 GDP growth



GDP = gross domestic product.

Sources: State Statistical Committee of the Republic of Azerbaijan. <https://www.stat.gov.az/?lang=en> (accessed 31 March 2021); Asian Development Bank estimates.

Table 3.2.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	2.5	-4.3	1.9	2.5
Inflation	2.6	2.8	3.5	3.0
Current acct. bal., share of GDP	9.1	-0.5	3.9	5.5

GDP = gross domestic product.

Sources: State Statistical Committee of the Republic of Azerbaijan; Central Bank of the Republic of Azerbaijan; Asian Development Bank estimates.

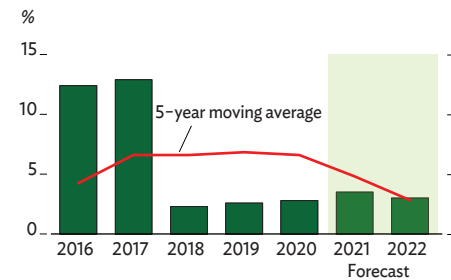
3.0%. Inflation could be higher if other utility tariffs are raised. The managed exchange rate regime should limit the impact of import prices on inflation.

Fiscal policy is expected to remain expansionary in 2021 as the budget deficit widens further to equal 4.2% of GDP with continued heavy social spending. It will narrow to 0.7% in 2022 as revenue recovers and a fiscal rule on spending is reactivated. Tax collections will rise with the end of tax holidays and measures to formalize the shadow economy. Budget revenue is forecast to grow to 34.5% of GDP in 2021 before slipping to 33.7% in 2022 with smaller transfers from SOFAZ. Expenditure is forecast to reach 38.7% of GDP in 2021 and then decline to 34.7% in 2022 as fiscal control resumes. The 2021 budget for pandemic response equals 2.8% of GDP and includes free medical care for COVID-19 victims, universal free vaccination, temporary salary increases for medical workers, compensation for state-owned enterprises, and support for especially vulnerable individuals and firms. The government will continue to assist entrepreneurship in 2021 through credit guarantees and subsidies to private firms. With the anticipated resumption of economic growth, public debt is projected to decline to 21.1% of GDP at the end of 2021 and 20.0% a year later.

Monetary policy is expected to focus on inflation control but still support economic recovery. Broad money is projected to rise from continued fiscal stimulus and resumed growth in credit to the private sector. The exchange rate should remain stable as a renewed trade surplus takes pressure off the manat. The central bank will closely monitor the foreign exchange market and use deposit auctions and its own short-term note issues to keep liquidity adequate but not excessive.

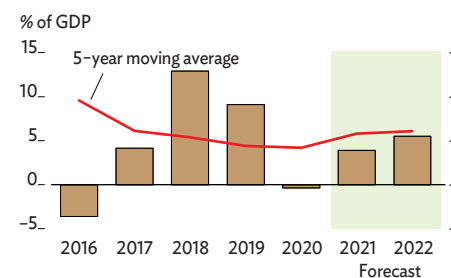
Azerbaijan's external position over the next 2 years will depend on hydrocarbon prices. The current account is forecast to return to surplus, equal to 3.9% of GDP in 2021 and 5.5% in 2022, as oil prices and petroleum output revive (Figure 3.2.9). All exports—notably petroleum, fruit, vegetables, and cotton—are projected to grow by 29.2% in 2021 and 0.7% in 2022. Imports are projected to increase by 9.2% in 2021 and 2.7% in 2022 as recovery raises incomes and consumer spending. The service deficit should narrow as transportation and tourism gradually recover, but the income account deficit will likely widen as higher oil income spurs profit repatriation abroad. Gross reserves including SOFAZ assets are projected to rise marginally to \$50.1 billion at the end of 2021 and, with prudent management of SOFAZ assets, to \$50.4 billion a year later (Figure 3.2.10). Public and publicly guaranteed external debt is projected to fall to the equivalent of 20.0% of GDP at the end of 2021 and 18.4% a year later.

Figure 3.2.8 Inflation



Sources: Central Bank of the Republic of Azerbaijan. <https://www.cbar.az/home?language=en> (accessed 31 March 2021); Asian Development Bank estimates.

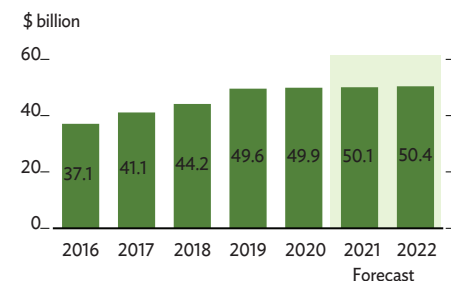
Figure 3.2.9 Current account balance



GDP = gross domestic product.

Sources: Central Bank of the Republic of Azerbaijan. <https://www.cbar.az/home?language=en> (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.2.10 Gross reserves inclusive of SOFAZ assets



SOFAZ = State Oil Fund of Azerbaijan.

Sources: Central Bank of the Republic of Azerbaijan. <https://www.cbar.az/home?language=en>; State Oil Fund of Azerbaijan. <http://www.oilfund.az> (both accessed 31 March 2021).

Policy challenge—improving access to finance for small and medium-sized enterprises

Fostering rapid growth in small and medium-sized enterprises (SMEs) is a paramount goal of the government's National Strategic Roadmap and an important vehicle for economic inclusion and narrowing income disparities between Baku and capital environs on the Absheron Peninsula on the one hand and outlying regions. The government has undertaken several efforts to support SMEs and promote their growth. Despite significant progress over the years, SMEs still face challenges, particularly in accessing finance because of high borrowing costs, a lack of long-term financing, low lender perceptions of SME creditworthiness, poor financial literacy, low confidence in financial institutions, and insufficient collateral.

To systemize policy making and promote SMEs, the Small and Medium-sized Businesses Development Agency, established in 2016, operates 26 business support centers, and the Credit Guarantee Scheme and the Credit Information Bureau also help small enterprises obtain financing. A law adopted in 2017 defines the legal rights of borrowers and lenders with respect to secured transactions and encumbrance of movable assets. In principle, several state funds can provide credit to SMEs on concessional terms. Yet official data and stakeholder surveys reveal that private sector credit as a share of GDP remains low at 17.6% because only a minority of SMEs use formal financial instruments, most of them preferring instead internal or informal sources.

Reforming finance for SMEs requires a clearer and more inclusive strategy guided by targets and indicators. Optimizing funds already allocated can identify targets, eliminate overlap, expand available funding, and diversify product offerings. Adopting best international practices would make funding more efficient by consolidating, restructuring, and reorganizing facilities. Private lenders' use of innovative technology and alternative financial instruments such as agricultural insurance, guarantees, and Islamic finance would improve access to finance, as would strengthened underwriting capacity, optimized product delivery, and greater rural presence. Higher financial literacy and simplified taxpaying could make SMEs more creditworthy. Finally, establishing an SME registry would facilitate the recording, storage, and analysis of data on SME performance for better policy formulation.

Georgia

COVID-19 controls and plunging tourism slashed GDP in 2020. The gradual lifting of restrictions in 2021 should revive growth this year and accelerate it in 2022 as tourism recovers. Inflation rose in 2020 on higher prices for food and health care but is projected to slow somewhat in 2021 and 2022 as shocks recede and monetary policy tightens. Recovery in external demand and tourism should narrow the current account deficit. Transforming agriculture could boost food exports.

Economic performance

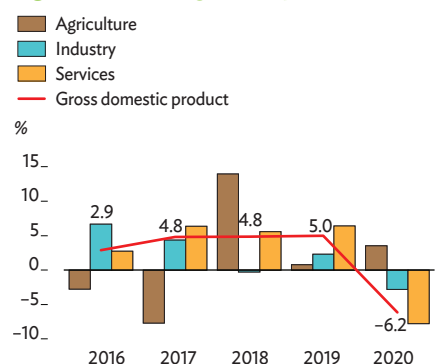
Real GDP reversed 5.0% growth in 2019 with contraction by 6.2% in 2020 as measures to contain COVID-19 cut domestic demand and steep declines in tourism and exports pummeled the external sector. On the supply side, services reversed 6.4% growth in 2019 to fall by 7.8% as most components contracted, with notable declines of 38.0% in accommodation and food services, 22.0% in transportation and storage, and 18.3% in arts, recreation, and entertainment. Weak demand for industry reversed 2.3% growth in 2019 with 2.8% contraction as construction and utilities shrank, despite continued growth in mining and manufacturing. State support lifted growth in agriculture from 0.8% in 2019 to 3.5% (Figure 3.3.1).

On the demand side, fiscal stimulus kept growth in consumption positive at 5.4%, albeit down from 7.0% in 2019, as private consumption rose by 5.4% and public consumption by 5.7%. Investment contracted by 4.8% with a 11.3% drop in private investment, while declines in tourism and external demand reversed 4.1% growth in net exports of goods and services in 2019 with 63.5% contraction in 2020.

Disrupted supply and currency depreciation pushed inflation from 4.9% in 2019 up to 5.2% as prices rose for food and nonalcoholic beverages by 10.6% and for health care by 6.5%, outweighing deflation for transportation, recreation, and culture (Figure 3.3.2). The Georgian lari depreciated in nominal terms by 10.3% against the US dollar and by 12.6% against the euro, and by 4.2% in nominal effective terms and 2.9% in real effective terms (Figure 3.3.3).

Expansionary fiscal policy to address the pandemic widened the budget deficit from the equivalent of 2.0% of GDP in 2019 to 9.3% as declining economic activity dragged revenue

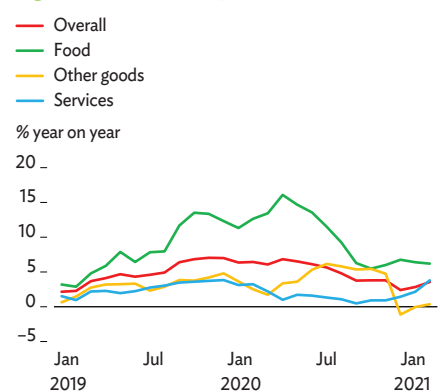
Figure 3.3.1 GDP growth by sector



GDP = gross domestic product.

Source: National Statistics Office of Georgia.
<http://www.geostat.ge> (accessed 31 March 2021).

Figure 3.3.2 Monthly inflation



Source: National Statistics Office of Georgia.
<http://www.geostat.ge> (accessed 5 April 2021).

3.9% below target while fiscal support measures boosted expenditure by 23.7% (Figure 3.3.4). Current expenditure rose from the equivalent of 22.0% of GDP in 2019 to 27.1% in 2020, while capital expenditure was sustained at about 8.0% of GDP. Development partners supported the government's anti-crisis plan, which included social assistance to households, increased funding for health care, and tax relief and exemptions for firms, as well as liquidity injections. The large deficit and plunge in the lari raised public debt from the equivalent of 45.2% of GDP in 2019 to 62.9% in 2020, the increase financed mainly by development partners on concessional terms, bringing external public debt to 50.4% of GDP (Figure 3.3.5).

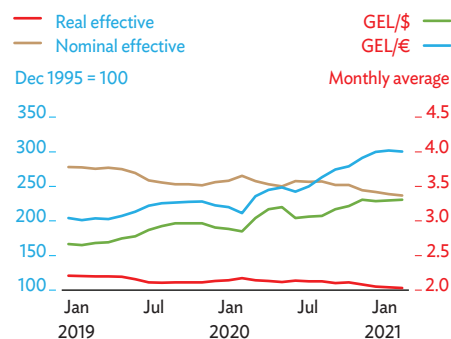
Monetary policy remained moderately accommodative to support the economy. The National Bank of Georgia, the central bank, cut its policy rate by a cumulative 100 basis points to 8.00% during 2020. Broad money growth accelerated from 16.7% in 2019 to 23.3% as private credit expanded by 21.0%. The percentage of nonperforming loans rose slightly from 1.9% in 2019 to 2.3% but may rise further in 2021 when a temporary moratorium on loan repayment is lifted. The percentage of deposits denominated in foreign currency rose from 61.0% in 2019 to 62.7% in 2020, and of loans from 54.6% to 55.1% (Figure 3.3.6). The market interest rate for loans remained largely unchanged in 2020 at 12.2% and for deposits at 6.8%, while bank returns on assets and equity languished near zero.

The current account deficit more than doubled from the equivalent of 5.5% in 2019 to 12.3% as COVID-19 cut tourism and triggered recession in Georgia's trade partners. Merchandise exports fell by 12.3%, while declining domestic demand cut merchandise imports by 13.8%. Service exports tumbled by 65.5% as international arrivals plunged by more than 80% and revenue from tourism by 90%. Remittances grew by 8.8%, however, as higher inflows from Greece, Italy, Turkey, and the US offset lower remittances from the Russian Federation. Despite foreign direct investment falling by over half and extensive central bank sales of foreign exchange to support the lari, gross international reserves climbed from \$3.5 billion at the end of 2019 to \$3.9 billion a year later on expanded inflow from development partners, notably through an International Monetary Fund support program.

Economic prospects

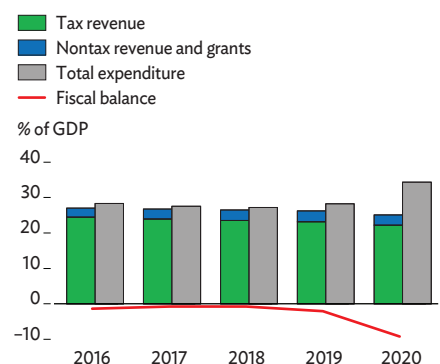
Growth is forecast to return at 3.5% in 2021 with gradual revival in domestic demand and private consumption, then accelerate to 6.0% in 2022 as expected recovery in tourism and full reopening of the economy boost travel and commerce (Figure 3.3.7 and Table 3.3.1). Vaccine rollout started slowly but is expected to gather pace in the final quarter of 2021. Industry is forecast to expand by 7.6% in 2021 as continued fiscal

Figure 3.3.3 Exchange rates



Source: National Bank of Georgia. <http://www.nbg.gov.ge> (accessed 5 April 2021).

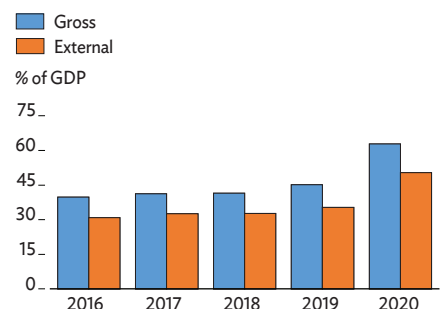
Figure 3.3.4 Fiscal indicators



GDP = gross domestic product.

Source: International Monetary Fund. www.imf.org; Ministry of Finance of Georgia. www.mof.ge (both accessed 31 March 2021).

Figure 3.3.5 Government gross debt and gross external debt



Source: National Bank of Georgia. <http://www.nbg.gov.ge> (accessed 31 March 2021).

stimulus in 2021 supports construction and other industries and as external demand rebounds, particularly in 2022, when GDP growth is projected at 6.0%. With extensive government support to offset food supply disruption, agriculture is expected to grow by 3.2% in 2021 and 3.9% in 2022. Services are projected to rise by only a moderate 2.5% in 2021 as restrictions persist for part of the year, stymieing tourism and other activity and dampening food and accommodation in particular. Growth in services is seen recovering to 5.6% in 2022.

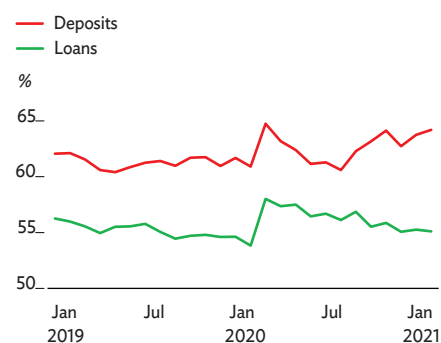
On the demand side, consumption should expand by 7.3% in 2021 as COVID-19 restrictions are lifted and by a further 5.0% in 2022, reflecting growth in credit and remittances. Investment is projected to contract in 2021 as private investment falls by 7.5%, buffeted by company liquidations and loan defaults and restructuring—and despite fiscal stimulus to boost domestic demand. Investment should expand in 2022 as private investment rebounds. Net exports of goods and services are projected to rise by 3.3% in 2021 and 16.3% in 2022 as exports grow notably faster than imports.

Inflation is projected to slow to 5.0% in 2021 and 3.5% in 2022, still above the inflation target of 3.0%, as monetary policy combats inflationary pressures and aims to limit lari volatility. Broad money is projected to expand by 15.5% in 2021 and 16.5% in 2022, though less than in 2020, as credit growth to the private sector rises by 8.4% in 2021 and 9.0% in 2022.

The fiscal deficit will narrow but remain high, forecast equal to 7.5% in 2021 with the continuation of temporary support measures and 5.0% in 2022 as stimulus winds down. Targeted temporary assistance includes monthly transfers to the unemployed, tax breaks for firms that retain employees, and help to households for utilities. Current expenditure is projected to decline to 25.1% of GDP in 2021 and 23.2% in 2022 with prudent management of the public sector wage bill and with spending on goods and services curbed. Capital expenditure will narrow to 7.5% of GDP in 2021 and 7.0% in 2022 while maintaining large outlays required for road infrastructure projects. Revenue is expected to remain broadly stable at about 25.0% of GDP in both years. The International Monetary Fund has called for stronger public investment management and improved governance in state-owned enterprises. This would include streamlining the methodology that directs project appraisal, selection, and implementation, and improving the management of fiscal costs and risks from investment projects.

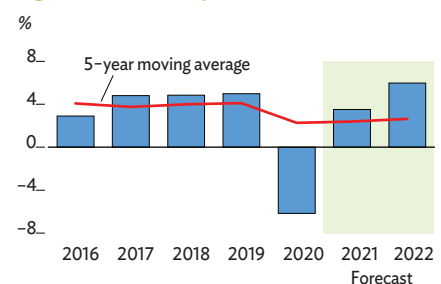
With the resumption of growth and a smaller deficit, public debt is projected to ease to the equivalent of 59.1% of GDP at the end of 2021, with external public debt equaling 48.0% of GDP, and ease further to 56.9% a year later, with the external portion equaling 45.1% of GDP. The government plans to

Figure 3.3.6 Dollarization rate of loans and deposits



Sources: National Statistics Office of Georgia. <http://www.geostat.ge> (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.3.7 GDP growth



GDP = gross domestic product.

Sources: National Statistics Office of Georgia. <http://www.geostat.ge> (accessed 31 March 2021); Asian Development Bank estimates.

Table 3.3.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	5.0	-6.2	3.5	6.0
Inflation	4.9	5.2	5.0	3.5
Current acct. bal., share of GDP	-5.5	-12.3	-10.0	-7.0

GDP = gross domestic product.

Sources: National Statistics Office of Georgia; National Bank of Georgia; Asian Development Bank estimates.

redeem \$500 million in sovereign eurobonds that mature in April 2021 by issuing new eurobonds.

The current account deficit is forecast to narrow to 10.0% of GDP in 2021 and 7.0% in 2022 as the merchandise trade balance and tourism gradually improve (Figure 3.3.8). Exports of goods and services are projected to grow by 7.1% in 2021 with modest improvement in external demand, and by 20.4% in 2022 as global recovery strengthens. Imports of goods and services are forecast to expand moderately by 3.6% in 2021 as domestic demand recovers only gradually and by 8.9% in 2022 as recovery gathers momentum. Service exports are forecast to rise by 14.1% in 2021 and then by nearly half in 2022 with accelerating recovery in travel and freight.

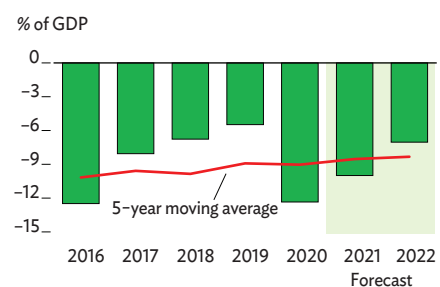
Following their large increase in 2020, remittances are forecast to rise by only 0.4% in 2021 but then by 1.2% in 2022 as the global economy strengthens. With foreign direct investment forecast to decline further, gross international reserves are projected to dip back to the equivalent of \$3.5 billion in 2021 before recovering to \$3.7 billion in 2022 as tourism rebounds (Figure 3.3.9). External debt excluding intercompany loans is projected to decline to 106.5% of GDP at the end of 2021 before easing further to 102.7% a year later (Figure 3.3.10). These forecasts are subject to downside risks: internationally from recovery in trade partners underperforming expectations, and domestically from pandemic containment measures persisting longer than forecast.

Policy challenge—transforming agriculture

Agriculture has played an important role in Georgia's economy since the Soviet era. It currently contributes 7.2% to GDP, a bit more than the 6.1% average in upper-middle-income countries, but employs nearly 40% of the labor force, nearly double the upper-middle-income average. Yet agriculture occupies a relatively small share of exports. In 2020, nearly 70% of agricultural exports were confined to only a very few products—notably wine, mineral water, and nuts—and this has not changed much over the years. Even after having increased recently, foreign sales of fresh and processed fruit, vegetables, meat, and dairy products provided only about 3% of all exports. Indeed, the country's agricultural trade balance is a deficit of \$1 billion annually, adding to the country's already high trade deficit.

Agriculture in Georgia faces many challenges, most importantly insufficient transportation infrastructure, supply chains, and cold storage facilities to allow produce to be shipped out of season, when prices are higher. Other challenges are low brand recognition, small plot size, a lack of irrigation and drainage systems, and deficient information availability and financial literacy. Agriculture and the processing of agricultural commodities attract less than 1% of foreign direct

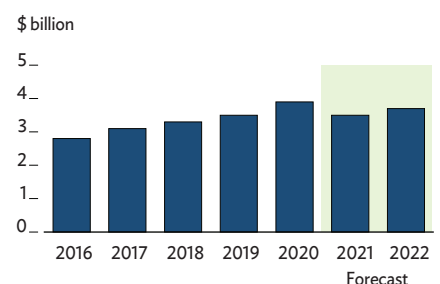
Figure 3.3.8 Current account balance



GDP = gross domestic product.

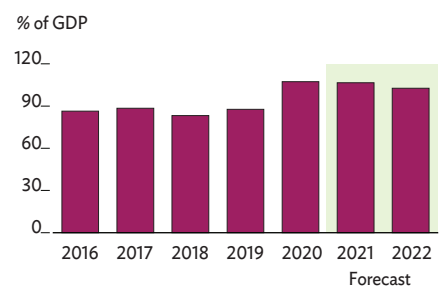
Sources: National Bank of Georgia. www.nbg.gov.ge (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.3.9 Gross international reserves



Sources: National Bank of Georgia. www.nbg.gov.ge; International Monetary Fund. www.imf.org (both accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.3.10 Total external debt



GDP = gross domestic product.

Source: International Monetary Fund. www.imf.org (accessed 31 March 2021).

investment in Georgia. Further, farmers cannot easily use machinery as bank loan collateral.

The Agriculture and Rural Development Strategy of Georgia 2021–2027 aims to make agrobusiness more competitive and includes government support for implementing a free trade area with the European Union by enabling compliance with food security and safety requirements. The government's United Agro Project to promote higher-value agriculture and agricultural exports includes support for loans to entrepreneurs who promote diversification into new crops. The Agricultural Cooperatives Development Agency promotes higher productivity and competitiveness by encouraging more cost-effective methods in cooperatives. An agricultural insurance program has been launched, the Ministry of Environmental Protection and Agriculture runs a program to popularize Georgian agricultural products, and the government supports private investment in value chains and logistics facilities. As part of its COVID-19 response plan and efforts to promote domestic production, the government has boosted support to farmers by easing their access to finance, building greenhouses, and broadening insurance to cover perennial crops.

In addition to these measures, the government could do more to enhance agricultural value addition by improving farm knowledge, connectivity, financial access, and technological capability. Establishing agrotechnology parks, improving market access, and attracting private investment could foster competition and export potential. Well-designed investments in road infrastructure are critical to facilitate access to logistics hubs, trade centers, and storage facilities. Encouraging investment in irrigation systems is also important for improving productivity, as are rationalizing land use and improving crop management.

Consolidating inefficient small plots would enable better land use and higher productivity, the first step being to update land registration with land cadastre mapping that uses the Global Positioning System and other innovative technologies. Georgia also needs to improve the quality of its agricultural exports and enhance product uniformity to conform with standardization requirements. Georgia could then specialize in producing and exporting high-quality organic and other niche products to the European Union and markets in other advanced economies—rather than, as now, exporting low-quality products to emerging markets. Smart investment in agriculture and orienting trade flows to new markets could help achieve this.

Higher agricultural productivity and stronger market linkages would help diversify Georgia's economy, bringing benefits to a greater share of the population and increasing resilience in the face of future shocks.

Kazakhstan

Prompt crisis response limited contraction in 2020, but sharp currency depreciation and supply-side constraints pushed inflation above target. Growth is projected to rebound in 2021 and 2022, assuming the pandemic continues to subside and vaccine rollout is not delayed. Inflation may be contained by monetary tightening and greater exchange rate stability. The current account deficit is forecast narrower in 2021 as oil prices rise and then wider in 2022 as domestic demand strengthens. Promoting innovation is crucial to sustainable development.

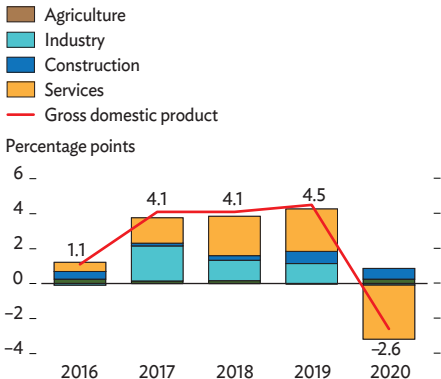
Economic performance

The economy reversed 4.5% growth in 2019 with contraction by 2.6% in 2020 as measures to control COVID-19 severely restricted services and layoffs hurt private consumption (Figure 3.4.1). On the supply side, services declined by 5.6%, with transport plunging by 17.2% and trade down by 7.3%. Communications meanwhile rose by 8.6% as demand for internet services expanded under lockdowns and working from home. Industry fell marginally by 0.4%, reflecting a 3.7% decline in mining as oil and gas production dipped by 5.3% in accordance with production controls agreed with the Organization of the Petroleum Exporting Countries and other leading producers. Manufacturing, by contrast, benefitted from government financial aid and high demand for medications and personal protective equipment to expand by 3.9%, with gains of 15.0% in light industry, 16.3% in machine building, and 47.0% in pharmaceuticals. Growth in construction remained strong at 11.2% from record-setting home building. Agriculture reversed a small decline in 2019 to expand by 5.6% as crop production increased by 7.8% under favorable weather and livestock grew by 3.0%.

Data on the demand side, which are available for only the first 9 months of 2020, show anti-crisis measures pushing public consumption up by 13.8% over the comparable period of 2019. Meanwhile, private consumption fell by 4.7% under pandemic restrictions and declining real incomes. Growth in investment slowed from 8.9% to 1.9%, reflecting a marginal decline in gross fixed capital formation and an 11.9% rise in inventories. Net exports declined as export volume fell by 13.8% and import volume by 10.3%.

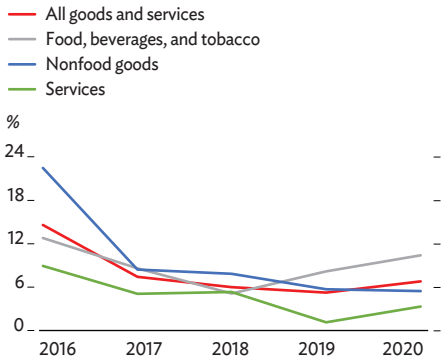
Despite economic contraction and declining real incomes, average annual inflation accelerated from 5.3% in 2019 to

Figure 3.4.1 Supply-side contributions to growth



Source: Republic of Kazakhstan. Agency for Strategic Planning and Reforms. Bureau of National Statistics. <https://www.gov.kz/memleket/entities/stat?lang=en> (accessed 22 March 2021).

Figure 3.4.2 Average inflation



Source: Republic of Kazakhstan. Agency for Strategic Planning and Reforms. Bureau of National Statistics. <https://www.gov.kz/memleket/entities/stat?lang=en> (accessed 22 March 2021).

This chapter was written by Genadiy Rau of the Kazakhstan Resident Mission, ADB, Nur-Sultan.

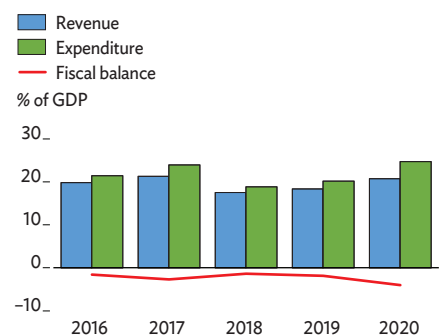
6.8%, reflecting double-digit food price increases and currency depreciation, particularly in the spring of 2020 (Figure 3.4.2). Food price inflation accelerated from 8.2% in 2019 to 10.4% as many staple foods rose sharply. Inflation for other goods remained steady at 5.5% and for services rose from 1.2% in 2019 to 3.3% on higher transportation costs and utility tariffs.

In April 2020, the state budget was substantially revised to reflect lower revenue because of the pandemic and higher expenditure to address it. The state budget deficit doubled from the equivalent of 1.9% of GDP in 2019 to 4.0%, while the non-oil deficit widened from 7.9% to 11.6% (Figure 3.4.3). Transfers to the state budget from the National Fund for the Republic of Kazakhstan, the sovereign wealth fund, reached 6.8% of GDP, more than triple the fund's receipts. Total state budget revenue increased from 18.3% of GDP in 2019 to 20.7% in 2020 even as tax revenue fell by 7.1%—less than initially feared—because transfers soared by 55.4%. Expenditure climbed from the equivalent of 20.2% of GDP to 24.7% as the pandemic boosted health-care spending by 51.4% and social assistance by 9.0%. Government and government-guaranteed debt jumped from the equivalent of 24.9% of GDP at the end of 2019 to 30.7% a year later, reflecting a 24.7% increase in state borrowing.

Accommodative monetary policy supported economic activity but allowed inflation to exceed the 4%–6% target range of the National Bank of Kazakhstan, the central bank. In March 2020, the central bank raised the key policy rate by 275 basis points to 12.0% to stabilize the currency but later cut the rate in two steps to 9.0% by July 2020 to support the economy (Figure 3.4.4). Growth in broad money (M3) accelerated from 2.4% in 2019 to 16.9% as deposits grew by 18.3% and credit to the economy by 5.5% (Figure 3.4.5). The central bank reduced sales of its own short-term securities by 14.4%, but this was offset by a 35.2% increase in government-issued domestic securities to finance the budget deficit. Credit growth was uneven, with state-supported mortgage lending slowing from 35.6% growth in 2019 to 34.3% while growth in other consumer lending plunged from 24.4% in 2019 to 4.0% and contraction in lending to firms moderated from 7.5% in 2019 to 6.5%. The percentage of nonperforming loans declined from 8.1% of all loans at the beginning of the year to 6.8%, though the data reflected some deferment and easing of classification rules. Foreign currency deposits declined from 42.3% of the total at the end of 2019 to 38.6%, while foreign currency loans decreased from 16.6% of all loans to 13.0%.

Preliminary estimates show the current account deficit narrowing from the equivalent of 4.0% of GDP in 2019 to 3.5% as lower oil and gas production and prices sharply cut foreign investors' earnings and profit repatriation. This occurred even as the surplus in goods and services trade was halved on account of the merchandise trade surplus falling by 41% as

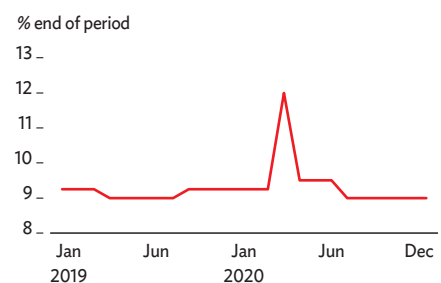
Figure 3.4.3 Fiscal indicators



GDP = gross domestic product.

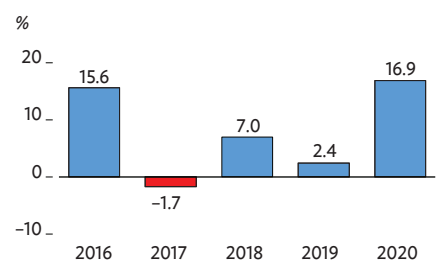
Source: Republic of Kazakhstan. Agency for Strategic Planning and Reforms. Bureau of National Statistics. <https://www.gov.kz/memleket/entities/stat?lang=en> (accessed 22 March 2021).

Figure 3.4.4 Policy rate



Source: Haver Analytics (accessed 22 March 2021).

Figure 3.4.5 Broad money



Note: Broad money growth is the percentage change December to December.

Source: National Bank of the Republic of Kazakhstan. <https://nationalbank.kz/kz?switch=english> (accessed 22 March 2021).

lower petroleum output and prices cut exports by more than the drop in imports caused by economic contraction. Reduced profit repatriation also narrowed the deficit in primary income, by 31.7%, while the surplus on secondary income nearly doubled to \$2.1 billion on smaller outward money transfers and a rise in Kazakhstan's fees and duties from membership in the Eurasian Economic Union. Net foreign direct investment rose by 13.8% despite a global decline in investment.

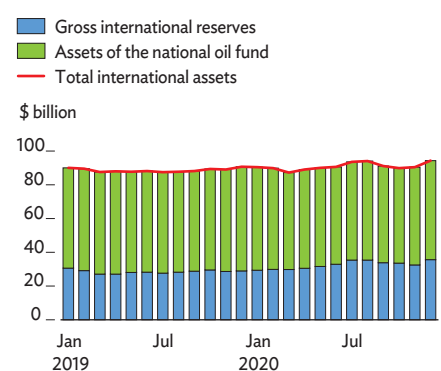
Inflow of portfolio capital and higher external borrowing boosted gross international reserves by 23.1% to \$35.6 billion at the end of 2020, or cover for 9.6 months of imports, despite central bank sales of \$1.9 billion in reserves to support the currency (Figure 3.4.6). The central bank continued raising the share of gold in international reserves to nearly two-thirds, an all-time high. Assets in the sovereign wealth fund declined by 5.0% to \$58.7 billion as transfers to the state budget greatly exceeded earnings. To finance the transfers, \$9.0 billion in fund assets were converted to local currency on the foreign exchange market. External debt, 63.1% of which is private intercompany debt, rose slightly to equal an estimated 93.0% of GDP, reflecting higher investment inflow in the form of debt. In September, the government issued three tranches of ruble-denominated bonds valued at 40 billion rubles, for which demand exceeded supply.

Economic prospects

The government anticipates that the pandemic will not worsen over the coming 2 years and that at least one-third of the population will be vaccinated by 2022. Economic forecasts reflect these assumptions and a pandemic assessment supported by the Asian Development Bank that showed government assistance having prevented deeper contraction and promoted a faster economic rebound. On these assumptions and assessment results, and with the gradual resumption of most services, growth is expected to reach 3.2% in 2021 and accelerate to 3.5% in 2022 as investment, hydrocarbon production, and manufacturing all increase (Figure 3.4.7 and Table 3.4.1).

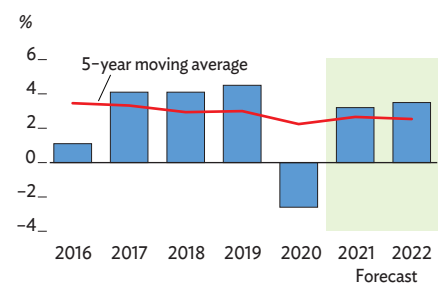
On the supply side, industry is forecast to expand by 2.0% in 2021, benefitting from continued government support for manufacturing, and by 2.8% in 2022 as mining picks up by a projected 0.7% in 2021 and 2.2% in 2022 to meet recovering global demand for commodities. Services are forecast to rebound by 3.8% in 2021 as transport, trade, and catering benefit from the continuing removal of quarantine restrictions. As economic activity normalizes, growth will taper to 3.4% in 2022. Expansion in agriculture is forecast to moderate to 3.3% in 2021 and 3.2% in 2022, reflecting limited investment prospects in the sector. Construction is forecast to expand by

Figure 3.4.6 Foreign currency reserves and oil fund assets



Source: National Bank of the Republic of Kazakhstan. <https://nationalbank.kz/kz?switch=english> (accessed 22 March 2021).

Figure 3.4.7 GDP growth



GDP = gross domestic product.
Source: Asian Development Outlook database.

Table 3.4.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	4.5	-2.6	3.2	3.5
Inflation	5.3	6.8	6.5	6.2
Current acct. bal., share of GDP	-4.0	-3.5	-0.5	-1.7

GDP = gross domestic product.

Sources: Agency for Strategic Planning and Reforms, Bureau of National Statistics; Asian Development Bank estimates.

9.4% in 2021, supported by state housing and infrastructure programs, and by 6.6% in 2022.

On the demand side, growth in consumption is projected to recover to 3.3% in 2021 on rebounding household incomes, consumer credit, and government social spending before moderating to 3.0% in 2022. Investment is forecast to stagnate in 2021 as companies run down accumulated inventories and then rise by 7.3% in 2022, with gross fixed capital formation benefiting from government-supported housing and infrastructure programs and from foreign direct investment in mining. Exports should rebound sharply in 2021 as output and commodity prices recover, but growth in imports will outpace exports by 2022 as domestic consumption expands.

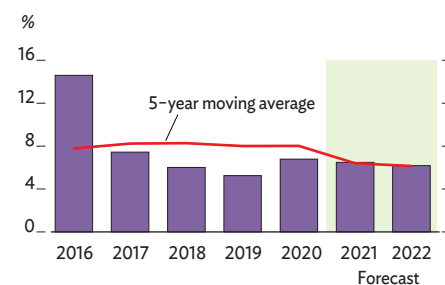
Inflation is projected to decelerate slightly to 6.5% in 2021 and 6.2% in 2022 thanks to a more stable currency and the waning effect of depreciation in early 2020 (Figure 3.4.8). Food price increases are expected to slow to 8.5% in 2021 and 8.0% in 2022, reined in by price controls for staple foods and a network of regional food stockpiles and wholesale distribution centers. Central bank efforts to bring the inflation rate into the target range are expected to constrain inflation for other goods to 5.8% in 2021 and 5.6% in 2022 and limit inflation in services to 4.5% each year.

Fiscal policy over the next 2 years is expected to be less expansionary, with the budget deficit falling to the equivalent of 3.5% of GDP in 2021 and 2.9% in 2022 as the non-oil deficit narrows to 10.3% of GDP in 2021 and 9.5% in 2022 (Figure 3.4.9). Revenue is projected to reach 19.8% of GDP in 2021 with economic recovery and moderate to 18.1% in 2022 as budget transfers from the sovereign wealth fund are curtailed. Expenditure is forecast at 23.3% of GDP in 2021, declining to 21.0% in 2022 as anti-crisis measures are phased out, despite rising social outlays and continued programs for industrialization, infrastructure, and housing. Government and government-guaranteed debt are projected to decline to the equivalent of 30.0% of GDP at the end of 2021 and 28.2% a year later.

Monetary policy over the next 2 years is expected to focus on bringing inflation down toward the 4%–6% target range by tightening liquidity and raising interest rates. Broad money growth is forecast to slow to 4.2% in 2021 and 3.4% in 2022 as the central bank drains excess liquidity from the market. An expected rise in nonperforming loans during a protracted recovery will probably constrain growth in lending.

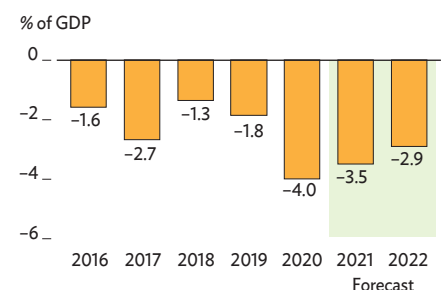
The current account deficit is forecast to narrow to the equivalent of 0.5% of GDP in 2021 as the trade surplus increases and then widen to 1.7% in 2022 as imports and investors' earnings and profit repatriations surge (Figure 3.4.10). Higher commodity prices will boost merchandise exports by 31.6% in 2021, followed by a 2.8% increase in 2022 from higher oil production but lower average prices. Imports

Figure 3.4.8 Inflation



Source: Asian Development Outlook database.

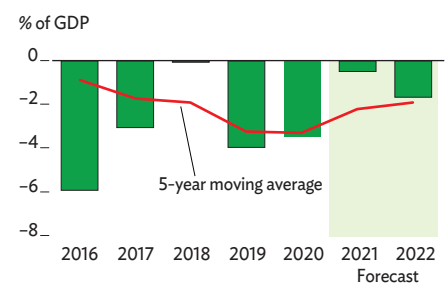
Figure 3.4.9 Fiscal balance



GDP = gross domestic product.

Source: Asian Development Outlook database.

Figure 3.4.10 Current account balance



GDP = gross domestic product.

Source: Asian Development Outlook database.

are projected to grow by 4.3% in 2021 and 8.2% in 2022, reflecting higher consumption and additional capital imports to supply rising investment. The deficit in services is projected unchanged in 2021 as international travel restrictions will likely to persist for much of the year, then widen sharply in 2022.

Gross international reserves are projected to decline gradually to \$28.7 billion by the end of 2022, or cover for 8.2 months of imports, as external government debt is repaid, while the share in gold rises further. Sovereign wealth fund assets are forecast to fall in 2021 to \$57 billion with continued high budget transfers but rise to \$60 billion in 2022 as commodity prices and production increase. External debt should decline to equal about 90% of GDP at the end of 2021 and 85% a year later as state-owned enterprises continue repaying foreign debt and foreign-owned subsidiaries repay intercompany debt (Figure 3.4.11).

Policy challenge—promoting innovation

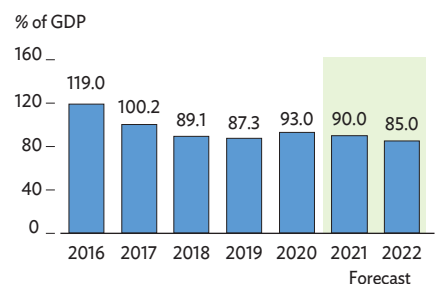
In 2020, Kazakhstan experienced an unprecedented pandemic-induced crisis. After past shocks, notably the global financial crisis of 2008–2009 and the oil price plunge in 2015, the economy rebounded but only to lower growth rates. In both cases, persistent drag was traceable to a lack of creative destruction, limited innovation, and over-reliance on commodity exports. Kazakhstan can learn from this experience to improve its recovery from COVID-19.

Research suggests that innovation is key to productivity growth, especially in middle-income economies. The few middle-income economies that have managed to achieve high income are highly innovative. They identified pathways for moving up the production ladder that emphasize capacity for innovation, support for innovative activity, and product complexity.

The government acknowledged the importance of innovation more than a decade ago, adopting a strategic development plan and pledging to allocate by 2014 at least 1% of GDP to research and development (R&D). A subsequent strategic development plan approved in 2018 repeated a similar pledge for 2025. However, attaining this goal will require a tenfold increase in R&D spending. In 2019, Kazakhstan invested only around 0.1% of GDP in R&D, conducted by fewer than 22,000 people in 386 research organizations (Figure 3.4.12).

In the past decade, R&D spending doubled in nominal terms but fell by half as a share of GDP. Patent applications, the usual measure of innovation, have fallen over time, with fewer than 1,000 applications submitted during 2018 and 2019, and patent applications per million residents plunging from 0.1 in 2009 to half that in 2019 (Figure 3.4.13). Shrinking

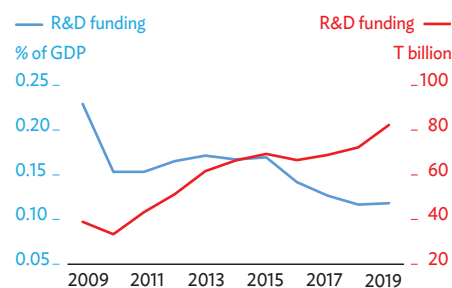
Figure 3.4.11 External debt



GDP = gross domestic product.

Source: Asian Development Outlook database.

Figure 3.4.12 Research and development funding



GDP = gross domestic product, R&D = research and development.

Source: Republic of Kazakhstan, Agency for Strategic Planning and Reforms, Bureau of National Statistics. <https://stat.gov.kz/official/industry/11/statistic/6> (accessed 22 March 2021).

innovation corresponds with a steady decline in productivity growth in economies like Kazakhstan that depend on commodity extraction. Among its income peers, Kazakhstan underperforms in innovation performance, according to the World Intellectual Property Organization. In particular, it ranked 124 out of 131 economies for reported weak innovation linkages fostering business and university R&D collaboration.

Overcoming the middle-income trap depends on creating an environment that enables the innovation and production of more complex goods. The government can support private efforts by streamlining existing tax incentives for R&D investment. In 2019, the private sector contributed only 45.8% of total R&D spending—less than the substantial majority found in many advanced economies. Current tax incentives are burdened by complexity, and they finance only research projects that are successfully applied. A more liberal set of incentives would recognize that research entails risk and uncertainty.

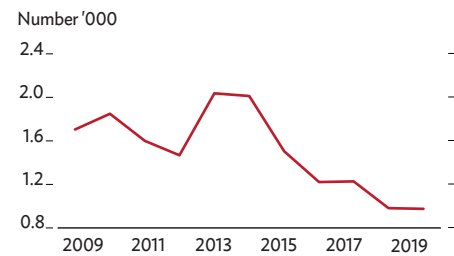
Given the entrepreneurial nature of innovation, another policy challenge for policy makers is to improve the overall business environment. Strengthening the financial system, especially capital markets, can enhance access to finance for innovative entrepreneurs. Moreover, deep capital markets with stronger institutions support risk-taking, which is inherently part of the innovative process.

Innovation also requires highly talented and educated researchers, who can be trained locally or abroad. This points to the indispensable role of a sound education system that produces technically strong and creative students. The 2018 Program for International Student Assessment ranked Kazakhstan at only 69 of 79 countries, with country scores significantly below average in all measured subjects: mathematics, science, and reading literacy. Raising public spending on education, especially for infrastructure and salaries, would help the system catch up and adjust to the post-pandemic era.

In 2019, net out-migration reached almost 33,000 individuals, with many highly educated people leaving Kazakhstan. Meanwhile, many other countries encourage the immigration of highly talented researchers and innovators by offering long-term visas and residency rights. The government can create opportunities for foreign researchers by simplifying and streamlining travel and work in the country.

Finally, the government should strive to achieve its target of investing 1% of GDP in R&D by 2025. This will require a credible action plan that addresses past shortfalls in planning and follow-up, boosts government spending, and encourages other parties to commit more resources to R&D.

Figure 3.4.13 Patent applications



Source: Republic of Kazakhstan. Agency for Strategic Planning and Reforms. Bureau of National Statistics. <https://stat.gov.kz/official/industry/11/statistic/6> (accessed 22 March 2021).

Kyrgyz Republic

Following the onset of the COVID-19 pandemic early last year, the Kyrgyz Republic was beset by political turmoil in October 2020. Real GDP plunged, inflation jumped, imports fell, and the current account crossed into surplus. Recovery in the domestic economy depends on improvement in economic partners, in particular Kazakhstan and the Russian Federation. This keeps risks to the forecast on the downside. Improved social protection is necessary to make recovery equitable and durable.

Economic performance

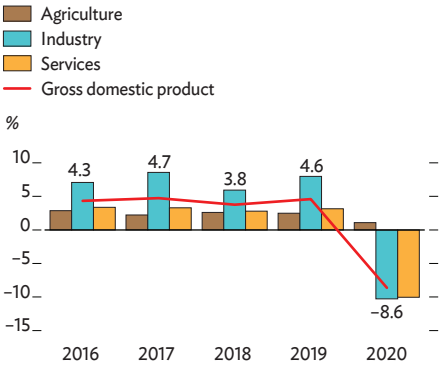
The COVID-19 pandemic closed borders, interrupted trade, and disrupted domestic supply and demand. Consequently, it reversed growth at 4.6% in 2019 with 8.6% contraction in 2020, the worst outcome since 1994.

Agriculture was the only sector to grow, albeit slowing from 2.6% expansion in 2019 to 1.1% in 2020, with livestock up by 2.0% (Figure 3.5.1). Industry reversed 8.0% growth in 2019 with 10.3% contraction as output fell in mining, manufacturing, and construction. Mining plunged by 22.4% with a 7.3% drop in gold production from the country’s largest mine. Manufacturing contracted by 7.2% with lower production of textiles, apparel, food, and tobacco, though pharmaceutical production doubled and chemical products grew by 40.0%. Construction fell by 16.0% as fixed capital investment dropped by 25.0% because foreign contractors were stranded abroad, many construction companies closed for the duration, and supplies of construction materials, machinery, and equipment were disrupted. Fixed investment fell across the board except into health-care facilities. Finally, services contracted by 10.0% with trade shrinking by 16.0%, transport by 31.0%, and hospitality by 45.0% (Figure 3.5.2).

On the demand side, public consumption is estimated to have fallen despite higher spending on health-care facilities in response to COVID-19 as all other spending declined. Private consumption also fell despite wage increases for health-care workers and remittances showing early signs of recovery late in the year. Remittances increased by 2.0% in 2020 despite a 13.0% decline year on year in the first half.

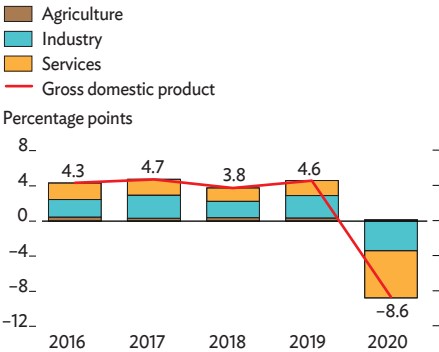
Average annual inflation jumped from 1.1% in 2019 to 6.3% in 2020 as prices for food rose by 17.6%, for other goods by

Figure 3.5.1 GDP growth by sector



GDP = gross domestic product. Source: National Statistics Committee of the Kyrgyz Republic. <http://www.stat.kg> (accessed 31 March 2021).

Figure 3.5.2 Supply-side contributions to growth



Source: National Statistics Committee of the Kyrgyz Republic. <http://www.stat.kg> (accessed 31 March 2021).

This chapter was written by Gulkayr Tentieva of the Kyrgyz Republic Resident Mission, ADB, Bishkek.

2.4%, and for services by 3.0% with border closures and supply chain disruption. Inflation in December 2020 was 9.7% year on year, indicating late acceleration (Figure 3.5.3).

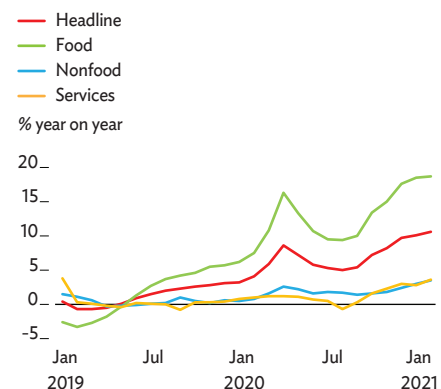
The fiscal deficit widened from the equivalent of 0.1% of GDP in 2019 to 3.3% in 2020 as current spending rose to contain COVID-19 and tax revenue fell. However, an inflow of \$372.8 million from development partners eased the fiscal squeeze. Expenditure rose from 27.1% of GDP in 2019 to 28.7%, while total revenue fell from 27.0% of GDP to 25.4% as tax revenue declined from 19.6% of GDP in 2019 to 17.9%. Over the medium-to-long term, fiscal consolidation will be a policy focus in line with a new fiscal rule approved by the parliament to cap government debt at the equivalent of 70% of GDP and the budget deficit at 3%.

To offset pass-through inflation from currency depreciation, the National Bank of the Kyrgyz Republic, the central bank, raised its policy rate by 0.75 percentage points to 5.00% in February 2020. In line with its policy of intervening in the foreign exchange market mainly to smooth excess volatility in the exchange rate, the central bank more than tripled its \$143 million in local currency purchases in 2019 to \$466 million in 2020, but the Kyrgyz som still depreciated against the US dollar by more than 20% (Figure 3.5.4). At the same time, the central bank sought to prop up the economy by allowing declines in the average deposit interest rate by 0.42 percentage points and the average lending rate by 0.89 points. Deposits rose by 19.9% and credit by 11.0%, while growth in broad money rose from 12.8% in 2019 to 23.9%. Nonperforming loans grew from 8.0% of all loans at the end of 2019 to 10.5% a year later. Dollarization remains extensive. The foreign currency share of loans fell from 35.2% in 2019 to 33.0% but the share of deposits rose from 39.1% to 43.4%.

Imports declined significantly as the economy slowed and border closures curtailed exports other than gold. Consequently, a 12.1% current account deficit in 2019 turned into a surplus of 4.5% in 2020. Despite gold exports growing by 18.5% on higher prices but lower volume, all exports fell by 1.6% with tobacco down by 42.0%, textiles and apparel by 41.0%, and vegetables by 12.5%. Imports fell by 26.2% as imports of textiles and apparel plunged by 56.0%, machinery and equipment by 37.0%, and fuel products by 23.3%. International reserves rose from \$2.4 billion at the end of 2019 to \$2.6 billion a year later, or cover for 5.1 months of imports. Remittances fell as large numbers of migrant workers returned home but recovered by year-end to grow by 2.0% with the reopening of access to the Russian Federation (Figure 3.5.5).

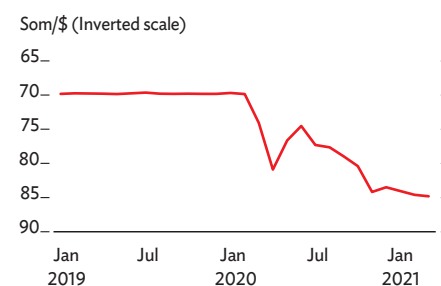
External debt including government-guaranteed and private debt is estimated to have increased from the equivalent of 78.8% of GDP at the end of 2019 to 99.9% at the end of 2020, while government-guaranteed external debt increased in the same period from 43.3% of GDP to 58.3% (Figure 3.5.6). Domestic public debt remained less than 5.0% of GDP.

Figure 3.5.3 Monthly inflation



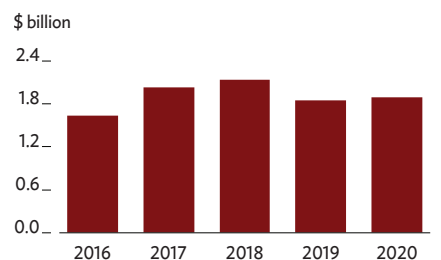
Sources: Bulletin of the National Bank of the Kyrgyz Republic. <http://www.nbkr.kg> (accessed 31 March 2021).

Figure 3.5.4 Exchange rate



Source: The Ministry of Finance; National Statistics Committee. <http://www.stat.kg>; National Bank of the Kyrgyz Republic. <http://www.nbkr.kg> (both accessed 31 March 2021).

Figure 3.5.5 Remittances



Sources: National Statistics Committee. <http://www.stat.kg>; National Bank of the Kyrgyz Republic. <http://www.nbkr.kg> (both accessed 31 March 2021).

Economic prospects

Growth is projected at 3.5% in 2021 and 5.0% in 2022 but with significant downside risks to the forecasts owing to their dependence on broad recovery in the subregion and the Russian Federation (Figure 3.5.7 and Table 3.5.1). During January–February 2021, GDP continued to fall, by 8.9% year on year, as contraction persisted across the board except in agriculture, which grew modestly. Gold production is expected to rebound with improvement in the quality of ore, and import-dependent industries such as manufacturing, construction, and mining will benefit as borders reopen and supply chains reactivate. Trade, hospitality, and transportation services will recover as borders reopen, and agriculture should benefit from regional economic recovery. Business confidence may stay low, however, with political instability likely to persist until parliamentary elections in the autumn of 2021. Any recurring pandemic waves or slow vaccine procurement or rollout could derail growth. It is noteworthy that inoculations began at the end of March 2021.

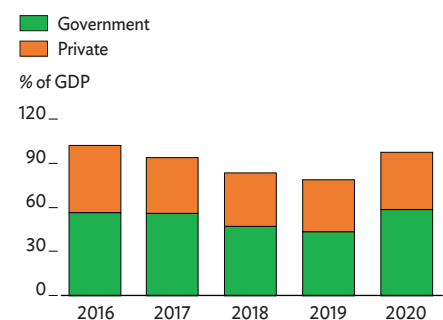
On the supply side, gold production is expected to recover. Major projects to extend energy, transportation, and other infrastructure in urban and rural areas will resume. On the demand side, private consumption should recover, especially if remittances rebound with recovery in economic partners, especially the Russian Federation.

Average inflation is expected to accelerate further to 7.0% in 2021 and 2022 (Figure 3.5.8). Inflation spiked to 10.4% in January–February 2021, with food inflation in particular remaining high as supply chains were slow to recover and pass-through continued from currency depreciation. The central bank is expected to maintain its focus on price stability and intervene in currency markets only to smooth volatility. On 24 February 2021, it increased its policy rate by 50 basis point to 5.50%.

The fiscal deficit is projected to widen further in the range of 4.0%–5.0% of GDP in 2021 and 2022 as elevated current spending persists to counter COVID-19 with investments in health care, vaccinations, and other projects carried over from 2020, taking total expenditure in 2021 to 30.4% of GDP. The government will continue to restrain low-priority spending while improving tax policy and administration. Revenue is projected to equal 30.2% of GDP in 2021 with tax revenue expected to increase to 18.8% of GDP. Public external debt is expected to hover at about 60% of GDP over the next few years.

The current account deficit is forecast to expand to 8.0% of GDP in 2021 and 2022 (Figure 3.5.9). Healthy gold exports are seen pushing total export growth to 5% in both years. Meanwhile, imports could increase by about 10% in 2021 and 2022 as delayed infrastructure projects resume. Remittances will likely recover further by about 5% in 2021 and 2022,

Figure 3.5.6 External debt

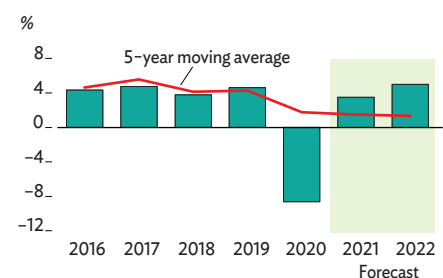


GDP = gross domestic product.

Note: Government debt refers to both government and government-guaranteed debt.

Sources: National Statistics Committee. <http://www.stat.kg>; National Bank of the Kyrgyz Republic. <http://www.nbr.kg> (both accessed 31 March 2021).

Figure 3.5.7 GDP growth



GDP = gross domestic product.

Sources: National Statistics Committee of the Kyrgyz Republic. <http://www.stat.kg> (accessed 31 March 2021); Asian Development Bank estimates.

Table 3.5.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	4.6	-8.6	3.5	5.0
Inflation	1.1	6.3	7.0	7.0
Current acct. bal., share of GDP	-12.1	4.5	-8.0	-8.0

GDP = gross domestic product.

Sources: National Statistics Committee of the Kyrgyz Republic; Bulletin of the National Bank of the Kyrgyz Republic; Asian Development Bank estimates.

assuming recovery in the subregion and especially in the Russian Federation.

Analysis of debt sustainability by the International Monetary Fund found the Kyrgyz Republic at moderate risk of debt distress. While the country's current debt-carrying capacity is assessed as strong, debt sustainability in the Kyrgyz Republic is vulnerable to shocks that threaten growth and exports. If the general government deficit is held at 3% of GDP in the short-to-medium term, and if the government continues to receive external financing on concessional terms, total public debt could be maintained at about 60% of GDP over the long term, keeping the risk of debt distress moderate despite the pandemic.

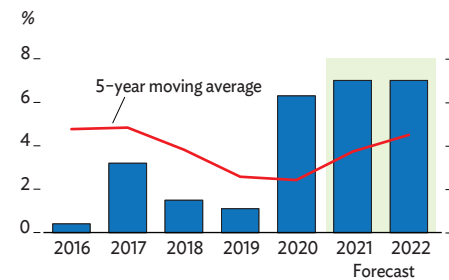
Policy challenge—COVID-19 and challenges to social security in the medium term

The authorities face challenges as they cope with both the pandemic and a political crisis. Confidence is low, holding back investment and business activity.

The government issued on 31 March 2020 its first stimulus package to mitigate pandemic impact, with subsequent packages following in May and August. The whole plan cost about \$400 million and aimed to prop up businesses, promote food security, provide social support, and improve health care and education, thereby ensuring socioeconomic stability and maintaining household incomes. As it turned out, these measures were insufficient to prevent a decline in living standards and perhaps worsening poverty.

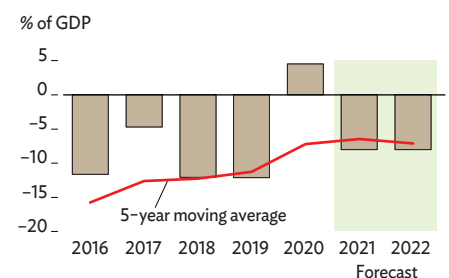
Despite the poverty rate falling from 39.9% in 2006 to 22.4% in 2018, many of the newly nonpoor live barely above the poverty line. With the downturn in 2020, the numbers of poor and unemployed probably increased. Real incomes are estimated to have fallen by almost 8% in 2020. They will gradually recover in 2021, assuming economic recovery, but the government must swiftly implement measures to protect the most vulnerable, despite budget constraints. Social protection expenditure may be high, but much of it pays pensions for the elderly, leaving little for other assistance programs. Moreover, high rates of informal employment and migration mean fewer contributions to the Pension Fund, which increasingly requires transfers from the budget to ensure pension payments. That the health-care system also needs serious reform became obvious during the peak of pandemic in July 2020, when for several days the Kyrgyz Republic had one of the highest COVID-19 mortality rates in Central Asia. The government consequently placed at the top of its reform agenda measures to improve financing for health-care services, establish mandatory health

Figure 3.5.8 Inflation



Sources: Bulletin of the National Bank of the Kyrgyz Republic. <http://www.nbkr.kg> (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.5.9 Current account balance



GDP = gross domestic product.

Sources: National Bank of the Kyrgyz Republic. <http://www.nbkr.kg> (accessed 31 March 2021); Asian Development Bank estimates.

insurance, improve facility management, enforce drug control, and generally enhance health management.

Unemployment has continued to grow from 6.2% in 2018 to an estimated 7.3% in 2020, or about 250,000 people. The influx of returning migrant workers, mainly from the Russian Federation and Kazakhstan, is likely to have worsened unemployment. A recent trend is internal migration from cities to rural areas to escape the most restrictive pandemic lockdowns.

Food insecurity became acute during the pandemic and remains a key challenge because of high dependence on grain imports, insufficient supply, and inefficient distribution to the needy. These problems are thought to be significantly worsening poverty since last year, especially in the south. Health care has been compromised by a lack of strategic stockpiles of medical protective equipment and the poor training of medical personnel. Schools have struggled to switch to online education with computers and appropriate teaching materials in short supply.

To improve social protection and enable stabilization and recovery with the eventual waning of COVID-19, the government will have to establish in the short term a new targeting framework for social protection by (i) reintegrating into the economy workers who became unemployed under the pandemic, including returning migrants; (ii) updating the social protection database to include data disaggregated by age, region, and gender; and (iii) allocating sufficient funds to enable the rapid validation of registrations for assistance and the provision of support. The government may also introduce a new system of unique identification and direct benefit delivery, which would enable assistance to be scaled up quickly and precisely in any future emergency.

Over the medium term, the government should consider amending its eligibility criteria for monthly benefits paid to poor families with children and for unemployment benefits, to expand the coverage of social protection for vulnerable households in both urban and rural areas.

Tajikistan

COVID-19 restrictions slowed economic growth in 2020, worsened already high inflation, and reduced inward remittances, while also lifting the current account into surplus by disrupting imports. Growth should revive as the pandemic wanes, with trade and remittances recovering, inflation moderating, and revived imports returning the current account to deficit. Growth prospects depend on a successful vaccine rollout and the full restoration of regular flights with main trade partners. Improved performance by state-owned enterprises would enhance fiscal sustainability.

Economic performance

The government reported growth dropping from 7.5% in 2019 to 4.5% in 2020 as the pandemic and measures to contain it suppressed investment and remittances, despite government support measures and assistance from development partners.

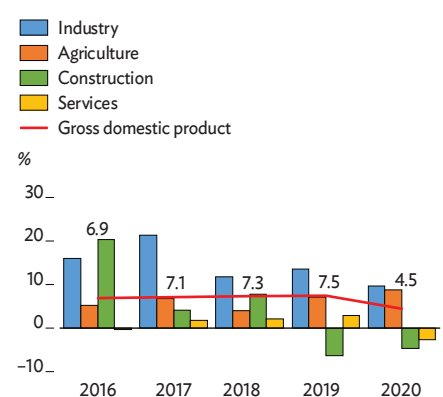
On the supply side, growth in industry slowed from 13.6% in 2019 to 9.7% in 2020 as mining contracted by 4.3%, and despite manufacturing expanding by 17.4% and electricity generation by 0.9% (Figure 3.6.1). In 2020, aluminum production contracted by 16.6%, whereas gold production rose by 33.4% to a new record. Agriculture expanded by 8.8% on gains in fruit and vegetable production and strong growth in cattle breeding and fishing. As containment measures and a 32.4% drop in remittances cut retail trade by 9.6%, services contracted by 2.6% (Figure 3.6.2). After declining by 6.3% in 2019, construction fell by a further 4.6% as demand for housing remained weak.

On the demand side, ongoing infrastructure spending and support from development partners, which exceeded 4.5% of GDP, supported disposable income and helped maintain consumption. Investment declined by 4.3% as private investment fell and growth in public investment slowed. Though still negative, net exports strengthened as pandemic restrictions cut imports by 5.9% and higher gold sales countered a decline in other exports.

Inflation accelerated from 8.0% in 2019 to 9.4% as prices rose by 13.3% for food, 5.8% for other goods, and 4.0% for services (Figure 3.6.3). Higher inflation reflected pandemic-related supply shocks, 16.6% depreciation of the Tajik somoni against the US dollar, and 4.7% credit growth.

Fiscal policy remained expansionary to fund pandemic-response measures and continued spending on the Rogun

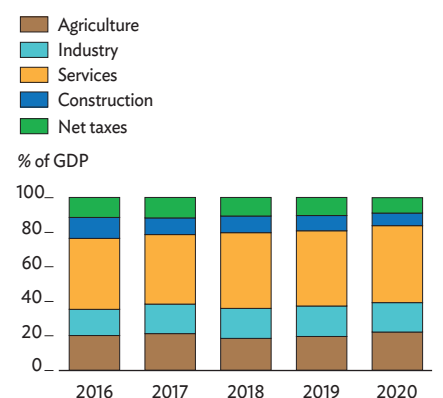
Figure 3.6.1 GDP growth by sector



GDP = gross domestic product.

Source: Tajikistan State Statistical Agency.

Figure 3.6.2 Supply-side sources of gross domestic product



GDP = gross domestic product.

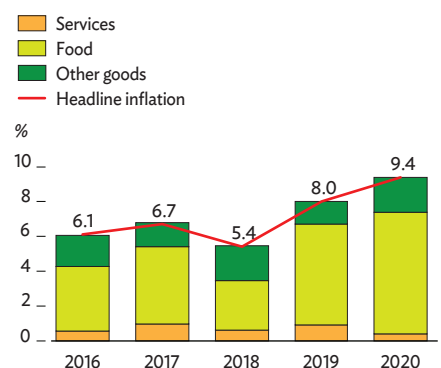
Source: Tajikistan State Statistical Agency.

hydropower project. The fiscal deficit narrowed from 3.8% of GDP in 2019 to 3.0% (Figure 3.6.4). In June 2020, the state budget was revised to trim revenue by 10% and raise spending on health care and targeted social assistance. Revenue and grants, including budget support from development partners, rose slightly from the equivalent of 26.7% of GDP in 2019 to 27.2% despite a 1.1% tax revenue shortfall as overperformance in the collection of external excise duty, road tax, and sales tax failed to fully compensate for underperforming personal income and social security tax, value-added tax, and corporate profit tax, partly reflecting exemptions for businesses affected by the pandemic. Expenditure declined slightly from 30.4% of GDP in 2019 to 30.2% despite pensions and public salaries rising by 10%–15% and higher spending on health and social programs using funds reallocated from other outlays. Higher external borrowing raised public and publicly guaranteed external debt from the equivalent of 36.0% of GDP at the end of 2019 to 40.6% a year later, with total public debt growing from 44.9% of GDP at the end of 2019 to 47.3% a year later (Figure 3.6.5). The Debt Service Suspension Initiative of the Group of Twenty postponed more than \$43 million in debt servicing by Tajikistan.

The National Bank of Tajikistan, the central bank, eased monetary policy to support the economy despite expanding sales of Treasury bills and central bank securities to restrain liquidity. Broad money growth rose from 17.0% in 2019 to 18.4% in 2020, even as private credit expansion slowed from 12.0% to 4.7% (Figure 3.6.6). The central bank reduced the policy interest rate from 12.75% to 11.75% in May 2020 and further to 10.75% in July 2020 to support the economy. In April 2020, it slashed reserve requirements from 9% to 5% on US dollar accounts and from 3% to 1% on somoni accounts to the end of 2020, which increased liquidity by about 6.5%. Efforts to combat dollarization through higher reserves on foreign currency accounts and tighter foreign exchange controls trimmed the share of loans in foreign currency from 50.5% at the end of 2019 to 43.2% a year later, though foreign currency deposits rose slightly, from 46.7% to 48.2%, as depositors moved more savings into foreign currency accounts during the pandemic.

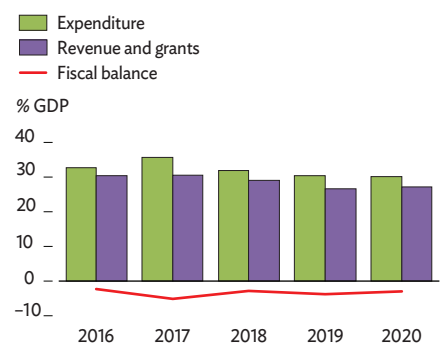
Improved bank supervision helped cut nonperforming loans from 27.0% of all loans in 2019 to 23.8% a year later, though trade disruption and pandemic containment temporarily raised the share in the second and third quarters of 2020. Return on bank assets improved marginally from 2.1% in 2019 to 2.5%, and return on bank equity from 7.6% to 9.1% (Figure 3.6.7). Two large banks remained troubled, however, with resolution plans not yet approved. To increase public confidence in the banking system, the government adopted in November 2020 a resolution ensuring the availability of resources to pay deposit insurance claims.

Figure 3.6.3 Sources of inflation



Source: Tajikistan State Statistical Agency.

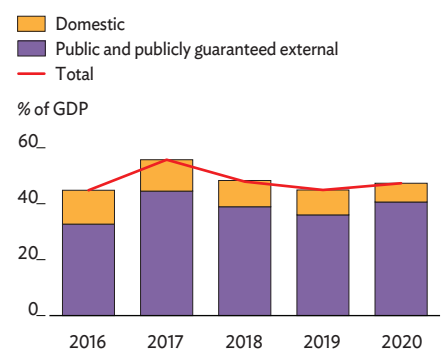
Figure 3.6.4 Fiscal indicators



GDP = gross domestic product.

Sources: Ministry of Finance.

Figure 3.6.5 Public debt



GDP = gross domestic product.

Sources: Ministry of Finance.

The current account balance moved from a deficit equal to 2.3% of GDP in 2019 to a surplus of 4.3%. The merchandise trade deficit narrowed from \$2.2 billion to \$1.7 billion as export growth doubled from 9.3% in 2019 to 19.8% largely on gold sales, while muted demand and trade disruption reversed import growth at 4.8% in 2019 with a 5.9% decline. The suspension in March 2020 of regular flights to the Russian Federation, the workplace for 95% of Tajik migrant workers, slashed their trips by 76%. Data from the Russian Federation showed remittance inflows from this primary source falling by 32.4% to \$1.7 billion, an amount equal to 22.2% of Tajikistan's GDP. Moreover, pandemic restrictions cut foreign direct investment by 53%. However, gross international reserves reached \$2.0 billion at the end of September 2020 on foreign purchases of domestically produced gold and higher gold prices, providing cover for 8.4 months of imports (Figure 3.6.8).

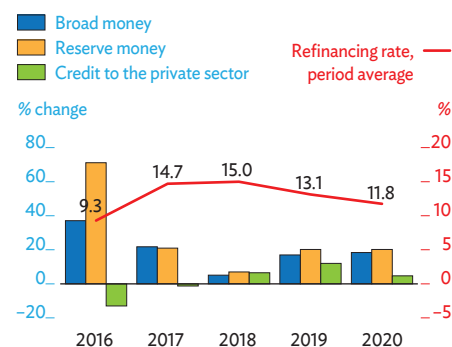
Economic prospects

Growth is forecast to rebound to 5.0% in 2021 and 5.5% in 2022 as pandemic restrictions in trade partners ease, reviving remittances, foreign direct investment, and overseas demand (Figure 3.6.9 and Table 3.6.1). Growth will depend, however, on the speed with which vaccinations are administered, regular flights with key trade partners fully resume, and public investment recovers. A pickup in private credit and increased production and exports will support growth, as will additional electricity generation. Downside risks are the possible effects of prolonged pandemic restrictions on the external sector and weakness at several major state-owned enterprises.

On the supply side, industry is forecast to expand by 10.0% in both 2021 and 2022 with continued efforts to boost electricity generation, mining, and manufacturing. Ongoing construction on Tajikistan's segment of a gas pipeline from Turkmenistan to the People's Republic of China should help, as will construction projects for the 30-year anniversary of Tajikistan's independence, but with drag from reduced activity at Rogun. Agriculture is expected to rise modestly as planted area expands. Growth in services will recover marginally in 2021 with higher remittances and accelerate in 2022.

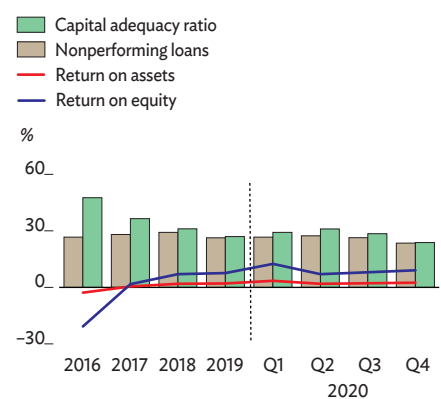
On the demand side, public investment will remain the main growth driver as a weak business climate limits private investment. Private consumption will rise moderately as remittances recover. Net exports will become more negative in 2021 as recently robust gold sales normalize and the Rogun project imports materials and machinery, partly in preparation for Tajikistan's likely reconnection in 2022 to the Central Asia Power System. The new transmission line promises to boost electricity exports and, domestically, enable more production of import substitutes.

Figure 3.6.6 Monetary indicators



Source: National Bank of Tajikistan.

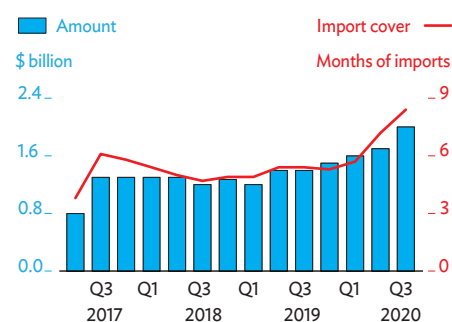
Figure 3.6.7 Banking system soundness indicators



Q = quarter.

Source: National Bank of Tajikistan.

Figure 3.6.8 Gross international reserves



Q = quarter.

Source: National Bank of Tajikistan.

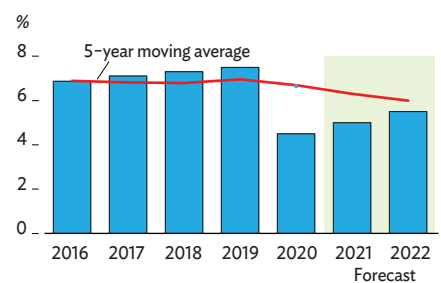
Inflation is projected to diminish marginally to 9.0% in 2021 with more stable prices for imported food and despite greater exchange rate flexibility, pressure on the somoni from ruble depreciation, further increases in pensions and stipends expected in September 2021, higher electricity tariffs in November, and possibly faster monetary expansion with the celebration of 30 years of Tajikistan's independence. As domestic demand tapers in 2022 following the celebration, inflation should moderate further to 8.0% and come within the central bank 2020 inflation target of 4%–8% (Figure 3.6.10). Inflation could be higher if currency depreciation accelerates or budgetary needs for domestic financing exceed expectations, boosting money growth.

Fiscal policy will remain expansionary with outlays for the Rogun project and anniversary festivities in 2021, with the budget deficit forecast equal to 5.0% of GDP in both 2021 and 2022. The lingering impact of the pandemic will limit revenue to 26.5% of GDP in 2021 before a new tax code raises it to 27.3% in 2022. Expenditure is forecast to reach 31.5% of GDP in 2021 and 32.3% in 2022 but could be higher with additional recapitalization of troubled banks, any clearing of arrears at state-owned enterprises, or faster currency depreciation. Although foreign assistance now comes entirely through grants, the authorities anticipate covering any financing shortfall for infrastructure through external borrowing, raising external debt—all of it public—to 42.5% of GDP by the end of 2022. Continued large fiscal deficits from high investment spending could make an already heavy debt burden unsustainable while weakening Tajikistan's external position through higher imports.

Monetary policy will likely aim to contain inflation and limit currency depreciation by tightening liquidity, but this policy may be constrained by demand for budget financing. The central bank could raise the refinancing rate if needed to arrest inflation. Lending to private firms may increase with gradual recovery in the banking system.

The current account is forecast to revert to deficits equal to 2.5% of GDP in both 2021 and 2022 as the end of pandemic restrictions boosts consumer imports by 15.0% in 2021 and 5.0% in 2022, alongside continued imports of capital goods for infrastructure (Figure 3.6.11). Exports are projected to drop by 7% in 2021 with lower gold sales and grow by 8% in 2022 with higher electricity generation, including substantial exports of electricity to Afghanistan and Uzbekistan. Assuming regular flights fully restored to the Russian Federation, remittances are projected to rise by 15% in 2021 and 20% in 2022 as global recovery proceeds. Imports are expected to rise by 10% in 2021 and 15% in 2022 with rising disposable income, despite continued efforts at import substitution for food and manufactures. Reserves will remain at about \$2 billion as foreign purchases of domestically produced gold offset sales of foreign exchange intended to stabilize the exchange rate.

Figure 3.6.9 GDP growth



GDP = gross domestic product.

Sources: Tajikistan State Statistical Agency; Asian Development Bank estimates.

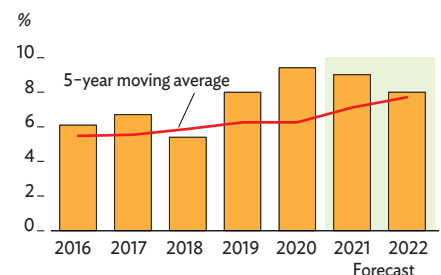
Table 3.6.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	7.5	4.5	5.0	5.5
Inflation	8.0	9.4	9.0	8.0
Current acct. bal., share of GDP	-2.3	4.3	-2.5	-2.5

GDP = gross domestic product.

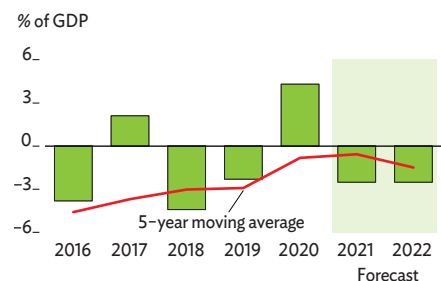
Sources: TAJSTAT; National Bank of Tajikistan; Asian Development Bank estimates.

Figure 3.6.10 Inflation



Sources: Tajikistan State Statistical Agency; Asian Development Bank estimates.

Figure 3.6.11 Current account balance



GDP = gross domestic product.

Sources: National Bank of Tajikistan; Asian Development Bank estimates.

Policy challenge—improving the performance of state-owned enterprises

Tajikistan has more than 1,000 state-owned enterprises (SOEs) that play important roles in public service provision, employment generation, and socioeconomic development. However, most SOEs have incurred losses for decades, posing serious risks to the budget from loan default and insolvency.

In 2020, 12 of the 27 largest SOEs incurred combined losses equal to 8.2% of GDP. Losses have been concentrated in energy and metal processing, with electricity supplier Barqi Tojik accounting for 94.7% of them and aluminum producer TALCO for 3.7%. Moreover, in 2020, seven large SOEs had tax arrears to the State Budget and Pension Fund equal to 0.4% of GDP. Many SOEs enjoy preferential access to loans and state subsidies, sometimes crowding out private activity. Addressing state enterprise inefficiency would reduce budget outlays and improve fiscal sustainability.

The government has made some progress in strengthening SOE oversight, transparency, and operational efficiency. The Finance Ministry has established an SOE monitoring department that oversees the performance of the 27 largest SOEs. Moreover, Barqi Tojik is being split into separate units for electricity generation, transmission, and distribution. The government has approved a strategy and action plan to manage fiscal risks from SOEs and has created a coordination council for fiscal risks to oversee SOEs. Further, the state budget includes a statement on fiscal risks. A law approved at the beginning of 2020 aims to promote SOE profitability and financial soundness and to make SOEs more transparent and accountable by adopting international governance standards. If deemed necessary, the government can support these measures by establishing an agency to oversee SOEs, whose diverse operations currently have them reporting to multiple ministries.

More reforms could be considered: introducing corporate governance principles and merit-based selection of top SOE managers, including the possibility of appointing external management; applying key performance indicators to evaluate management performance; and introducing performance-based contracts and compensation. Transparency and accountability could be enhanced by requiring independent audits of large SOEs with greater disclosure to the public, and market distortions could be reduced by improving payment discipline and eliminating special privileges. Finally, SOEs that engage in commercial enterprise outside of natural monopolies should be privatized, and loss-making entities should be liquidated to alleviate the fiscal burdens they impose.

Turkmenistan

Pandemic restrictions and lower global prices and demand for gas slowed growth. Trade disruption and foreign exchange shortages kept inflation high. Falling exports trimmed the current account surplus. Global recovery should improve gas exports and GDP growth in 2021 and 2022. Higher imports should ease inflationary pressure, but the current account surplus will still widen in 2021 on stronger exports, narrowing only in 2022. Social protection needs comprehensive improvement.

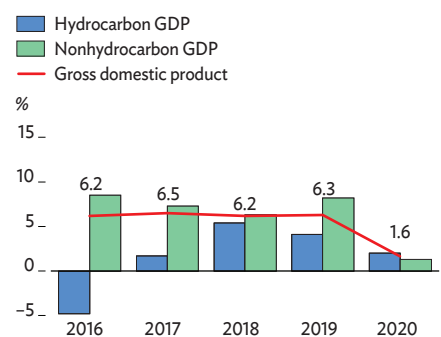
Economic performance

Preliminary estimates show growth slowing from 6.3% in 2019 to 1.6% in 2020 as the pandemic affected activity across the economy. A dramatic decline in external demand and prices for hydrocarbons, which provide more than 80% of exports and 30% of GDP, slowed expansion in the hydrocarbon economy by half, from 4.1% to 2.0%, as negligible growth early in the year later recovered. Expansion beyond hydrocarbons was also sluggish, falling from 8.2% to 1.5% in the wake of pandemic-induced disruption (Figure 3.7.1).

Despite there being no COVID-19 cases officially diagnosed in Turkmenistan, the government strengthened sanitary and epidemiological controls and imposed containment measures in consultation with the World Health Organization to prevent the spread of the disease. Measures included border closures, flight cancellations, COVID-19 testing for international arrivals, restrictions on internal movement, road closures between provinces, shuttered stores and restaurants, limited public events, and mandatory mask wearing.

On the supply side, growth in industry is estimated to have decelerated from 6.9% in 2019 to 1.3% while moderate expansion was sustained in construction and manufacturing, particularly hydrocarbon processing and chemicals, food processing, textiles, and building materials, mostly under import substitution programs. Expansion in agriculture is estimated to have risen from 4.0% to 5.0% as cotton and wheat met ambitious government targets. Growth in services slowed from 7.0% to an estimated 1.2%, reflecting border closures, bans on external and domestic transportation, diminished tourism and hospitality services, and the closure of shops, public catering, sports, and entertainment facilities beginning in the first quarter of 2020.

Figure 3.7.1 GDP growth by sector



GDP = gross domestic product.

Sources: International Monetary Fund. 2020. *Regional Economic Outlook: Middle East and Central Asia*; Asian Development Bank estimates.

On the demand side, public investment supported growth, though less than in previous years, as reduced exports and tax revenue limited fiscal spending. Gross investment continued declining from the equivalent of 28.2% of GDP in 2018 to 24.4% in 2019 and an estimated 20.0% in 2020 (Figure 3.7.2). Rising prices and lower household income sharply reduced private consumption absent a fiscal stimulus package to mitigate the pandemic.

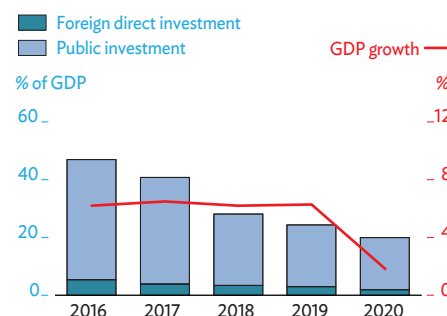
Preliminary estimates show average annual inflation slowing from 13.0% in 2019 to 10.0% from lower aggregate demand (Figure 3.7.3). Foreign exchange was scarce because of lower exports, restricted foreign exchange convertibility, and a requirement that firms surrender all foreign currency export earnings to the Reserve Currency Fund. Rising demand for foreign exchange on the parallel market widened the gap between official and parallel exchange rates. The resulting distorted price signals, along with food shortages from disrupted trade, raised prices for imports and import-intensive domestically produced goods. To maintain food security, price controls and subsidized rationing were retained for certain essential foods.

The Central Bank of Turkmenistan maintained its fixed exchange rate regime, limiting access to foreign exchange and strictly controlling cash in circulation while promoting noncash payment. The government reported that firms affected by pandemic containment measures could temporarily suspend loan repayment. With less growth, broad money expansion slowed from 12.9% in 2019 to 9.1%. Most loans involved subsidized credit to state-owned enterprises in priority sectors, with some credit provided to private firms engaged in import substitution.

The state budget was near balance, with revenue and expenditure virtually the same as a percentage of GDP (Figure 3.7.4). The non-hydrocarbon deficit remained at an estimated 6.0% of GDP. Despite the government announcing additional support for health care and plans to support businesses, the International Monetary Fund reported in April 2021 that state budget outlays in 2020 equaled 12.9% of GDP, down from 13.6% estimated for 2019. However, sizable extra-budgetary spending still appears to fund continuing large projects, mainly urban construction and industry expansion. Public sector debt at the end of 2020 is estimated equal to 30.9% of GDP.

The current account surplus narrowed from the equivalent of 1.3% of GDP in 2019 to an estimated 0.5% as export revenue, mainly from gas and petroleum products, plunged by 24.2%, reversing an 8.2% increase in 2019. Having increased by 3.2% in 2019, imports contracted by an estimated 10.8% in 2020. The 2020 current account estimate, like those for 2018 and 2019, likely reflects efforts to constrain imports through import substitution and foreign exchange controls. To protect domestic suppliers, duties were raised on selected imports, as were excises

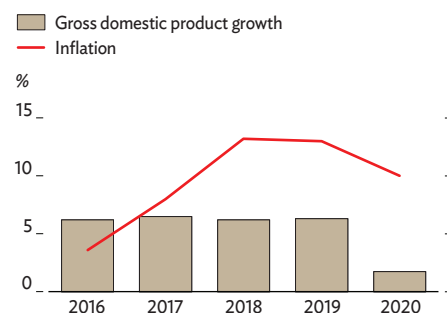
Figure 3.7.2 Gross investment including foreign direct investment



GDP = gross domestic product.

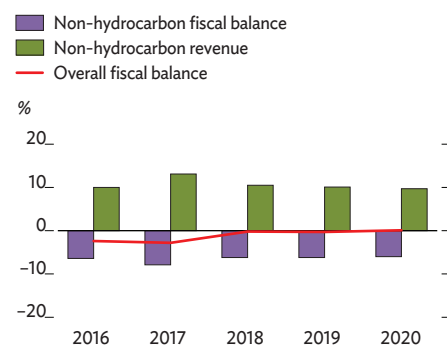
Sources: International Monetary Fund, 2020. Press release following a staff visit; Asian Development Bank estimates.

Figure 3.7.3 Gross domestic product growth and inflation



Sources: International Monetary Fund, 2020. *Regional Economic Outlook: Middle East and Central Asia*; Asian Development Bank estimates.

Figure 3.7.4 Government fiscal balances



Note: Fiscal data refer to the general government. Non-hydrocarbon fiscal balance and revenue are percentages of non-oil gross domestic product, and the overall fiscal balance is a percentage of total gross domestic product.

Sources: International Monetary Fund, 2020. *Regional Economic Outlook: Middle East and Central Asia*; Asian Development Bank estimates.

on tobacco and alcohol products. Restrictions on imports and currency convertibility were also tightened but with a special regime reserved for such essential and high-priority imports as food, medicines, and construction equipment. External debt as a percentage of GDP edged down from 29.2% at the end of 2019 to an estimated at 27.1% a year later (Figure 3.7.5).

Economic prospects

As the anticipated winding down of the pandemic allows recovery in Turkmenistan's trade partners, higher demand for oil and gas and improved global prices should boost hydrocarbon output and exports, restoring growth to 4.8% in 2021 and 4.9% in 2022 (Figure 3.7.6 and Table 3.7.1).

The rollout of COVID-19 vaccinations is expected to bring gradual relaxation of restrictions on foreign trade, travel, and transportation while still observing health security. In early 2021, two vaccines developed in the Russian Federation, Sputnik V and EpiVacCorona, were approved, and the government has begun negotiations to participate in COVID-19 Vaccines Global Access (COVAX). The government has announced plans to host several international sporting events in 2021, which could boost services, notably in trade and catering, tourism, hospitality, and transportation.

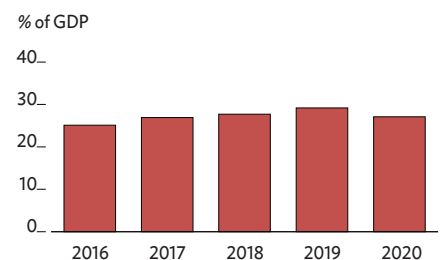
On the supply side, industry is projected to grow by 4%–5%, reflecting gains in hydrocarbon processing, electricity, chemicals, food and agricultural products, light manufacturing, textiles, and construction materials, all of which have import substitution targets. With continued government support for farmers, agriculture is forecast to expand by 4% in both years, while growth in services is projected to recover to 5%–6% on increased domestic demand and a gradual lifting of restrictions.

Anticipated relaxation of import constraints should improve the supply of food and consumer goods. However, continued foreign exchange shortages will likely keep inflation elevated at about 8% in 2021 and 2022, absent any adjustments to foreign exchange policy. The government is expected to continue efforts to limit inflation by maintaining a fixed exchange rate and administrative price controls while promoting import substitution. Banks will maintain direct lending to state-owned enterprises and support private firms in priority sectors.

With squeezed spending, the government budget will remain near balance in 2021 and 2022, while extrabudgetary spending for construction projects is expected to remain substantial. Domestic Treasury securities will likely provide budget financing, with some existing domestic debt refinanced.

Higher global prices for oil and gas and a gradual resumption of gas shipments under contracts with the People's Republic of China could lift export revenue by 5%–7% in both 2021 and 2022. With export growth outpacing import growth,

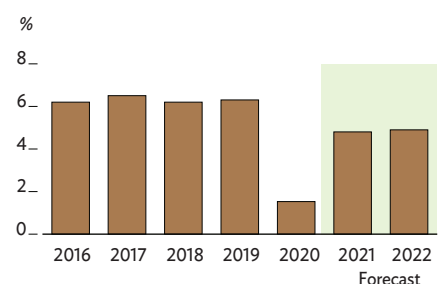
Figure 3.7.5 External debt



GDP = gross domestic product.

Sources: International Monetary Fund, 2020. *Regional Economic Outlook: Middle East and Central Asia*; Asian Development Bank estimates.

Figure 3.7.6 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

Table 3.7.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	6.3	1.6	4.8	4.9
Inflation	13.0	10.0	8.0	8.0
Current acct. bal., share of GDP	1.3	0.5	2.0	0.5

GDP = gross domestic product.

Sources: International Monetary Fund, 2019. *Regional Economic Outlook: Middle East and Central Asia*, October; Asian Development Bank estimates.

the current account surplus is projected to widen to equal 2.0% of GDP in 2021 before narrowing to 0.5% in 2022 as import growth accelerates (Figure 3.7.7). These surpluses should allow the timely repayment of debt obligations to reduce external debt to 23.0% of GDP at the end of 2021 and 22.0% a year later.

Policy challenge—strengthening social protection

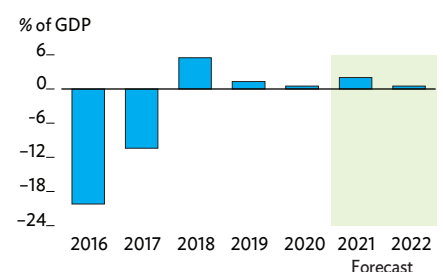
Turkmenistan's economic recovery depends heavily on mitigating the social consequences of the pandemic and supporting inclusive growth. This in turn requires raising public spending for social protection and strengthening the government's capacity to measure, monitor, and analyze social protection systematically and formulate adequate policy responses. Broadening and deepening social protection and undertaking active labor market programs is crucial for sustainable and broad-based human development.

Over the past decade, Turkmenistan expanded public expenditure and strove to strengthen social protection. The current system comprises social programs for various segments of the population, including eight of the International Labour Organization's nine priorities for social security: medical care, family allowances, and benefits for sickness, old age, employment injury, maternity, survivors, and invalidity—everything but unemployment benefits. Further reform is urgently needed to adjust support packages and expand social protection eligibility and coverage, which now excludes Turkmenistan's many informal workers. Active labor programs should play a crucial role in promoting inclusion in the labor market.

Jobs with low productivity have characterized the country's labor market, with agriculture supplying 44% of employment in 2019 and services about 35%. Structural unemployment is high, and an estimated 22%–27% of all employment is informal, according to data from the Commonwealth of Independent States' Statistics Committee. Moreover, rising inflation has reduced purchasing power and weakened living standards, particularly affecting households in the lowest income bracket, according to the World Bank's 2019 Macro Poverty Outlook.

COVID-19 shocks have further hurt living standards, as pandemic control measures disrupt labor markets and sharply reduce real household income. The activities hardest hit—manufacturing and services including wholesale and retail trade, food and hospitality, tourism, and transport—are major employers. Employment in agriculture has also been affected. No official unemployment data are available, but a 2020 report by the United Nations Conference on Trade and Development entitled *Challenges, Policy Options and the Way Forward* suggests that unemployment and underemployment could affect up to 60% of the labor force, especially youth and rural residents.

Figure 3.7.7 Current account balance



GDP = gross domestic product.

Sources: International Monetary Fund, 2020. *Regional Economic Outlook: Middle East and Central Asia*; Asian Development Bank estimates.

Trade disruption has raised prices for food, medicine, and other essential goods while limiting their availability. With food absorbing about 54% of household expenditure in 2019, these increases have burdened household budgets, possibly worsening food deficiency. Rising costs, persistent foreign exchange shortage, and the limited availability of industrial products have particularly affected small and medium-sized enterprises, forcing many to lay off workers or shut down. The 2020 United Nations pandemic response plan for Turkmenistan identified those especially affected as small and medium-sized enterprises, women in the informal sector, youth, children, rural residents, migrants, the elderly, and people with disabilities. Together, these developments could reverse past gains from social welfare programs that enabled Turkmenistan to reach World Bank upper-middle-income status in 2012.

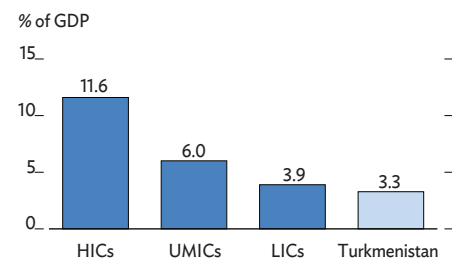
Turkmenistan's national development program 2011–2030 stresses the importance of social services and annually allocates 70% of budget outlays to social spending and protection. However, spending on social protection can rise further, as its share in GDP remains low compared with other upper-middle-income countries, according to the ADB Social Protection Indicator for Asia (Figure 3.7.8). Spending on health and education also needs boosting to improve health and education outcomes, which currently lag those in other upper-middle-income countries.

Assessing the impact of job losses and inflation on household incomes requires a nationwide household survey, the data from which could identify the most vulnerable people and the support required, including targeted cash payments and unemployment benefits to those affected by the pandemic. The size of social payments and benefits could be adjusted for inflation by reconsidering the minimum subsistence required through periodic price surveys using the latest methodologies employed by international organizations.

Labor market policy should aim to restore jobs where practical and create new jobs. The government needs to develop a new, employment-focused agenda with measures to boost employment, including through job-creating enterprises. This would require reforms to improve the business climate, financial intermediation, and exchange rate management, as well as make investment more efficient by shifting the focus from excessive construction spending to enhanced human development. Promoting exports would expand jobs with higher professional qualifications and require in turn higher spending on tertiary and professional education and skills development.

The government would benefit from strengthening data collection, assessment, and analysis, using modern digital methodologies to generate databases and identification systems. This would help identify and address existing gaps and develop effective public employment programs.

Figure 3.7.8 Social protection expenditure by income group, 2015



GDP = gross domestic product, HIC = high-income country, LIC = low-income country, UMIC = upper-middle-income country.

Sources: Asian Development Bank. 2019. *The Social Protection Indicator for Asia: Assessing Progress*; Asian Development Bank estimates.

Uzbekistan

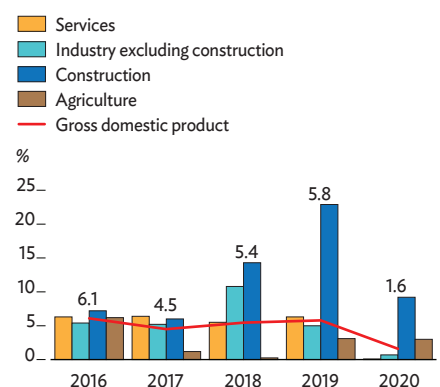
COVID-19 and related restrictions slashed growth in 2020. Inflation slowed, and the current account deficit narrowed as imports fell more than exports. Growth is projected to rebound in 2021 and 2022 with broad recovery in industry, services, and investment. Stable tariffs for electricity and natural gas should further slow inflation, while higher exports and steady remittances should trim the current account deficit. Uzbekistan needs to make its debt management more transparent and efficient.

Economic performance

The government reported that growth slowed from 5.8% in 2019 to 1.6% in 2020. On the supply side, expansion in agriculture edged down only marginally, from 3.1% to 3.0%, as ample water supply supported increases of 3.4% in cotton and wheat and 2.1% in livestock. Growth in construction plunged from 22.9% a year earlier to 9.2% as the pandemic disrupted homebuilding. Expansion in industry fell from 5.0% in 2019 to 0.7% as a 21.9% drop in mining and quarrying from lower natural gas extraction largely offset a pickup in manufacturing growth from 6.6% to 7.1%. Growth in services fell from 6.3% in 2019 to a marginal 0.1%, reflecting slower expansion in trade and information and communication, as well as declines in transportation, storage, and catering caused by COVID-19 restrictions (Figure 3.8.1).

On the demand side, growth in consumption slowed by half, from 5.8% in 2019 to 2.9%. The pandemic disrupted business activity and restricted travel abroad for Uzbek seasonal migrant workers, curbing an earlier rise in wages and remittances. With less income growth, expansion in private consumption dropped from 5.6% in 2019 to 2.4%. Government spending through its Anti-Crisis Fund, created to mitigate pandemic effects and accelerate economic recovery, helped sustain a 4.7% rise in public consumption, though less than the 5.7% increase in 2019. The government spent 46.9% of the fund, equal to 1.0% of GDP, on direct measures against COVID-19 that included the procurement of medicine and equipment and the construction of health-care infrastructure. COVID-19 disruption to investment reversed a 38.1% increase in gross fixed capital formation in 2019, slashing it by 8.2% as foreign direct investment fell by 32.7%. Net exports remained negative, but deficits narrowed by 13% for goods and 25% for services.

Figure 3.8.1 GDP growth by sector



GDP = gross domestic product.

Source: State Statistics Committee. <https://nsdp.stat.uz> (accessed 1 April 2021).

Inflation slowed from 14.6% in 2019 to 12.9% as electricity and natural gas tariffs remained unchanged in 2020. Sluggish demand and business activity trimmed inflation for goods other than food from 11.1% in 2019 to 9.0%, and for services from 15.6% to 10.6%. However, pandemic-related disruption caused a temporary rise in food prices in the first 4 months of 2020, slightly increasing annual food price inflation from 16.9% in 2019 to 17.3% (Figure 3.8.2).

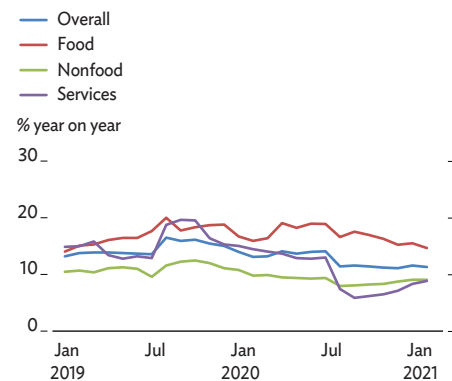
The fiscal deficit widened from the equivalent of 3.9% of GDP in 2019 to 4.4% a year later. Higher spending induced by the pandemic for social protection, health care, and economic recovery raised total outlays marginally from 32.1% of GDP to 32.3%. Costs associated with pandemic containment and the treatment of patients increased health-care spending by 29.2% to the equivalent of 3.3% of GDP. At the same time, restrictions and slower business activity trimmed revenue from 28.2% of GDP in 2019 to 27.9%. External finance covered nearly the entire deficit as the government issued eurobonds and boosted foreign borrowing.

With inflation and growth slowing, the central bank cut its policy rate in two steps from 16.0% at the end of 2019 to 14.0% in September 2020. Growth in credit to the economy expanded from 26.4% in 2019 to 30.9%, driven by mortgage lending, microcredit, consumer loans, and lending to small businesses. Growth in broad money rose from 13.8% in 2019 to 17.9%. The money supply in local currency expanded by 16.4%, up from 14.4% in 2019, while growth in foreign currency deposits jumped from 12.7% to 21.2% (Figure 3.8.3).

The Uzbek sum depreciated by 9.8% against the US dollar in 2020, reflecting a drop in exports as the pandemic weakened foreign demand, depreciation of the currencies of Uzbekistan's main trading partners, and higher demand for US dollars in the domestic market.

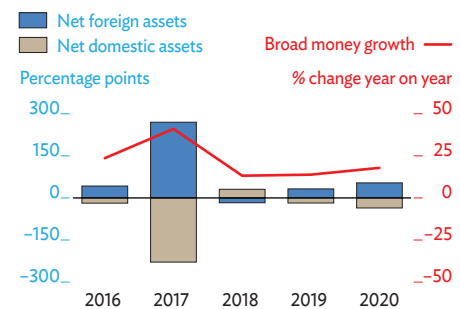
The current account deficit narrowed from the equivalent of 5.8% of GDP in 2019 to an estimated 5.4% in 2020 as the trade deficit in goods and services shrank from \$9.6 billion to \$8.0 billion. Exports of goods and services reversed a 20.2% increase in 2019 to plunge by 14.5% in 2020 as COVID-19 depressed external demand and prices for natural gas, though gold exports increased by 18.0% on higher prices, expanding their share of exports from 28.2% to 38.3%. Imports of goods and services contracted by 15.0%, reversing a 13.2% rise in 2019, with imports lower for capital and intermediate goods and transport services. Net inflows of primary and secondary income declined from \$6.2 billion in 2019 to \$4.9 billion as the pandemic limited travel by migrant workers (Figure 3.8.4). With net foreign direct investment falling from the equivalent of 4.0% of GDP in 2019 to 3.0%, financing the current account deficit depended largely on external borrowing, which raised external debt from the equivalent of 42.6% of GDP at the

Figure 3.8.2 Monthly Inflation



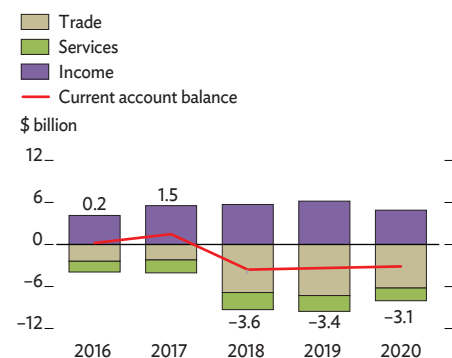
Sources: State Statistics Committee. <https://nsdp.stat.uz> (accessed 1 April 2021); Asian Development Bank estimates.

Figure 3.8.3 Contributions to money supply growth



Sources: The Central Bank of the Republic of Uzbekistan. <https://cbu.uz/en/statistics/dks/469632/> (accessed 5 April 2021); Asian Development Bank estimates.

Figure 3.8.4 Current account components



Sources: The Central Bank of Uzbekistan. <https://cbu.uz/en/statistics/e-gdds/data/127982> (accessed 2 April 2021); Asian Development Bank estimates.

end of 2019 to 58.6% a year later. Public external debt rose by 34.0% to equal 36.9% of GDP. In 2020, Uzbekistan issued 10-year eurobonds in two tranches totaling \$555 million and 3-year bonds denominated in Uzbek sum worth \$195 million. Gross foreign reserves surged from \$29.1 billion at the end of 2019 to \$34.9 billion a year later, providing cover for 19 months of imports, with gold reserves rising by 23.8% and foreign currency reserves by 14.7% (Figure 3.8.5).

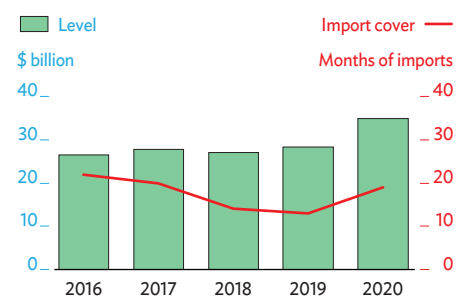
Economic prospects

Growth is projected to rebound to 4.0% in 2021 and 5.0% in 2022, driven by broad recovery in industry, services, and investment, though risks to growth persist from a protracted pandemic and uncertainty in the external sector (Figure 3.8.6 and Table 3.8.1). Vaccine rollout and containment measures will also affect the recovery. Uzbekistan budgeted nearly \$286 million to vaccinate 20% of the population with 16 million vaccine doses in two stages starting in March 2021, but delayed vaccine arrival from manufacturers may slow the rollout. The government eased domestic lockdowns while still enforcing social distancing and mask wearing and imposing travel restrictions on countries with emerging variants of COVID-19.

On the supply side, expansion in industry is expected to accelerate to 5.0% in 2021 and 5.5% in 2022 in response to government policies aimed at improving infrastructure for production and export capability, coupled with growing domestic demand for hydrocarbons. Further easing of travel restrictions and recovery in business activity and enterprise production capacity are expected to boost food services, accommodation, storage, and transportation, raising growth in services to 5.0% in 2021 and 6.0% in 2022. Modernizing urban infrastructure and housing and expanding factories will likely sustain growth in construction at 10.0% in both years. An anticipated 25% water shortage from poor rainfall will likely constrain crop production this year, causing growth in agriculture to slow to 1.5% in 2021 before rebounding, on the assumption of more normal rainfall in 2022, to 3.6%.

On the demand side, investment is anticipated to drive growth as gross capital formation rises by 8.6% in 2021 and 9.1% in 2022 to upgrade industrial facilities and develop social and urban infrastructure. Following a 10.0% rise in the minimum wage and social assistance payments in February 2021, a similar increase is expected in 2022. Coupled with slowing inflation and a 5.8% rise in remittances, wage adjustments will likely support private consumption growth at 7.6% in 2021 and 6.1% in 2022. Public consumption will expand by 1.9% in 2021 and 3.6% in 2022 on higher spending to rehabilitate social infrastructure in local communities: roads, schools, water supply networks, and primary health-

Figure 3.8.5 Gross international reserves



Sources: State Statistics Committee. <https://nsdp.stat.uz> (accessed 1 April 2021); Asian Development Bank estimates.

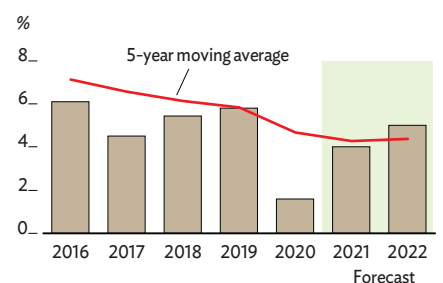
Table 3.8.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	5.8	1.6	4.0	5.0
Inflation	14.6	12.9	10.0	9.0
Current acct. bal., share of GDP	-5.8	-5.4	-4.5	-4.0

GDP = gross domestic product.

Sources: State Statistics Committee; Central Bank of Uzbekistan; Asian Development Bank estimates.

Figure 3.8.6 GDP growth



GDP = gross domestic product.

Source: State Statistics Committee. <https://stat.uz/en/official-statistics/national-accounts> (accessed 1 April 2021); Asian Development Bank estimates.

care facilities. With the recovery in industry and services, the deficit in net exports will narrow further, despite higher imports of capital and intermediate goods.

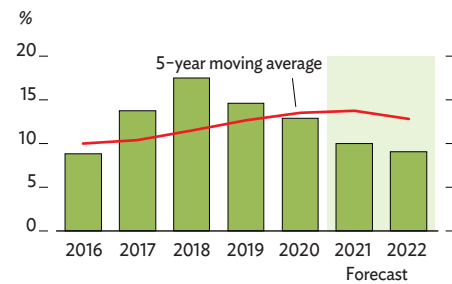
Inflation is forecast to slow to 10.0% in 2021 and 9.0% in 2022, as the authorities are not expected to raise electricity or natural gas tariffs (Figure 3.8.7). As of February 2021, annual inflation was on a downward path, slowing from 13.7% a year earlier to 11.4%. Broad money is expected to expand by 18.0% in 2021 and 22.0% in 2022. With inflation declining, the central bank kept the policy rate at 14.0% following its meeting on 21 January 2021. The monetary authorities are expected to strengthen monetary policy transmission by reducing loans offered under state programs at preferential rates, thus allowing market forces to determine all lending rates.

The fiscal deficit is projected to expand to equal 5.6% of GDP in 2021 and then narrow to 2.5% in 2022, financed by both foreign and domestic loans (Figure 3.8.8). Spending is forecast to equal 32.5% of GDP in 2021 and 30.0% in 2022. To accelerate the recovery, maintain expanded social protection, and achieve the timely vaccination of the population, the government plans to boost spending on capital projects, health care, and social assistance. Revenue will likely equal 26.9% of GDP in 2021 and, with gradual recovery in business activity and tax revenue, 27.5% in 2022. Consistent with the medium-term budget framework, the fiscal authorities plan to cut the fiscal deficit gradually to about 2.0% of GDP in the coming years.

The current account deficit is expected to narrow to the equivalent of 4.5% of GDP in 2021 and 4.0% in 2022 as exports of food, textiles, and transport services rebound, gold prices rise, and remittance inflows increase (Figure 3.8.9). Growth in exports of goods and services is forecast to accelerate to 22.0% in 2021 but then slow to 8.5% in 2022. Recovery in industry and construction is expected to maintain demand for imports of capital goods, with growth in imports of all goods and services surging to 17.0% in 2021 before slowing again to 5.0% in 2022. With travel restrictions easing as the pandemic is contained in work destinations, remittance inflows are forecast to rise by 5.8% in 2021 and hold steady in 2022. As gold reserves increase, gross foreign reserves are anticipated to reach \$36 billion in both years, equal to 16 months of imports.

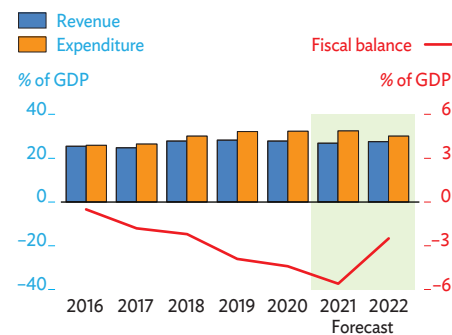
The government aims to pursue a prudent strategy of public debt management, keeping public debt below 60.0% of GDP over the medium term by introducing a \$5.0 billion limit on external borrowing in 2021. Two-thirds of new loans will finance investment projects, with the rest supporting other budget expenditure. Public external debt is projected to remain equal to 36.9% of GDP in 2021 and 2022 (Figure 3.8.10).

Figure 3.8.7 Inflation



Sources: State Statistics Committee. <https://nsdp.stat.uz/> (accessed 1 April 2021); Asian Development Bank estimates.

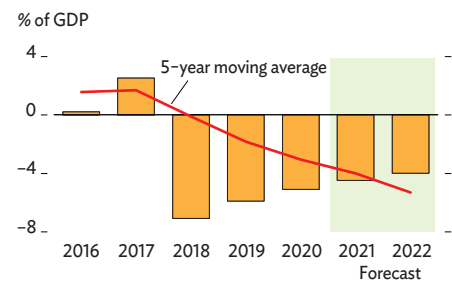
Figure 3.8.8 Fiscal components



GDP = gross domestic product.

Sources: International Monetary Fund; Asian Development Bank estimates.

Figure 3.8.9 Current account balance



GDP = gross domestic product.

Sources: The Central Bank of the Republic of Uzbekistan. https://cbu.uz/upload/medialibrary/a7a/en_BOP_IIP_EXD_4Q2020.pdf (accessed 2 April 2021); Asian Development Bank estimates.

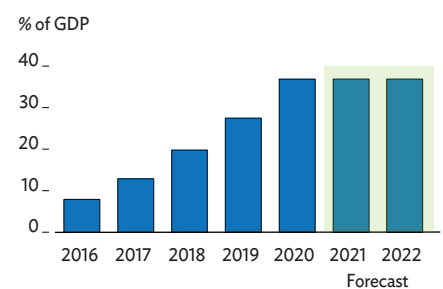
Policy challenge—making debt management more transparent and efficient

Uzbekistan has traditionally followed a conservative fiscal policy, and its stance remained generally prudent, as evidenced by its relatively moderate ratio of public external debt to GDP, averaging 6.5% in 2013–2016. However, the ratio rose to 12.9% in 2017 and nearly tripled to 36.9% in 2020, triggering public discussion about transparency and efficiency in foreign borrowing. Since 2017, the government has pursued structural reform and the modernization of infrastructure and industry, largely financed by external borrowing. To ensure debt sustainability, the government introduced in 2019 a \$4.0 billion ceiling on new publicly guaranteed loans in 2020. The ceiling was later raised to \$5.5 billion because of the COVID-19 crisis.

The COVID-19 pandemic and associated anti-crisis measures weakened Uzbekistan's overall fiscal position and expanded the fiscal deficit. To finance a package of measures to mitigate the impact of the pandemic and accelerate economic recovery, the government relied mainly on concessional finance from international financial institutions and bilateral creditors. Higher deficits and the economic slowdown raised the ratio of external public debt to GDP by 9.4 percentage points in 2020. With sound foreign exchange buffers and debt servicing capability, the government decided not to participate in the Group of Twenty Debt Service Suspension Initiative, which allowed countries to suspend principal and interest payments on debts to official bilateral creditors from 1 May 2020, now extended to December 2021. As the COVID-19 crisis subsides, fiscal policy should aim to return to moderate fiscal deficits and keep public external debt on a sustainable path.

To ensure debt sustainability over the long term, the government adopted a medium-term debt management strategy that provides criteria for setting thresholds for public external borrowing each year. The ceiling is renewed and agreed annually with the legislature and reflects a reconciliation of financing needs with macroeconomic stability. The government has begun prioritizing new loan projects using a set of criteria that includes their alignment with sector reform, estimates of project feasibility and benefits, and procurement readiness to avoid delays and costly inefficiency. The Ministry of Finance has strengthened its capacity to analyze and monitor public debt by adopting the United Nations Conference on Trade and Development system for debt management and financial analysis. This system coordinates all external and domestic loans and regularly provides information to the Enhanced General Data Dissemination System of the International Monetary

Figure 3.8.10 Public external debt



Sources: The Central Bank of the Republic of Uzbekistan. https://cbu.uz/upload/medialibrary/a7a/en_BOP-IIP-EXD_4Q2020.pdf (accessed 2 April 2021); Asian Development Bank estimates.

Fund (IMF). Developments in debt policy are published on the government's webpage. In addition, the Ministry of Finance plans to diagnose the strengths and weaknesses of Uzbekistan's public investment management processes and implement the recommendations of the IMF's Public Investment Management Assessment. These improvements are expected to clear bottlenecks affecting public investment planning, allocation, and implementation while moderating borrowing needs.

External borrowing needs to be made still more transparent. Public information on the government's outstanding debt and contingent liabilities, as well as its terms, will help in making informed decisions on borrowing. This will also raise public awareness of the debt situation. Meanwhile, the international community should continue to spearhead efforts to support debt transparency, including through technical assistance. Sustained capacity development is needed in the Ministry of Investments and Foreign Trade and the Ministry of Finance for assessing project economic feasibility and appraising project benefits. The process for assessing fiscal risks, including from state-owned enterprises and public-private partnerships, should be enhanced. Improving the use of external borrowing will require the government to reduce its onlending to state-owned enterprises and banks, and to rebalance and direct its expenditures more toward infrastructure development and the implementation of social security programs. Finally, sustained efforts will be needed to mobilize capital from the private sector for projects involving public-private partnership.



EAST ASIA

Hong Kong, China

Mongolia

People's Republic of China

Republic of Korea

Taipei, China

Hong Kong, China

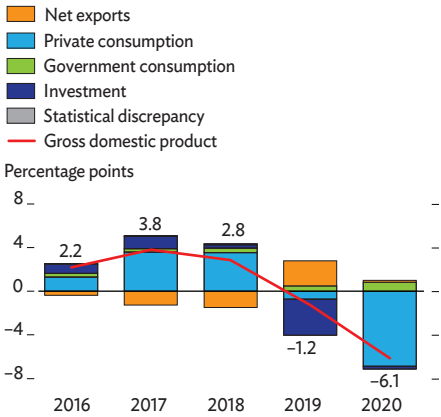
Depressed domestic demand caused record GDP contraction in 2020. Inflation cooled, and the current account surplus widened. The economy is expected to rebound this year and next with COVID-19 vaccine rollout, recovery in consumer sentiment, a more stable business environment, and fiscal support. Inflation will trend up in 2021 and 2022 in line with growth, and the current account surplus will narrow as imports strengthen. Future growth may be bolstered by becoming a green and sustainable finance hub.

Economic performance

After falling by 1.2% in 2019, GDP shrank further by 6.1% in 2020 under economic fallout from the COVID-19 pandemic, for the deepest recession in this economy since records began in 1961 (Figure 3.9.1). Strict lockdowns and travel restrictions took a huge toll on the economy as containment and social-distancing measures hit consumption and tourism-related services such as retail trade and accommodation and food. Buoyed by a rebound in international trade, external demand provided some lift to growth in the second half of the year.

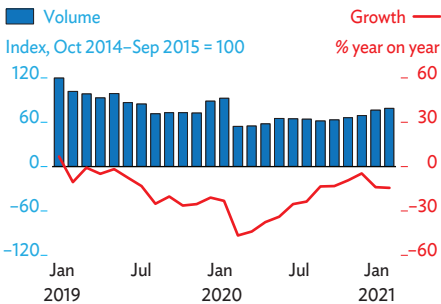
Domestic demand suffered a major hit in 2020. Dropping by 10.1% in real terms in 2020, private consumption took the sharpest decline on record and subtracted 6.9 percentage points from growth. The volume of retail sales slumped by 25.5%, and the value of restaurant receipts by 29.4%, reflecting severe disruption to food services caused by the pandemic (Figure 3.9.2). Labor market conditions deteriorated further as the seasonally adjusted unemployment rate rose to 6.6% in the fourth quarter. Gross fixed capital formation continued to contract last year, plunging by 11.5% and subtracting 2.2 percentage points from growth. Machinery and equipment acquisition and intellectual property licensing dropped by 19.2%, while expenditure on buildings and construction dipped by 8.2%. However, change in inventories added 2.0 points to growth, offsetting a fall in total investment. Meanwhile, reflecting an expansionary fiscal stance adopted to support the economy under the pandemic, government consumption expenditure rose markedly by 7.8% and contributed 0.8 points to growth.

Figure 3.9.1 Demand-side contributions to growth



Source: Census and Statistics Department. <https://www.censtatd.gov.hk/home/> (accessed 22 March 2021).

Figure 3.9.2 Retail sales



Source: Census and Statistics Department. <https://www.censtatd.gov.hk/home/> (accessed 22 March 2021).

This chapter was written by Matteo Lanzafame of the Economic Research and Regional Cooperation Department, ADB, Manila, and Michael Timbang, consultant, Economic Research and Regional Cooperation Department, ADB, Manila.

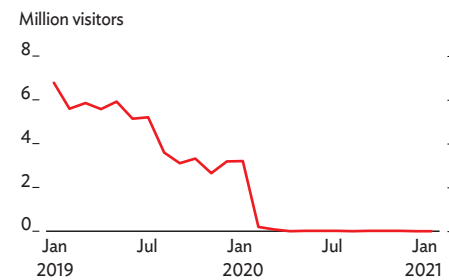
External demand saw some improvement in 2020 despite a weak global environment. A decline in goods exports narrowed from 4.6% in 2019 to 0.3% last year, underpinned by recovery in import demand from the People's Republic of China (PRC) and other major markets in the second half of the year. Exports to the US and the European Union declined, while exports to some other major Asian markets improved somewhat. By contrast, social-distancing and travel restrictions caused a decline in service exports to deepen further to 36.8%, the biggest annual decline on record. This largely reflected a collapse in tourist arrivals, which plunged by 93.6% and slashed travel service receipts by 90.5% (Figure 3.9.3). Exports of transport, business, and other services also fell as cross-border commercial activity remained sluggish. Meanwhile, a decline in goods imports narrowed to 2.1% last year, but service imports deteriorated further, falling by 35.1% as domestic demand weakened. In sum, net exports added 0.2 percentage points to growth.

On the supply side, the pandemic brought broad contraction in 2020. Notably, contraction in the service sector deepened from 0.3% in 2019 to 6.8% last year (Figure 3.9.4). Import and export, wholesale, and retail trade services were severely hit by COVID-19 containment measures, more than doubling their 6.2% decline in 2019 to 13.3%. A weak external environment reversed growth in manufacturing output by 0.4% in 2019 with 5.8% contraction in 2020. A fall in construction worsened as well, from 6.0% in 2019 to 7.9% last year. Meanwhile, accommodation and food services suffered one of the biggest falls as contraction in the industry deepened from 9.2% in 2019 to 43.0%. By contrast, finance and insurance, which provides 21.2% of total output, saw growth accelerate from 2.8% in 2019 to 3.9% last year.

Consumer price inflation decelerated from an average of 2.9% in 2019 to 0.3% in 2020 (Figure 3.9.5). Price pressures remained muted, reflecting subdued domestic and global economic conditions, lower housing rental costs, and softening food price inflation. Inflation turned negative in the second half of the year as social-distancing restrictions constrained economic activity during the third and fourth waves of the pandemic. Netting out the effects of all government one-off relief measures, the underlying inflation rate decelerated from an average of 3.0% in 2019 to 1.3% last year.

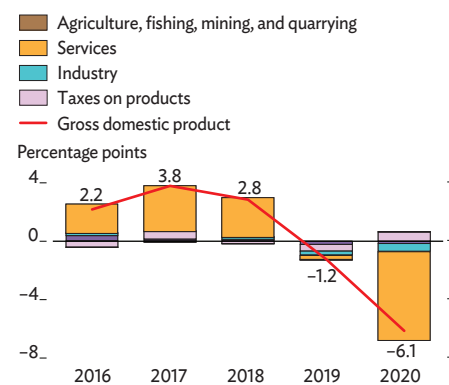
The current account surplus widened from the equivalent of 6.0% of GDP in 2019 to 6.6% in 2020 on a lower goods deficit and higher net primary income, partly offset by a narrower service surplus. The overall balance of payments crossed from a deficit equal to 0.3% of GDP in 2019 to a 9.7% surplus in 2020. Gross official reserves rose to \$491.8 billion at the end of 2020, or cover for 9.7 months of imports. Net external financial assets equaled 6.2 times of GDP at the end of 2020, providing this open economy with a large cushion against sudden external shocks.

Figure 3.9.3 Tourism indicators



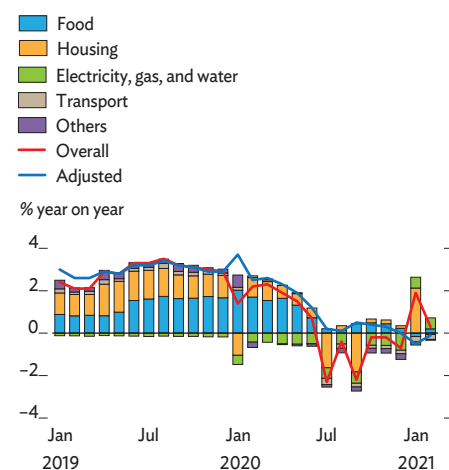
Source: CEIC Data Company (accessed 22 March 2021).

Figure 3.9.4 Supply-side contributions to growth



Source: Census and Statistics Department. <https://www.censtatd.gov.hk/home/> (accessed 22 March 2021).

Figure 3.9.5 Monthly inflation



Note: Adjusted inflation is the rate once the effects of temporary government subsidies are removed.

Source: CEIC Data Company (accessed 22 March 2021).

The government doubled its estimated budget deficit for fiscal year 2020 (FY2020, ended 31 March 2021) from 4.8% of GDP to 9.5% (Figure 3.9.6). Expenditure was 12.2% higher than the original estimate, reflecting an increase in the Anti-Epidemic Fund and other fiscal stimulus. In addition, revenue was 5.1% short of expectations with lower receipts from land premiums, though receipts from salaries taxes and stamp duties were higher than expected, owing to a deferred tax assessment cycle and hectic trading on the stock market.

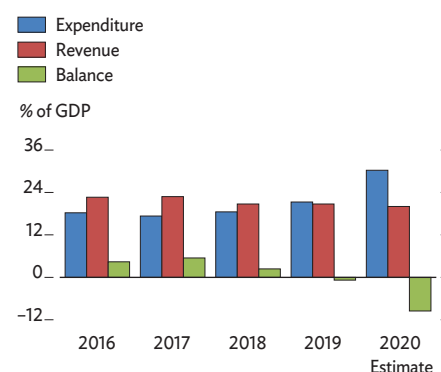
In response to the COVID-19 pandemic, monetary conditions remained broadly accommodative in 2020. Reflecting two downward shifts in the target range for the US federal fund rate in March and movements in overnight and 1-month Hong Kong Interbank Offered Rate during the year, the Base Rate decreased from 2.73% at the beginning of the year to close at 0.50%. Domestic credit grew by 1.6% in the year to December, while the Hong Kong dollar broad money (M3) supply rose by 6.5% (Figure 3.9.7). Reflecting the major decline in economic activity and softening global growth caused by the pandemic, the Hang Seng Index fell by 5.8% at the beginning of 2020 and by another 18.8% in March, at the peak of the first wave of the pandemic. It recovered toward the end of the year, as domestic and global conditions improved, to settle at a 3.4% decline by December (Figure 3.9.8).

Economic prospects

After 2 years of economic recession, GDP is projected to rebound by 4.6% in 2021 and 4.5% in 2022, buttressed by continued recovery in domestic and external demand (Figure 3.9.9 and Table 3.9.1). A COVID-19 vaccination campaign began in late February and, though no government timeline is available, coverage at more than 60% of the population is expected by the fourth quarter. As a result, private consumption and investment are poised to grow as containment measures gradually ease. Retail sales volume fell by 14.0% in December but is seen to recover in the near term as stringent social-distancing measures are progressively lifted. In addition, government relief measures—though projected to decline from the equivalent of 11.1% of GDP in 2020 to 4.4% this year—will continue to sustain domestic demand and economic recovery. Some travel restrictions should relax and provide much-needed relief to inbound tourism. On the external front, exports are forecast to grow by 5.0% in 2021 as they continue to benefit from strong growth in the PRC and gradual improvement in the global economy. Meanwhile, imports are anticipated 5.2% higher, causing net exports to subtract slightly from GDP growth.

On the supply side, business sentiment remained pessimistic in early 2021, but leading indicators suggest that its deterioration has since subsided. The composite purchasing managers'

Figure 3.9.6 Fiscal indicators

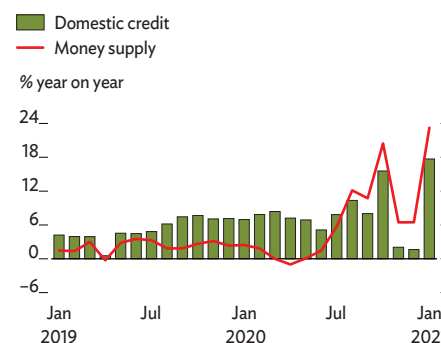


GDP = gross domestic product.

Note: Years are fiscal years ending 31 March of the next year.

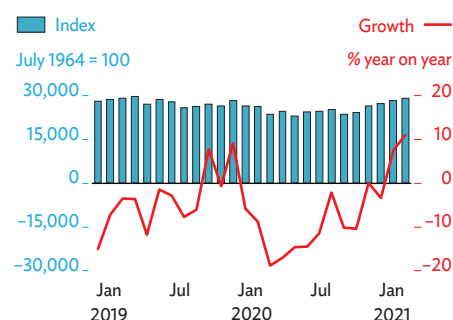
Sources: The Government of the Hong Kong Special Administrative Region of the PRC. *The 2020–2021 Budget*, and other years. <http://www.budget.gov.hk>; CEIC Data Company (both accessed 22 March 2021).

Figure 3.9.7 Domestic credit and money supply growth



Source: Hong Kong Monetary Authority. <https://www.hkma.gov.hk/> (accessed 22 March 2021).

Figure 3.9.8 Hang Seng Index



Source: CEIC Data Company (accessed 22 March 2021).

index slumped to 43.5 in December, reflecting a tightening of social distancing measures, but improved to 50.2 in February, indicating that businesses expect growth going forward (Figure 3.9.10). Services, providing about 93% of GDP, will naturally drive growth, in particular through trade, financial, and professional services. Assuming that pandemic-related disruption is contained from the second quarter of 2021, gradual recovery is anticipated in all areas later this year and next.

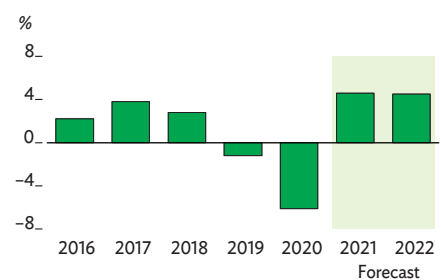
Inflation is forecast to average 1.3% in 2021 and 2.0% in 2022 (Figure 3.9.11). Consumer price inflation rose from a 0.7% decline in December 2020 to a 1.9% increase in January 2021, but private residential rental deflation over the past year and only moderate external price pressure will continue to constrain inflation in the first half of 2021. The rise in prices should be gradual and broadly based as the economy recovers, with most consumer price index components picking up in tandem with projected growth recovery.

Despite additional countercyclical fiscal measures to alleviate the burden from the pandemic, the FY2021 fiscal deficit is forecast to narrow to the equivalent of 3.6% of GDP as revenue increases by a forecast 8.8%, with earnings from land premiums anticipated growing by 12.1% and stamp-duty receipts by 16.5%. Meanwhile, recurrent expenditure, which rose by 7.6% in FY2020, is forecast to pick up further by 9.6% to provide additional stimulus to the economy. Education, social welfare, and health care are expected to absorb some 58% of government recurrent expenditure. In the medium term, public expenditure will account for 25% of GDP. Fiscal reserves are forecast to stabilize at the equivalent of about 22% of GDP by the end of FY2025, or cover for 12 months of government expenditure.

The forecast for the external sector is positive to the forecast horizon but subject to considerable uncertainty. Recent surges of COVID-19 infections in many major export markets, and the resulting reimposition of stringent containment measures, could slow their recovery, which may dent export growth. By contrast, imports are expected to rise further this year and next as domestic demand recovers. Net income and service receipts will also rise with increased trade and any easing of travel restrictions. On balance, the current account surplus is thus forecast to narrow to the equivalent of 5.5% of GDP this year and next (Figure 3.9.12).

Downside risks to the outlook derive from the pandemic and lingering weakness in the labor market. Hong Kong, China saw a fourth wave of local COVID-19 infections in the fourth quarter of 2020 and first quarter of 2021. Any abrupt deterioration or renewed outbreak, reviving more stringent containment measures, could squelch nascent recovery in consumption and investor sentiment, slowing projected economic recovery. Other risks could arise from potential setbacks in the vaccine rollout, especially widespread hesitancy as indicated in some surveys.

Figure 3.9.9 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

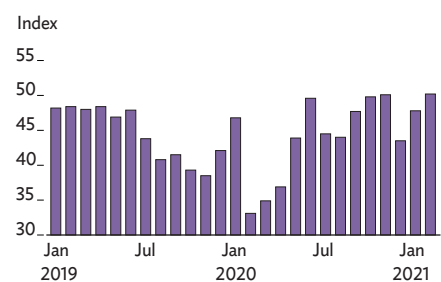
Table 3.9.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	-1.2	-6.1	4.6	4.5
Inflation	2.9	0.3	1.3	2.0
Current acct. bal., share of GDP	6.0	6.6	5.5	5.5

GDP = gross domestic product.

Sources: Census and Statistics Department; Asian Development Bank estimates.

Figure 3.9.10 Purchasing managers' index



Source: CEIC Data Company (accessed 22 March 2021).

The evolution of prickly PRC–US trade and technology relations also casts some doubt on sustained recovery in external trade.

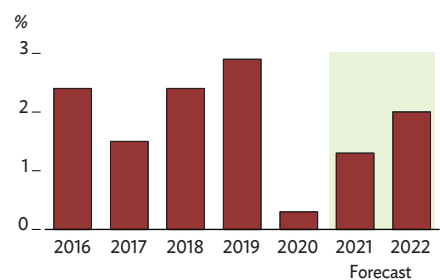
Protracted worsening in the labor market is another threat to economic rebound in Hong Kong, China. Labor market conditions deteriorated significantly last year, and despite some signs of stabilization in October, employment may face further downward pressure in the coming months with the recent uptick of new COVID-19 cases. As the expired government wage subsidy may not be renewed, any resulting rise in unemployment may exert further downward pressure on household spending. Nevertheless, the local economy is well positioned to counter these risks, buffered by ample fiscal reserves and a resilient financial system.

Policy challenge—becoming a green and sustainable finance hub

Demand is growing that environmental, social, and governance (ESG) standards be integrated into financial investments and business management. Financial markets, forward-looking by nature, have taken notice, and capital allocation is changing accordingly. The asset-management industry continually upgrades its adherence to ESG criteria, making them increasingly important to bond market access and the cost of capital. ESG performance is turning into a key indicator of companies' quality of management, thus further affecting the decisions of investors both large and small. These trends are bound to become increasingly important in shaping the future of finance with growth in the number of economies setting net-zero carbon targets.

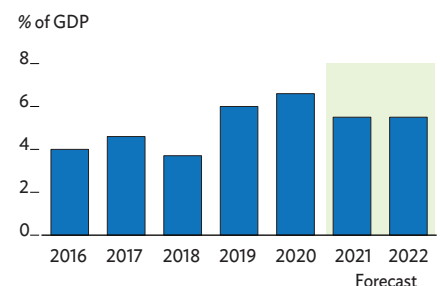
International financial centers have already started adapting to this rapidly changing landscape, vying to attract green investment and seize a first-mover advantage. The emergence of international sustainable-finance hubs is already on the horizon, and Hong Kong, China is well placed to become one of them (Figure 3.9.13). With its low tax and regulatory environment and well-established legal and reporting frameworks—and a large pool of talent with appropriate skill sets, know-how, experience, and networks—Hong Kong, China is an attractive venue for raising finance for ESG investments. Its most significant advantages, however, are undoubtedly its geo-economic proximity to and financial connectedness with the PRC. Already the world's largest carbon-trading market and Asia's leading issuer of green bonds, the PRC announced in September 2020 a pledge to become carbon neutral by 2060. This will boost the flourishing PRC green bond market, which global investors can already access through the Bond Connect Scheme, a mutual market access framework connecting financial institutions in the PRC with those in Hong Kong, China. ESG-related policy is playing an increasingly active role, as illustrated by

Figure 3.9.11 Inflation



Source: Asian Development Outlook database.

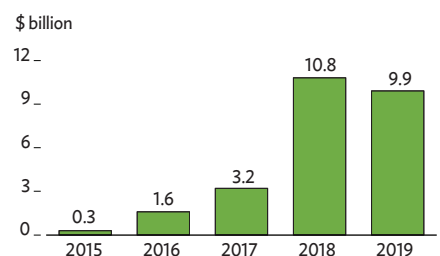
Figure 3.9.12 Current account balance



GDP = gross domestic product.

Source: Asian Development Outlook database.

Figure 3.9.13 Green bonds arranged and issued in Hong Kong, China



Source: Hong Kong Institute for Monetary and Financial Research. 2020. *The Green Bond Market in Hong Kong: Developing a Robust Ecosystem for Sustainable Growth*.

a multipronged strategic plan presented last December by the Green and Sustainable Finance Cross-Agency Steering Group. Since May 2020, this group has been charged with coordinating government strategies for the growth of green finance and the management of climate and environmental risks to the financial sector.

Important challenges nevertheless remain for growth in sustainable finance in Hong Kong, China. A lack of international standards for ESG reporting and rating is a major obstacle, as it hampers transparency in green-finance investment and abets green-washing, or the provision of misleading information to convey a false impression that a company's products are more environmentally friendly than they really are. Increasing awareness and understanding of green finance is critical, especially in light of market perceptions that returns on green investments may sacrifice some financial gain to achieve a social benefit.

In this respect, the Sustainable & Green Exchange, an online portal recently launched by the Hong Kong Exchanges and Clearing Limited, attempts to help issuers build awareness of their ESG efforts through the disclosure of relevant information. A further step in that direction could rely on the development of financial tech tools that allow investors to easily monitor, after their initial investment, the extent to which their capital is being used in line with ESG criteria. More broadly, the Investor and Financial Education Council—an organization dedicated to improving financial literacy in Hong Kong, China—can play a significant role by providing information and educational content on green finance to less-experienced investors and the general public.

However, competition from other financial centers in Asia and beyond is probably the greatest challenge to achieving progress in green finance. Policy actions in response will be crucial, particularly the intensification of global and regional efforts to promote a green and inclusive recovery motivated by the COVID-19 pandemic (as discussed in the theme chapter of this volume). The strategic plan of the Green and Sustainable Finance Cross-Agency Steering Group lays out several policy areas for strengthening the management of climate-related financial risks, notably (i) integrating these risks into regulatory frameworks and supervisory requirements for financial institutions and listed companies, (ii) creating incentives for innovation aiming to facilitate capital flow toward green and sustainable causes, and (iii) capitalizing on opportunities associated with green investments in the Guangdong–Hong Kong–Macau Greater Bay Area, which are available to a much larger extent in Hong Kong, China than further afield. How effective these policy efforts turn out to be will ultimately determine whether Hong Kong, China can outclass competitors in the race to become a green and sustainable finance hub.

Mongolia

Growth contracted substantially in 2020 as COVID-19 slumped industrial output and investment, with knock-on effects across the economy. Both inflation and the current account deficit declined under curtailed domestic activity. Growth will recover gradually in 2021 and accelerate in 2022 as pandemic risks fade and global recovery strengthens. The current account deficit and inflation will both rise as domestic demand recovers. After several halting attempts at bank reform, Mongolia urgently needs to improve its design and implementation.

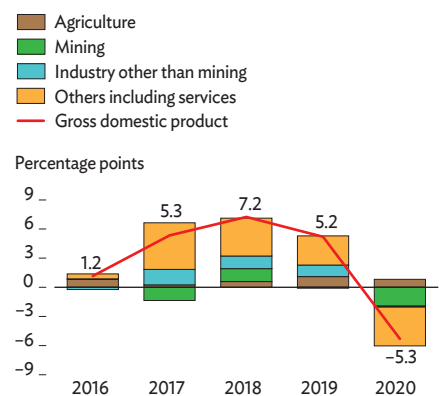
Economic performance

After 3 years of robust growth, the economy plunged into deep contraction as negative spillover from mining retrenchment was compounded by mobility restrictions under COVID-19. The economy reversed 5.2% growth in 2019 to shrink by 5.3% in 2020. This was the first contraction in 11 years and the deepest since 1992, with 5.4% of jobs that existed in 2019 lost during 2020. Trade, services, and other businesses aside from mining, other industry, and agriculture contracted by 7.7% to subtract 4.0 percentage points from GDP growth. A 9.0% fall in exports of goods and services included commensurate contraction in mining, mainly in coking coal and crude oil production, which dragged growth down by another 1.9 points, while stagnation in manufacturing and construction subtracted another 0.2 points. Only agriculture expanded, by 6.2%, to contribute 0.8 points to growth (Figure 3.10.1).

On the demand side, expanded social protection schemes and tax relief measures under the government's countercyclical fiscal policy increased both government and private consumption, contributing 3.8 points to growth. In contrast to 2019, net exports contributed 10.0 points, primarily owing to a substantial decrease in imports of goods and services. Meanwhile, investment dragged growth down by 19.1 points with a 28.8% decline in net foreign direct investment, while government capital expenditure remained flat (Figure 3.10.2).

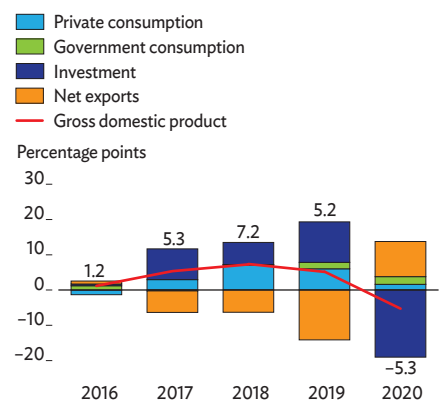
Temporary supply shocks and higher prices for imported food kept food inflation high at 8.5%, but a decline in utility and transportation costs and lower increases for nonfood items slowed average annual inflation to 3.7% in 2020 (Figure 3.10.3). The Mongolian togrog depreciated against the US dollar by 4.2% despite a substantially narrower current account deficit and a surplus of \$787 million in the overall balance of payments (Figure 3.10.4).

Figure 3.10.1 Supply-side contributions to growth



Sources: National Statistics Office of Mongolia. Statistical Information Services. <http://1212.mn> (accessed 19 February 2021); Asian Development Bank estimates.

Figure 3.10.2 Demand-side contributions to growth



Sources: National Statistics Office of Mongolia. Statistical Information Services. <http://1212.mn> (accessed 19 February 2021); Asian Development Bank estimates.

The fiscal balance deteriorated by an amount equal to 11.0% of GDP as revenue decreased by 12.9% while expenditure increased by 22.1% on a surge in spending on social protection, driving a large primary budget deficit equal to 7.0% of GDP and an overall budget deficit equal to 9.6% (Figure 3.10.5). The structural fiscal deficit also widened, to 12.3% of GDP, or 7.2 percentage points more than budgeted in 2020. Under economic contraction and a large fiscal deficit, public debt including central bank external liabilities rose to equal 92.4% of GDP.

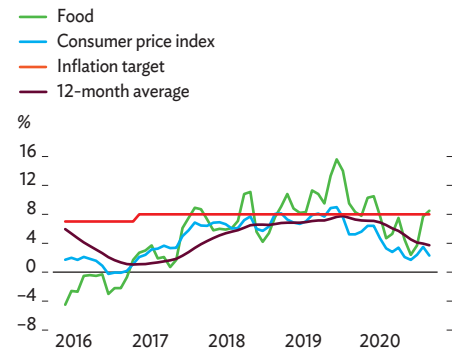
The Bank of Mongolia, the central bank, deferred consumer and housing mortgage loan repayment to ease pressure on retail borrowers, and it temporarily eased asset classification and provisioning regulations to provide more flexibility to lenders and corporate borrowers. Nonperforming and overdue loans nevertheless rose by 24.0% to 18.5% of all loans (Figure 3.10.6). Further, the central bank cut the policy rate by a total of 5 percentage points to 6%, reduced the local currency reserve requirement ratio to 6%, and launched at the end of 2020 a new credit support instrument that enabled banks to refinance loans through repurchase operations and provide new lending to exporters outside of mining and to small and medium-sized enterprises. However, credit contraction continued, and banks' loan portfolios shrank by 4.1% in the year to December 2020, revealing a tightening appetite for risk and a lack of credit support to businesses. Broad money supply grew by 16.3% as term deposits in both local and foreign currencies rose.

The current account deficit shrank by 11.0 points to equal 4.4% of GDP, partly reflecting 52.6% growth in the merchandise trade surplus as imports shrank by 12.7%, outpacing 2.2% contraction in exports (Figure 3.10.7). The service and income balances also improved with lower outward tourism, service imports, and investment income outflow. Net portfolio investment fell into a deficit half again as large as the 2019 surplus, mainly because a large sovereign-guaranteed bond was fully repaid and portfolio investment inflow declined sharply. Foreign exchange reserves climbed to a historic high of \$4.5 billion, or cover for 7.4 months of imports of goods and services, on higher inflow of development financing and a large increase in the value of gold assets (Figure 3.10.8).

Economic prospects

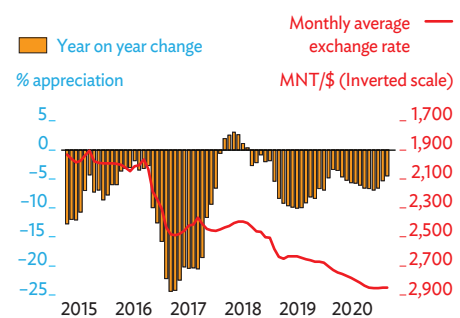
Mongolia's growth prospects in 2021–2022 will depend largely on the COVID-19 situation, the pace of economic recovery in the People's Republic of China, and how quickly commodity exports rebound. Other important factors are the investment climate, private sector credit growth, and how effectively the COVID-19 policy response revitalizes the economy. Until the achievement of the vaccination target—60% of the population by the end of 2021—concern about public health will

Figure 3.10.3 Inflation



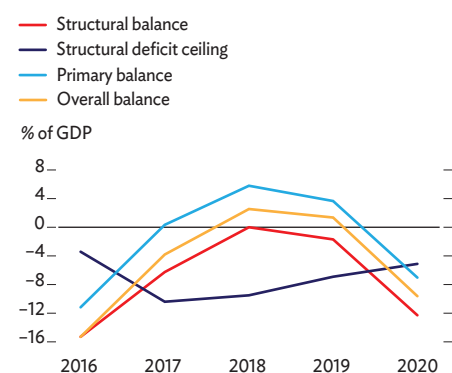
Sources: National Statistics Office of Mongolia. Statistical Information Services. <http://1212.mn> (accessed 28 January 2021); parliamentary resolution on monetary policy guidelines for 2014–2020. <http://legalinfo.mn> (accessed 28 January 2021); Asian Development Bank estimates.

Figure 3.10.4 Exchange rate and central bank bills



Sources: Bank of Mongolia. <http://stat.mongolbank.mn> (accessed 5 February 2021); Asian Development Bank estimates.

Figure 3.10.5 Government budget



GDP = gross domestic product.

Note: Structural balance is the difference between total expenditure and underlying revenue.

Sources: National Statistics Office of Mongolia. Statistical Information Services. <http://1212.mn> (accessed 23 February 2021); parliamentary resolutions on the government budget, 2015–2021. <http://legalinfo.mn> (accessed 19 February 2021). Asian Development Bank estimates.

continue to dampen domestic demand and business confidence, suggesting that recovery will be gradual in 2021. Driven by favorable terms of trade and higher export demand for coking coal, copper, and iron ore, GDP growth is forecast to recover to 4.8% in 2021 (Figure 3.10.9 and Table 3.10.1). Agriculture and industry together are forecast to contribute 2.9 percentage points to growth, with the rest coming from positive spillover to transportation and other services. Even as COVID-19 response measures persist until at least the middle of 2021, private consumption will continue to contribute to growth, and the investment contribution will turn positive as domestic demand gradually rises.

Business sentiment and economic prospects will be much better in 2022 as COVID-19 concerns ease. Growth will climb to 5.7%, boosted by domestic demand, investment, increased private credit, and full recovery in agriculture, industry, trade, and services. The contribution to growth from government consumption is expected to decline in 2022 as the structural deficit shrinks to 3.6% of GDP in line with the Law on Fiscal Stability, 2010. The contribution of investment to growth is forecast to remain positive, but net exports will start to drag on growth in 2022 as imports rise.

Inflation will accelerate to 6.9% in 2021 and 8.5% in 2022, rising above the 6.0% medium-term inflation target set by the central bank as the economy and demand recover, fuel prices increase, and exchange rate effects pass through to prices for imported goods (Figure 3.10.10).

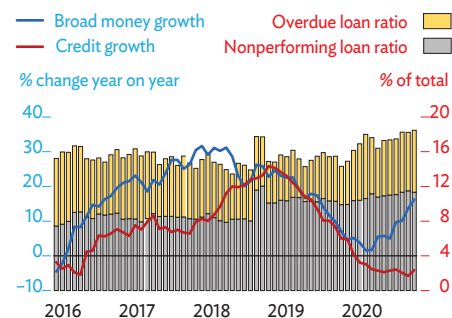
The current account deficit is projected to widen in both 2021 and 2022, mainly on an expected increase in imports of goods and services in conjunction with rising domestic demand, higher imports of machinery and equipment as mining recovers, and higher international oil prices.

Downside risks to the outlook would be deterioration in the investment climate, prolonged impacts from COVID-19 on economic activity, or by slow implementation of the vaccination program, which would limit improvement in business confidence and domestic demand. Possible problems in designing and implementing the economic stimulus program and its financing schemes could have adverse implications for recovery.

Policy challenge—designing and implementing bank reform

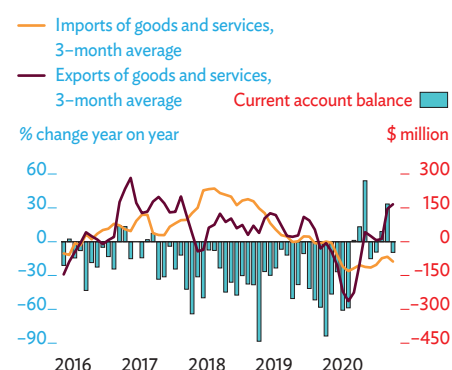
Mongolia needs to accelerate bank reform to strengthen sector resilience, improve governance and institutional capacity, and enhance the legal, regulatory, and supervisory framework. It has initiated bank reform several times since its transition to a two-tier bank system in the early 1990s, always during or after economic or financial crises. However, reform programs

Figure 3.10.6 Money and credit growth



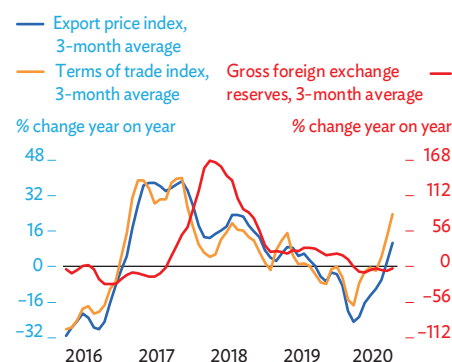
Sources: Bank of Mongolia. Monthly Statistical Bulletin and Banking Sector Consolidated Balance Sheet. <http://stat.mongolbank.mn> (accessed 5 February 2021); Asian Development Bank estimates.

Figure 3.10.7 External balance



Sources: Bank of Mongolia. Balance of Payments Statistics. <http://stat.mongolbank.mn> (accessed 11 February 2021); Asian Development Bank estimates.

Figure 3.10.8 Terms of trade and gross foreign exchange reserves



Sources: Bank of Mongolia. Statistical Database. <http://stat.mongolbank.mn> (accessed 12 February 2021); Asian Development Bank estimates.

have been effective, or not, depending on commitment from the authorities, the design and structure of reform, the overall economic situation, and evolving market conditions.

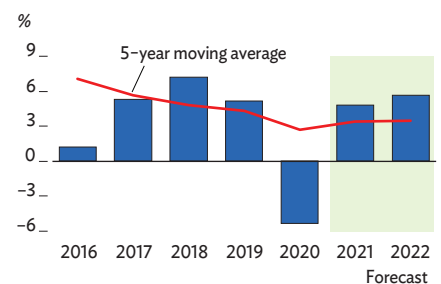
Mongolia's bank industry faces several challenges, periodically accentuated by the global financial crisis of 2008–2009, economic difficulties in 2012–2016, and the recent COVID-19 crisis. First is a large volume of assets impaired by quality deterioration and recurrent shocks, the lack of a state-owned or private asset management company, highly illiquid domestic money markets, and volatile economic and financial conditions. Second are country risk factors that inhibit any strengthening of banks' capital position, resilience, or confidence, the factors stemming from the investment climate, policy inconsistency and unpredictability, and low stakeholder commitment. Third is insufficient progress, despite being top priorities for the authorities, toward improving governance, establishing an integrated risk management framework and code of practice, and upgrading supervision.

In September 2020, the central bank endorsed a comprehensive and ambitious program of bank reform for 2020–2023. As a follow-up measure under this plan, the legislature approved an amended banking law that requires systemically important banks (SIBs) to become open joint-stock ventures by the end of June 2022, with single shareholders limited to a maximum of 20% of shares by December 2023. The effective implementation of these legal requirements hinges on ensuring the feasibility of five or six banks issuing initial public offerings within a legally set timeframe of 12 months from July 2021 to June 2022, and domestic and foreign investors being able to absorb the offering.

To address these preconditions for success, comprehensive regulatory and supervisory capacity needs to be established in both the central bank and Financial Regulatory Commission to regulate open joint-stock SIBs. Meanwhile regulators are under considerable time pressure to enforce new bank law provisions, as are SIBs to comply with them. SIBs should become seasoned enough to meet rigorous, upgraded regulations and internationally recognized requirements for a public company, and to assume the higher operating costs and risks associated with being a public company. Most importantly, before banks are allowed to list an initial public offering, their governance, risk management mechanisms, disclosure standards, and reporting practices should be improved significantly, with concomitant improvement in their equal treatment practices, protection of minority shareholders, transparency, and prudent and sustainable banking practices.

Finally, a favorable investment and business-enabling environment is key to attracting prospective foreign investors and thereby broadening the capital base for the banking industry.

Figure 3.10.9 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

Table 3.10.1 Selected economic indicators, %

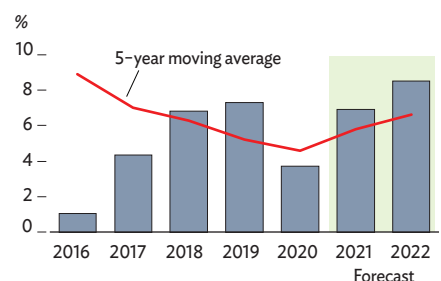
	2019	2020	2021	2022
GDP growth	5.2	-5.3	4.8	5.7
Inflation	7.3	3.7	6.9	8.5
Current acct. bal., share of GDP	-15.4	-4.4	-8.3	-10.7

GDP = gross domestic product.

Sources: National Statistics Office of Mongolia.

Statistical Information Services; Asian Development Bank estimates.

Figure 3.10.10 Inflation



Source: Asian Development Outlook database.

People’s Republic of China

The economy continues to recover despite persistent pandemic uncertainty. Driven by strong exports and gradual recovery in household consumption, growth will likely surge in 2021 from a low base before returning to trend in 2022. Inflation is projected to decline in 2021, with household demand still recovering, and then pick up in 2022. The current account balance is forecast to stay in surplus as it moderates in 2022. The authorities should help banks address their nonperforming loans to mitigate systemic risk.

Economic performance

As COVID-19 containment measures and sizable fiscal and monetary policy support took effect, the economy of the People’s Republic of China (PRC) recovered gradually from 6.8% contraction in the first quarter (Q1) of 2020 to 6.5% growth in Q4 2020. Nevertheless, GDP growth in the whole year fell sharply from 6.0% in 2019 to 2.3% in 2020 (Figure 3.11.1).

On the demand side, investment was the predominant driver of growth in 2020, contributing 2.2 percentage points (Figure 3.11.2). According to Asian Development Bank estimates, growth in nominal fixed asset investment recovered from contraction in Q1 2020 as public infrastructure investment increased in Q2, before moderating in the second half (H2) of 2020 (Figure 3.11.3). In line with strong export performance in H2 2020, manufacturing investment picked up notably in Q4 2020. Growth in real estate investment rebounded in Q2 and remained solid for the balance of the year, growing by 7.0% in response to strong housing demand. Investment in infrastructure expanded by only 0.9% in 2020. Growth in fixed asset investment overall slowed from 5.4% in 2019 to 2.9%.

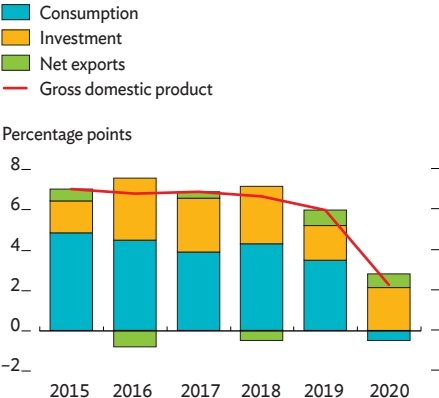
Consumption sharply reversed its 3.5-percentage-point contribution to growth in 2019 by subtracting half a percentage point in 2020 in line with declines in household consumption and retail sales. While real growth in household income moderated from 5.8% a year earlier to 2.1%, household consumption plunged from 5.5% expansion in real terms in 2019 to 4.0% contraction in 2020 (Figure 3.11.4). Retail sales reversed 6.0% expansion in real terms in 2019 to contracted by an estimated 5.3% in 2020.

Figure 3.11.1 Economic growth



Q = quarter.
Sources: CEIC Data Company (accessed 22 March 2021); Asian Development Bank estimates.

Figure 3.11.2 Demand-side contributions to growth



Source: CEIC Data Company (accessed 22 March 2021).

This chapter was written by Dominik Peschel, Jian Zhuang, and Wen Qi of the People’s Republic of China Resident Mission, ADB, Beijing.

Driven by robust exports in H2 2020, the merchandise trade surplus widened in 2020, while travel restrictions narrowed the deficit in service trade. Net exports' contribution to growth nevertheless eased by 0.2 percentage points to 0.6 points in 2020 as imports of key commodities increased by volume.

On the supply side, services just barely remained the main contributor to growth with 1.1 percentage points, despite sector growth slowing by 5.1 percentage points to 2.1% in 2020 (Figure 3.11.5). Hit hard by COVID-19, accommodation and catering declined by 13.1% and business services by 5.3%. As consumption recovered in H2 2020, wholesale and retail trade contracted by only 1.3% in 2020, while financial services expanded by 7.0% and information technology maintained double-digit growth at 16.9%.

Growth in industry including mining, construction, and utilities fell by 2.3 percentage points to 2.6% in real terms, which halved the sector's contribution to growth in 2020 to 1.0 point. Manufacturing rebounded in Q2 2020, especially in the automotive, electrical, and electronics industries. High-tech—including information technology, computers, and medical instruments—continued to expand strongly as investment in these industries grew at double-digit rates. Growth in mining, by contrast, plunged by 4.5 points to 0.5% in 2020 as global demand and commodity prices weakened. Construction expanded by 3.5%, or 1.7 points less than in 2019.

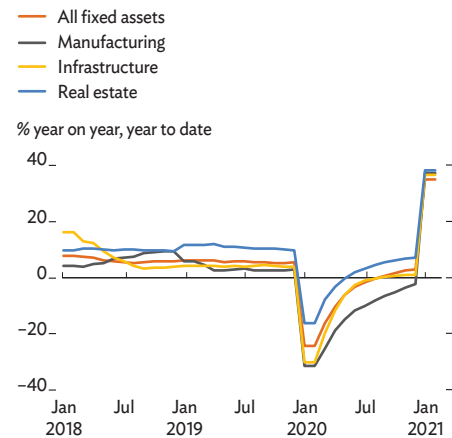
Agriculture grew by 3.0%, or 0.1 points less than a year earlier, but the sector's small share of GDP kept its contribution to growth unchanged at 0.2 points.

Though the labor market gradually recovered in tandem with the economy, newly created urban jobs lagged past years' numbers. The surveyed urban unemployment rate retreated from its peak at 6.2% in February 2020 to 5.2% in December 2020, matching the rate at the end of 2019. However, the number of rural labor migrants working in urban areas was 169.6 million at the end of 2020, or 4.7 million less than a year earlier, indicating that employment opportunities for labor migrants in cities were still down from 2019.

Consumer price inflation slowed from an average of 2.9% in 2019 to 2.5% (Figure 3.11.6). Inflation was driven by a 10.9% increase in food prices, with African swine fever pushing pork prices nearly two-thirds higher on average than in 2019. Nonfood inflation moderated by a full percentage point to 0.4%, while producer prices declined by 1.8%, mostly reflecting lower commodity prices. Prices for newly constructed homes in the top 70 cities were on average 4.9% higher in 2020 than a year earlier, with price increases in sampled cities converging (Figure 3.11.7).

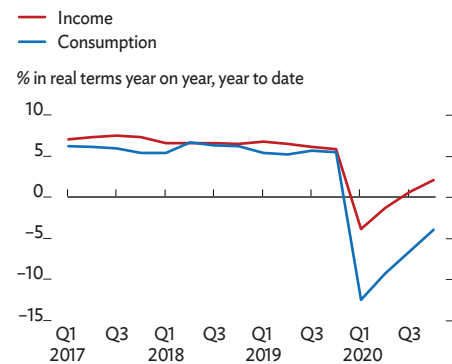
Monetary policy normalized in H2 2020 after liquidity injections in response to COVID-19 temporarily drove short-

Figure 3.11.3 Growth in fixed asset investment



Source: CEIC Data Company (accessed 22 March 2021).

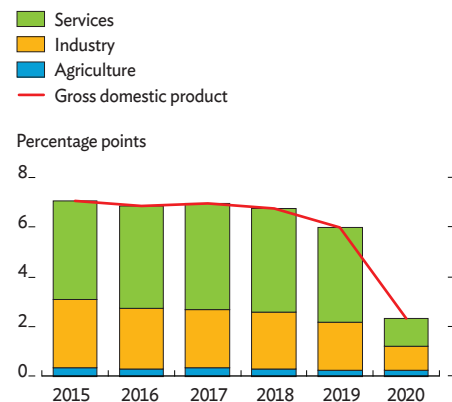
Figure 3.11.4 Growth in income and consumption expenditure per capita



Q = quarter.

Source: CEIC Data Company (accessed 22 March 2021).

Figure 3.11.5 Supply-side contributions to growth



Source: CEIC Data Company (accessed 22 March 2021).

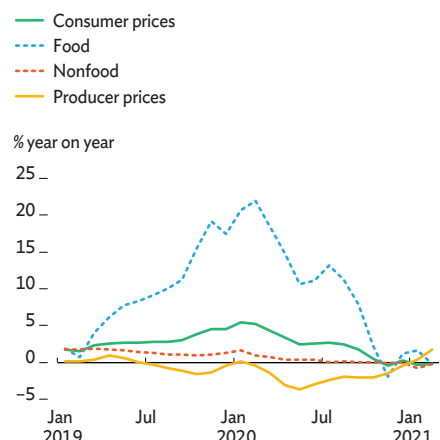
term interbank rates down (Figure 3.11.8). To reduce financing costs for the real economy, the People's Bank of China, the central bank, cut the 1-year medium-term lending facility rate twice in H1 2020 by a total of 30 basis points to 2.95% (Figure 3.11.9). As a result, the 1-year loan prime rate fell from 4.15% in January 2020 to 3.85% in April 2020 and since has remained unchanged. Concerns about financial risks brought some regulatory tightening in H2 2020 aimed at real estate developers and financial technology companies.

Financing available to the real economy expanded in 2020. Total social financing—a broad credit aggregate that includes bank loans, shadow bank lending, government bonds, corporate bonds, and equity financing—was up by 13.3% at the end of 2020, bettering 10.7% growth a year earlier (Figure 3.11.10). While shadow bank financing declined by 5.9%, bank loans outstanding increased by 13.0% as lending was expanded to stabilize the economy. Government bonds outstanding were up by 22.1% to meet increased government financing needs, enabled by a higher annual quota for new local government special bonds. Reflecting credit expansion, broad money (M2) growth accelerated from 8.7% in 2019 to 10.1% in 2020.

Fiscal policy remained supportive to mitigate the adverse economic effects of COVID-19. The annual budget deficit increased from the equivalent of 4.9% of GDP in 2019 to 6.2% in 2020 (Figure 3.11.11). Hit by the COVID-19 shock to the economy and tax relief, fiscal revenue declined by 3.9% in 2020. In particular, value-added tax collection suffered from tax relief measures (as discussed in *Asian Development Outlook 2020*). Fiscal expenditure grew by only 2.8% as the government controlled outlays in categories not key to coping with the pandemic. Outlays for urban and rural community affairs and environmental protection thus fell substantially, while spending on health care and social security and employment rose by double-digit rates. New local government special bond issues—not included in the general budget—amounted to CNY3.6 trillion in 2020, or 96.1% of the annual quota of CNY3.75 trillion (Figure 3.11.12).

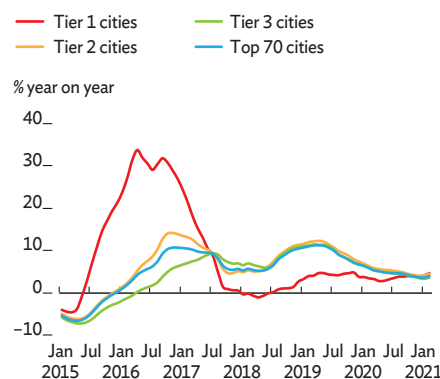
The current account surplus rose from the equivalent of 0.7% of GDP in 2019 to 1.9% in 2020 as the merchandise trade surplus expanded by 31.0% while the service deficit narrowed by 44.4% (Figure 3.11.13). With external trade picking up notably in H2 2020, merchandise exports rose by 4.6%, while imports in 2020 declined by only 0.6%. Exports benefited from high global demand for personal protection equipment under the pandemic, which fueled increased demand for fabrics, plastic articles, and medical instruments. Furniture, computers, and mobile phones boosted exports in H2 2020 as global demand for home office equipment increased. Geographically, exports to the United States increased by 8.2% in 2020, to the European Union excluding the United Kingdom by 7.4%, and to

Figure 3.11.6 Monthly inflation



Source: CEIC Data Company (accessed 22 March 2021).

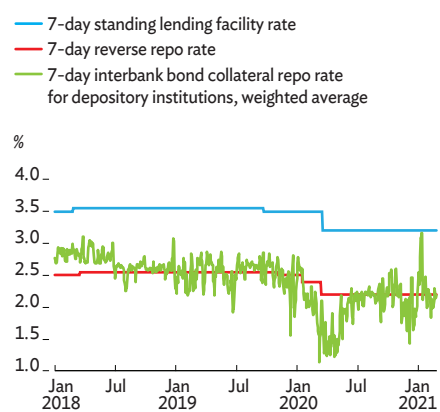
Figure 3.11.7 Price increase for newly constructed homes



Note: Tier 1 cities are Beijing, Guangzhou, Shanghai, and Shenzhen; tier 2 has 31 provincial capitals and larger municipalities; and tier 3 has 35 other cities.

Sources: CEIC Data Company (accessed 22 March 2021); Asian Development Bank estimates.

Figure 3.11.8 Short-term policy and interbank rates



Source: CEIC Data Company (accessed 22 March 2021).

Southeast Asia by 6.9%, while exports to Japan contracted by 0.3%.

Despite COVID-19, the PRC attracted more foreign direct investment (FDI) in 2020 than a year earlier (Figure 3.11.14). Net FDI increased from the equivalent of 0.4% of GDP in 2019 to 0.7% in 2020 as inflow outgrew outflow. The recovery in domestic demand and solid export performance in H2 2020 helped FDI inflow pick up from a low base. Similarly, capital inflow into the PRC bond market was strong in 2020, driven by a widening spread in interest rates as global rates fell while those in the PRC recovered quickly from Q1, when the PRC was the first country hit by the pandemic and capital inflow suffered. Yield on the 10-year PRC government bond stood at 3.15% at the end of 2020, virtually unchanged from 3.16% at the end of 2019. Meanwhile, capital outflow from the PRC in the form of loans to foreign entities, trade credit, and deposits abroad increased notably, especially in H2 2020. Reserve assets increased moderately by \$133.6 billion to stand at \$3.36 trillion at the end of 2020.

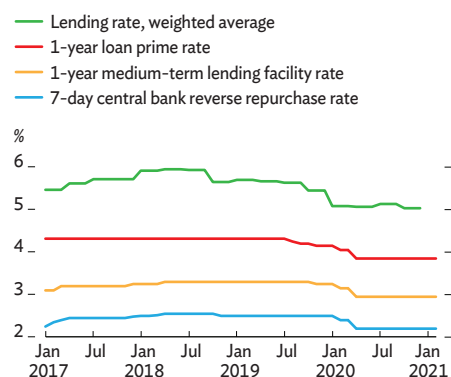
The renminbi appreciated by 6.5% against the US dollar over the course of 2020 (Figure 3.11.15). It appreciated by 4.0% in nominal effective terms, against a trade-weighted basket of currencies, and by 3.4% in real effective terms, taking inflation into account.

Economic prospects

Reflecting the sharp GDP contraction in Q1 2020, economic growth is expected to spike at a double-digit rate in Q1 2021 and then gradually moderate over the course of the year. The recovery in household consumption is expected to continue in 2021. More moderate fiscal support seems likely as the government reprioritizes reining in the budget deficit and reducing infrastructure spending financed by new local government special bonds to a more sustainable level. Concern for financial stability will see selective tightening of monetary and macrofinancial policies. Taking all of this into account, GDP is forecast to expand by 8.1% in 2021 and grow steadily by 5.5% in 2022 (Table 3.11.1).

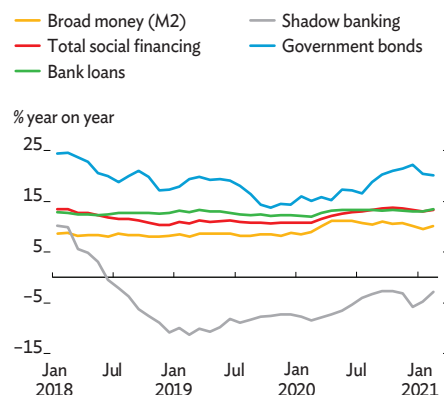
On the demand side, consumption is expected to recover further despite restricted travel during this year's Lunar New Year holiday as quarantine and testing requirements were revived to contain new clusters of COVID-19 in early 2021 (Figure 3.11.16). The recovery will be driven by improvement in the job market, restored consumer confidence, and the release of pent-up household demand. Though the housing market will remain a driver of growth, tightening measures taken to rein in financing for real estate developers will dampen construction and weigh on consumer purchases of home furnishings and the like. Infrastructure investment is expected to remain subdued

Figure 3.11.9 Bank lending and policy rates



Source: CEIC Data Company (accessed 22 March 2021).

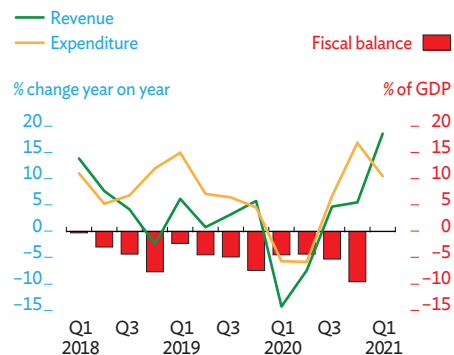
Figure 3.11.10 Growth in broad money, credit outstanding, and government bonds outstanding



Note: Shadow banking comprises entrust loans, trust loans, and banks' acceptance bills.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 22 March 2021).

Figure 3.11.11 General government fiscal revenue and expenditure



GDP = gross domestic product, Q = quarter.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 29 March 2021).

in 2021 after the quota for new local government special bonds was marginally reduced. At the same time, manufacturing investment is expected to be a key driver of investment, supported by ongoing export growth and reviving domestic demand.

As the economy recovers, consumption should regain its position as the primary contributor to growth in 2021 and 2022, followed by investment and net exports. The contribution of net exports is expected to increase temporarily in 2021 before retreating in 2022.

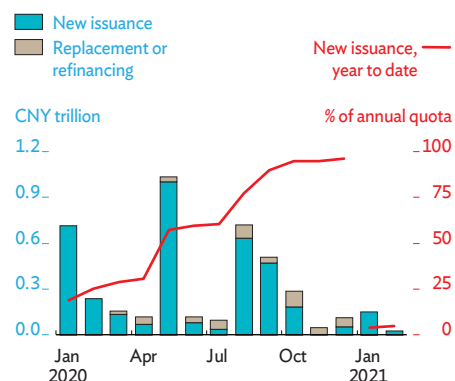
On the supply side, growth in services will likely continue to recover in 2021 despite uncertainty surrounding the pandemic. Hospitality, recreation, and tourism will profit from the rollout of COVID-19 vaccinations. Meanwhile, financial services may experience slower loan growth as banks see more restrictions on mortgages and other property-related loans. Slower expansion in infrastructure and real estate investment is expected to dampen growth in construction and related upstream industries such as steel and cement. Manufacturing, fueled by ongoing merchandise export growth, is expected to grow solidly, as is machinery, which should profit from increased manufacturing investment. High-tech and innovative industries will continue to benefit from government support. In 2022, growth in industry is expected to normalize, and growth in services to recover in full. Agriculture should expand steadily in line with growth rates in recent years.

The labor market is expected to improve further in 2021. In the wake of the pandemic curbing new job creation in urban areas in 2020, the persistence of COVID-19 may delay some new hiring in the service sector until COVID-related restrictions are lifted, while employment in manufacturing should profit from expansion in external trade. At the same time, with cohorts of university graduates competing for a limited number of jobs and some rural labor migrants yet to return to the cities, the labor market will likely need until 2022 to regain its previous strength.

Despite deflation staging an appearance in early 2021 when nonfood inflation dropped below zero, consumer price inflation is expected to average 1.5% in 2021. As African swine fever wanes, moderate pork price deflation will likely hold food inflation in check, but nonfood inflation may stir over the course of the year as prices for services rise. Reflecting recovering commodity prices and higher prices for industrial products, producer prices are expected to pick up notably in 2021 but without much pass-through to consumer prices. Consumer price inflation is forecast to return to trend in 2022, reviving to 2.3% as domestic and global demand recovers.

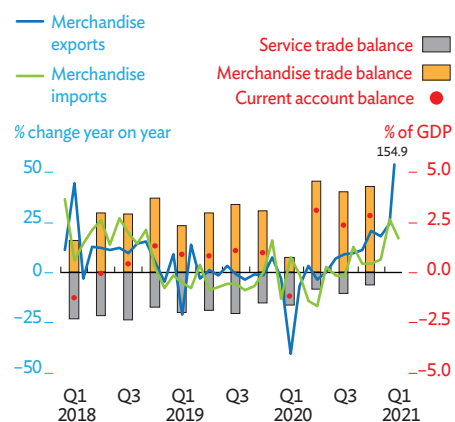
Monetary policy will likely prioritize financial stability to a larger extent, especially in regard to real estate and shadow bank financing. More probable than changes to key policy rates

Figure 3.11.12 Local government special bond issues



Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 29 March 2021).

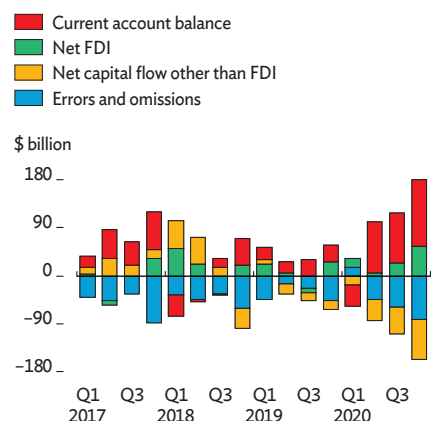
Figure 3.11.13 Current account balance and merchandise trade



GDP = gross domestic product, Q = quarter.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 29 March 2021).

Figure 3.11.14 Balance of payments



FDI = foreign direct investment, Q = quarter.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 31 March 2021).

is tightened liquidity, which will see credit growth moderate slightly in 2021. Nonperforming loans (NPLs) are expected to increase with the eventual end of a loan repayment moratorium for eligible micro, small, and medium-sized enterprises and other qualified firms. The moratorium was scheduled to close at the end of March 2021, but early in that month the central bank announced its extension to the end of 2021. While the central bank will likely guide credit growth mainly through liquidity adjustments, targeted cuts in the reserve requirement ratio remain an option to provide qualified banks with additional funds for lending.

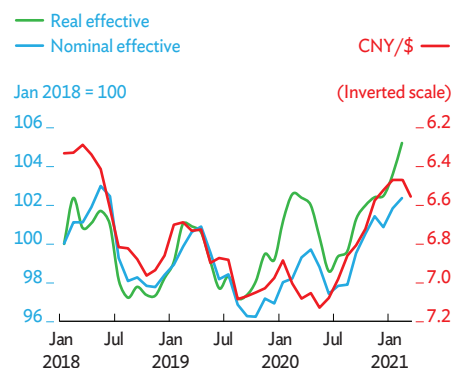
Another round of tightening on shadow bank financing and the resumption of asset management reform—held in abeyance as the COVID-19 shock precluded stricter financing conditions—will curtail companies' financing options aside from banks. While bond financing will remain an option for bigger companies, micro, small, and medium-sized enterprises may find it difficult to obtain credit. On the other hand, the expected tightening of liquidity and phasing out of shadow bank financing will help rein in off-budget financing by local governments.

Fiscal policy support for the economy will likely be gradually reduced in 2021. Despite continued tax relief for small taxpayers, fiscal revenue looks set to improve in line with higher economic growth, which leaves room for a small increase in fiscal expenditure while reducing the target for the fiscal deficit as a percentage of GDP from over 3.6% in 2020 to about 3.2%. Signaling policy continuity, the quota for new local government special bonds in 2021 was barely trimmed from CNY3.75 trillion in 2020 to CNY3.65 trillion, taking into consideration the continued high financing needs of local governments. In sum, the central government is aiming in 2021 for gradual fiscal consolidation that includes off-budget expenditure. Consolidation efforts will likely continue in 2022.

General government debt, having expanded by 7.7 percentage points in the first 9 months of 2020 to equal 60.9% of GDP, is expected to grow much more slowly in 2021, as tackling financial risk remains high on the agenda (Figure 3.11.17). At the same time, local governments in economically weaker regions face a substantial financing gap and a worsening debt burden. As local banks with weak balance sheets are concentrated in these regions, a key policy challenge, as spelled out below, will be how to enable them to cope with their NPLs effectively and avoid the need for recapitalization from local governments.

External trade is forecast to continue expanding in 2021. Merchandise exports are expected to outgrow imports as ongoing pandemic-related restrictions in many parts of the world fuel demand for consumer goods of use in the home. As domestic demand recovers, imports should pick up, especially

Figure 3.11.15 Renminbi exchange rates



Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 31 March 2021).

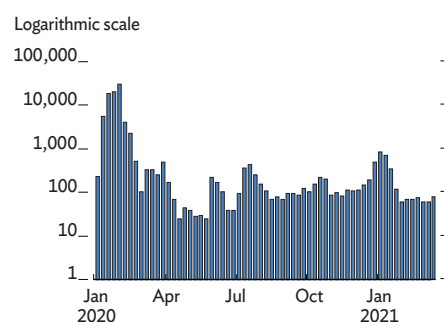
Table 3.11.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	6.0	2.3	8.1	5.5
Inflation	2.9	2.5	1.5	2.3
Current acct. bal., share of GDP	0.7	1.9	1.9	1.3

GDP = gross domestic product.

Sources: CEIC Data Company; Asian Development Bank estimates.

Figure 3.11.16 Weekly new confirmed COVID-19 cases



COVID-19 = Coronavirus Disease 2019.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 31 March 2021).

of commodities and capital goods for manufacturing. With the service deficit expected to widen marginally in 2021 before widening more in 2022, the current account surplus is forecast to remain at the equivalent of 1.9% of GDP in 2021 and then narrow to 1.3% in 2022.

Capital inflow should remain strong as the 10-year PRC government bond yield stays above the respective US Treasury note benchmark (Figure 3.11.18). FDI inflow is similarly expected to increase with investment in lines of business already profiting from the solid growth outlook for the PRC market.

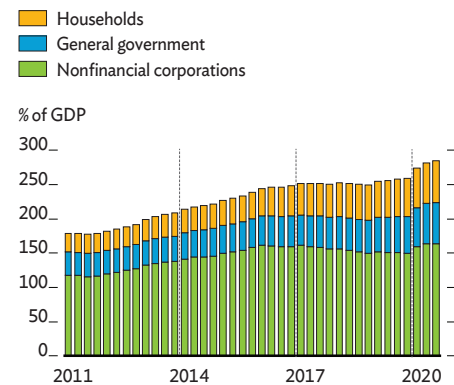
The clusters of COVID-19 cases in the PRC in early 2021 showcase the unpredictable nature of the pandemic. The envisaged consolidation of public finance could prove difficult if household demand fails to return to previous levels, causing tax revenue shortfalls while ramping up the need for public investment to support economic growth. Another domestic risk to the outlook is mounting credit risk in the financial sector that could trigger tighter measures to mitigate unforeseen risks to financial stability. One external risk is that worsening tensions with some major trade partners could strain bilateral trade, and another is the current global tendency to tighten access to key technologies, which is making technology acquisition more of a challenge.

Policy challenge—managing commercial banks' nonperforming loans

As part of its strategy to mitigate the adverse effects of COVID-19 on the economy, the government encouraged domestic banks to increase lending. With state-owned commercial banks controlling nearly half of commercial bank assets, the NPL ratio of all commercial banks peaked at a multiyear high of 1.96% in Q3 2020 before easing to 1.84% in Q4 2020, when banks used the economic recovery to increase NPL write-offs (Figure 3.11.19). At the same time, banks' earning potential in their credit business, proxied by their net interest margin, decreased in 2020 (Figure 3.11.20).

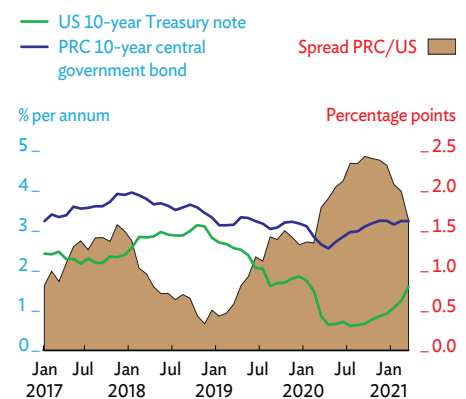
Banks' NPL ratio is expected to rise. In its 2020 financial stability report, the central bank said its stress test indicated that the NPL ratio of 30 large and medium-sized banks could rise to 4.9% by the end of 2020 and further to 5.5% by the end of 2021, assuming GDP growth at 1.6% in 2020 and 7.8% in 2021. However, a notable surge in NPLs has not yet happened, likely because NPL recognition standards were relaxed in 2020 and the deferment of loan repayments gave banks some leeway to delay recognizing NPLs. When deferred loan repayments come due, NPLs will likely pick up.

Figure 3.11.17 Debt structure



Source: Bank for International Settlements. <https://www.bis.org/statistics/totcredit/totcredit.xlsx> (accessed 22 March 2021).

Figure 3.11.18 Difference in government bond yields

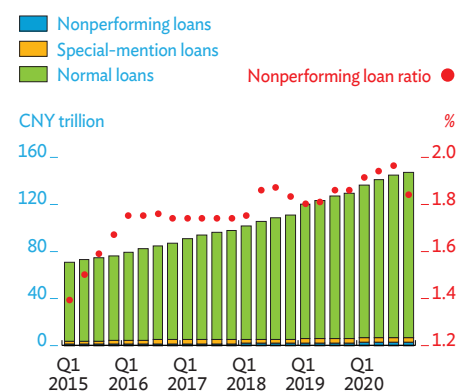


PRC = People's Republic of China, US = United States.

Note: Yields are monthly averages.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 1 April 2021).

Figure 3.11.19 Commercial bank loans by category



Q = quarter.

Note: Special mention is a category one notch above nonperforming.

Source: Asian Development Bank calculations using data from CEIC Data Company (accessed 22 March 2021).

In addition, the government called on financial institutions to forgo CNY1.5 trillion in profits in 2020 by lowering lending rates, deferring loan payments to qualified lenders, and reducing bank charges. This will dampen bank earnings into 2021 and possibly beyond, thus hampering banks' ability to write off NPLs.

An increase in the NPL ratio will pose a challenge to many banks, especially those categorized as rural or city commercial banks. Before the COVID-19 shock, many of them were already less well capitalized than large and joint-stock commercial banks (Figure 3.11.21). Many rural commercial banks therefore could not keep up their provisioning against NPLs (Figure 3.11.22). In addition, rural and city lenders have higher shares of loans to micro and small enterprises and thus greater exposure to their generally higher default rates (Figure 3.11.23). The loan and asset quality of those banks is expected to deteriorate in the future, generating higher NPL ratios and potential for capital shortfalls.

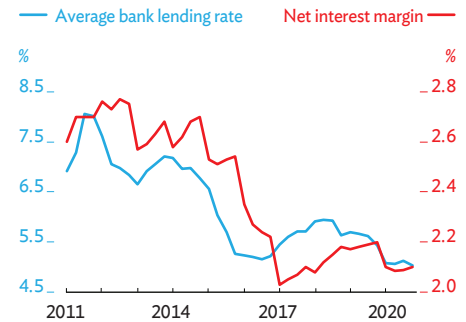
Addressing this challenge and safeguarding financial stability requires (i) better NPL management, (ii) the bank sector consolidated in an orderly manner, and (iii) bank capitalization strengthened.

NPL recognition standards were relaxed during the pandemic, as mentioned above, which enabled banks to accelerate credit growth but added risk to the bank sector. To prevent a buildup of unrecognized NPLs, standards should be tightened gradually and NPL disposal accelerated, taking advantage of higher economic growth in 2021. Several asset management companies in the PRC buy NPLs and sell them to retail investors. This is a significant channel by which banks can remove bad loans from their balance sheets without resorting to write-offs. The biggest buyers of NPLs are still the big four national asset management companies, whose majority shareholder is the Ministry of Finance. The authorities could increase risk-sharing in a broader investor base by lowering barriers to foreign investors.

Market consolidation, meanwhile, may be inevitable in some regions. In October 2020, the central bank issued a draft revision to the commercial bank law that expanded the law's application and improved procedures for lender exit from the market. The draft rules set out a mechanism for rating and mitigating risk that lays out the steps by which banks flag risk, apply early corrective measures, and either restructure, merge, or go bankrupt. The logical next step would be to establish a nationwide bank resolution framework to facilitate coping with bank failures and mitigate systemic risk in the bank sector.

Strong capitalization requires that banks be equipped with adequate capital buffers, which can be enhanced in different ways, most commonly by raising additional capital in the market or, when under stress, by converting qualified investors'

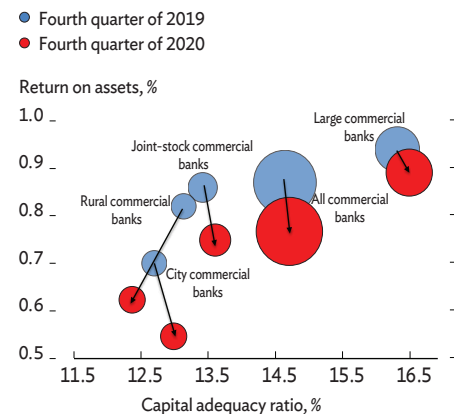
Figure 3.11.20 Net interest margin and lending rate



Note: The net interest margin is defined as the difference between banks' interest income and expense divided by their interest-bearing assets.

Source: CEIC Data Company (accessed 22 March 2021).

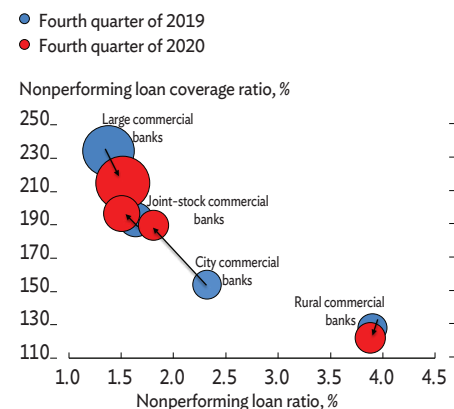
Figure 3.11.21 Change in commercial bank capitalization and profitability



Note: Circle size indicates asset size.

Source: CEIC Data Company (accessed 22 March 2021).

Figure 3.11.22 Change in commercial bank asset quality



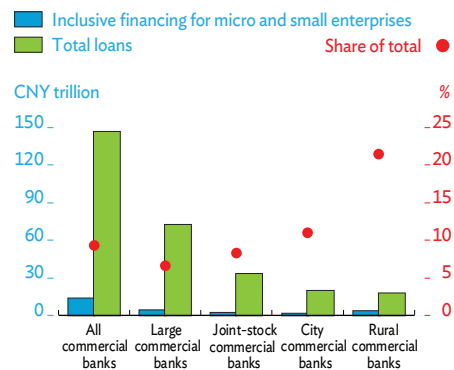
Note: Circle size indicates asset size.

Source: CEIC Data Company (accessed 22 March 2021).

bonds into equity. Relying on government assistance should be a last resort but took place in 2020, when CNY200 billion in local government special bonds were used to recapitalize small and mid-sized regional banks. In January 2021, the central bank and the bank regulator approved issues by two local banks of a new type of perpetual bond, which specified that the occurrence of a particular risk event triggered the right for bond-issuing banks to convert the outstanding debt into equity. This provided a way for banks to raise additional capital without involving public funds. While such contingent convertible bonds can increase capacity to absorb risk, their trigger needs to be well specified. It remains an open question to what extent they can mitigate systemic risk.

Banks' capital buffers differ in their ability to absorb shocks. As financial institutions invest in perpetual bonds, the financial sector becomes more interconnected, making it more difficult to isolate and quarantine a financial institution in the event of its failure. Strengthening banks' core capital therefore remains the preferred option to foster financial stability, achieved by banks issuing new equity instead of perpetual bonds. Issuing new shares can, however, be a challenge for smaller and weaker banks. Continued efforts are therefore required to improve banks' operational efficiency, corporate governance, and risk management.

Figure 3.11.23 Loans to micro and small enterprises by bank type, 30 December 2020



Note: Inclusive finance for small and micro enterprises allows business loans totaling no more than CNY10 million per household.

Sources: CEIC Data Company (accessed 22 March 2021); Asian Development Bank estimates.

Republic of Korea

The economy contracted in 2020, inflation remained subdued, and the current account surplus widened. COVID-19 hit private consumption and exports but not rising investment. Growth is expected to recover in 2021 with improved global economic conditions that bode well for exports, though COVID-19 uncertainty remains a downside risk. Inflation will rise only slightly, and the current account will narrow marginally. Fiscal and monetary policies will continue to support economic recovery, as will a new sustainable growth initiative.

Economic performance

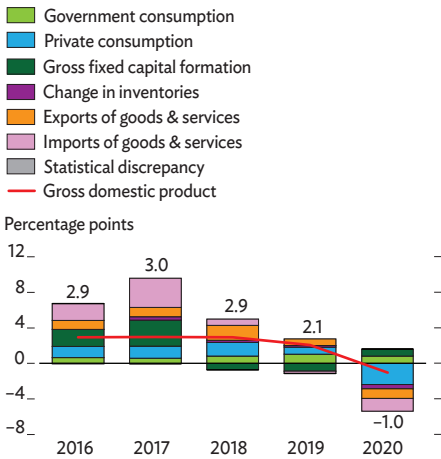
GDP contracted by 1.0% in 2020, marking the deepest downturn since the Asian financial crisis of 1997–1998. Although the Republic of Korea (ROK) did not impose stringent lockdowns, the economy still felt COVID-19 impacts. On the demand side, private consumption contracted by 5.0% as three COVID-19 waves demanded social distancing and limited mobility (Figure 3.12.1). Government consumption mitigated pandemic impact primarily through government subsidies and transfers.

One bright spot was investment. Driven by fiscal stimulus, government outlays grew by 2.9% in 2020 on top of a 10-year high in 2019, and private investment expanded by 2.6%. Investment in construction declined, but growth in facility investment rebounded, particularly to upgrade the semiconductor and display industries, and intellectual property investment grew strongly, especially in software and database development. Reflecting the migration of economic activity online, an expanding digital economy fueled investment in logistics facilities and data centers.

Exports of goods and services reversed 1.7% growth in 2019 to contract by 2.5%, reflecting severely disrupted global trade under the pandemic in the first half of 2020. Exports bounced back in the fourth quarter on vast global demand for semiconductors, other information technology (IT) products, and health-care goods (Figure 3.12.2). Imports of goods and services contracted by 3.5% in 2020 as domestic demand shrank. Growth in net exports nevertheless plunged from 22.3% in 2019 to 6.7%.

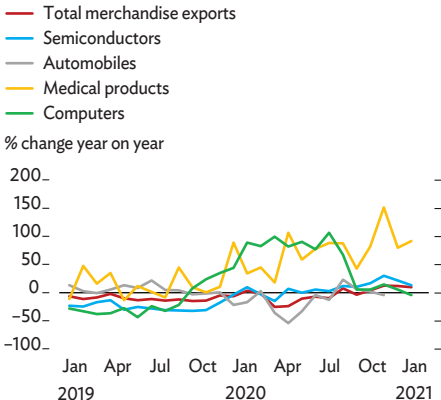
On the supply side, all major industries suffered under COVID-19. Services, which comprise more than half of the economy, shaved 0.6 percentage points from GDP growth as

Figure 3.12.1 Demand-side contributions to growth



Note: Statistical discrepancy arises from contributions to the GDP growth excluding net indirect taxes.
Source: CEIC Data Company (accessed 22 March 2021).

Figure 3.12.2 Merchandise exports



Source: CEIC Data Company (accessed 12 March 2021).

This chapter was written by Cindy Castillejos-Petalcorin and Donghyun Park of the Economic Research and Regional Cooperation Department, ADB, Manila.

retail and hospitality services were hit particularly hard by mobility restrictions, though finance and public administration expanded. Industry subtracted 0.1 points as manufacturing contracted by 0.9% under weak demand, both domestic and external. Computers and electronics picked up in the second half as the economy digitalized, as did health-care products. Bad weather squeezed the contribution of agriculture to 0.1 points.

Inflation remained well below the 2.0% target set by the Bank of Korea, the central bank, but edged up from 0.4% in 2019 to 0.5% on elevated food prices (Figure 3.12.3). Core inflation, which excludes food and energy, fell from 0.7% in 2019 to 0.4%. The ROK won appreciated by 6.4% in nominal terms against the US dollar and by 2.7% in real effective terms.

On the external front, the current account surplus widened from the equivalent of 3.6% of GDP in 2019 to 4.6% in 2020, driven by the merchandise trade surplus and a 40% increase in net service receipts (Figure 3.12.4). Merchandise exports contracted by 7.2%, with the drop contained by strong semiconductor exports in the second half of 2020. Merchandise imports contracted by 8.8% as demand for both consumer goods and intermediate inputs languished. Net foreign direct investment increased by 9.1%, and net portfolio investment by 2.1%, pushing the overall balance of payments surplus to \$17.5 billion, equal to 1.1% of GDP. Official foreign exchange reserves rose by 8.4% to \$443.1 billion at the end of 2020.

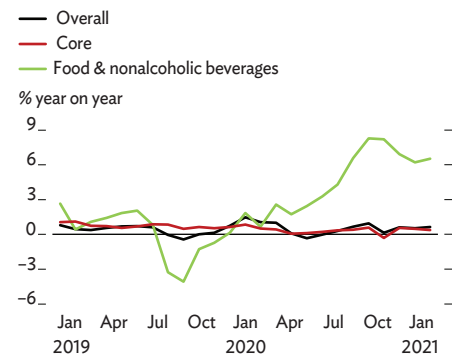
Fiscal and monetary policies remained supportive of growth in 2020, during which four supplementary budgets were approved. Massive government spending centered on creating jobs, protecting household incomes, and coping with COVID-19. Government expenditure jumped by 14.0% from 2019 even as the downturn shrank government revenue by 0.7%. The resulting fiscal deficit excluding social security funds widened from the equivalent of 2.8% of GDP in 2019 to 6.1%.

With economic activity and inflation subdued, the central bank cut its policy interest rate by 25 basis points in March 2020 and again in May. It maintained the resulting all-time low interest rate of 0.5% for the rest of the year. In addition, the central bank introduced several measures to improve access to credit for small and medium-sized enterprises and for self-employed people, which boosted private credit outstanding by 9.5%. Consequently, growth in domestic liquidity (M2) picked up from 7.9% in 2019 to 9.2% a year later.

Economic prospects

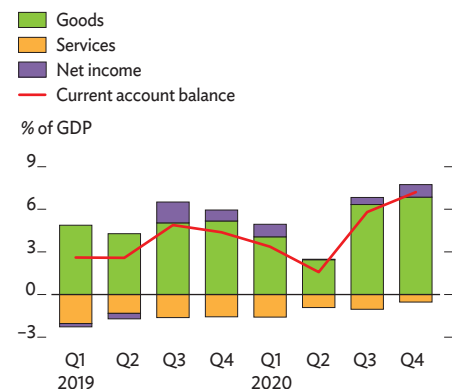
GDP growth is expected to rebound to 3.5% this year, in line with recovery in the global economy and supported by accommodative monetary and fiscal policies, then moderate to 3.1% in 2022 (Figure 3.12.5 and Table 3.12.1). IT and electronics

Figure 3.12.3 Monthly inflation



Source: CEIC Data Company (accessed 25 February 2021).

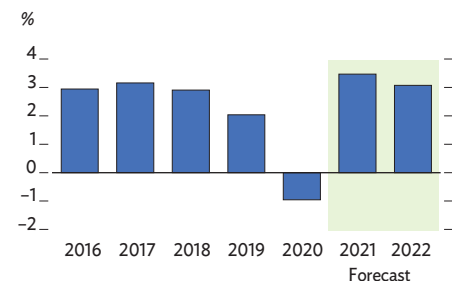
Figure 3.12.4 Current account balance



GDP = gross domestic product, Q = quarter.

Source: CEIC Data Company (accessed 9 March 2021).

Figure 3.12.5 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

will continue to lead export growth, and net exports will positively contribute to GDP growth. Consumer demand and fixed investment are similarly expected to recover as COVID-19 vaccination progresses and mobility improves. The ROK has weathered COVID-19 well, with only 102,141 infections and 1,726 deaths as of 31 March. A free vaccination program, which started on 26 February 2021, aims to inoculate 70% of the population and achieve herd immunity by November 2021. If vaccination progresses on schedule, virtually all mobility restrictions can be lifted later this year.

Private consumption is expected to bounce back with further easing of restrictions as COVID-19 vaccinations progress. Consumer sentiment improved in the first 3 months of 2021, the first time the index rose above the 100 since the start of the outbreak. The government has provided incentives to boost consumption, including a temporary 30% reduction in the car purchase tax. Public policy will remain supportive of recovery after COVID-19 through measures to boost employment and income.

Private investment, especially in facilities, will continue to expand in 2021 in response to robust demand for IT products and automobiles. Maintenance investment deferred last year by COVID-19 uncertainty is likely to resume in other sectors as well. The business confidence index rose to 85 in March 2021, as high as it has been since May 2014. Likewise, the composite purchasing managers' index climbed further into expansionary territory, reaching 55.3 in March 2021 (Figure 3.12.6). Public investment in 2021, mainly into construction projects, will rise to W110 trillion, equal to 5.8% of GDP.

With the economy adding steam, inflation is projected at 1.3% this year and 1.5% in 2022, well below the 2.0% central bank target (Figure 3.12.7). Price pressures will come from the gradual removal of price supports from government programs and rising global oil prices.

Exports of goods and services are projected to rise strongly this year on growing global demand, particularly for semiconductors and other IT products, automobiles, and medical goods. The digitalization of the world economy—evident in work from home, online shopping, and virtual meetings—is a positive shock for ROK IT exports, as are rising global semiconductor prices. Bellwether 20-day export data rose by 12.5% in March 2021, signaling a vibrant year for exports of goods.

Merchandise imports, especially of oil and other raw materials, are likely to increase in tandem with rising consumer demand, investment, and production. Service receipts are expected to improve marginally as travel cautiously resumes, but the service account will remain in deficit, albeit less than in 2020. Some improvement in the income account will occur

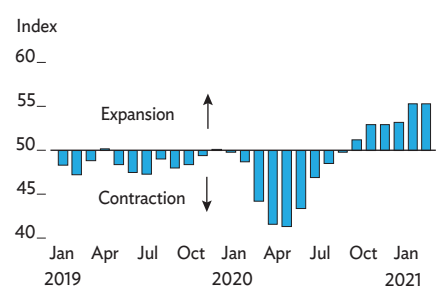
Table 3.12.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	2.0	-1.0	3.5	3.1
Inflation	0.4	0.5	1.3	1.5
Current acct. bal., share of GDP	3.6	4.6	4.0	3.8

GDP = gross domestic product.

Sources: Haver Analytics; Asian Development Bank estimates.

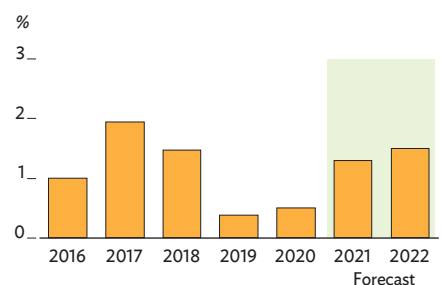
Figure 3.12.6 Manufacturing purchasing managers' index



Note: A purchasing managers' index reading >50 signals deterioration, <50 improvement.

Source: CEIC Data Company (accessed 1 March 2021).

Figure 3.12.7 Annual inflation



Source: Asian Development Outlook database.

as corporate incomes and profits recover. The current account surplus is projected to narrow to the equivalent of 4.0% of GDP in 2021 and 3.8% in 2022.

Fragile as the recovery is, the central bank has stated that monetary policy will remain accommodative until recovery becomes firmer. It will continue to support small businesses hit by COVID-19 through special credit and subsidy schemes. Likewise, fiscal policy will remain accommodative. The government will continue to boost spending on social welfare, livelihoods and employment, research and development, and social infrastructure, not least through its Korean New Deal initiative (see below). At W558 trillion, expenditure in the 2021 budget is 8.9% higher than last year and will be frontloaded, with 63% spent in the first half of this year. The planned consolidated fiscal deficit will nevertheless narrow to the equivalent of 5.6% of GDP in 2021 as revenue improves. This will push the ratio of medium-term government debt to GDP from 43.9% in 2020 to 47.3%.

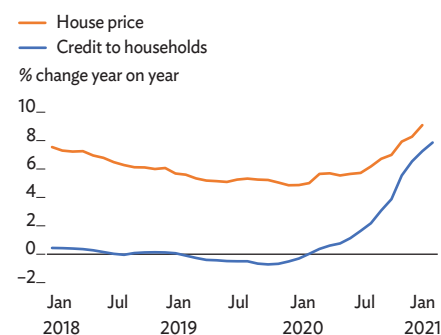
Uncertainty about COVID-19 remains the big downside risk to the forecast. The pace of economic recovery will depend heavily on the timely rollout of vaccinations and pandemic containment. Even small outbreaks pose a constant threat because they rattle business and consumer confidence. Another risk is rising unemployment, which surged to 5.4% in January 2021, a 21-year high reflecting job losses in the wake of COVID-19. However, as vaccination progresses, employment—and especially demand for face-to-face personnel—may revive in tandem with economic recovery.

Other risks include any abrupt correction to stock or home prices, which could destabilize the financial system. The ROK stock market has been a top performer globally during the pandemic, and home prices have escalated sharply, fueled by credit to households (Figure 3.12.8). However, these risks are likely to be mitigated by measures implemented this year to tighten the regulation of credit-based loans and other risky transactions, a stricter debt-service ratio to rein in household debt, and conservative loan-loss provisioning. The ratio of bank loans overdue by at least a month is low, having fallen from 0.36% of all loans in December 2019 to 0.28% a year later.

Policy challenge—a strategy for green and inclusive development

In July 2020, the government announced the Korean New Deal (KND), a new strategy for reviving the economy in the wake of COVID-19. Growth in the ROK has declined steadily as the population aged, among other structural factors. However, high income per capita allows policy makers to shift their priority

Figure 3.12.8 Credit to household and house price



Note: House price is the deposit for a 2-year lease on an apartment under the *jeonse* system.

Source: CEIC Data Company (accessed 1 March 2021).

from economic growth to sustainable development, as signaled by the KND.

In addition to a stronger safety net for inclusive growth, the KND encompasses two main components: the Digital New Deal and the Green New Deal.

The Digital New Deal seeks to leverage the country's world-class IT infrastructure to further strengthen digital capacity and thus foster innovation in new digital industries and accelerate the digital transformation of existing industries. The four priority areas of the Digital New Deal are the (i) integration of data, network, and artificial intelligence throughout the economy; (ii) digitalization of education; (iii) fostering of a contactless economy; and (iv) digitalization of infrastructure. A key infrastructure investment planned for the first priority is the Data Dam, a large database to support big data development and facilitate the collection, standardization, processing, and synthesizing of data.

The ROK has since 2008 advocated green growth, or leveraging environmental industries as an engine of growth. The Green New Deal aims to speed the transition to a green economy, eventually achieving zero net carbon emissions. The government plans to invest in ecofriendly energy infrastructure that promotes energy saving and renewables. The three priority areas of the Green New Deal are (i) a green infrastructure transition, (ii) low-carbon and decentralized energy, and (iii) innovation in the green industry. The transition to an environmentally sustainable economy can enhance people's quality of life and foster new investment, jobs, and industries.

The KND is projected to cost W114.1 trillion from 2020 to 2025, or about 5% of projected GDP over the period, creating more than 1.9 million jobs (Table 3.12.2). Ambitious as it is, the KND is a rare national development strategy in Asia that lays out a clear blueprint for sustainable recovery after COVID-19. It can thus be a template for other countries in the region. Given such large resource requirements and ambitious targets, however, success is far from guaranteed. For the KND to be more than a short-lived boost to growth and employment, it must be implemented with due regard for its social and environmental costs. For example, if the KND installs large numbers of solar panels on hillsides, what about deforestation? To minimize such costs, an independent body of environmental experts and economists should assess the environmental impacts and economic feasibility of big projects.

More broadly, to create permanent jobs and viable new industries, the KND should catalyze private investment and participation in digital and green industries. Including public investment in 5G mobile technology in the KND, for instance, could promote private digital entrepreneurship. With effective private involvement, the KND may help revive economic dynamism and contribute to sustainable development over the long term.

Table 3.12.2 Jobs and investment under the Korean New Deal

	Investment plan (W trillion)		Jobs created (thousands)	
	A	B	A	B
Digital New Deal	18.6	44.8	390	903
Green New Deal	19.6	42.7	319	659
Stronger safety net	10.8	26.6	178	339
Total	49.0	114.1	887	1,901

A = 2020–2022, B = 2020–2025.

Note: Investment amounts and jobs created from the third supplementary budget 2020 to 2025.

Source: Ministry of Economy and Finance.

Taipei, China

The economy proved resilient under the pandemic in 2020. GDP expanded on robust electronics exports, prices fell but only marginally, and the current account surplus widened on strong exports. Assuming that COVID-19 remains contained, economic growth should pick up further this year, with inflation reviving somewhat but still subdued to the forecast horizon, and the current account narrowing as imports improve. Action is needed to safeguard and strengthen an already competitive position in high technology.

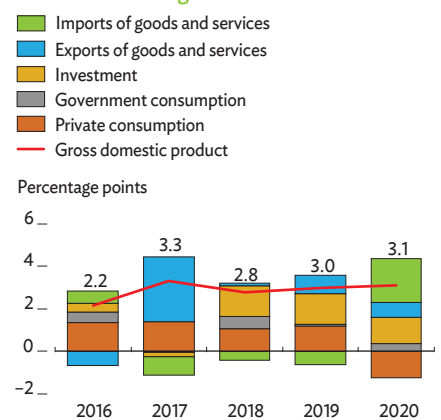
Economic performance

Despite the debilitating impact of the pandemic, economic growth accelerated to 3.1% in 2020, in part because the pandemic was controlled without a damaging lockdown. Growth was supported by strong exports of semiconductors and other electronics, particularly in the second half of the year. Exports grew by 1.1% in real terms while imports fell by 3.9%, such that net exports contributed 2.7 percentage points to GDP growth. Gross capital formation expanded by 5.3%, contributing 1.3 points to growth as companies continued to re-shore operations back to Taipei, China, mainly from the People's Republic of China (PRC). However, private consumption shrank by 2.4% amid pandemic-related restrictions and a steep drop in tourism, dragging growth down by 1.2 points. Government consumption expanded by 2.6% and contributed 0.4 points to growth (Figure 3.13.1).

On the supply side, industry growth accelerated to 6.1%, adding 2.2 percentage points to GDP growth as the manufacturing of electronic parts picked up (Figure 3.13.2). Services added another 0.7 points despite the sector growth rate decelerating to 1.2% with steep declines in transportation, accommodation, and food services. Agriculture grew by 1.3%, but its contribution to growth was negligible. The unemployment rate remained steady at 3.8%.

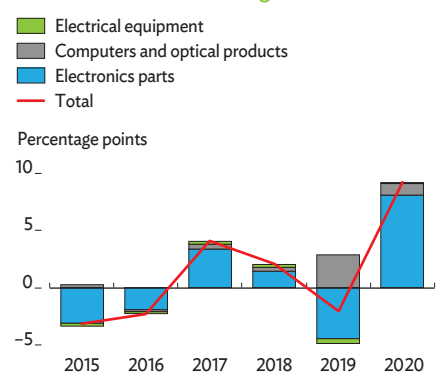
The consumer price index fell by 0.2% in 2020 against a backdrop of weak demand. Food prices increased slightly on supply disruption during the pandemic, while nonfood prices dropped in tandem with a slump in global oil prices and a plunge in service costs (Figure 3.13.3). Core inflation, which excludes food and energy, eased to 0.2%, and wholesale prices plummeted by 7.8% as prices of energy products, chemical materials, pharmaceuticals, and base metals dipped.

Figure 3.13.1 Demand-side contributions to growth



Source: CEIC Data Company (accessed 15 March 2021).

Figure 3.13.2 Production growth in electronic goods



Source: CEIC Data Company (accessed 15 March 2021).

Merchandise exports surged in 2020 on increased shipments to two of the largest export markets, the PRC and the US (Figure 3.13.4). Growth in electrical machinery and equipment exports, which account for more than a third of merchandise exports, more than tripled. Imports, in particular of energy and chemical products, declined, thereby widening the current account surplus to the equivalent of 14.1% of GDP. Gross foreign exchange reserves grew by 10.8%, while the NT dollar appreciated by 4.9% against the US dollar and by 1.5% in real effective terms.

To shore up economic growth, the government adopted an accommodative policy that included broad tax relief and deferral that benefited both households and businesses. Budgetary revenue grew by 5.3% in 2020 while expenditure expanded by 17.5%, for an estimated central government budget deficit equal to 1.9% of GDP. In March 2020, the central bank cut the policy rate, for the first time since 2016, to a low of 1.125% amid concerns over deflation. Outstanding credit to the private sector increased by 8.1%, though there was selective tightening of credit rules to curb property prices. Broad money expansion still doubled from 4.5% in 2019 to 9.4%.

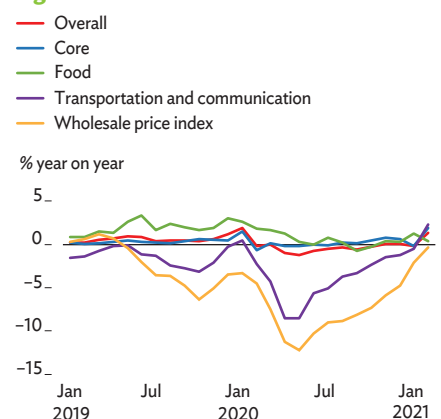
Economic prospects

Growth will pick up to 4.6% in 2021, bolstered by a vaccination program that began in March of this year, strong demand for technology, and recovering consumer spending (Table 3.13.1). Rising monthly merchandise exports suggest that foreign demand will remain strong with recovery in the PRC and the US. Upbeat consumer confidence, a stable labor market, and exuberant financial markets bode well for consumer spending. Investment will continue to be driven by expansion in the semiconductor industry, the re-shoring of manufacturing facilities from the PRC, and infrastructure spending in health care, energy, and transportation. A rising index of service industry sentiment suggests more rapid growth in 2021 driven by retail and finance, though tourism will be slow to recover. Industry also looks set to expand after the manufacturing purchasing managers' index soared from its low in May 2020 to a 3-year high in January 2021 (Figure 3.13.5). In 2022, the economy is expected to grow by 3.0%, buttressed by the global economic recovery.

Inflation will return in 2021 with rising prices for locally produced pork and other foods, crude oil, and raw materials; recovery in consumer demand; wage pressures; and accommodative monetary policy. Consumer prices are forecast to rise by 1.1% in both 2021 and 2022.

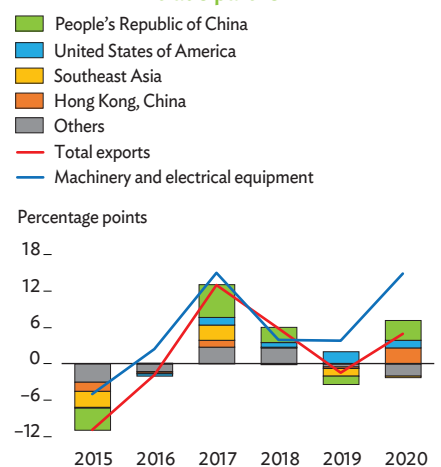
On the external front, export orders, a leading indicator of future shipments, skyrocketed by 41.3% year on year in January, with orders for electronic products rising substantially

Figure 3.13.3 Inflation



Source: CEIC Data Company (accessed 15 March 2021).

Figure 3.13.4 Export growth and percentage contribution by trade partner



Source: CEIC Data Company (accessed 25 February 2021).

Table 3.13.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	3.0	3.1	4.6	3.0
Inflation	0.6	-0.2	1.1	1.1
Current acct. bal., share of GDP	10.6	14.1	12.0	11.0

GDP = gross domestic product.

Sources: Haver Analytics; Asian Development Bank estimates.

faster than others (Figure 3.13.6), indicating strong demand for electronic products, remote-work technologies, and new technological applications such as 5G and high-performance computing. Meanwhile, pandemic fears sustain border controls in many countries and will continue to clobber inbound tourism. Imports of goods, on the other hand, will improve as the major economies recover and the NT dollar continues to appreciate against the US dollar. In sum, the current account surplus will narrow to the equivalent of 12.0% of GDP in 2021 and 11.0% in 2022 (Figure 3.13.7).

Central government budget revenue is projected to be 2.5% lower this year than in 2020 as auctions of licenses for 5G broadband are completed. Expenditure is also expected to shrink, by 2.1%, as special budget expenditure will be lower than last year, though social welfare, infrastructure, and defense outlays will rise. On balance, the budget deficit is expected to equal 1.8% of GDP.

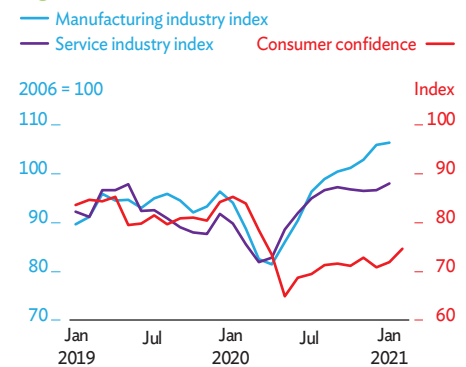
The outlook is clouded by pandemic-related risks—perhaps a slow rollout of vaccines or low vaccine efficacy—and, more likely, gathering challenges from the external environment arising from trade and geopolitical factors. On the upside, surprisingly robust growth in exports of electronic products would support greater GDP expansion, as would unexpectedly strong global economic recovery supported by effective vaccines.

Policy challenge—preparing for post-pandemic tech challenges and opportunities

As a major manufacturer of electronic components since the 1990s and a highly competitive hub for technological innovation, Taipei,China was well positioned to benefit from both trade diversion induced by the PRC–US trade conflict and voracious global demand for remote-work electronics under the pandemic (Figure 3.13.8). A concern, however, is that this lone engine of growth may not be resilient under future disruption. Market share could shrink for Taipei,China because of deteriorating PRC–US ties, with technology as one of the major sources of contention; rising tensions between the PRC and other countries; a supply chain shift away from single-source dependency; and security concerns that have induced many countries to localize more production, especially of semiconductors. A challenge for policy makers is to create a sustainable ecosystem for the electronics industry to innovate, expand, strengthen its competitiveness in global supply chains, and to confirm its role as a driver of growth.

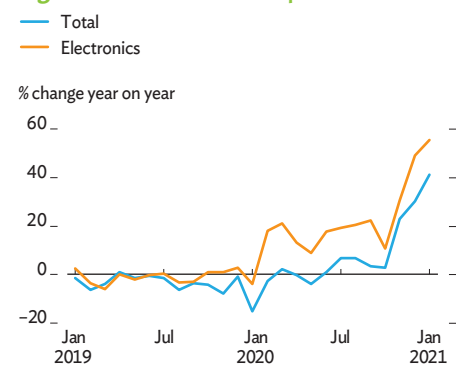
To this end, the authorities need to implement a number of policies as the pandemic wanes. Most promising is to continue to encourage re-shoring, which offers Taipei,China

Figure 3.13.5 Sentiment indexes



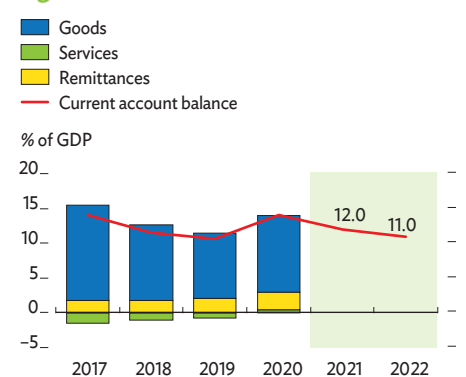
Source: CEIC Data Company (accessed 15 March 2021).

Figure 3.13.6 Growth in export orders



Source: CEIC Data Company (accessed 15 March 2021).

Figure 3.13.7 Current account balance



Source: CEIC Data Company (accessed 15 March 2021).

opportunities to diversify its trade, build on its comparative advantages, and use the resulting inflow of capital to spur its economy. Taipei,China firms have begun to move their operations out of the PRC for reasons as diverse as intellectual property protection, tightening environmental regulations, and rising costs in general. The government has encouraged this trend since 2016 with its New Southbound Policy and an action plan to encourage re-shoring with wage subsidies, tax breaks, financial plans, and other incentives for relocating high-end production (Figure 3.13.9). However, not all Taipei,China firms are returning home. Some are moving capacity to emerging technology hubs, and some labor-intensive firms are relocating to lower-cost locations.

The long-term success of re-shoring efforts will hinge on Taipei,China addressing structural issues. These include better access to energy and other utilities for high technology industries, appropriate allocation of land for industrial use, and strengthening human resource management by providing better education and training, remuneration, job security, and working conditions, not least for migrant workers.

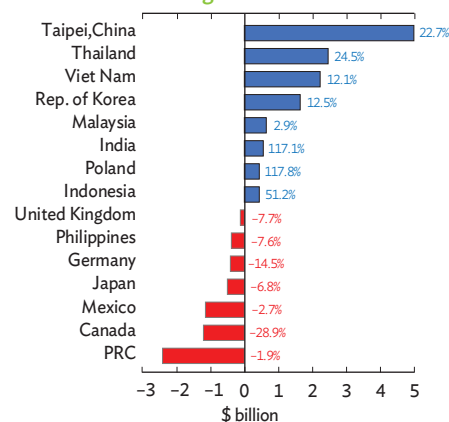
The electronics industry in Taipei,China leads many cutting-edge technologies—5G, robots, artificial intelligence, the internet of things, and blockchain computing—demand for which is unlikely to diminish. However, the industry will face stiffening competition from other potential suppliers. To stay competitive in the semiconductor industry, Taipei,China should enhance its research and manufacturing capabilities in upstream segments of the industry, while at the same time cooperating with other markets for downstream production. This calls for forging foreign trade links with diverse markets, including the US and Europe, and for augmented participation in wider Asian production and supply chains.

Taipei,China should support its vibrant small- and medium-sized enterprises, the bedrock of its private sector, to develop their technological capacity, strengthen their competitiveness and profitability, and reinforce their global presence through external cooperation and partnerships.

In stark contrast with its production capabilities, Taipei,China lags other advanced economies in digitalization, as evident in parameters such as access to the internet (Figure 3.13.10). Digitalization should be enhanced by supporting infrastructure development and digital literacy and education in rural areas and among older people.

Diversification of the production base is paramount for economic sustainability. While continuing to support traditional manufacturing industries, the government needs to strengthen global competitiveness in tourism and hospitality and develop such emerging industries as financial technology, mobility solutions, and tele-health.

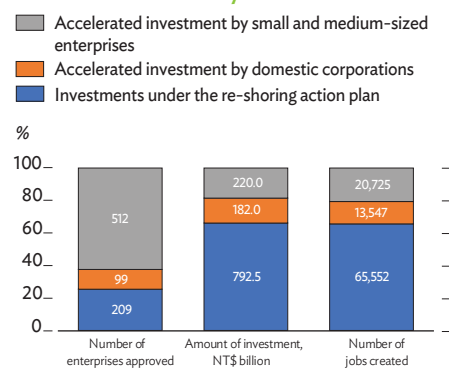
Figure 3.13.8 Electronics imports to the United States, 2020 and change from 2019



PRC = People's Republic of China.

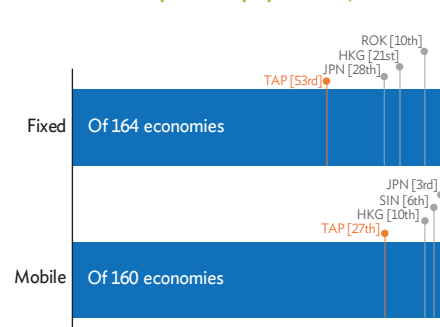
Source: United States Census Bureau. <https://www.census.gov/foreign-trade/statistics/product/atp/2020/12/atpctry/index.html> (accessed 1 March 2021).

Figure 3.13.9 Investment outcomes as of February 2021



Source: "Invest" website of the government of Taipei,China (accessed 3 March 2021).

Figure 3.13.10 Broadband subscriptions per 100 population, 2019



HKG = Hong Kong, China, JPN = Japan, ROK = Republic of Korea, SIN = Singapore, TAP = Taipei,China.

Source: International Telecommunication Union. <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (accessed 5 March 2021).

SOUTH ASIA

Afghanistan



Bangladesh



Bhutan



India



Maldives



Nepal



Pakistan



Sri Lanka



Afghanistan

The economy contracted in 2020 under the pandemic and continuing violence and instability. Inflation spiked on high food prices. The current account surplus was largely sustained by grants. Growth is expected to return in 2021 and accelerate in 2022. Inflation will moderate in both years, and the current account surplus including official transfers narrow in 2021. Micro, small, and medium-sized enterprises are pivotal to recovery and growth led by the private sector.

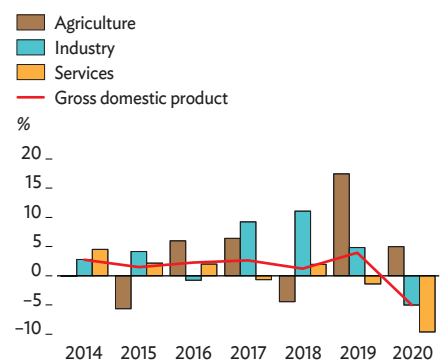
Economic performance

Real GDP contracted by an estimated 5.0% in 2020 as COVID-19 containment measures worsened the impact of persistent violence and political instability. Consumer demand dropped, remittances declined, large numbers of Afghan migrant workers returned from abroad, and global demand for Afghan products and services plunged. Industry is estimated to have contracted by about 5.0% and services by more than 9.0%, partly offset by an estimated 5.0% growth in agriculture (Figure 3.14.1). From March to May 2020, almost all border crossings with neighboring countries were closed, and longer-lasting restrictions on travel and gatherings, especially in cities, disrupted economic activity and supply chains. Unemployment jumped from a baseline of 23.9% in 2017, the latest year available, to an estimated 37.9% in 2020. The entire population was affected, but effects were particularly severe for low-income households, returnees from abroad, internally displaced people, and workers in the informal sector. The national poverty rate rose from 54.5% in 2017, with 2020 estimates ranging from 61% to 72%.

Inflation more than doubled from 2.3% in 2019 to 5.6% in 2020, driven by higher food prices. Food inflation in 2020 is estimated at 10.0%, with the highest spike recorded in April, when border closure and panic buying propelled it to 16.6% year on year. As economic activity restarted in the second half of 2020 and demand picked up, nonfood inflation increased from 0.9% in 2019 to 1.4% (Figure 3.14.2).

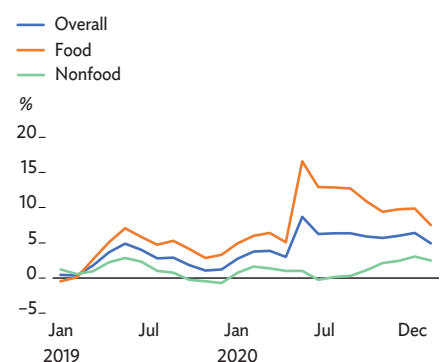
Growth in broad money increased from 5.7% in 2019 to 12.1% in 2020. However, slow growth in credit demand caused growth in credit to the private sector to decelerate from 1.8% in 2019 to 0.5% in 2020 (Figure 3.14.3). Despite slower growth in lending, the value of nonperforming loans increased from

Figure 3.14.1 GDP growth by sector



Sources: World Bank, World Development Indicators; Haver Analytics (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.14.2 Inflation



Source: National Statistics and Information Authority. <https://nsia.gov.af/home> (accessed 31 March 2021).

AF6.4 billion in 2019 to AF8.6 billion in 2020, and the ratio of nonperforming loans to capital increased from 20.5% to 26.5%. The ratio of loans to deposits fell slightly from 15.4% to 14.1%. Dollarization remained high in 2020, with dollar-denominated loans equal to 48.0% of GDP and deposits to 60.7% of GDP.

The fiscal deficit excluding grants is estimated to have widened from the equivalent of 13.9% of GDP in 2019 to 20.8% in 2020 as fiscal spending rose and revenue declined with weaker economic activity and disrupted trade.

In 2020, exports amounted to about \$0.8 billion and imports \$5.9 billion, generating a trade deficit of \$5.1 billion, equal to 26.7% of GDP. Exports were strong in the first quarter, growing by 11.5% compared with a year earlier, but they plummeted in the second quarter by 77.7% year on year. In the whole of 2020, exports declined by 10.1% and imports by 4.5%. Lower demand for imports buoyed the local currency, the afghani, which appreciated by 1.3% against the US dollar in 2020. (Figure 3.14.4).

The current account deficit excluding official transfers widened from the equivalent of 27.0% of GDP in 2019 to 29.8% in 2020 (Figure 3.14.5). Despite strong grant inflow, the current account surplus including official transfers narrowed from 11.7% of GDP in 2019 to 10.7% in 2020. With generous grants from development partners, gross international reserves rose from \$8.5 billion at the end of 2019 to \$9.7 billion a year later, or cover for nearly 20 months of imports (Figure 3.14.6). Economic contraction and the larger fiscal deficit in 2020 raised public debt as a percentage of GDP from 6.1% in 2019 to an estimated 7.8% in 2020.

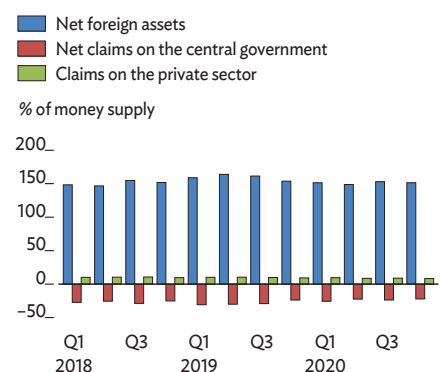
Economic prospects

Growth is expected to rebound to 3.0% in 2021 and rise further to 4.0% in 2022 as business activity and market sentiment normalize (Table 3.14.1). The outlook assumes a successful vaccine rollout and no major COVID-19 resurgence. Development partners have helped the government by supporting the national vaccination program and post-pandemic recovery.

Inflation is projected to moderate to 5.0% in 2021 and 4.0% in 2022 as food supplies improve. Domestic revenue mobilization is expected to improve in the next 2 years with planned reform to tax and customs administration. The anticipated adoption of a value-added tax in 2022 should, along with economic recovery, further boost revenue. Monetary policy is expected to remain prudent, maintaining a flexible exchange rate regime and price stability.

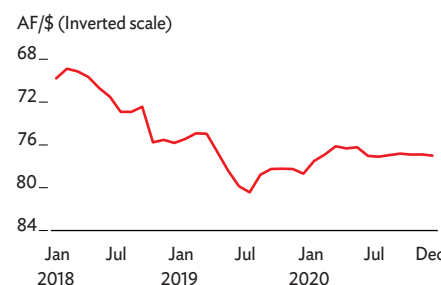
The current account including grants is projected to remain in surplus equal to 10.0% of GDP in 2021 and 8.3% in 2022. Supported by agricultural exports and newly opened trade routes, exports are expected to rise by 34% in 2021 and

Figure 3.14.3 Monetary indicators



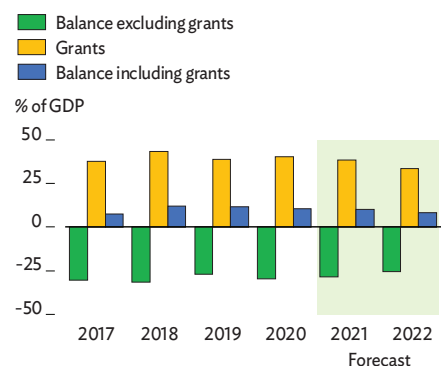
Sources: International Monetary Fund; Haver Analytics; Da Afghanistan Bank. <https://www.dab.gov.af> (all accessed 7 April 2021); Asian Development Bank estimates.

Figure 3.14.4 Exchange rates



Source: CEIC Data Company (accessed 31 March 2021).

Figure 3.14.5 Current account balance



Note: Years are fiscal years ending on 21 December of the same calendar year.

Sources: International Monetary Fund, World Economic Outlook. <https://www.imf.org/en/Publications/WEO/weo-database/2021/April> (accessed 7 April 2021); Asian Development Bank estimates.

30% in 2022. International reserves are expected to stay high, maintaining cover for about 20 months of imports. However, the outlook for private sector growth remains clouded by the pandemic and more familiar problems: persistent security issues, political instability, and corruption.

Public debt is forecast to rise further to the equivalent of 8.8% of GDP in 2021, and 9.6% in 2022. Afghanistan will remain at high risk of debt distress because of its fragile political and security situation and its high dependence on grants, which are expected to be replaced in the medium term by debt financing.

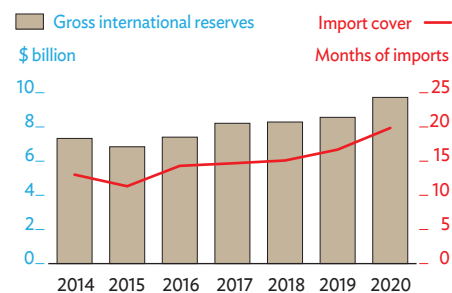
Development partners reaffirmed their commitment to Afghanistan through pledges made at the 2020 Afghanistan Conference in November. Continued solidarity remains key to the country's recovery and development. Partners pledged \$3.3 billion in 2021, a level of annual commitment likely to be sustained to 2024 along with a 42-month arrangement under the International Monetary Fund's Extended Credit Facility that was approved last November to support recovery and economic reform. The Afghanistan National Peace and Development Framework, renewed for a second 5 years from 2021 to 2025, will guide the cooperative efforts of the government and its international partners with a focus on the three pillars: market building, state building, and peace building.

Risks to the outlook remain on the downside. Implementing vaccination will be a challenge, especially in remote and insecure areas. Conflict, criminality, corruption, political instability, and broader social fragility continue to weigh heavily on the economy and could impede recovery. Efforts to settle the current conflict peacefully have not succeeded so far. However, if a durable political settlement were reached, it could jump-start development and prosperity by enabling the country to exploit its resources and strategic location. While development partners remain committed to supporting Afghanistan, an abrupt decline in grants could jeopardize growth and development. Apart from the political situation, Afghanistan remains highly vulnerable to climate risk, notably natural hazards and in particular the risk of reduced rainfall.

Policy challenge—helping smaller enterprises generate growth and employment

Micro, small, and medium-sized enterprises (MSMEs) are the bedrock of the Afghan economy. While many MSMEs are unregistered, making data collection difficult, MSMEs were estimated before the pandemic to provide nearly 1.6 million service and industry jobs, and those with fewer than 10 employees accounted for more than 80% of employment outside of agriculture.

Figure 3.14.6 International reserves



Sources: CEIC Data Company (accessed 31 March 2021); Asian Development Bank estimates.

Table 3.14.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	3.9	-5.0	3.0	4.0
Inflation	2.3	5.6	5.0	4.0
Current acct. bal., share of GDP				
Including official transfers	11.7	10.7	10.0	8.3
Excluding official transfers	-27.0	-29.8	-28.5	-25.3

Sources: World Bank. World Development Indicators; Haver Analytics; National Statistics and Information Authority; International Monetary Fund. World Economic Outlook; Asian Development Bank estimates.

With nearly a quarter of a million registered MSMEs in Afghanistan hard hit by the pandemic in 2020, supporting their recovery will be crucial to safeguarding workers incomes and livelihoods. An assessment in 2020 showed that COVID-19 containment measures affected about 90% of MSMEs. Restrictions and a resulting fall in consumer demand have placed heavy pressure on MSMEs through supply chain disruption, shortages of labor and other inputs, interrupted cash flow, revenue losses, and the forced sale of assets. Under strict urban restrictions on movement, individual travel to retailers and workplaces dropped by half. These effects have been worsened by a lack of working capital and credit for MSMEs. Financial inclusion in Afghanistan remains weak, providing only 5% of MSMEs with a line of bank credit, the rest left to seek financing from informal sources.

The government has worked to improve business conditions in general and rolled out countercyclical measures that include support for MSMEs. In October 2020, it approved a 2-year support package for MSMEs worth \$295 million, the first \$200 million to be provided in 2021 and the remainder in 2022. The package exempts or defers tax penalties, municipal fees, and rent for government land and buildings; provides subsidized loans; supports the establishment of industrial parks; and broadly aims to streamline assistance that promotes MSMEs.

Despite some improvement in the business environment, Afghanistan scores low in the World Bank's *Doing Business 2020*, ranked only 173 among 190 countries surveyed. Notable weaknesses are procedures to register property, trade across borders, enforce contracts, and pay taxes. Beyond pandemic impacts, key challenges to MSME operations include poor macroeconomic conditions caused by continued political violence and insecurity, a lack of qualified workers, scant access to finance, and deficient infrastructure that leaves electricity and land services inadequate and market connectivity poor. The government should facilitate MSME access to markets by developing infrastructure, improving security, combating corruption, simplifying regulation, strengthening property rights and contract enforcement, and promoting innovation and better labor skills. Increasing access to credit and further expanding the formal bank sector are also crucial.

Bangladesh

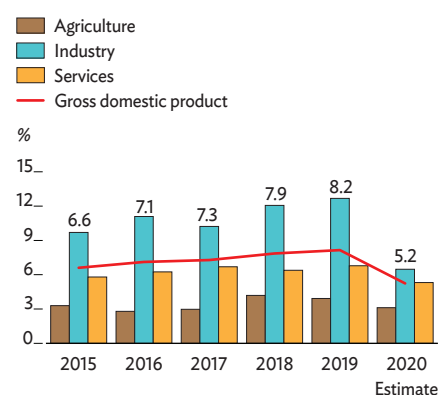
Despite headwinds from the COVID-19 pandemic, GDP continued to grow in fiscal 2020. Inflation was affected by supply chain disruption but remained moderate, and the current account deficit narrowed on buoyant remittances. Growth is forecast higher this year and next in line with a projected global economic rebound. Inflation will edge up, and the current account will cross into a small surplus. Policy action to foster universal primary health-care services is critical to ensure inclusive, sustainable development.

Economic performance

GDP is estimated to have grown by 5.2% in fiscal year 2020 (FY2020, ended 30 June 2020), down from 8.2% growth in the previous year as the onset of the COVID-19 pandemic reduced economic activities in the fourth quarter (Q4), particularly in industry and to a much lesser extent in services (Figure 3.15.1). Exports plummeted in Q4 as buyers canceled garment shipments and new orders evaporated, and domestic COVID-19 containment measures restricted many economic activities for 2 months. These disruptions cut industry growth by half to 6.5% in FY2020, while growth in services slowed from 6.8% in FY2019 to 5.3% under mobility restrictions and the knock-on effects of lower industrial income. Agriculture broadly maintained growth, mitigating food security risks with government support during the harvest of the dry season rice crop in April and May. Growth in agriculture nevertheless slowed from 3.9% to 3.1% as poultry, crab, shrimp, and fish production was hampered by pandemic-induced supply chain disruption and import restrictions in buying countries.

On the demand side, exports and imports alike contracted significantly as demand was disrupted both externally and domestically in Q4 FY2020. Meanwhile, robust growth in remittances sustained strong expansion in private consumption, which underpinned growth in domestic demand and GDP. While capital formation growth slowed from a year earlier, it rose as a share of GDP as growth decelerated. Private investment rose moderately, and public investment grew strongly on a 6.1% increase in development expenditure.

Figure 3.15.1 GDP growth by sector



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year.

Source: Bangladesh Bureau of Statistics. <http://www.bbs.gov.bd> (accessed 31 March 2021).

This chapter was written by Jyotsana Varma, Soon Chan Hong, Barun K. Dey, and Mahbub Rabbani of the Bangladesh Resident Mission, ADB, Dhaka. The forecasts are based on information available up to 31 March 2021. The economic impact of the ongoing second wave of COVID-19 has not been considered. The outlook will be updated as more information is available.

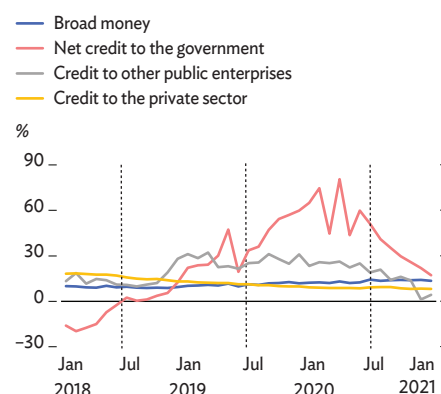
Despite no change in food inflation, consumer inflation edged up from 5.5% in FY2019 to average 5.7% in FY2020 as nonfood inflation rose under pandemic-induced disruption to global and domestic supply chains (Figure 3.15.2). Inflationary pressures were countered by a bumper food crop and substantially lower international commodity prices, keeping overall inflation under control.

Net credit to the government, including transfers of excess bank deposits from autonomous state entities, grew by 59.9% in FY2020 to finance a large budget deficit incurred to meet spending needs related to COVID-19, including expanded cash and food transfers to the poor (Figure 3.15.3). Financing from sales of higher-yielding national savings certificates fell substantially to a 14.4% share of net domestic borrowing. As economic activity withered, growth in private sector credit fell from 11.3% to 8.6%, remaining far below its 14.8% monetary program target. Interbank and retail interest rates moved lower as Bangladesh Bank, the central bank, sought to counter the economic slowdown by reducing the repo rate, its main policy rate, by 75 basis points on 24 March 2020 and again on 12 April. Moreover, to expand bank liquidity and thus counter COVID-19 impacts, it reduced the cash reserve ratio on 1 and 15 April 2020 by a total of 150 basis points (Figure 3.15.4).

Fiscal policy was expansionary as it sought to shore up economic activity and mitigate the impact of the pandemic on the poor and vulnerable. Official estimates for FY2020 show revenue, which is 9.4% of GDP, increasing by 4.4% as greater nontax revenue offset a decline in taxes collected as growth slowed. Expenditure, which is 14.9% of GDP, increased by 6.4%. This entailed some redirection of development spending to current spending to accommodate pandemic-related outlays on health care and stimulus measures. Even so, development spending rose by 6.1%. On balance, the budget deficit remained equal to 5.5% of GDP, meeting the revised budget target but exceeding the customary ceiling of 5.0% for a second consecutive year. Despite these deviations, the ratio of government debt to GDP remained low, equal to an estimate of 38.3% of GDP in FY2020, indicating low risk of debt distress.

Exports reversed 9.1% expansion in FY2019 to contract by 17.1% in FY2020 to \$32.8 billion, most of the decline occurring in Q4 but also reflecting earlier weak global demand. Garment exports contracted sharply by 18.1% and other exports by 10.6%. Imports fell by 8.6% to \$50.7 billion, reflecting sharp reductions in capital goods and garment inputs as import requirements were curtailed by the closing of most industries and construction projects in April and May to contain the spread of the virus. With the decline in imports offsetting much of the reduction in exports, the trade deficit widened only moderately to \$17.9 billion.

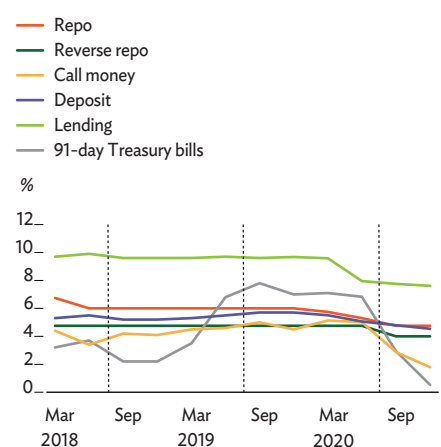
Figure 3.15.3 Growth of monetary indicators



Note: Dotted lines denote ends of fiscal years.

Source: Bangladesh Bank. 2021. *Major Economic Indicators: Monthly Update*. February. <https://www.bb.org.bd> (accessed 31 March 2021).

Figure 3.15.4 Interest rates



Note: Dotted lines denote ends of fiscal years

Source: Bangladesh Bank. 2021. *Major Economic Indicators: Monthly Update*. February. <https://www.bb.org.bd> (accessed 31 March 2021).

Despite slowing in March–May 2020, growth in remittances in the whole of FY2020 increased by 10.9% to reach a record inflow of \$18.2 billion. Remittances benefitted from a 2% government cash incentive from the start of the fiscal year and later from a relaxation of documentation requirements. As a result, the current account deficit eased to \$4.8 billion, narrowing from 1.7% of GDP in FY2019 to 1.5% (Figure 3.15.5).

The combined capital and financial account surplus, after adjustment for errors and omissions, rose sharply from \$5.3 billion in FY2019 to \$8.5 billion in FY2020, despite a marked decline in net foreign direct investment. With net financial inflow far exceeding the current account deficit, the overall balance of payments surplus ballooned from only \$179 million in FY2019 to \$3.7 billion in FY2020. This raised gross foreign exchange reserves in the central bank, including valuation adjustments, by \$3.3 billion to \$36.0 billion, or cover for 7.2 months of imports of goods and services (Figure 3.15.6).

The government accessed pandemic financial support facilities offered by multilateral financial institutions and other development partners to help close a potential financing gap in an economy depressed by COVID-19. These inflows quickly built up a foreign exchange reserve buffer and bolstered government finances in Q4 FY2020 to roll out the stimulus package. Despite higher borrowing in response to COVID-19, public debt remains sustainable and poses low risk of debt distress.

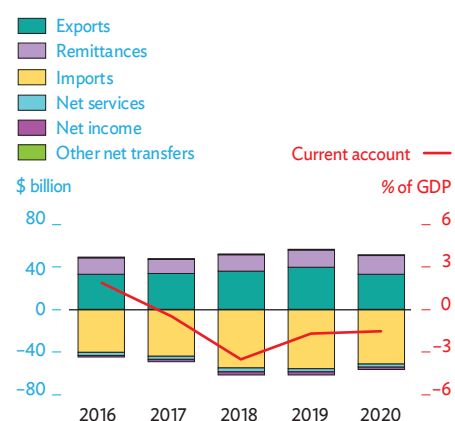
The Bangladesh taka depreciated against the US dollar by 0.5% in FY2020 as the central bank intervened by selling some \$835 million to commercial banks to tamp down excessive market volatility (Figure 3.15.7). Reflecting inflation differentials, the currency had by the end of June 2020 appreciated by 6.9% year on year in real effective terms.

Economic prospects

GDP growth is projected to pick up to 6.8% in FY2021 with stimulus package implementation and recovery in global growth and world trade (Figure 3.15.8 and Table 3.15.1). Continued healthy remittance inflow will likely keep domestic demand buoyant and underpin solid growth in private consumption. Private investment is expected to pick up as moderate growth in private sector credit improves confidence. Public investment is forecast higher as the government expands capital spending with the start of the Eighth Five-Year Plan, 2021–2025.

Unemployment surged from 2.1% in March 2020 to 22.4% in April–July 2020 but dropped sharply again to 3.8% in September with stimulus package implementation and the broad resumption of economic activity. With the start of vaccinations in February 2021 and improving global economic

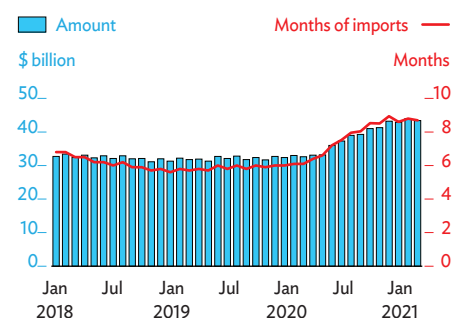
Figure 3.15.5 Current account components



GDP = gross domestic product.

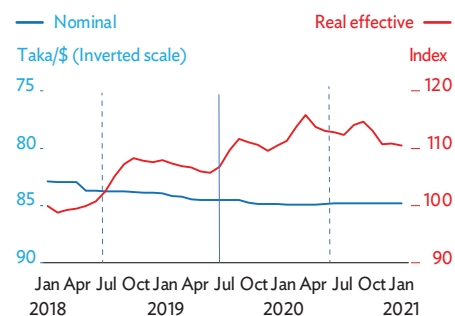
Note: Years are fiscal years ending on 30 June of that year.
Source: Bangladesh Bank. <http://www.bb.org.bd> (accessed 31 March 2021).

Figure 3.15.6 Gross foreign exchange reserves



Source: Bangladesh Bank. <http://www.bb.org.bd> (accessed 31 March 2021).

Figure 3.15.7 Exchange rates



Note: Dotted lines denote ends of fiscal years.

Source: Bangladesh Bank. 2021. Monthly Economic Trends. February. <http://www.bb.org.bd> (accessed 31 March 2021).

conditions and trade, employment is expected to strengthen further in the remaining months of FY2021 and in FY2022.

On the supply side, growth in agriculture is expected to accelerate to 3.5% in FY2021 with continued government support that includes increased agriculture subsidies. The summer rice crop is already showing promise thanks to favorable weather, timely inputs, and improved access to finance. Despite a cyclone and flooding having upended the monsoon rice crop schedule, farmers managed to pull through after the government promptly distributed replacement seedlings. Growth in industry is expected to accelerate to 9.9% in FY2021 as economic conditions turn favorable, as evidenced by medium-sized and large manufacturers reversing production volume contraction by 16.4% in Q4 FY2020 with 6.8% growth in Q1 FY2021. Likewise, growth in services is expected to accelerate to 5.6%, building on a 15.5% increase in bank credit to trade and commerce from Q4 FY2020 to Q1 FY2021 and an 11.9% rise in consumer finance in the same period. Moreover, cargo handled at Chattogram Port in Q1 FY2021 revived to the level recorded a year earlier, long before COVID-19.

In FY2022, GDP growth is expected to edge up further to 7.2% as both exports and imports pick up under sustained global recovery. Continuing strong remittances will underpin growth in private consumption, and private investment will accelerate on favorable global economic conditions and efforts to improve the business climate. Higher public investment in large projects will also boost growth. On the supply side, agriculture is expected to grow by 3.7% if normal weather prevails. Growth in industry is expected to reach 10.8% on continued strong global demand for low-end garments produced in Bangladesh and government policy support. Growth in services is expected to be slightly higher at 5.8%, following the trend in agriculture and industry.

Year on year headline inflation, with some fluctuations, reached 5.5% in March 2021, the same as a year earlier. Food inflation increased to 5.5% from 4.9%, while nonfood inflation slowed to 5.4% from 6.5%. Price pressures may increase in the coming months from higher public expenditure to implement stimulus measures and a recent rise in global food and fuel prices as global economic activity strengthens. Average annual inflation is therefore projected to edge up to 5.8% in FY2021 and remain at that rate in FY2022.

Broad money grew by 13.4% year on year in February 2021, mainly on higher net foreign assets, but underperformed the revised annual monetary program target of 15.0%. Net credit to the government continued to decline, and net credit to the private sector remained steady while import demand was subdued. With bank liquidity ample, interbank call money rates eased, as did interest rates on Treasury bills and other government bonds. The central bank is expected to sustain

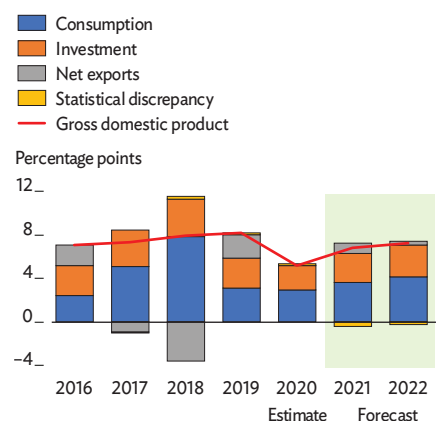
Table 3.15.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	8.2	5.2	6.8	7.2
Inflation	5.5	5.7	5.8	5.8
Current acct. bal., share of GDP	-1.7	-1.5	0.7	0.8

GDP = gross domestic product.

Sources: Bangladesh Bureau of Statistics; Asian Development Bank estimates.

Figure 3.15.8 Demand-side contributions to growth



Note: Years are fiscal years ending on 30 June of that year. Sources: Bangladesh Bureau of Statistics. <http://www.bbs.gov.bd> (accessed 31 March 2021); Asian Development Bank estimates.

its expansionary policy to promote growth. As part of this policy, it cut the discount rate by 100 basis points on 29 July, and the next day it reduced its repo rate by 50 basis points and its other main policy rate, the reverse repo, by 75 points. With policy flexibility that includes low-cost refinance schemes and a credit guarantee scheme for cottage, micro, small, and medium-sized enterprises, broad money growth is likely to reach by the end of FY2021 the annual target of 15.0%, which is consistent with controlling inflation under projected GDP growth.

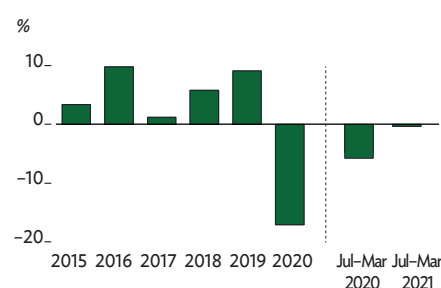
Export contraction in the first 9 months of FY2021 markedly improved from 6.2% a year earlier to 0.1% as garment exports strengthened with revived orders for knitwear (Figure 3.15.9). With high and growing demand for low-end products and government measures to support industry, exports are projected to strengthen further in the coming months to bring overall growth in exports to 13.0% in FY2021, easing to 9.0% in FY2022. In the first 8 months of FY2021, imports recovered from 6.5% contraction a year earlier to 1.9% growth as demand for capital goods and garment materials became less depressed. Overall growth in imports is expected to recover to 6.0% in FY2021 as rising exports spur economic recovery and then expand further by 8.0% in FY2022.

The trade deficit is forecast to narrow marginally as recovery in exports outpaces imports. Further, growth in remittances from workers overseas surged in the first 9 months of FY2021, improving from 16.1% expansion a year earlier to 35.1% in response to the government offering a 2% cash incentive and reducing documentation requirements, its intention both to encourage increased money transfers and to divert flows from illegal to official channels (Figure 3.15.10). Growth in remittances is expected to be 31.8% in FY2021 and then moderate to 8.0% in FY2022, reflecting both a higher base and constraint from COVID-19 on the number of workers going abroad. The current account balance is thus expected to cross into a slight surplus equal to 0.7% of GDP in FY2021 with faster growth in remittances. This, coupled with higher export and import growth, should push the FY2022 current account surplus slightly higher to 0.8% of GDP (Figure 3.15.11).

The Bangladesh taka appreciated by 0.2% in nominal terms against the US dollar at the end of February 2021 from a year earlier, as the central bank intervened. As of January 2021, it had bought \$5.8 billion, while it sold \$230.0 million to commercial banks to contain excessive market volatility. However, the currency depreciated by 0.6% in real effective terms at the end of February 2021 from a year earlier.

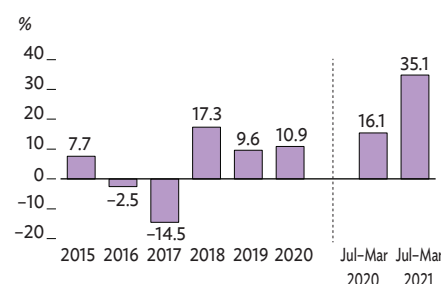
The FY2021 budget targets 8.6% growth in revenue to 11.9% of GDP. Expenditure is targeted to grow by 13.2% to 17.9% of GDP, for a planned deficit of 6.0% of GDP (Figure 3.15.12). The budget targets current spending at 9.8% of GDP, development

Figure 3.15.9 Export growth



Note: Years are fiscal years ending on 30 June of that year.
Source: Export Promotion Bureau, Bangladesh.

Figure 3.15.10 Remittance growth



Note: Years are fiscal years ending on 30 June of that year.
Source: Bangladesh Bank. <http://www.bb.org.bd> (accessed 31 March 2021).

spending at 6.8%, and other spending at 1.3%. Given COVID-19, attaining these targets will be challenging as revenue collected by the National Board of Revenue in the first 8 months of FY2021 grew by only 5.2%, down from 9.1% growth in the same period a year earlier due to lower collection of domestic value-added and income taxes. Despite a Tk1.25 trillion stimulus package, achieving planned spending growth would require concerted effort as less than half of the annual development program was implemented in the first 9 months of FY2021. Shortfalls on both sides of the ledger are thus likely to bring the budget deficit within the budget target.

The outlook is subject to downside risks. A resurgence of COVID-19 cases and delayed availability and supply of vaccines both globally and domestically may undermine the economic growth outlook. Remittances may suffer under deteriorating economic conditions in host countries as oil prices fall in 2022. Damage to agriculture and other activities from extreme weather is a perennial risk.

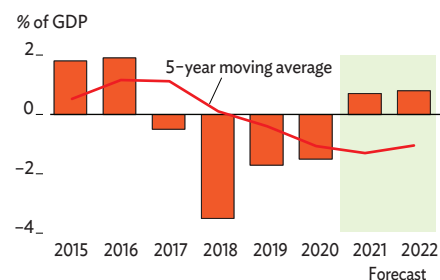
Policy challenge—effective and affordable universal primary health care

Despite notable improvement in various health-care indicators such as life expectancy, maternal mortality, and under-5 mortality, health care in Bangladesh suffers from deficient public funding and ineffective administration. Public health expenditure was only 0.7% of GDP in FY2019, significantly lower than in other South Asian countries. Health care in Bangladesh requires high out-of-pocket expenditure for lack of meaningful national health insurance schemes, either public or private, and is trending higher as a share of total health expenditure, averaging 72.5% in the 5-year period from 2014 to 2018 (Figure 3.15.13). High expenditure discourages poor people from seeking health-care services, endangering their health immediately and foregoing opportunities for the early detection of preventable serious disease.

In the near absence of publicly provided health insurance schemes, the government and development partners have introduced programs providing vouchers for maternal health care and financing to protect the most marginalized from catastrophic health-care payments. Privately provided insurance is virtually nonexistent on a national scale, and only a few large organizations provide health insurance through employers. The absence of publicly or privately provided health insurance confronts households with catastrophic health-care payments that can impoverish them, forcing them to borrow money or sell household assets to finance health care.

The government's Health Care Financing Strategy, 2012–2032 proposes various means to ensure financial

Figure 3.15.11 Current account balance



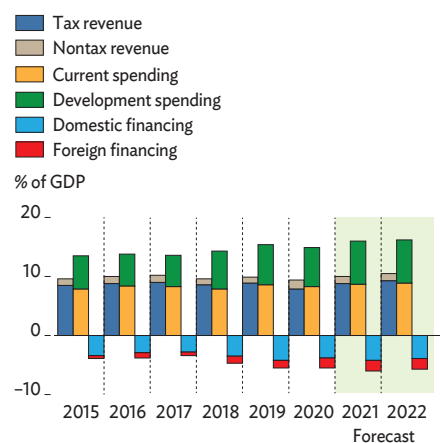
GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year.

Sources: Bangladesh Bank, *Annual Report 2019–2020*.

<https://www.bb.org.bd> (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.15.12 Fiscal indicators



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year.

Source: Asian Development Outlook database.

protection against inordinate health expenditure for all segments of the population. The Eighth Five-Year Plan, 2021–2025 aims to increase the budget allocation for health-care spending to 2.0% of GDP by FY2025. A universal health-care policy will be structured according to lessons learned from the experiences of other countries that combine public and private health insurance schemes. Major research on a universal health-care system will be undertaken in FY2021, with system implementation to begin in a phased manner in FY2022.

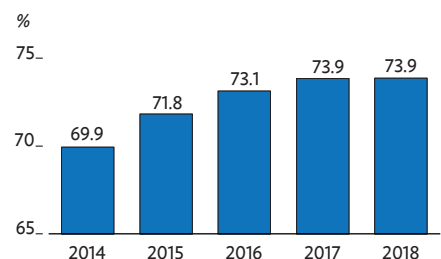
A key priority toward achieving universal health care is a contributory social health insurance scheme managed by the government. To avoid exclusion and low enrollment, participation should be mandated for all, with enabling subsidies provided to lower-income people. Such subsidies are likely to require substantial strengthening of domestic resource mobilization. New taxes earmarked only for this purpose should be explored, as should the means by which health-care services can be made more efficient. Assisted registration and special subsidies will likely be needed to ensure full enrollment of informal workers.

The introduction of social health insurance should be accompanied by transparent processes for reimbursing providers while controlling costs. To reduce costs for vital medical supplies, the social insurance entity may negotiate with pharmaceutical companies and suppliers of medical devices for lower prices. Purchasing arrangements should use payment and quality-control approaches that prioritize patient health but avoid covering elective treatment. A robust, high-quality primary health-care system should ensure affordable management of ailments, both acute and chronic, by serving as a gatekeeper and offering specialist referral services.

While surmounting financial barriers, reform should further ensure access to health care by establishing new health centers in underserved areas, staffing them with qualified health-care professionals, and generally improving the quality of health care in medical establishments across the country. Incentives should be instituted to attract qualified medical professionals to remote areas, such as paying for medical school in exchange for a period of service there. In addition, oversight of private health-care providers needs to be strengthened to ensure acceptable quality of treatment.

As enforcing an individual mandate could be an administrative challenge, the successful achievement of universal social health insurance will require significantly improved health-care administration. An action plan should be devised to develop an administrative structure with effective management capacity.

Figure 3.15.13 Out-of-pocket expenditure as a percentage of current health expenditure



Sources: World Health Organization. Global Health Expenditure database. <https://apps.who.int/nha/database/ViewData/Indicators/en> (accessed 8 December 2020).

Bhutan

Growth stalled in fiscal 2020 as the fourth quarter was severely affected by COVID-19. Inflation edged up, and tourism and trade were disrupted. GDP is expected to contract in fiscal 2021 but rebound next year with strong policy responses to the pandemic and a vaccination drive. After narrowing under economic contraction, the current account deficit will widen again in fiscal 2022 as growth revives imports and investment. Nonbank financial institutions can improve the quality of their lending.

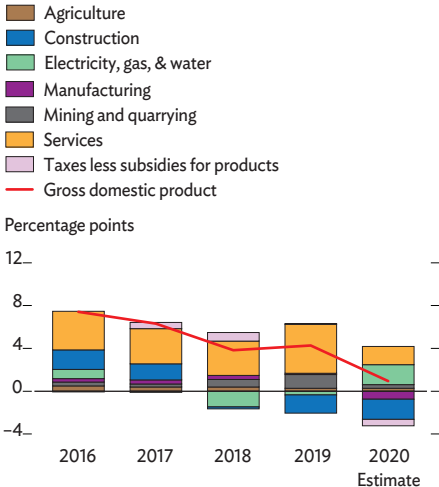
Economic performance

Stringent containment measures adopted by the government to address the COVID-19 pandemic had an unprecedented impact on the economy, causing growth in fiscal year 2020 (FY2020, ended 30 June 2020) to fall to only 0.9% (Figure 3.16.1). Border closure from March 2020 disrupted supply chains, severely affected tourism and caused an exodus of expatriate workers that left a severe shortage of labor and skills. Notably, from Bhutan’s first case of COVID-19 on 6 March 2020 to 14 April 2021, the country had only 929 cases and 1 death. Within a week from the start of a vaccination drive on 27 March 2021, 85% of the population had received a first vaccine dose.

The sector hardest hit by the pandemic was services, a strong driver of growth and source of employment, which suffered a growth slowdown from 10.8% in FY2019 to 3.7% in FY2020. International tourist arrivals declined by 35.0% and tourism revenue by 33.9%, affecting accommodation, food, and transportation services, in which contraction averaged 30.8%. Industry contracted by 1.1%, tracking declines in construction and manufacturing caused by a migrant labor shortage, disrupted supply of raw materials, and subdued domestic demand. Mining and quarrying slowed markedly on reduced construction and exports. Hydropower, the only activity unaffected by the pandemic, cushioned the decline in industry with growth in electricity generation by 43.6% and a doubling of export sales on good hydrology and the commissioning of Mangdechhu hydropower project in August 2019. Agriculture grew by 2.6% on strong crop and livestock production.

On the demand side, fixed investment contracted by 11.7%, reflecting a drop in public investment with constrained implementation of infrastructure projects and a fall in private investment due to a decline in construction of housing and

Figure 3.16.1 Supply-side contributions to growth



Note: Years are fiscal years ending 30 June of that year. Sources: National Statistics Bureau. National Accounts Statistics, 2020. <http://www.nsb.gov.bt> (accessed 31 March 2021); Asian Development Bank estimates.

This chapter was written by Tshering Lhamo and Nyingtob Pema Norbu of the Bhutan Resident Mission, ADB, Thimphu.

hydropower projects (Figure 3.16.2). Though slowing to 5.4% growth, consumption expenditure continued to drive GDP growth, mainly on a 27.9% jump in government current spending to fund higher wages and salaries and sizeable pandemic-related expenditure that included social relief and spending under a multiyear economic contingency plan with a budget equal to 13.8% of GDP. Private consumption growth dwindled to 2.9% with a downturn in income. The largest contributor to growth was a marked improvement in net exports derived from both a surge in the volume of electricity exports and a sharp decline in imports.

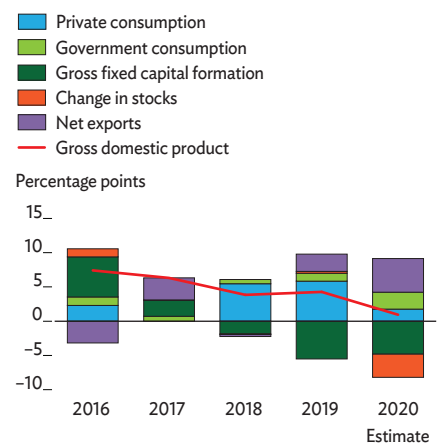
The pandemic idled thousands of workers, including over 50,000 in tourism and allied fields, while thousands more returning from abroad were unable to find a job. The unemployment rate increased to 5.0% in 2020 from 2.7% in 2019. The government's economic contingency plan, in particular its Build Bhutan project, is expected to upskill, train, and absorb an estimated 7,000 youth.

Inflation rose modestly to an average of 3.0% in FY2020 as food prices climbed sharply in the closing months of the fiscal year because of disrupted supply from India coupled with panic buying (Figure 3.16.3). While average food inflation increased to 5.3% from 3.6% a year earlier, most of the change was offset by lower nonfood inflation, which eased by nearly half over the year, from an average of 2.3% in FY2019 to only 1.2%, with depressed demand for consumer durables.

Expansive fiscal policy was at the fore in countering the pandemic, with resources channeled to health care, social protection, and other countercyclical measures (Figure 3.16.4). Total government expenditure surged by an estimated 28.9% to 32.0% of GDP on increases in current expenditure for higher salary and additional pandemic expenditure. A large increase in grants and one-off profit transfer from the Mangdechhu hydropower project offset a steep decline in tax revenue as tax collection was deferred to alleviate cashflow challenges to businesses, and as border closure meant fewer tourists paying a royalty on entry. The budget deficit is estimated to have widened from 1.6% of GDP in FY2019 to 2.7% in FY2020.

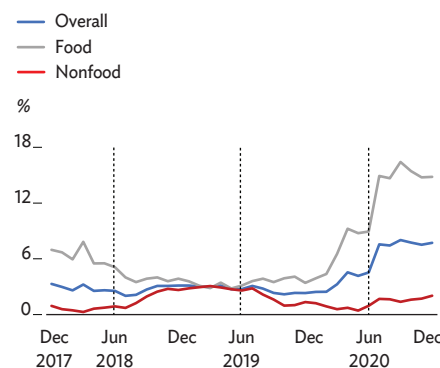
Monetary policy eased to counter the pandemic. Measures such as waiver of interest payment, deferment of loan repayment, and concessional credit to productive sectors were deployed to stimulate the economy and maintain financial stability. Complementing this was regulatory relaxation that reduced the cash reserve ratio from 10% to 7% to enhance bank liquidity. Broad money grew substantially by 19.3%, reflecting a surge in net foreign assets, while growth in private credit slowed from 20.5% to 13.3% (Figure 3.16.5). Pegged to the Indian rupee, the Bhutan ngultrum depreciated by 2.4% against the US dollar in FY2020.

Figure 3.16.2 Demand-side contributions to growth



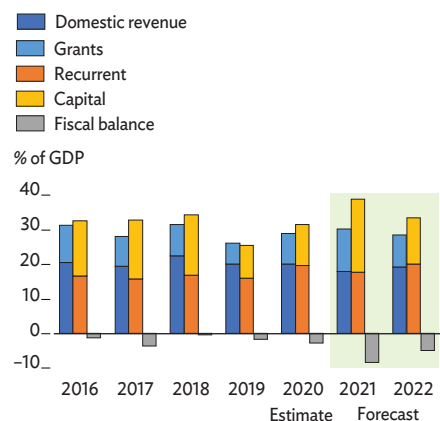
Note: Years are fiscal years ending 30 June of that year.
Sources: National Statistics Bureau. National Accounts Statistics, 2020. <http://www.nsb.gov.bt> (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.16.3 Inflation



Source: National Statistics Bureau. Monthly Consumer Price Index Bulletin, December 2020. <http://www.nsb.gov.bt> (accessed 31 March 2021).

Figure 3.16.4 Fiscal indicators



GDP = gross domestic product.

Note: Years are fiscal years ending 30 June of that year.

Source: Ministry of Finance. National Budget, Financial Year 2020/21. <http://www.mof.gov.bt> (accessed 31 March 2021).

The current account deficit narrowed substantially in FY2020 from 20.5% of GDP in FY2019 to 12.1% (Figure 3.16.6). This reflected a substantially reduced trade deficit as electricity exports rose markedly and imports of construction materials and other goods plunged. Further trimming the current account deficit were a surge in external current grants, a marked fall in outbound worker remittances, and a record increase in remittances from Bhutanese working abroad, albeit from a small base. The overall balance was a record-high surplus of \$350 million. This reflected an increase in grants and an upsurge in financial account flows as Bhutan accessed financial support facilities offered in response to the pandemic by multilateral financial institutions and other development partners.

Gross international reserves grew by \$279 million to \$1,344 million in FY2020 or cover for 17.9 months of merchandise imports (Figure 3.16.7). External public debt—largely concentrated in hydropower and 71% denominated in Indian rupees—rose marginally in FY2020 to \$2.8 billion, reaching 115.8% of GDP (Figure 3.16.8). Given the increasing debt and associated risks, the government is implementing initiatives to strengthen debt management, including enhanced transparency and reporting standards.

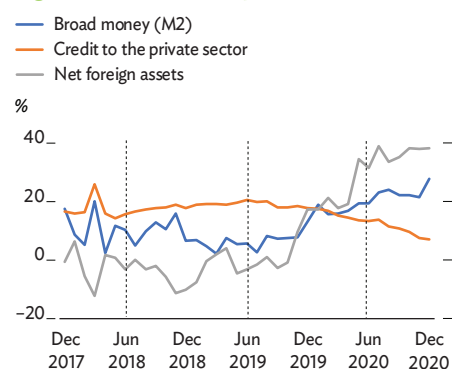
Economic prospects

GDP is forecast to contract by 3.4% in FY2021—the most significant contraction since 1991—on account of stringent containment measures including two prolonged nationwide lockdowns that stifled economic activity across sectors. The economy is expected to rebound to 3.7% growth in FY2022 as the nationwide vaccination drive restores mobility and economic activity, the government markedly boosts investment spending, and the global economic recovery revives tourism, albeit moderately, and trade with India.

Industry is expected to contract by 3.2% in FY2021 as the continuing acute migrant labor shortage further stymies construction and manufacturing. Electricity generation is forecast to expand but less than in FY2020 as full use of installed capacity will be reached, greatly reducing its ability to offset contraction in construction and manufacturing. Services are forecast to contract steeply by 4.7% with the absence of tourists during the year dragging down accommodation, food, and transportation. Agriculture is expected to grow by 2.8% in FY2021 and 2.5% in FY2022, underpinned by strong government intervention including a food security drive, greater access to credit through a national credit guarantee scheme, and a buy-back mechanism for agricultural produce.

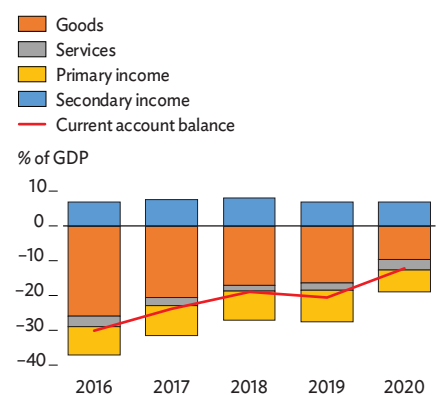
On the demand side, fixed investment is forecast to contract sharply by 21.6% in FY2021 as containment measures severely hamper both public and private capital spending, including on hydropower construction. Investment is expected to

Figure 3.16.5 Monetary indicators



Source: Royal Monetary Authority. Monthly Statistical Bulletin, April 2021. <http://www.rma.org.bt> (accessed 31 March 2021).

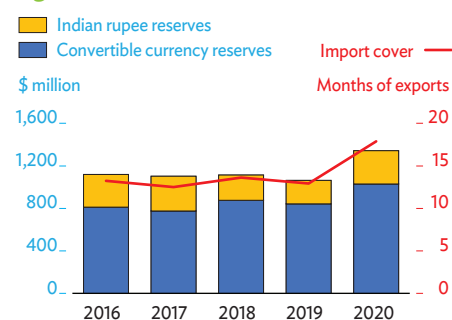
Figure 3.16.6 Components of the current account



GDP = gross domestic product.

Note: Years are fiscal years ending 30 June of that year.
Source: Royal Monetary Authority. Monthly Statistical Bulletin, April 2021. <http://www.rma.org.bt> (accessed 31 March 2021).

Figure 3.16.7 External reserves



Note: Years are fiscal years ending 30 June of that year.

Source: Royal Monetary Authority. Monthly Statistical Bulletin, April 2021. <http://www.rma.org.bt> (accessed 31 March 2021).

pick up in FY2022, mainly as the government accelerates its implementation of planned capital projects. Consumption will provide little support to growth in FY2021, with government current expenditure restrained by a budgetary mandate, but rebound in FY2022 as growth recovers and allows more government current spending supported by enhanced domestic resource mobilization, including the introduction of a goods and services tax. Reduced domestic demand is projected to drive imports down substantially in FY2021, improving the trade balance such that net exports counter GDP contraction. In FY2022, strong investment will boost imports, turning net exports into a slight drag on growth.

While fiscal policy will remain largely accommodative, budget utilization is expected to fall short of its target in FY2021. To accommodate the large downturn in revenue projected at 14%, growth in current expenditure is expected to slow to 7.5% to fulfill a constitutional mandate to keep current expenditure within revenue. Capital expenditure is also expected fall short mainly because of constraints on construction. The budget deficit forecast to widen to 8.3% of GDP is unlikely to be fully realized. Revenue performance is expected improve in FY2022 as tourism revives and on implementation of a goods and services tax. Total expenditure is expected to rise to 36.5% of GDP in FY2022, with a deficit of 9.5% of GDP.

Monetary policy will continue to orient toward price stability and maintaining the ngultrum parity peg to the Indian rupee. Inflation averaged 7.6% in the first 6 months of FY2021, with food prices up by 15.2% and nonfood inflation stable at 1.6%, and is expected to average 6.4% in the whole of FY2021 on higher prices for food and transportation. However, inflation is forecast to ease to 5.3% in FY2022 as prices are expected to trend lower in India and domestic conditions improve.

The current account deficit will moderate to 7.7% of GDP in FY2021 as imports contract on falling domestic demand. In FY2022, imports are forecast to revive on recovery in investment and private consumption, boosting the current account deficit to 10.4% of GDP.

Risks to the growth outlook tilt to the downside: revival in tourism slower than expected; global economic recovery, most importantly in India, weaker than expected; renewed virus outbreaks with new variants; financial stress caused by a worsening nonperforming loan ratio; and, most critically, slow implementation of government investment projects.

Policy challenge—resolving nonperforming loans to strengthen financial stability

Bhutan's finance industry is still dominated by banks, with five banks providing 75% of all loans and the balance from three

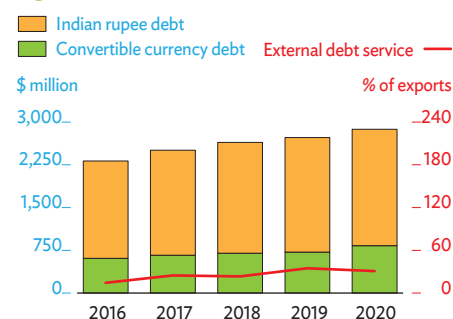
Table 3.16.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	4.3	0.9	-3.4	3.7
Inflation	2.8	3.0	6.4	5.3
Current acct. bal., share of GDP	-20.5	-12.1	-7.7	-10.4

GDP = gross domestic product.

Sources: National Statistics Bureau. National Accounts Statistics, 2020; Asian Development Bank estimates.

Figure 3.16.8 External debt indicators



Note: Years are fiscal years ending 30 June of that year.

Source: Royal Monetary Authority. Monthly Statistical Bulletin, April 2021. <http://www.rma.org.bt> (accessed 31 March 2021).

nonbank financial institutions (NBFIs). One insurance company holds 34% of all NBF nonperforming loans (NPLs). While the ratio of NPLs to all loans averaged 12.0% over the past 15 years, economic difficulties under the pandemic bumped the NPL ratio up to 16.4%.

The prevalence of NPLs significantly and negatively correlates with economic growth. For NBFIs, another factor is weak expertise for loan appraisal, credit monitoring, and supervision, which contributed to a high NPL ratio of 30.5% for NBFIs in June 2019. The ratio fell to 21.9% in June 2020 but was still well above the 14.5% ratio reported by banks (Table 3.16.2). While provision as a share of NPLs is relatively high, 46.9% coverage by NBFIs is significantly less than 54.0% by banks. Notwithstanding impacts from the pandemic in FY2020, the quality of NBF assets significantly improved thanks to prudential interventions undertaken by the Royal Monetary Authority, which strengthened the regulatory framework for NBFIs (Figure 3.16.9).

Analysis of NPLs by bank-specific variables shows banks' profitability indicators are notably sensitive to NPLs. When bank efficiency rises, NPLs are expected to decrease. More specifically, a 3.9% decrease in NPLs results in a 1.0 percentage point increase in return on assets, while a 1.0% increase in total loan volume brings a 2.8% increase in NPLs.

The NPL situation must be assessed as well in relation to an exponential increase in domestic credit, which grew by a compounded average of 19% from 2010 to 2020, most of this growth skewed toward services and tourism, trade and commerce, and housing. Services including tourism is the sector that accounts for the most NPLs at Nu8.5 billion, or 30.3% of all NPLs (Table 3.16.3).

Bhutan needs to explore strategies to address NPLs and contain their impact on the broader financial system. The Royal Monetary Authority may consider supporting recovery strategies on balance sheets by granting more autonomy to financial institutions in how they restructure loans. The current tenure limit for a housing loan is 20 years, for example, but extending it to about 35 years, as in many other countries, suggests scope for restructuring.

The Credit Information Bureau has a more dynamic role to play in helping financial institutions avoid excessively risky loans and advances. It currently sits on a static database that does not provide to lenders up-to-date assessments of prospective borrowers, pointing to a need to enhance bureau capacity with better technology and technical competence. A more aggressive approach worth exploring would involve establishing a publicly owned asset rehabilitation entity. Further, capital strengthening could be achieved through measures to improve credit underwriting at both banks and NBFIs and the introduction of NBF stress-testing for credit exposure.

Table 3.16.2 Nonperforming loans and loan-loss provision, June 2020

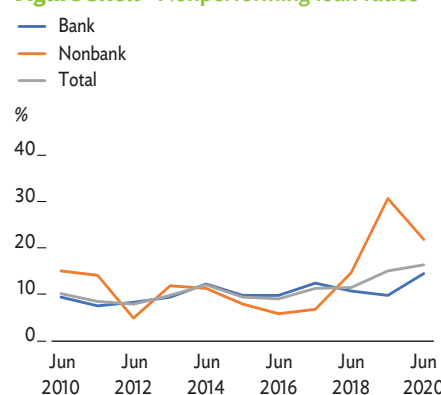
	Loans (Nu million)	NPLs (Nu Million)	NPL (% of total loans)	Provision (share of NPLs)
Banks	122,064	17,705	14.5	54.0
NBFIs	40,869	8,954	21.9	46.9
Total	162,933	26,659	16.4	51.4

NBFI = nonbank financial institution, NPL = nonperforming loan.

Note: Provisions and their coverage of NPLs is in March 2020.

Sources: Royal Monetary Authority, 2020. *Highlight on the Financial Sector Performance*, March, 2020. *Working Paper on Nonperforming Loans*.

Figure 3.16.9 Nonperforming loan ratios



Sources: Royal Monetary Authority, Annual Report, multiple years; Highlights on the Financial Sector Performance, March 2020; Financial Sector Performance Review Report, multiple years.

Table 3.16.3 Top five sectors with nonperforming loans, June 2020

	NPLs (Nu million)	% of NPLs
Services & tourism	8,536	30.3
Trade & commerce	4,839	17.2
Housing	3,727	13.2
Production & manufacturing	3,580	12.7
Transport	1,925	6.8

NPL = nonperforming loan.

Sources: Royal Monetary Authority, 2020. *Highlight on the Financial Sector Performance*, March, 2020. *Working Paper on Nonperforming Loans*.

India

The economy contracted deeply in fiscal 2020 under the pandemic. Supply disruption drove inflation above its target range, and the current account crossed into surplus as imports shrank. Growth will rebound this year by double digits before normalizing next year. Inflation will ease into the target range as supply chains recover and agriculture achieves forecast bumper harvests. The current account will fall back into deficit with revived domestic demand. Digital transformation will facilitate recovery and sustain inclusive growth.

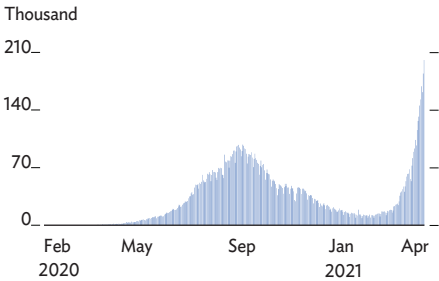
Economic performance

Having contracted for 2 consecutive quarters, GDP rebounded by 0.4% in the third quarter (Q3) of fiscal year 2020 (FY2020, ended 31 March 2021) as the number of COVID-19 cases fell steadily from September 2020 to February 2021 (Figure 3.17.1). This came after the government eased strict COVID-19 containment measures in June 2020, allowing the economy to start to reopen. The pace of economic normalization accelerated in Q3, such that Google mobility by the end of the quarter was only 3.3% below the pre-pandemic norm (Figure 3.17.2). The economy is estimated to have contracted by 8.0% in the whole of FY2020 (Figure 3.17.3).

Following contraction by 27.5% in the first half of FY2020, investment expanded by 2.1% in Q3 (Figure 3.17.4). This was led by 110.5% growth year on year in central government capital expenditure in the quarter, with help from restocking. Private investment remained muted, with lackluster credit uptake and a sharp 71.4% drop in new project announcements in FY2020 (Figure 3.17.5).

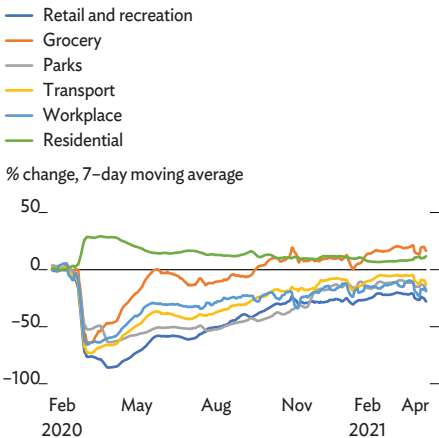
Public and private consumption alike continued to contract in Q3 but—with the festival season and fewer COVID-19 cases releasing pent-up demand—significantly less than in the 2 previous quarters. While rural demand benefited from government measures, notably increased minimum support prices and allocations for a rural employment guarantee program, urban demand lagged as people stayed at home. Public consumption fell even as central government expenditure rose by 28.9% in the quarter, suggesting lower spending by state governments. Under global malaise, exports contracted by 4.6%, the same rate as imports but on a smaller

Figure 3.17.1 Number of new COVID-19 cases daily



COVID-19 = Coronavirus Disease 2019.
Source: CEIC and Bloomberg (accessed 15 April 2021).

Figure 3.17.2 Google mobility in India



Source: Google Community Mobility Report database.
<https://www.google.com/covid19/mobility/> (accessed 15 April 2021).

This chapter was written by Lei Lei Song of the South Asia Department, ADB, New Delhi, and Shalini Mittal, India Resident Mission, ADB, New Delhi.

amount, such that net exports contributed 0.1 percentage points to GDP growth in Q3.

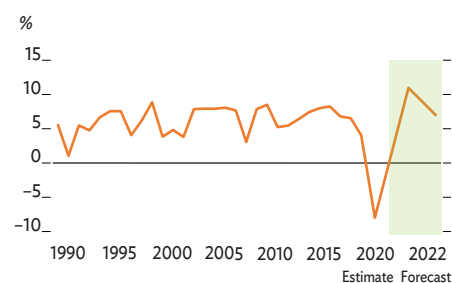
On the supply side, industry rebounded by 2.7% in Q3 as restrictions eased (Figure 3.17.6). Manufacturing emerged from 5 consecutive quarters of contraction to grow by 1.6%, but much faster 35.5% improvement in the profits of listed firms suggested that smaller and informal firms lagged. Utilities grew by 7.3%, the fastest in 9 quarters as power demand surged, and construction by 6.2%, the fastest in 8 quarters as investment rose and migrant workers returned to cities. Mining continued to contract. So did services, but by a relatively mild 1.0% as growth in financial, real estate, and professional services more than compensated for continued contraction in contact services such as trade, hotels, and tourism—and in public administration services, despite increasing central government spending. Agriculture maintained robust growth at 3.9%, helped by lower incidence of COVID-19 in rural areas and a good monsoon.

GDP in Q4 FY2020 is estimated to have contracted by 1.1%. However, gross value added grew by 2.5%, the difference with GDP growth deriving largely from a sharp rise in food subsidies to support the poor and pay Food Corporation of India arrears to creditors. In FY2020 as a whole, contraction was mitigated by government spending and a strong investment rebound in the second half. A much sharper decline in imports than exports increased net exports, adding 2.4 percentage points to growth. On the supply side, growth in agriculture and utilities partly offset contractions in manufacturing, mining, and services.

Headline inflation rose from 4.8% in FY2019 to 6.2% in FY2020, above the inflation target of 2%–6%, driven mainly by 7.4% food inflation, with food constituting 45.9% of the consumption basket (Figure 3.17.7). Mobility restrictions and supply chain disruption caused food prices to soar in the first 8 months of FY2020, for vegetables by double digits. However, food inflation has slowed since December 2020, partly as easing restrictions alleviated supply chain disruption and partly from a high base effect after a surge in onion prices a year earlier. Despite low global oil prices and rural fuel inflation at only 0.3%, fuel inflation in urban areas reached 7.1%, the difference being additional gasoline taxes levied in cities.

With inflation high and the economy slowly recovering, the Reserve Bank of India, the central bank, kept the policy interest rate steady at a historically low 4.00%, after cuts by 75 basis points in March 2020 and 40 points in May (Figure 3.17.8). To support the economy, it injected liquidity into markets and expanded its balance sheet with purchases of government bonds, simultaneously buying long-term ones and

Figure 3.17.3 GDP growth

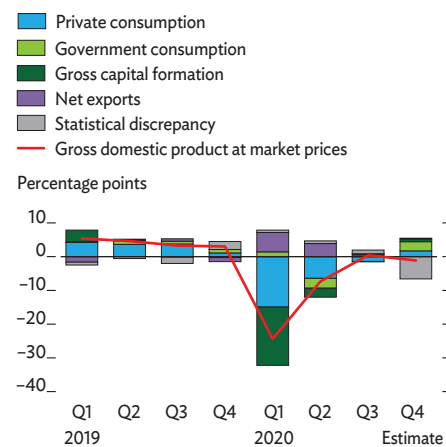


GDP = gross domestic product.

Note: Years are fiscal years ending on 31 March of the next year.

Sources: Ministry of Statistics and Programme Implementation. <http://www.mospi.nic.in> (accessed 13 April 2021); Asian Development Bank estimates.

Figure 3.17.4 Demand-side contributions to growth

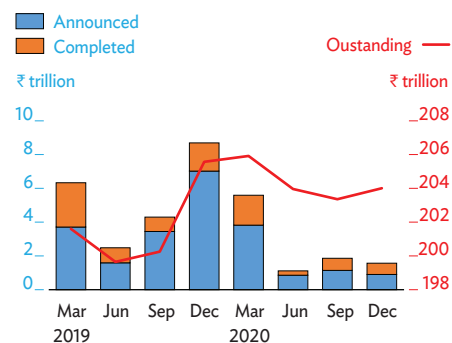


Q = quarter.

Note: Years are fiscal years ending on 31 March of the next year.

Sources: Ministry of Statistics and Programme Implementation. <http://www.mospi.nic.in>; CEIC Data Company (both accessed 19 March 2021); Asian Development Bank estimates.

Figure 3.17.5 Investment projects



Source: Centre for Monitoring Indian Economy Pvt. Ltd. <https://www.cmie.com/> (accessed 5 April 2021).

selling short-term ones toward managing long-term interest rates.

Nonfood bank credit, which excludes public sector loans for procuring crops from farmers, was little changed in the first 11 months of FY2020, growth slipping from 6.7% a year earlier to 6.5% (Figure 3.17.9). While credit growth remained strong for agriculture and services, credit to industry declined. Within industry, credit to medium-sized enterprises grew by double digits, while that for large enterprises contracted. Credit growth was strong for pandemic-hit services such as tourism, hotels, trade, transportation, and shipping but contracted for services that benefitted from working remotely from home, such as computer software and professional services. Credit growth for consumer durables fell by more than half as consumers were reluctant to spend.

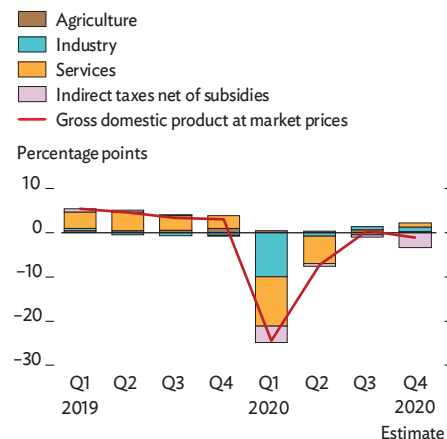
The Supreme Court banned declarations of nonperforming loans (NPLs) in September 2020 after a moratorium on loan repayment lapsed on 31 August, lifting the ban only in late March 2021. While official NPLs declined in December 2020 (Figure 3.17.10), many banks reported that, without the Supreme Court suspension, NPLs would have been higher. With the ban lifted, NPLs are expected to spike, but the government raised the threshold for declaring default from ₹100,000 to ₹10 million, protecting small businesses. A 1-year suspension of the Insolvency and Bankruptcy Code expired in late March 2021.

Despite ample liquidity injections and purchases of long-term government bonds by the central bank, the spread between the 10-year government benchmark bond and the 91-day Treasury bill tripled from 104 basis points before the pandemic to 300 points at the end of March 2021 (Figure 3.17.11). This reflects expectations of fast economic recovery and higher government borrowing to finance fiscal deficits. Further pressure on India's bond market comes from surging bond yields in the US following the passage of a large stimulus package there in early March 2021.

On 1 February 2021, the government significantly expanded expenditure to fight the pandemic and revive economic growth even as revenue fell, revising the fiscal deficit for FY2020 from the equivalent of 3.5% of GDP before the pandemic to 9.5% (Figure 3.17.12). Declining GDP contributed 0.6 percentage points to the deficit, lower revenue 3.3 points, and higher expenditure 2.1 points, of which rising food subsidies contributed 1.6 percentage points, including 0.9 percentage points from spending to clear Food Corporation of India arrears.

Under economic contraction, revenue fell by 8.6% in FY2020, with gross tax revenue down by 5.5% and, despite monthly collection in the second half setting records as it surpassed ₹1.0 trillion, goods and services tax revenue down

Figure 3.17.6 Supply-side contributions to growth

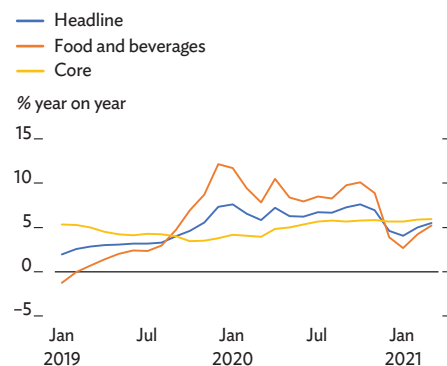


Q = quarter.

Notes: Years are fiscal years ending on 31 March of the next year. Sectoral data are in basic prices.

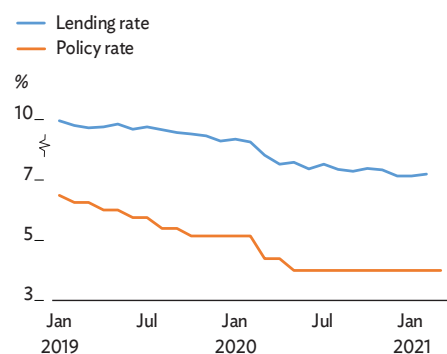
Sources: Ministry of Statistics and Programme Implementation. <http://www.mospi.nic.in>; CEIC Data Company (both accessed 19 March 2021); Asian Development Bank estimates.

Figure 3.17.7 Inflation



Source: CEIC Data Company (accessed 12 April 2021).

Figure 3.17.8 Interest rates



Source: CEIC Data Company (accessed 5 April 2021).

by 14.0%. Nontax revenue collapsed by 35.6% to equal only 1.1% of GDP as state-owned enterprises failed to generate profits or dividends. Divestment receipts fell to 63.6% of the FY2019 level.

Expenditure in FY2020 equaled 17.7% of GDP, the highest in 3 decades and 13.5% higher than budgeted. Capital expenditure grew by 30.8% to equal 2.3% of GDP. The government increased social expenditure such as food subsidies and boosted funding for the Mahatma Gandhi National Rural Employment Guarantee scheme by 55.5%, increasing person-days of employment by 45.4% to 3.9 billion (Figure 3.17.13). It also improved budget transparency by discontinuing off-budget borrowing by the Food Corporation of India for food subsidies. Now fully on budget, food subsidies grew by a record 289% to equal 2.2% of GDP as total subsidies reached 3.3% of GDP and interest expenses 3.6%.

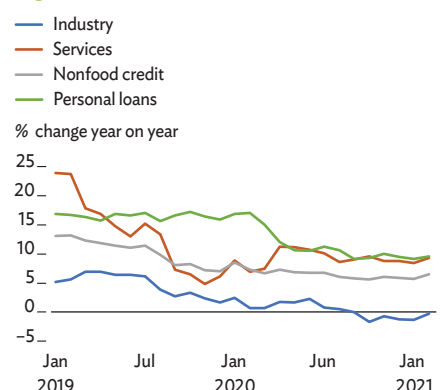
In the first 11 months of FY2020, merchandise imports contracted by 18.4% year on year as domestic demand fell (Figure 3.17.14). Weak demand and low oil prices pushed the value of oil imports down by more than 30%. Gold imports to India, a major importer of the precious metal, contract by double digits in value despite rising gold prices. In the same period, merchandise exports contracted by 7.6% as global demand contracted, but exports of agricultural products, minerals, and chemicals grew strongly. India is becoming a manufacturing hub for vaccines, helping to put pharmaceuticals among its top five exports in FY2020.

In the first 10 months of FY2020, the service trade surplus grew by a robust 11.8% year on year as exports of services contracted less than imports. Largely on an improved trade balance, the current account reversed a deficit in FY2019 equal to 0.9% of GDP with a surplus in FY2020 estimated at 1.0%—this despite 6.8% contraction in remittances in the first 3 quarters of FY2020 as migrant workers lost their jobs abroad.

Also in the first 10 months of FY2020, foreign direct investment (FDI) inflow increased from \$47.1 billion a year earlier to \$52.3 billion, despite the pandemic, after the investment environment improved with FDI policy reform over the last few years, investment facilitation, and greater ease of doing business. Foreign portfolio inflow reached \$36.2 billion, the highest since FY2014. Helped by record equity inflow despite GDP contraction, the Bombay Stock Exchange soared by 68.0% in FY2020 (Figure 3.17.15).

The Indian rupee depreciated by 3.4% in the year to 31 March 2021, averaging ₹74.2 to the US dollar over the course of FY2020 (Figure 3.17.16). It depreciated in real effective terms by 0.5% in the first 3 quarters despite high domestic inflation. The current account surplus and rising capital inflow boosted foreign currency reserves by \$101.5 billion to \$579.3 billion (Figure 3.17.17).

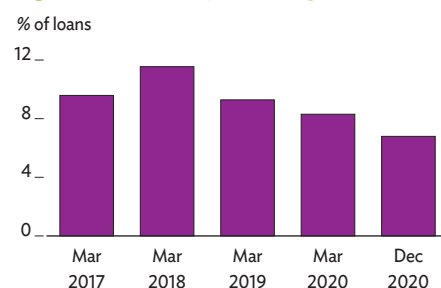
Figure 3.17.9 Bank credit



Note: Nonfood bank credit excludes public sector loans for procuring crops from farmers.

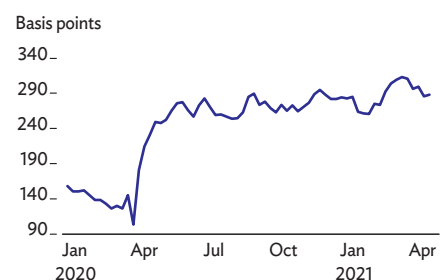
Source: Centre for Monitoring Indian Economy Pvt. Ltd. <https://www.cmie.com/> (accessed 5 April 2021).

Figure 3.17.10 Nonperforming loans



Source: Reserve Bank of India. <https://rbi.org.in/> (accessed 13 April 2021).

Figure 3.17.11 Bond yield spread



Note: The spread is the yield difference between the 10-year government benchmark bond and the 91-day Treasury bill in India.

Source: CEIC Data Company (accessed 19 April 2021).

Economic prospects

Economic activity is forecast to rebound by 11.0% in FY2021 as extensive vaccine deployment brings COVID-19 under control and a large base effect kicks in (Table 3.17.1). Also helping is a recent stimulus package in the important US export market. Growth will moderate to 7.0% in FY2022 as the base effect passes. The challenge is to sustain robust growth in a COVID-19 affected economy beset by rising NPLs, constrained fiscal space, slow credit growth and digitalization, and persistent uncertainty in the global environment.

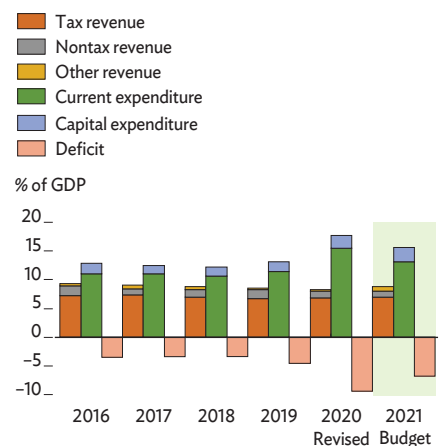
A national vaccination program began on 16 January 2021, for which the government has budgeted ₹350 billion in FY2021. Aiming to vaccinate 300 million by August 2021, the rollout initially encountered delays and hesitancy, but with teething issues solved and private sector help the pace picked up significantly. The Prime Minister is among politicians inoculated publicly to counter vaccine hesitancy. By mid-April, India had administered more than 120 million doses to 100 million people. At the current pace of about 3 million doses per day, the target can be reached as scheduled and herd immunity achieved by FY2022.

New COVID-19 cases daily, having bottomed out at 11,000 in mid-February, surged again, surpassing 200,000 in mid-April. To contain this second wave of COVID-19, the vaccine rollout may need to accelerate further, which would require more vaccine supply, a strengthened regulatory regime for vaccine approval, and heightened private sector participation. While containing COVID-19 is still key to economic recovery, global experience suggests that economic impacts from subsequent waves are smaller than from the first if nationwide lockdowns are avoided.

The government has increased expenditure on public health and well-being—primarily health care, water supply, and sanitation—to the equivalent of 1.0% of GDP in FY2021. In September 2020, it launched the National Digital Health Mission to develop the infrastructure needed to digitalize health care, which should strengthen resilience under any future epidemic.

The vaccine drive and large government stimulus will help economic activity continue to normalize and recover. Domestic demand is expected to remain the main driver of growth as the release of pent-up demand boosts private consumption, especially urban demand for services. While consumer confidence still shows reservations about the current situation, according to central bank polling, future expectations improved in January and February, only to fall again in March under the second wave (Figure 3.17.18). Rural demand is buoyed by robust agriculture growth and continued government support to farmers.

Figure 3.17.12 Fiscal indicators

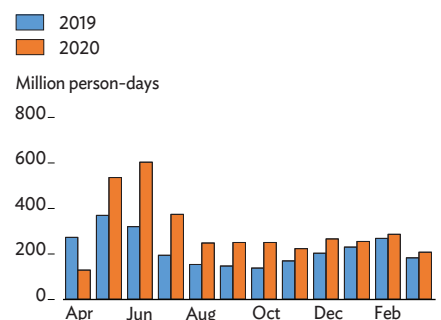


GDP = gross domestic product.

Note: Years are fiscal years ending on 31 March of the next year.

Source: Ministry of Finance Union Budget. <http://indiabudget.nic.in> (accessed 1 February 2021)

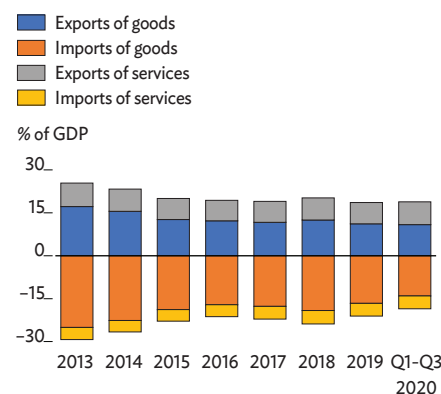
Figure 3.17.13 Employment under the Mahatma Gandhi National Rural Employment Guarantee



Note: Years are fiscal years ending on 31 March of the next year.

Source: Ministry of Rural Development, Government of India. <https://nrega.nic.in/netnrega/home.aspx> (accessed 31 March 2021).

Figure 3.17.14 Trade indicators



GDP = gross domestic product, Q = quarter.

Source: CEIC Data Company (accessed 31 March 2021).

Investment recovery in the second half of FY2020 is expected to continue in FY2021, with public investment boosted by a central government infrastructure push and the FY2021 capital expenditure budget raised to equal 2.5% of GDP, the highest in more than a decade. A planned development financing institution will help finance infrastructure. To speed project completion, 50 current infrastructure projects worth more than ₹2 trillion, or 1.0% of GDP, will be directly monitored by the Prime Minister's office. Other reform to push infrastructure financing introduced debt financing instruments for foreign portfolio investors and tax-efficient zero-coupon infrastructure bonds.

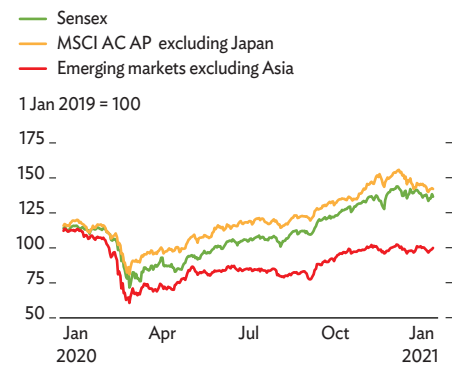
Private investment will pick up on improving sentiment and risk appetite and accommodative credit conditions. The central bank's industrial outlook survey showed business expectations in Q4 FY2020 reaching their rosiest in almost 10 years, and the share of respondents expecting capacity utilization to improve in the coming quarters was the highest in 9 years (Figure 3.17.19). Yet, rising NPLs and associated uncertainty over the pandemic may continue to discourage bank lending to the private sector in the short run. The central bank projects, as its baseline scenario, that NPLs will shoot up to 13.5% of all loans by September 2021. Further, rising global bond yields may tighten financial conditions in the Indian market.

Agriculture is expected to remain healthy. A normal monsoon and a record planted area for summer crops are expected to yield a bumper harvest. The area under irrigation will increase with a government program to complete 99 priority irrigation projects. Farmers' income should receive a boost from government efforts to improve value chains and increase the farm loan limit, backed by negotiable warehousing receipts, from ₹5.0 million to ₹7.5 million. Farmers' protests from late 2020 prompted the Supreme Court to suspend the implementation of the three new farm laws passed in September 2020.

Manufacturing will benefit from the creation of mega textile parks and an expanded Production Linked Incentive Scheme, which helps to integrate domestic manufacturers with global supply chains as well as rewarding higher domestic production. With vaccines rolled out smoothly and COVID-19 contained, recovery in contact services should accelerate. Purchasing managers' indexes for manufacturing and services have been in expansionary territory for 7 consecutive months, indicating a strong outlook (Figure 3.17.20).

Inflation is projected to moderate to 5.2% in FY2021 as good harvests and supply chain recovery contain domestic food inflation even as global food prices rise, though oil prices higher than in FY2020 may exert some inflationary pressure. Inflation is expected to ease further to 4.8% in FY2022 as

Figure 3.17.15 Stock Prices



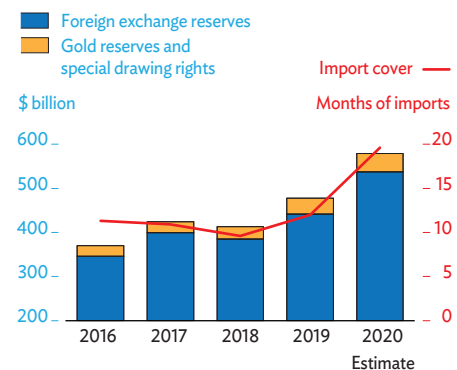
Source: Bloomberg (accessed 5 April 2021).

Figure 3.17.16 Exchange rate



Source: Bloomberg (accessed 5 April 2021).

Figure 3.17.17 Foreign exchange reserves



Note: Years are fiscal years ending on 31 March of the next year.

Source: CEIC Data Company (accessed 13 April 2021).

domestic demand moderates again with the economy returning to normal.

The central bank may keep the policy rate unchanged and will certainly maintain an accommodative stance to ensure ample liquidity and keep long-term interest rates from rising. While inflation will stay within the target range, upward pressure on bond yields may come from the large fiscal deficit, the government's aggressive borrowing program in FY2021, and higher global bond yields. Large capital inflow poses a challenge to the central bank as it strives simultaneously to maintain price and exchange rate stability and set interest rates that facilitate economic recovery.

The finance industry will undergo further reform, though perhaps bearing little fruit in the near term. A new asset reconstruction company will be set up to take over the NPLs of public sector banks. Two public sector banks will be privatized, as will a general insurance company, with FDI limits in the insurance business raised from 49% to 74%.

The central government fiscal deficit for FY2021 is budgeted to fall to the equivalent of 6.8% of GDP. Capital spending is set to rise sharply from revised expenditure in FY2020, by 26.2%, but total expenditure by only 1.0%. Revenue is budgeted to grow by 23.4%, much faster than nominal GDP growth at about 15%. The central government has undertaken reform to boost tax compliance and revenue collection while improving the quality of spending, aiming to trim the fiscal deficit gradually to below 4.5% of GDP by FY2025.

The 15th Finance Commission, a constitutional body, proposes devolving to states by FY2025 41% of the divisible pool, mainly income tax and goods and services tax. Proposed distribution among states is weighted, in descending order, by income distance from the richest state, population and area, forest coverage and ecology status, demographic trends, and tax and fiscal efforts.

Exports and imports of goods and services are projected to rebound by double digits, with imports outpacing exports as domestic demand normalizes. Oil prices higher than last year are likely to further widen the trade deficit. Remittances are expected to be robust in FY2021 as more migrant workers go abroad. On balance, the current account will return to deficit, equal to 1.1% of GDP in FY2021 (Figure 3.17.21). In FY2022, exports and imports of goods and services will grow moderately as global demand continues to normalize. As economic growth moderates in FY2022, the current account deficit will narrow marginally to 1.0%.

Custom duties have been reduced for some product categories, such as stainless steel and nylon, but increased for more products to protect domestic manufacturers. The World Trade Organization recently pointed out that India's simple average tariff applied to most-favored nations increased from

Table 3.17.1 Selected economic indicators, %

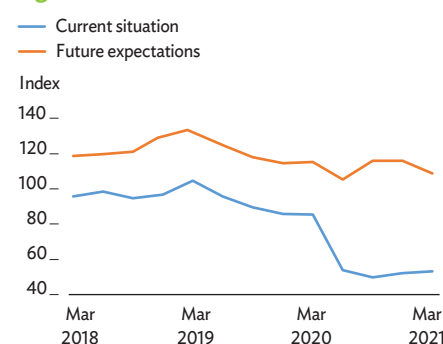
	2019	2020	2021	2022
GDP growth	4.0	-8.0	11.0	7.0
Inflation	4.8	6.2	5.2	4.8
Current acct. bal., share of GDP	-0.9	1.0	-1.1	-1.0

GDP = gross domestic product.

Note: Years are fiscal years ending on 31 March of the next year.

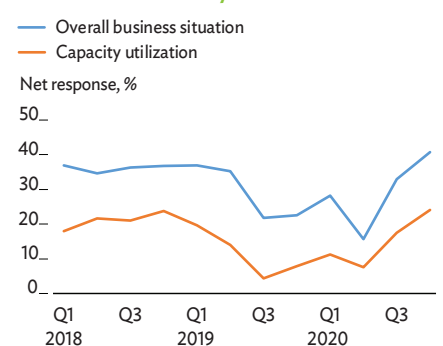
Sources: Ministry of Statistics and Programme Implementation (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.17.18 Consumer confidence



Source: Haver Analytics (accessed 8 April 2021).

Figure 3.17.19 Manufacturing outlook survey



Q = quarter.

Notes: Years are fiscal years ending on 31 March of the next year. Net response is the difference between the percentage of respondents reporting optimism and those reporting pessimism, with a value greater than zero indicating optimism about the business situation or expected expansion in capacity utilization, and a value less than zero indicating pessimism or expected contraction.

Source: CEIC Data Company (accessed 31 March 2020).

13.5% in 2015 to 17.6% in 2019, placing India in the category of countries with the highest tariffs.

FDI inflow is projected to remain strong as global economic and financial conditions improve after the pandemic and thanks to recent reforms. Foreign portfolio inflow will be boosted by relaxing restrictions on foreign sovereign wealth funds and debt financing by foreign portfolio investors, taxing dividend income at lower treaty rates, and providing tax incentives for foreign funds to relocate to the International Financial Service Center, as well as tax exemption for the investment divisions of foreign banks located in it (Figure 3.17.22).

Risks to the outlook tilt to the downside. The second wave of COVID-19 cases is worrying, especially if vaccine rollout falters or fails to contain it. Another risk is a further tightening of global financial conditions, which would apply pressure on India's market interest rates and therefore affect economic normalization.

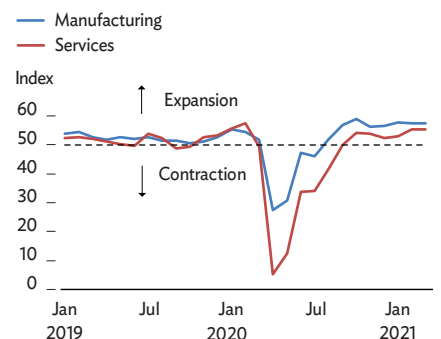
Policy challenge—fostering digital transformation

Digital technologies are transforming India rapidly. A large pool of skilled English-speaking specialists has made India since the 1990s a major provider of software services and base for business process outsourcing. Since the 2000s, India's digital transformation has been led by a proliferation of mobile services. Many more services moved online in response to COVID-19, accelerating digital transformation. According to the World Bank's World Development Report 2016, fully reaping digital dividends requires investment and reform to overcome many longstanding development challenges.

A notable characteristic of India's digital transformation is its mobile orientation. At the end of January 2021, India had 735 million mobile broadband internet subscribers and only 23 million fixed line subscribers (Figure 3.17.23). India has some of the lowest data charges in the world, with 1 gigabyte of mobile data costing on average ₹11 (\$0.15) in September 2020. Data consumption in India is thus among the highest in the world, at an average of 12 gigabytes per user per month in 2020. Among more than 55,000 digital startups to date, 34 are now valued above \$1 billion. Aadhaar, the national biometric digital identity program, has issued digital identifications to more than 1.2 billion Indians, greatly enabling India's digitalization.

The government's push toward a cashless economy has significantly increased the number of digital transactions since 2009, when the National Payments Corporation of India was set up to modernize retail payment and settlement.

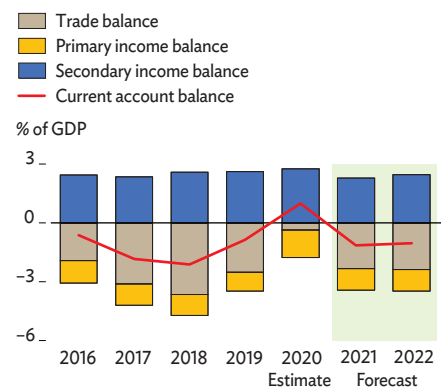
Figure 3.17.20 Purchasing managers' indexes



Note: Purchasing managers' indexes are based on Nikkei, Markit.

Source: Bloomberg (accessed 5 April 2021)

Figure 3.17.21 Current account



GDP = gross domestic product.

Note: Years are fiscal years ending on 31 March of the next year.

Sources: CEIC Data Company (accessed 5 April 2021); Asian Development Bank estimates.

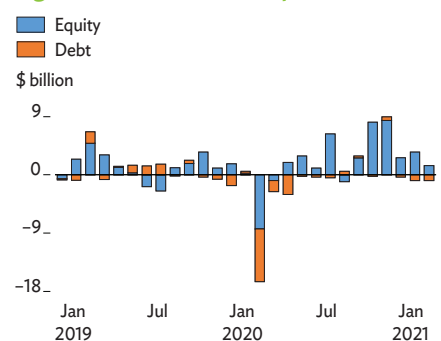
Its unified payment interface allows consumers to transfer money instantly by mobile phone, significantly increasing digital payments. The adoption of digital transactions was further facilitated by regulatory interventions such as the demonetization of large banknotes in 2016 and the government initiative to link Jan Dhan accounts, mobile numbers, and Aadhaar cards for distributing government subsidies. In January 2021, there were 416 million Jan Dhan accounts, the percentage with zero balance having declined from 58% in March 2015 to 8%. Jan Dhan accounts have thus brought the marginalized and unbanked to the fore of digital technology, such that 80% Indian adults now have a bank account, up from an estimated 53% in 2014.

The COVID-19 pandemic has accelerated the use of digital technology. Facilitated by mobile apps such as Paytm and others, payments through the unified payment interface doubled to about ₹4.3 trillion per month in the year to early 2021. With schools closed from late March to October 2020, classes moved online, highlighting a digital divide in students' access and tech savvy. A recent survey by the National Council of Educational Research and Training found 27% of students without smartphones or laptops, and 28% suffering frequent power outages.

For health, eSanjeevani telemedicine services for outpatients reached 800,000 transactions in November 2020. A one-stop digital platform called eHospitals that connects patients, hospitals, and doctors to make appointments at major hospitals now includes 420 hospitals, with 184 million transactions since Sept 2015. The government launched the National Digital Health Mission in August 2020 to provide digital health cards to every citizen. The electronic Vaccine Intelligence Network, set up in 2017, was repurposed as the COVID-19 Vaccine Intelligence Network portal and app to implement vaccinations. Service apps provided by the private sector, notably the healthcare app Practo, have vastly expanded medical consultations and medicine delivery.

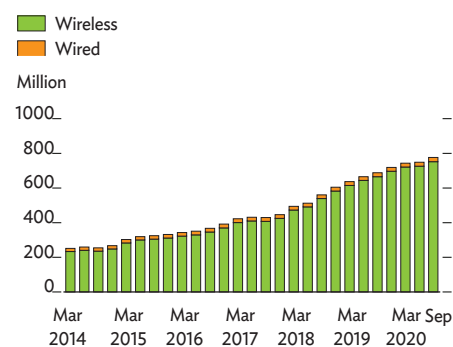
A flagship government initiative to promote digital transformation is Digital India, launched in July 2015 to establish digital infrastructure for e-governance and services and to empower citizens with digital skills. Another, Make in India, aims to transform India into a global design and manufacturing hub in part through digitalization. Startup India, launched in August 2015, taps entrepreneurial potential to build a strong digital ecosystem and nurture innovation that drives economic growth and generates jobs, having recognized more than 41,000 startups from 2016 to 2020. Facilitating digital transformation attracts foreign capital, with FDI rising in the first 10 months of FY2020 by 11.0% year on year to \$52.3 billion.

Figure 3.17.22 Portfolio capital flow



Source: Security and Exchange Board of India. <https://www.fpi.nsdl.co.in/web/Reports/Archive.aspx> (accessed 5 April 2021).

Figure 3.17.23 Number of internet subscribers



Source: CEIC Data Company (accessed 31 March 2021).

Gaps still constrain digital transformation. Digital infrastructure is still under development. In February 2021, the Ookla Speedtest Global Index ranked India 63 among 175 countries surveyed for fixed broadband, and 131 among 141 countries for mobile internet. A recent Opensignal report found fewer than 25% of telecom towers in India carrying fiber optics, well below 65%–80% in the People’s Republic of China, Republic of Korea, and US. Many Indians lack basic digital skills. The National Sample Survey, 2017–2018 found only 38% of households digitally literate, or 61% in urban areas and just 25% in rural areas. Ensuring data security, especially financial data, is a big challenge, with 44,546 cyber crimes registered in 2019, up by 63.5% over 2018, 60% of them fraud.

To accelerate digital transformation, India needs to continue investing in digital infrastructure, especially in underserved rural areas. Easing regulatory costs would incentivize telecommunication companies to invest significantly in network capacity and new technology. The regulatory framework should be strengthened to promote competition and entry, service standards, and data protection. The digitalization of government operations and services needs to accelerate, with public data sources made more accessible. Public investment and tax policy should give businesses incentives to adopt digital technologies. Upskilling the labor force and facilitating labor market digitalization are critical.

The digital economy can address India’s multitude of deficits with financial inclusion, better targeting of social welfare programs, and improved institutions and governance. It can impart skills and create jobs. An overarching digital strategy is necessary to coherently align government initiatives, address the remaining challenges, and realize digital India. Digital transformation, already accelerated by the pandemic, promises to help the economy recover and sustain inclusive growth.

Maldives

The economy contracted sharply in 2020 as global tourism suffered its worst year on record. Growth is forecast to recover as economies rebound in major markets for Maldives in Europe and Asia. Inflation is expected to stay minimal, and current account deficits elevated. Fiscal imbalances markedly worsened as revenue declined and will likely persist because tourist arrivals and budget revenue are not expected to recover soon to 2019 levels. Government policy helped spare tourism establishments deeper distress.

Economic performance

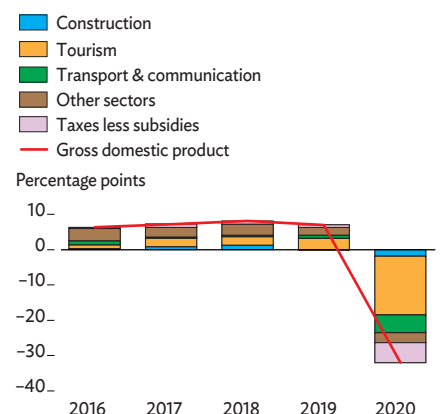
With global tourism largely shuttered by the COVID-19 pandemic, and tourism in Maldives directly and indirectly providing three-quarters of the economy, GDP plummeted by an estimated 32.0% in 2020. Moreover, strict containment measures, especially in the second quarter (Q2), cemented contraction across the economy, despite later being gradually relaxed (Figure 3.18.1).

Tourist arrivals reversed a 14.7% increase in 2019 to contract by an astonishing 67.4% in 2020. With borders closed from 27 March to 14 July, only 555,494 tourists visited the country, the lowest number since 2005 (Figure 3.18.2). Even after borders reopened, tourist arrivals picked up only slowly as weak travel demand supported only limited flight connections (Figure 3.18.3). European arrivals dropped by 58.2% but increased their market share from 49.0% to 62.7%. Asian arrivals nosedived by 79.7%, their share falling by more than third, from 38.8% to 24.2%, as arrivals from People’s Republic of China plunged by 87.9%, the Government of Maldives having suspended flights from that country in February. These flights have not yet restarted. Arrivals from all other countries dropped by 65.0%, but their share increased slightly to 13.1%.

With a sharp decline in tourist arrivals in 2020, bed-night stays, a proxy for tourism earnings, plummeted by 62.7%. Preliminary estimates show travel receipts dropping sharply by 55.7%, confirming an unprecedented loss of revenue for the industry (Figure 3.18.4).

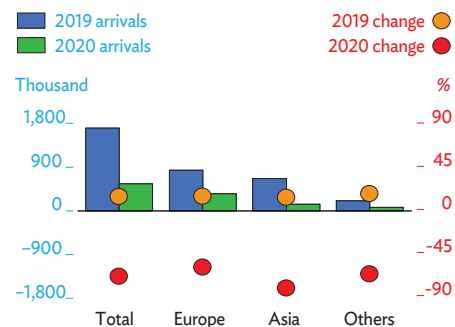
Expenditure estimates of GDP are not available, but both public and private fixed investment likely fell in 2020. The government suspended most new investment projects after Q1 and prioritized capital expenditure for health care.

Figure 3.18.1 Supply-side contributions to growth



Sources: Maldives Monetary Authority. 2021. *Monthly Statistics*. February. <http://www.mma.gov.mv> (accessed 31 March 2021); Asian Development Bank estimates.

Figure 3.18.2 Tourist arrivals and growth



Source: Maldives Monetary Authority. 2021. *Monthly Statistics*. February. <http://www.mma.gov.mv> (accessed 31 March 2021).

This chapter was written by Masato Nakane of the South Asia Department, ADB, Manila, and Abdula Ali, Anthony Baluga, and Macrina Mallari, consultants, South Asia Department, ADB, Manila.

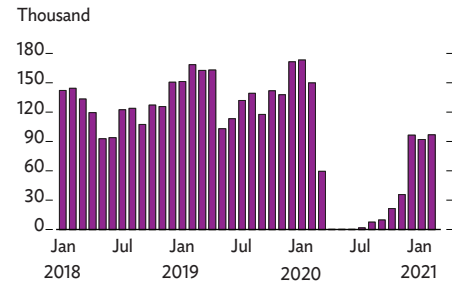
Construction dropped by an estimated 28.4%, and imports of building materials, machinery, and electrical equipment by 31.3%. Moreover, ongoing projects were delayed by disruption to global supply chains and mobility restrictions in the Greater Malé region. While growth in bank loans to private developers for construction and real estate was 9.3%, it was mostly working capital to cover fixed expenses, loans for which were provided under the COVID-19 economic relief package.

Average prices fell by 1.4% in 2020 following a 0.2% rise in 2019 as consumer demand weakened under COVID-19 restrictions, price controls on basic food items were maintained, global oil prices fell, and households received a 30% electricity subsidy for 3 months and a 40% water supply subsidy for 2 months (Figure 3.18.5). The Maldives Monetary Authority has maintained an accommodative policy in recent years. As part of its economic response to COVID-19, it lowered the minimum reserve requirement on deposits from 10.0% to 7.5% in April 2020 and reduced the requirement to 5.0% for foreign currency deposits in July 2020. Growth in credit to the private sector accelerated from 7.5% in 2019 to 9.3% in 2020.

Lost revenue significantly worsened fiscal imbalances in 2020. Expenditure increased by only 5.6%, with all of the increase from 27.9% expansion in capital expenditure, predominantly to expand health-care facilities, though some other public sector investment occurred early in the year. Because of the extraordinary drop in GDP, the share of expenditure jumped from 33.4% in 2019 to 52.9% in 2020 (Figure 3.18.6). Recurrent expenditure fell by 2.3% under government-enforced mobility restrictions for an extended period from March, as well as from belt-tightening measures. Revenue plunged by 43.1% to 21.7% of GDP during the country's deepest recession on record. This created a financing gap 2.5 times that of the previous year, about 60% of it funded domestically, mainly through a parliament-approved overdraft facility from the monetary authority. The external balance was partly filled by accessing newly created pandemic financing facilities offered by multilateral financial institutions and development partners.

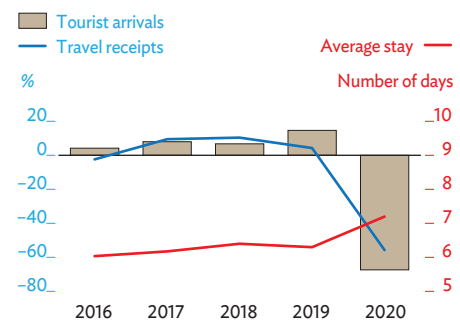
Total public debt at the end of 2020, including state guarantees, sharply increased by 27.4% to Rf86.5 billion, climbing to 149.4% of the much-contracted GDP (Figure 3.18.7). The large increase in borrowing stabilized the economy, preventing even deeper contraction. Government external debt, including nearly all state loan guarantees, similarly escalated—by 26.7% to Rf44.0 billion, or 76.0% of GDP—on financing for the current account and budget deficits and building a larger buffer in foreign exchange reserves. Domestic financing of the budget deficit also jumped markedly, by 28.0% to reach Rf42.5 billion, or 73.4% of GDP. An assessment in April by the International Monetary Fund found Maldives

Figure 3.18.3 Monthly tourist arrivals



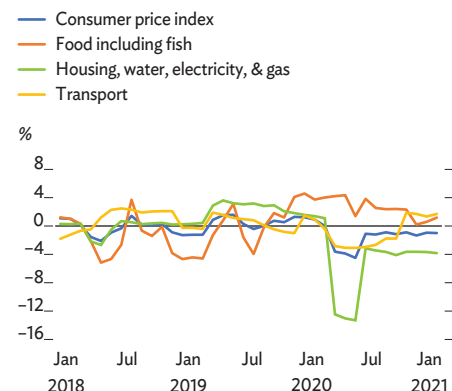
Sources: Maldives Monetary Authority. 2021. *Monthly Statistics*. February. <http://www.mma.gov.mv>; Ministry of Tourism. 2021. *Monthly Statistics*. January. <https://tourism.gov.mv/en/statistics/publications> (both accessed 31 March 2021).

Figure 3.18.4 Tourism indicators



Source: Maldives Monetary Authority. 2021. *Monthly Statistics*. February. <http://www.mma.gov.mv> (accessed 31 March 2021).

Figure 3.18.5 Inflation



Source: Maldives Monetary Authority. 2021. *Monthly Statistics*. February. <http://www.mma.gov.mv> (accessed 31 March 2021).

continuing to be at high risk of debt distress, both external and overall. Reflecting the sizeable increase in debt during 2020, credit rating agencies downgraded their sovereign ratings, most recently in November when Fitch Ratings downgraded Maldives from B to CCC.

The current account deficit improved in 2020 by about \$400 million to an estimated \$1.1 billion—but, as a share of GDP, worsened from 26.9% to 29.2% (Figure 3.18.8). A decline in service receipts from lost tourism inflow provisionally estimated at \$2 billion, or by 60.5%, was more than offset by a \$2.4 billion reduction in payments for imported goods, services, primary income, and worker remittances. The current account deficit was financed by large financial account inflows.

Gross international reserves rose by 30.7% to \$984.8 million in 2020, providing 6.4 months of cover for prospective imports of goods and services (Figure 3.18.9). The improvement in reserves was achieved through the monetary authority fully utilizing a \$400 million currency swap line with the Reserve Bank of India.

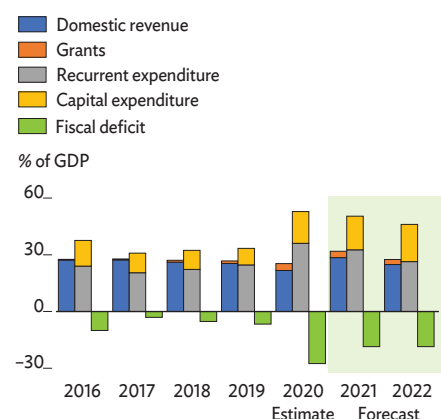
Economic prospects

With domestic restrictions easing and tourist arrivals gradually increasing, 72% of tourism establishments are back in operation after temporarily closing in March 2020 with flights suspended. As of 31 March 2021, 694 of 963 tourist accommodation facilities had reopened for business, including the 150 tourist resorts with the largest bed capacity and industry revenue. Meanwhile, tourist arrivals picked up in Q1 2021, though this could be attributed to weak competition from other destinations. The latest data show that 298,570 tourists visited the country in Q1 2021, or 22.0% fewer than in Q1 2020.

To ramp up tourist arrivals, the Maldives Marketing and Public Relations Corporation rolled out under its Visit Maldives program strategic marketing campaigns online in key markets in Europe and Asia to entice travelers back to the country. The industry started offering long-term stay packages for tourists to build on the massive increase in the amount of time visitors spent in Maldives in 2020, compared with before the pandemic. With many global businesses announcing plans to hire more staff to work remotely online and so broaden their geographic talent pool, this trend may benefit Maldives. It is notable that January–March 2021 revenue from the tourism goods and services tax improved by 3.5% year on year despite the substantial decline in arrivals in this period. Separately, Maldives was voted the world's leading destination in the World Travel Award 2020 competition, which travel agents may well use as a selling point.

The country's naturally distanced islands should enhance tourist trust in the country as a safe destination, as should the

Figure 3.18.6 Fiscal indicators



GDP = gross domestic product.

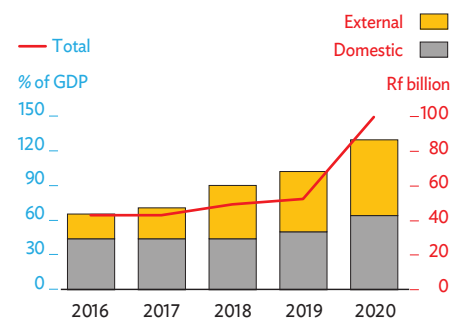
Note: Figures for 2021 and 2022 are government forecasts based on the approved budget for 2021.

Sources: Maldives Monetary Authority. 2021.

Monthly Statistics. February. <http://www.mma.gov.mv>;

Ministry of Finance. Budget 2021. <https://www.budget.gov.mv> (both accessed 31 March 2021).

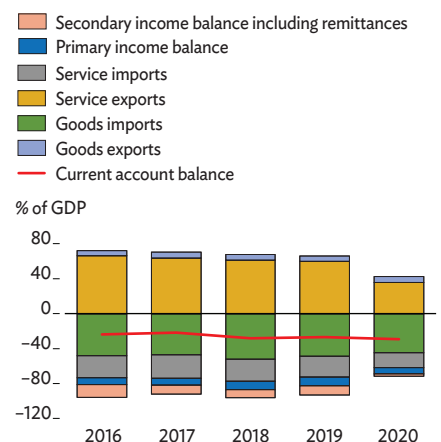
Figure 3.18.7 Public debt



GDP = gross domestic product.

Source: Ministry of Finance. 2021. *Disbursed Outstanding Debt of Public and Publicly Guaranteed Debt of Government of Maldives as of 31 December 2020*. <https://www.finance.gov.mv> (accessed 31 March 2021).

Figure 3.18.8 Balance of payments



GDP = gross domestic product.

Source: Maldives Monetary Authority. 2021.

Monthly Statistics. February. <http://www.mma.gov.mv> (accessed 31 March 2021).

government's efficient management of COVID-19 cases and its early and extensive vaccination program, which started on 1 February 2021 and is free to everyone, including foreign residents. By 31 March, 41.8% of the population had been vaccinated. The country's number of cases remained modest at 24,079 as of 31 March 2021, with a high recovery rate of 87.9% and a low mortality rate of 0.3%.

Any strong pickup in global travel and tourism demand will largely depend, however, on effective and swift measures to contain the virus and substantially complete vaccination programs in Maldives' major market countries. An International Air Transport Association baseline forecast projects travel demand improving by 50.4% in 2021.

Tourist arrivals are forecast to increase by 53% in 2021 and 40% in 2022. These projections are considered conservative as they put arrivals in 2021 at only 50% of 2019 arrivals and arrivals in 2022 at 70% (Figure 3.18.10). While the expected recovery in tourist arrivals will be the main impetus for economic revival, budgeted capital spending is slated to rise by 20.9% in 2021 and 39.9% in 2022. In this scenario, private investment in resorts and related facilities is also likely to rebound, especially for transportation and safeguard facilities.

GDP is expected to grow by 13.1% in 2021 and 14.0% in 2022, when it will reach 88% of 2019 GDP (Table 3.18.1). The major downside risk to the forecast is the possibility that new virus variants slow global economic recovery, dampening in turn recovery in tourism. This would likely exacerbate the country's already fragile fiscal and debt circumstances, characterized by very high public debt and low foreign exchange reserves.

Inflation is forecast to edge up to 3.0% in 2021 as domestic demand picks up, the cost of imported oil rises sharply, and global food prices increase. It will then ease to 2.5% in 2022 as global prices moderate.

The current account deficit in 2021 is expected to stay at about \$1 billion, as the increase in service inflow is offset by an increase in imports and small increases in other items such as imported services, primary income, and worker remittances. As a share of GDP, the deficit will narrow to 23.0% as GDP growth resumes. The deficit is expected to increase to \$1.3 billion in 2022. Service receipts will expand more rapidly on higher arrivals, but so will imports, such that a widening trade deficit will largely account for a higher current account deficit as a share of GDP, rising to 25.0%.

Policy challenge—reviving and sustaining tourism

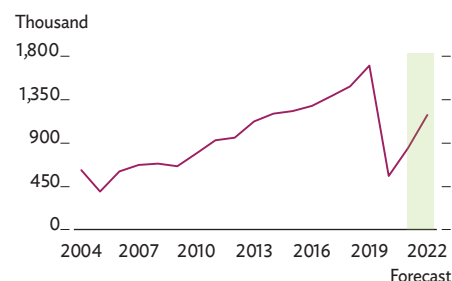
The success of the tourism industry in the Maldives is largely credited to its unique tourism model of “one island, one

Figure 3.18.9 Gross international reserves



Source: Maldives Monetary Authority. 2021. *Monthly Statistics*. February. <http://www.mma.gov.mv> (accessed 31 March 2021).

Figure 3.18.10 Yearly tourist arrivals



Sources: Maldives Monetary Authority. *Monthly Statistics Database*. <http://mma.gov.mv/#/research/statisticalPublications/mstat/Monthly%20Statistics> (accessed 31 March 2021); Asian Development Bank estimates.

Table 3.18.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	7.0	-32.0	13.1	14.0
Inflation	0.2	-1.4	3.0	2.5
Current acct. bal., share of GDP	-26.6	-29.2	-23.0	-25.0

GDP = gross domestic product.

Sources: Maldives Monetary Authority. 2020. *Monthly Statistics*. February; Asian Development Bank estimates.

resort” on otherwise uninhabited strands. That said, the introduction of guesthouses on populated islands from 2009 helped to increase arrivals by making Maldives more affordable while substantially expanding business opportunities and employment for local residents.

The global COVID-19 pandemic in 2020 convulsed economic activity worldwide, especially global tourism, making Maldives one of the worst hit countries economically. Tourist arrivals plunged in 2020 to their lowest since 2005. According to the Ministry of Economic Development, about 45,000 employees in tourist resorts were directly affected, 22,000 of them Maldivian and 23,000 foreign residents. Income support was provided for employees, and businesses were granted debt moratoriums and working capital loans under the government’s economic relief program. Further, lease rent for resorts, hotels, and guesthouses in the last 2 quarters of 2020 was deferred until June 2021.

The country reopened its borders with strict guidelines in July 2020. Tourist arrival numbers rose sluggishly at first but picked up in Q4 2020, the usual peak tourism season, and further in Q1 2021. A travel bubble agreement with India helped to attract large numbers of Indian tourists as the government’s marketing efforts boosted interest.

Reviving tourism to its level before COVID-19 is a key challenge for Maldives, but its achievement will depend largely on how soon global travel and tourism recover. The country’s self-contained “one island, one resort” tourism model and infrastructure provide an edge over competing destinations in that a certain amount of social distancing is built into it, and it enables resorts to adopt and maintain comprehensive health safeguards for visitors. Further, these luxury resorts have the wherewithal to fund new facilities demanded by their clients.

Importantly, this is an opportune time for the country to introduce policies to make the industry more resilient, inclusive, and adaptable in dealing with future shocks. The government should revisit tourism policies and regulations to ensure that they promote local employment, encourage participation by women, increase training for locals to fill staff positions, address environmental issues, and spread the benefits of tourism more evenly in the outer islands.

Nepal

GDP contracted in fiscal 2020 as the impact of the COVID-19 pandemic devastated the economy in the closing months of the year. Inflation accelerated, and the current account deficit plummeted. The outlook is for improved growth on buoyant agriculture, a forecast global economic rebound, and a low base effect. The current account deficit will widen as a stepped-up recovery draws in more imports. The authorities should strengthen the national employment program by addressing procedural and institutional hurdles.

Economic performance

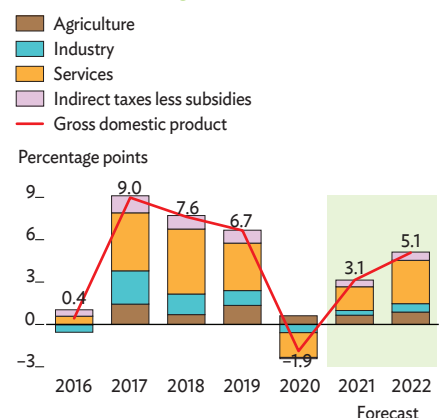
To contain the pandemic, the government imposed a nationwide lockdown from the end of March to July that included a ban on international flights and closed border crossings, essentially bringing all economic activity to a standstill. As a result, GDP contracted by an officially estimated 1.9% in fiscal year 2020 (FY2020, ended 15 July 2020), reversing 6.7% growth a year earlier (Figure 3.19.1). Agriculture, providing a fourth of GDP, expanded by 2.2% despite pest infestation and floods in early July 2019. Industry reversed 7.4% growth a year earlier to contract by 4.2% as mobility restrictions crippled manufacturing and construction. Services, contributing half of GDP, contracted by 3.6% with substantial falls in wholesale and retail trade, transportation and storage, accommodation, and food services.

On the demand side, private consumption expenditure dominated higher spending, which reflected still sizeable inflow of remittances despite their slightly weaker growth. However, private fixed investment—providing a quarter of GDP and concentrated mostly in energy and services—contracted by 3.0% while public investment decreased by 5.4%, owing to procurement and construction delays worsened by the COVID-19 crisis. Moreover, there was a massive decline in stocks. This contraction in gross capital formation cemented the decline in GDP, despite some offset from improved net exports.

Average inflation rose from 4.6% in FY2019 to 6.2% in FY2020 (Figure 3.19.2). Average food inflation sharply accelerated to 8.2% because of a smaller harvest, supply chain disruption, and higher prices for food imports from India. Nonfood inflation eased slightly during the year to average 4.6%.

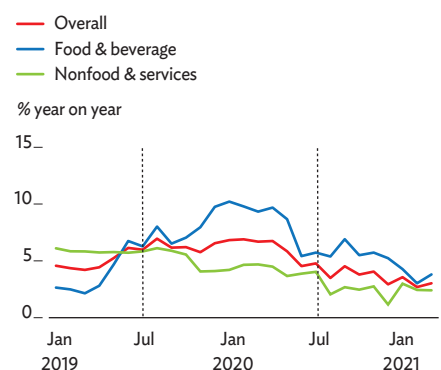
The budget deficit widened to 5.5% of GDP in FY2020 from 5.0% a year earlier as revenue including grants slumped by 0.3% (Figure 3.19.3). Tax revenue shrank by 5.0% as customs duties,

Figure 3.19.1 Supply-side contributions to growth



Note: Years are fiscal years ending in mid-July of that year.
Sources: Central Bureau of Statistics. 2020. *National Accounts of Nepal 2019/20*. <http://cbs.gov.np/>; Asian Development Bank estimates.

Figure 3.19.2 Monthly inflation



Source: Nepal Rastra Bank. 2021. *Recent Macroeconomic Situation*. <http://www.nrb.org.np>.

which provide nearly half of all tax revenue, plunged by 11.2% on lower imports. Capital expenditure decreased by 20.6% owing to long-standing challenges—largely to do with project readiness, procurement delays, and project management issues—further worsened by the COVID-19 crisis as imports of construction materials were delayed and foreign workers left project sites because of COVID-19 restrictions and were unable to return. Recurrent expenditure increased by 9.8% in FY2020 on expanded social protection and health-care measures.

Growth in broad money supply expanded from 15.8% in FY2019 to 18.1% in FY2020 on rising net foreign assets and a modest increase in net domestic assets (Figure 3.19.4). Credit to the private sector slowed to 12.6% from 19.1% a year earlier, suppressed by economic contraction in the last quarter of FY2020.

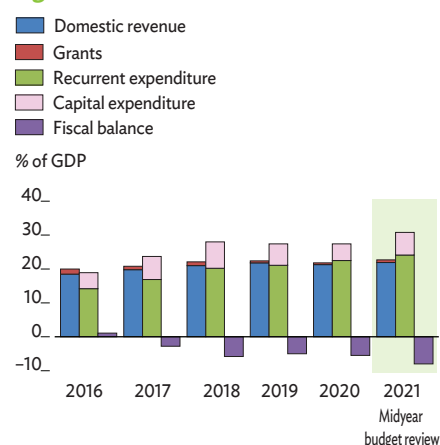
An 18.9% decline in merchandise imports contributed to the improvement in the current account deficit, which fell sharply to 0.9% of GDP in FY2020 from 6.8% a year earlier (Figure 3.19.5). The main offset was a 3.4% decline in remittances, though they remained a dominant factor in the economy at 22.2% of GDP. Exports also declined, by 7.5% to 2.7% of GDP, as shipments of most major commodities weakened. Other accounts were largely neutral. While tourism earnings declined, the net service balance improved slightly on a reduction in resident travel abroad. Net primary income payments increased marginally.

Capital and financial account net inflow sharply increased to about \$2.5 billion and, with errors and omissions positive by nearly \$0.6 billion, total inflow amounted to \$3.0 billion. With the current account deficit at only \$0.3 billion, some \$2.7 billion flowed into the reserves and related items account. Major financial account inflows were \$1.2 billion in loans to the government, including those from pandemic financial support facilities offered by multilateral financial institutions and other development partners; \$0.7 billion in trade credits; and a \$0.3 billion increase in commercial bank liabilities. Gross foreign exchange reserves improved by \$2.3 billion to reach \$11.6 billion, providing cover for 12.7 months of imports of goods and services (Figure 3.19.6).

Economic prospects

GDP is expected to rebound to 3.1% growth in FY2021 on a low base effect, the lifting of nationwide restrictions as COVID-19 ebbs, and a forecast global economic recovery (Table 3.19.1). A vaccination drive began on 27 January 2021 with the receipt of 1 million AstraZeneca doses from the Government of India. However, achieving the vaccination target will rest largely on the timely supply and distribution of vaccines. Although the virus seemed to have been contained, the infection rate began increasing from late March 2021, raising fears of a second wave of COVID-19 across the country. The authorities announced

Figure 3.19.3 Fiscal indicators

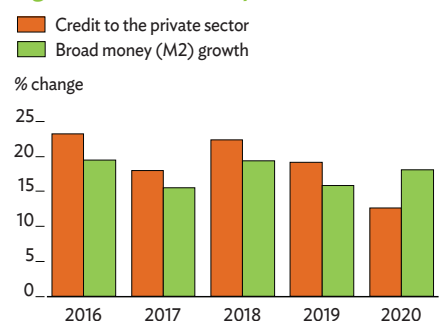


GDP = gross domestic product.

Note: Years are fiscal years ending in mid-July of that year.

Source: Ministry of Finance. 2021 Budget speech.

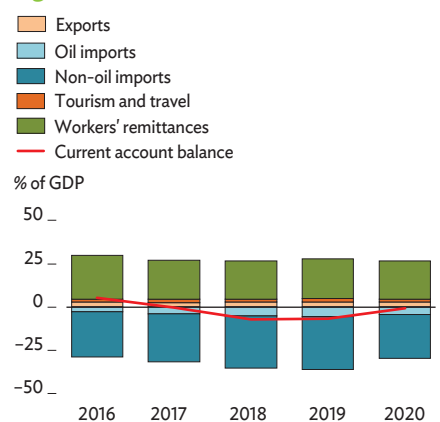
Figure 3.19.4 Monetary indicators



Note: Years are fiscal years ending in mid-July of that year.

Source: Nepal Rastra Bank. 2020. *Recent Macroeconomic Situation*. <http://www.nrb.org.np>.

Figure 3.19.5 Current account indicators



GDP = gross domestic product.

Note: Years are fiscal years ending in mid-July of that year.

Source: Nepal Rastra Bank. 2020. *Recent Macroeconomic Situation*. <http://www.nrb.org.np>.

containment measures that include school closure until mid-May, efforts to minimize crowding on public transportation, and the closure of hotels and restaurants by 8 pm.

If a massive resurgence of COVID-19 infections occurs and induces the renewed imposition of strict containment measures, growth will be lower than currently forecast.

On the production side, the rice harvest increased by 1.3% on a good monsoon and higher cultivated area. Growth in agriculture is expected to expand to 2.4% in FY2021 up from 2.2%. Manufacturing has reopened with nearly 54% of industries fully operational by mid-December 2020—against only 4% in mid-July 2020—and production rose from 29% of capacity in mid-June to 50%. The Melamchi Water Supply Project began operations at the end of March 2021, and the Upper Tamakoshi Hydropower Project is expected to begin generating electricity this fiscal year.

Industries in financial difficulty because of the downturn have received support in the form of concessional lending and refinancing of existing loans. Industry is expected to reverse contraction in FY2020 and grow by 2.5% in FY2021.

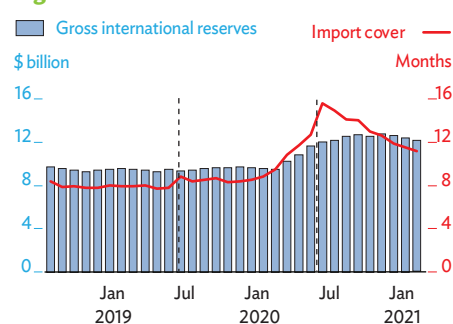
Operations have resumed for wholesale and retail trade and the repair of motorcycles and other vehicles. Nearly 65% of wholesale and retail trade firms were operating as of mid-December 2020. Nonetheless, services will take some time to recover, particularly in accommodation, food services, and travel and tourism. Foreign tourist arrivals collapsed by 81% in FY2020, and arrivals in FY2021 to February 2021 have been few (Figure 3.19.7). Domestic travel and tourism, on the other hand, has slowly picked up with people traveling within the country for vacations in response to domestic tourism promotions. Considering a steady pickup across major activities, services will likely grow by 3.4% in FY2021.

Private consumption growth will accelerate on buoyant remittances, which rose by 5.0% in the first 8 months of FY2021 despite lower overseas employment (Figure 3.19.8). Private investment is forecast to rise by 5.0% in FY2021 as the business environment improves.

Budget execution on large infrastructure projects was tepid in the first 7 months of FY2021. Capital expenditure contracted by 17.7% in FY2021 to mid-February from the pre-pandemic period a year earlier but will likely accelerate in the last quarter of the fiscal year, as usual (Figure 3.19.9). The midyear review of the FY2021 budget envisages a fiscal deficit of 8.0% of GDP, but it will probably be lower than anticipated even if revenue mobilization falls short of the target.

The trade deficit narrowed very slightly in the first 8 months of FY2021 from the year-earlier period on much lower oil imports. Notably, non-oil imports reversed a 3.0% contraction a year earlier to grow by 2.6% in the period, indicating substantial acceleration in the economy that will become increasingly apparent in the remaining months of the fiscal year and sharply contrast with the

Figure 3.19.6 Gross international reserves



Source: Nepal Rastra Bank. 2021. *Recent Macroeconomic Situation*. <http://www.nrb.org.np>.

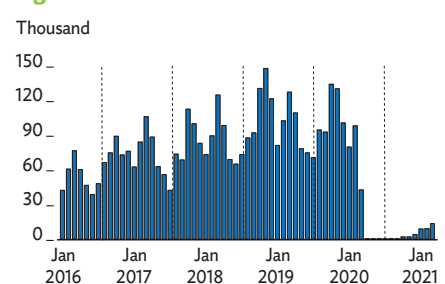
Table 3.19.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	6.7	-1.9	3.1	5.1
Inflation	4.6	6.2	5.0	6.0
Current acct. bal., share of GDP	-6.8	-0.9	-2.5	-3.8

GDP = gross domestic product.

Sources: Central Bureau of Statistics. 2018. *National Accounts of Nepal 2017/18*; Asian Development Bank estimates.

Figure 3.19.7 Tourist arrivals



Source: Department of Immigration.

year-earlier period, when the pandemic devastated the economy. Despite remittances markedly higher by 5.0%, the current account deficit rose by 21.3% to \$1.3 billion. Extrapolating developments to date, the full-year current account deficit is forecast to widen to 2.5% of GDP in FY2021 from 0.9% a year earlier.

Average inflation is expected to move lower to 5.0% in FY2021 from 6.2%. Headline inflation averaged 3.5% in the first 8 months of FY2021, significantly lower than 6.5% in the year-earlier period. Food inflation fell markedly to 3.8% from July to mid-March, owing to a good harvest and smoother supply chain operation, while nonfood inflation eased to 2.4% in the same period.

GDP growth is forecast at 5.1% in FY2022 in anticipation of further global and domestic economic recovery as vaccination campaigns underpin economic impetus. Several pieces of key legislation essential to the smooth implementation of fiscal federalism have been enacted, and the integration of local civil servants is being addressed. With the passage of additional requisite legislation, subnational governments will have a much clearer picture of their functions and responsibilities, enabling better execution of programs and projects and fostering stronger contributions to growth.

Inflation is forecast to edge up to 6.0% in FY2022, though restrained by a better harvest, subdued oil prices, and a modest inflation decline in India. The current account deficit is expected to widen to 3.8% of GDP as imports of capital goods surge.

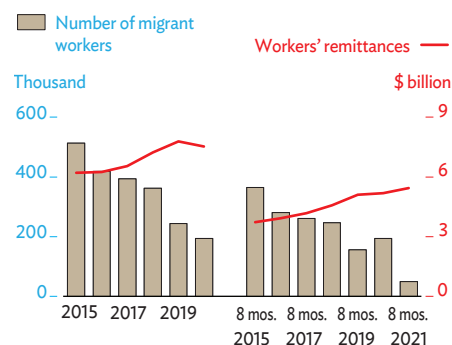
Possible downside risks to the outlook center on a resurgence of COVID-19 infections and any recurrence of natural calamities like floods and landslides, which have devastated lives and livelihoods in the past. Potential political instability and ensuing policy inconsistency could undermine growth prospects. Importantly, any weakening of global oil demand would likely limit outmigration for foreign employment, thereby constraining remittances and putting pressure on the external position.

Policy challenge—effective implementation of the Prime Minister Employment Program

The Constitution guarantees employment as a fundamental right. To operationalize this guarantee, the government launched the Prime Minister Employment Program (PMEP) in February 2019. Its main goals are to provide unemployed individuals, particularly from backward communities, at least 100 days of employment every fiscal year and impart the skills and knowledge needed to hold a more secure job (Table 3.19.2).

To qualify under the PMEP, unemployed people between the ages of 18 to 59 must register with employment service centers maintained by their local governments. The local government sends to the federal government a list of programs and projects to

Figure 3.19.8 Migrant workers and remittances



Note: Years are fiscal years ending in mid-July of that year.
Source: Nepal Rastra Bank. 2021. *Recent Macroeconomic Situation*. <http://www.nrb.org.np>.

Figure 3.19.9 Midyear capital expenditure



Note: Years are fiscal years ending on mid-July of that year. Data for 2017–2018 are the first 7 months, for 2019–2021 the first 8 months.

Table 3.19.2 Prime Minister Employment Program, plan and achievements

Year	Budget allocated (NRs million)	Budget spent (NRs million)	Employment created
2020	2,788	1,780	105,635 for an average of 16 days
2021	10,340	329	74,269 for 2–16 days

Note: Years are fiscal years ending in mid-July of that year. Information for fiscal year 2021 is based on data to the third quarter.

Sources: Ministry of Labor, Employment, and Social Security. 2020. *Progress report*. August; Prime Minister Employment Program. *Educational Management Information System*. <https://pmep.gov.np/> (accessed 22 April 2021).

be implemented in the coming fiscal year. In line with budgetary appropriations, the Ministry of Labor, Employment, and Social Security disburses funds to local governments. Registered individuals are then mobilized for various public works programs that, for example, construct walking trails, irrigation canals, drinking water infrastructure, and roads. If unemployed applicants registered with employment service centers fail to receive 100 days of employment, they are entitled to a livelihood allowance equal to half of the minimum wage.

Several issues have affected the smooth implementation of the PMEP. Some local governments have not recruited employment coordinators to register the unemployed and execute public work programs, indicating a lack of local ownership of the program. Budgeted funds for the PMEP have not been released on time, leaving local governments unable to generate the promised 100 days of employment. Capacity deficiency and a lack of proper planning have further hindered effective implementation. Pay under the PMEP is only half of the \$9 per day that a casual farm worker usually receives. Outmigration to India for seasonal employment is another complication because workers resort to it if employment under a PMEP project is not immediately available. A lack of effective coordination among government agencies has often meant that earmarked funds under the PMEP are not fully spent.

In sum, if the PMEP is to take off and meaningfully generate employment and impart skills, it is crucial to improve coordination across the three tiers of government. Strong coordination is needed to identify and ratify public works programs and to ensure the timely release of budgeted funds from the federal ministry to local governments for executing the programs. Daily wage compensation under this program should be raised to reflect customary wages prevalent across Nepal, which would make the program more attractive to prospective employees. The timing of project execution under the PMEP should avoid coinciding with seasonal farm work such as planting or harvesting rice, which would limit the ability of the public works program to fill long gaps of unemployment.

Pakistan

The economy contracted in fiscal 2020 as COVID-19 restrictions and supply-chain disruption shrank industry and services. The downturn was worsened by currency depreciation and fiscal tightening. Growth is projected to rebound in the near term as restrictions ease. The pace of vaccine rollout and the fate of economic stabilization measures are key for restoring investor confidence. Measures to support the private sector, especially small and medium-sized enterprises, would support recovery.

Economic performance

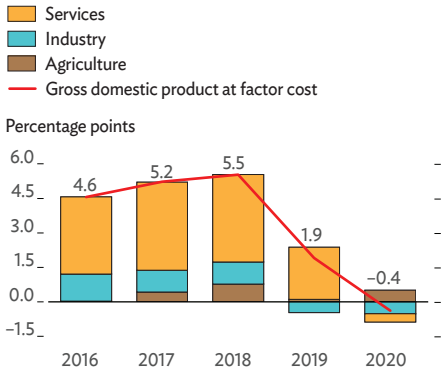
Real GDP reversed growth at 1.9% in fiscal year 2019 (FY2019, ended 30 June 2019) to contract by 0.4% in FY2020 as economic activity was depressed by COVID-19 containment measures and earlier economic stabilization efforts initiated before the pandemic. At the onset of the pandemic, the government closed all nonessential businesses and restricted services and the movement of people and goods. The resulting shock hit both supply and demand.

While COVID-19 restrictions held back industry and services, agriculture did well despite a locust infestation early in 2020. Agriculture growth accelerated from 0.6% in FY2019 to 2.7% in FY2020 as good rainfall and improved access to subsidized inputs boosted crop output. Livestock registered 2.6% growth in FY2020 despite depressed demand under COVID-19 restrictions. Industry saw contraction deepen from 2.3% in FY2019 to 2.6% as pandemic-related disruption worsened the impact of Pakistan rupee depreciation and fiscal tightening. Large-scale manufacturing was particularly hurt, but construction benefited from fiscal incentives and the fast-tracking of large infrastructure projects. Industrial contraction on top of the closure of nonessential businesses and the suspension of travel shrank the service sector by 0.6% in FY2020, reversing 3.8% expansion in FY2019 (Figure 3.20.1).

On the demand side, private consumption, which comprises 79% of GDP, retreated from 2.9% growth in FY2019 to contract by 3.7% in FY2020. Public consumption grew by 10.3%, and its share of GDP increased by 1.1 percentage points to 12.6% as the government boosted spending on health care and assistance to vulnerable people and businesses (Figure 3.20.2).

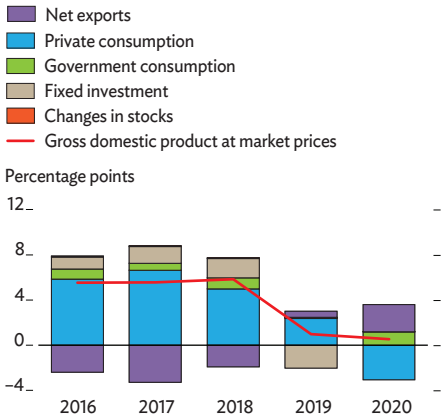
Inflation accelerated from 6.8% in FY2019 to 10.7% as supply-side shocks pushed up prices for food and electricity

Figure 3.20.1 Supply-side contributions to growth



Note: Years are fiscal years ending on 30 June of that year. Source: Ministry of Finance. Pakistan Economic Survey 2019–20. <http://www.finance.gov.pk> (accessed 31 March 2021).

Figure 3.20.2 Demand-side contributions to growth



Note: Years are fiscal years ending on 30 June of that year. Source: Ministry of Finance. Pakistan Economic Survey 2019–20. <http://www.finance.gov.pk> (accessed 31 March 2021).

This chapter was written by Kiyoshi Taniguchi, Khadija Ali, and Maleeha Rizwan of the Pakistan Resident Mission, ADB, Islamabad.

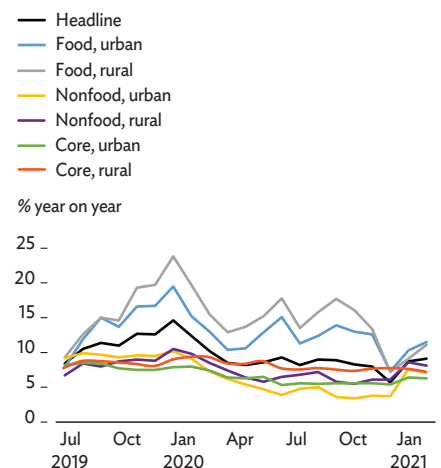
tariffs increased, compounded by pass-through as the rupee depreciated. On the demand side, credit facilities subsidized by the State Bank of Pakistan, the central bank, propped up private sector lending. Urban food inflation averaged 13.6% and rural 15.9%. Initially, supply disruption and costlier transport pushed up food prices, but pressures let up in the second half as supply recovered, demand fell, and oil prices eased (Figure 3.20.3).

The central bank started cutting its policy rate in March 2020 to reach a cumulative decline of 625 basis points to 7.00% in June 2020 (Figure 3.20.4). Further, the central bank moved to (i) offer concessional lending for wages, restructure existing loans, and defer their repayment; (ii) facilitate exporters' access to subsidized credit; (iii) raise the regulatory ceiling on bank lending to small and medium-sized enterprises; and (iv) offer new concessional loans for manufacturing and medical support industries. Despite these accommodative measures, private sector credit remained subdued, slipping from the equivalent of 17.6% of GDP in FY2019 to 16.4% even as the money supply increased by 16.4%.

The fiscal deficit fell from 9.1% of GDP in FY2019 to 8.1%, reflecting strong consolidation efforts before COVID-19 broke out. Revenue increased from 12.9% of GDP in FY2019 to 15.0%, buoyed by nontax revenue, comprising mostly larger transfers from the central bank and mobile network license renewal fees, which soared by more than threefold to 3.7% of GDP. Public spending rose from 22.0% of GDP in FY2019 to 23.1% as interest payments climbed and social transfers were increased to mitigate the impact of COVID-19, with 74% of the fiscal deficit financed by domestic sources and 26% by external loans (Figure 3.20.5). Government borrowing from commercial banks more than doubled in FY2020 as the government adhered to its commitment to stop borrowing from the central bank. With the high deficit and lower GDP, gross public debt rose to equal 87.2% of GDP in FY2020 (Figure 3.20.6). It would have risen higher if the government had not tapped buffer funds built up in previous years. The maturity profile of domestic debt lengthened from 1.5 years in FY2019 to 2.7 years in FY2020.

The current account deficit narrowed from the equivalent of 4.8% of GDP in FY2019 to a 5-year low of 1.1% in FY2020 as imports shrank and remittances surged (Figure 3.20.7). Imports declined by 18.2% with lower oil prices and depressed demand for goods under COVID-19 restrictions. Lower global demand shrank exports by 7.2% in FY2020 despite rupee depreciation, subsidized electricity for export industries, and higher refunds of sales taxes. Remittances, by contrast, posted strong growth at 6.3% despite fears of their decline under global recession (Figure 3.20.8). Buoyant remittances are attributed to the increased use of formal institutions to transfer funds as travel restrictions closed other options and as the government moved

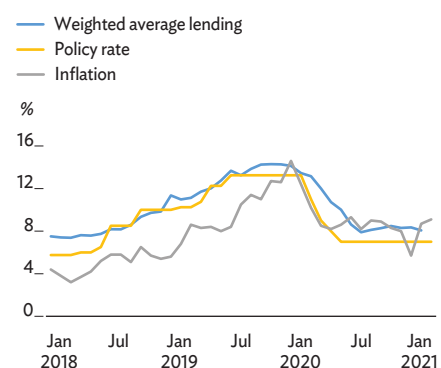
Figure 3.20.3 Monthly inflation



Notes: Core inflation excludes food and energy. The base year is FY2016.

Source: State Bank of Pakistan. Economic Data. <http://www.sbp.org.pk> (accessed 31 March 2021).

Figure 3.20.4 Interest rates



Note: The policy rate is the central bank target rate.

Sources: State Bank of Pakistan. Economic Data. <http://www.sbp.org.pk> (accessed 31 March 2021); Monetary Policy Information Compendium Mar 2021.

to curb unofficial transfers through agents and to facilitate digital banking.

Net foreign direct investment almost doubled to \$2.6 billion in FY2020 on a one-off payment to renew a telecommunications license and an upturn in projects both under and separate from the China–Pakistan Economic Corridor. Disbursement from multilateral and bilateral development partners increased to support COVID-19 recovery efforts. International reserves at the end of FY2020 were \$12.1 billion, providing import cover for 2.9 months (Figure 3.20.9).

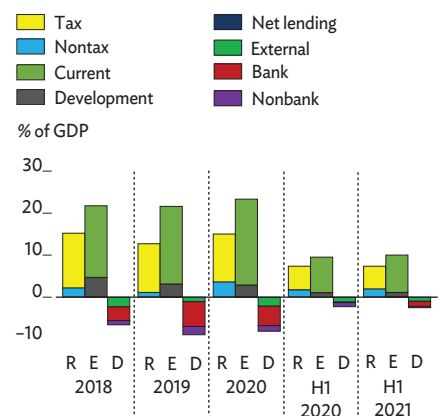
Economic prospects

GDP is forecast to grow by 2.0% in FY2021 as easing COVID-19 restrictions foster broad recovery (Table 3.20.1). Assuming successful vaccine rollout and the implementation of economic reform under a stabilization program with the International Monetary Fund (IMF), GDP is expected to grow by 4.0% in FY2022 as consumption strengthens and investor confidence improves.

Agriculture is projected to see slower growth, mainly because of a sharply lower cotton harvest following heavy rains, pest attacks, and continued contraction in cultivated area. Other major crops, notably rice, sugarcane, and maize, look set to exceed output in FY2021 after the government subsidized agricultural inputs and bank credit. Industry and services already show signs of recovery in FY2021 with fiscal incentives granted to key construction and export industries and subsidized credit offered to protect employment and stimulate growth. Industry appears poised for robust growth led by manufacturing and construction. Large-scale manufacturing, which accounts for over half of the industry sector, reversed contraction by 3.2% in the first 7 months of FY2020 to expand by 7.9% in the same period of FY2021. Support in FY2021 came from strong growth in businesses allied with construction and from the food-processing industry, amply supplied with substantial imports of unmilled wheat and by higher sugarcane output. Services are expected to rebound as retail and trade pick up, and as schools and nonessential services reopen. In any case, the government is fostering e-commerce to keep trade and commerce functioning despite COVID-19 disruption.

Despite low interest rates and, early in the fiscal year, further electricity tariff adjustments and food supply interruptions, headline inflation is projected to slow to 8.7% in FY2021. This partly reflects government subsidies for wheat and sugar imports, its careful monitoring of prices for essential commodities, and improved food supply later in the fiscal year. In the first 9 months of FY2021 (July to March), headline inflation was 8.4%.

Figure 3.20.5 Government budget indicators

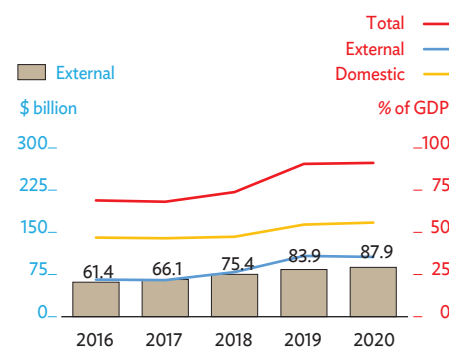


D = deficit financing, E = expenditure, GDP = gross domestic product, H = half, R = revenue.

Note: Years are fiscal years ending on 30 June of that year.

Source: Ministry of Finance 2020. *Pakistan Summary of Consolidated Federal & Provincial Budgetary Operations, Jul–Dec 2020*. http://www.finance.gov.pk/fiscal/July-Dec_2020_21.pdf (accessed 31 March 2021).

Figure 3.20.6 Government domestic and external debt



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year. External debt includes government and other external public corporations.

Source: State Bank of Pakistan, Economic Data. <http://www.sbp.org.pk> (accessed 31 March 2021).

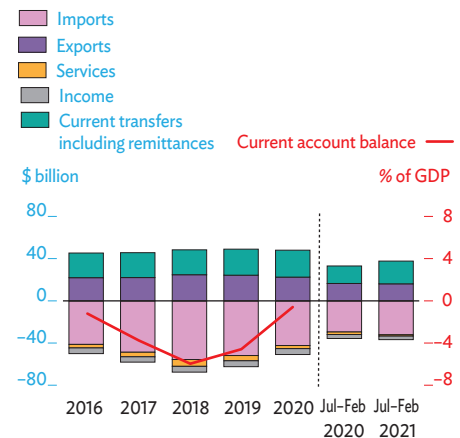
The central bank has kept its policy rate at 7.0% to support economic recovery. This accommodative stance is made possible by lower inflation expectations and a stable exchange rate (Figure 3.20.10). Growth in private sector credit picked up in the first half of FY2021, led mainly by construction, wholesale and retail trade, and consumer spending. Growth reflected lower borrowing costs, subsidized credit schemes, and tax concessions for construction. With fiscal consolidation expected to resume and the government likely to continue its policy of not borrowing from the central bank, inflation is projected to slide to 7.5% in FY2022.

Investment is expected to strengthen as global sentiment improves and the IMF-supported stabilization program progresses. Foreign reserves continued to increase in the first 6 months of FY2021 to reach \$14.9 billion as the current account turned around to a surplus and the Group of Twenty suspended debt service on its loans to Pakistan. Assuming that stabilization efforts are sustained and economic recovery is timely, public debt is expected to fall as a percentage of GDP. However, the economic outlook is subject to downside risks, depending on persistent containment measures and success in achieving the vaccination target of 70% of the eligible population by the end of December 2021.

At the onset of the pandemic, the government suspended its fiscal consolidation measures under the IMF-supported stabilization program. Since then, it has committed to reviving the program in FY2021 and aims to strike a balance between fiscal sustainability over the long run and immediate support for economic recovery. The fiscal deficit in the first half of FY2021 equaled 2.5% of GDP, a slight increase of 0.1% from the same period last year. The primary balance improved slightly to a surplus equal to 0.8% of GDP in the first 6 months of FY2021, reflecting lower current spending other than interest as the first wave of the pandemic abated and the second wave turned out to be mild. Revenue fell slightly from 7.7% of GDP in the first half of FY2020 to 7.4% a year later, primarily from a decline in nontax revenue, which had been exceptionally high in the previous year. Tax revenue remained strong with a doubling of the petroleum levy to the equivalent of 0.6% of GDP, but this could not offset the decline in nontax revenue. Spending decreased from 10.1% of GDP in the first half of FY2021 to 9.9% as lower defense and development expenditure more than compensated for higher outlays for health care and social spending.

The current account deficit is expected to narrow slightly to the equivalent of 1.0% of GDP in FY2021 with support from robust remittances. With the government having launched its Roshan Digital Accounts initiative in September 2020 to help Pakistanis abroad make online bank payments, transfers, and investments, remittances averaged \$2.4 billion per month in July 2020–January 2021, producing a current account

Figure 3.20.7 Current account components



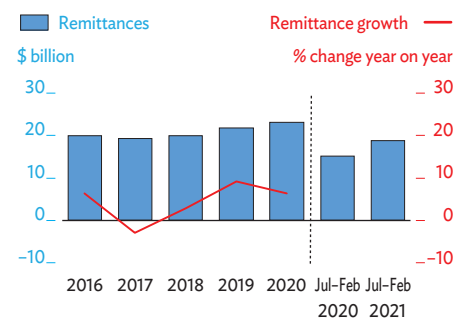
GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year.

Source: State Bank of Pakistan. Economic Data.

<http://www.sbp.org.pk> (accessed 3 February 2021).

Figure 3.20.8 Remittances

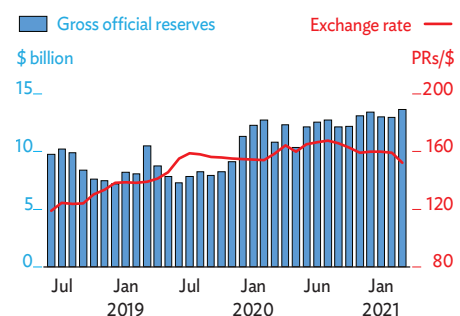


Note: Years are fiscal years ending on 30 June of that year.

Source: State Bank of Pakistan. Economic Data.

<http://www.sbp.org.pk> (accessed 31 March 2021).

Figure 3.20.9 Gross official reserves and exchange rate



Source: State Bank of Pakistan. Economic Data.

<http://www.sbp.org.pk> (accessed 31 March 2021).

surplus in the period equal to 0.6% of GDP, the first surplus over a comparable period in more than a decade. This surplus notwithstanding, a recent surge in imports is expected to produce a current account deficit in the whole of FY2021. The trade deficit widened from 7.5% of GDP in the first 7 months of FY2020 to 8.4% a year later as imports picked up, reflecting domestic economic recovery but also higher imports of essential food commodities to stabilize domestic prices. Exports of goods reversed growth by 2.2% with 3.8% contraction in the same period despite growth in some categories, notably knitwear and bedwear, leather, medical instruments, chemicals, and pharmaceuticals. Exports of insurance, telecommunication, and computer services also increased. The current account deficit is projected to widen again in FY2022 to equal 2.0% of GDP on robust growth in imports as recovery strengthens and the surge in remittances tapers.

Policy challenge—strengthening smaller enterprises to spur private sector development

Stronger small and medium-sized enterprises (SMEs) could collectively become an important pillar of the economy in Pakistan, able to absorb the significant numbers of youth entering the labor market. During recovery from COVID-19, the priority should be to restore economic health by jump-starting SMEs' operations and improving their access to financial services.

The pandemic has highlighted that Pakistan needs to address the challenges of its private sector, in particular the prevalence of SMEs that operate informally. An estimated 3.3 million SMEs in Pakistan engage some 40 million households in entrepreneurial activity. SMEs operate across the economy, including agriculture and livestock, trade and manufacturing, and services. SMEs provide at least 30% of GDP, employ 80% of nonfarm labor, and produce a significant percentage of exports. However, their contribution to GDP is smaller than in other low-income countries, where it reaches up to 60%. The low economic share of SMEs reflects their low value addition in a challenging macroeconomic environment with scarce credit, high inflation, an unstable currency, and inadequate infrastructure.

These constraints hamper SME efforts to take full advantage of Pakistan's open economy and increasingly accessible world markets. In general, SMEs lack a supportive public sector, skilled labor, trade capacity, and access to finance. Only 21% of adults and 7% of women have bank accounts, well below Pakistan's regional peers. In Bangladesh, for example, 50% of adults and 36% of women have bank accounts. Credit is a crucial challenge as commercial banks do not prioritize lending

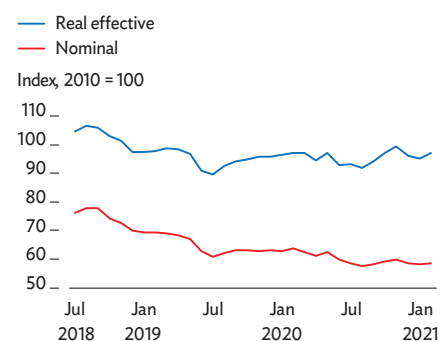
Table 3.20.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	1.9	-0.4	2.0	4.0
Inflation	6.8	10.7	8.7	7.5
Current acct. bal., share of GDP	-4.8	-1.1	-1.0	-2.0

GDP = gross domestic product.

Sources: Ministry of Finance. Pakistan Economic Survey 2018–19; Asian Development Bank estimates.

Figure 3.20.10 Exchange rates



Source: State Bank of Pakistan. Economic Data. <http://www.sbp.org.pk> (accessed 31 March 2021).

to SMEs, preferring to lend instead to the public sector or to large, low-risk enterprises. In any case, SMEs can typically offer little collateral or other indications that they are creditworthy. Most lack proper documents such as audited accounts, and they avoid cumbersome tax and formalization regimes. SMEs have been particularly vulnerable to insolvency or downsizing under the pandemic and measures to contain it. In terms of employment, smaller firms and informal workers have been the hardest hit, with SMEs unable to maintain payrolls when their operations were disrupted or completely closed. Other challenges have been supply chain disruption and interrupted access to supplies for manufacturers and retailers, particularly under extended COVID-19 restrictions.

For SMEs to realize their potential benefits to the economy, a holistic approach is needed to support the development of the private sector value chain. Necessary business development services would facilitate market access, advocate effective policy, provide legal and financial consulting, supply inputs, offer training and technical assistance, and help develop appropriate technology and products. With most SMEs operating informally, bottlenecks to formalization need to be identified toward simplifying licensing and registration processes. To help informal SMEs move into the formal sector, licensing and registration processes should be simplified. Stakeholders should improve coordination to align the policies of the Federal Board of Revenue, Securities and Exchange Commission of Pakistan, and central bank with the needs of the private sector.

The government is pursuing several measures to support SMEs. The central bank adopted its Policy for SME Finance in 2017, targeting growth in SME finance; National Financial Inclusion Strategy, aiming to fund at least 700,000 SMEs to create 3 million jobs; and Kamyab Jawan Program, to benefit the growing number of young people entering the labor market. The government's latest SME policy, drafted in 2019, addresses supply and demand issues to enhance the contribution of SMEs to the economy. Following the onset of the pandemic, expanded energy subsidies have helped to prop up SMEs. In January 2021, the central bank announced a new government-run instant digital payment system called Raast, which will be rolled out in three phases in 2022.

Additional measures should consider the following: (i) Digitalization could make it easier for SMEs to access both a larger volume of credit and a wider range of financial services and to formalize their status. (ii) Efforts could be made to connect SMEs to export markets through global digital commerce. (iii) Data-driven solutions could help SMEs become more competitive in export markets. Since women are a large part of SMEs, gender equality should be enhanced through SME development.

Sri Lanka

GDP contracted in 2020 after the COVID-19 pandemic severely crimped activity in the second quarter. Growth recovered in the second half, however, and showed resilience under a larger second wave of infections beginning in October. Inflation edged up, but the current account deficit narrowed. Growth is expected to rebound in 2021 as global activity recovers and vaccinations allow further relaxation of border controls. Tourism will need to be rethought in the wake of COVID-19.

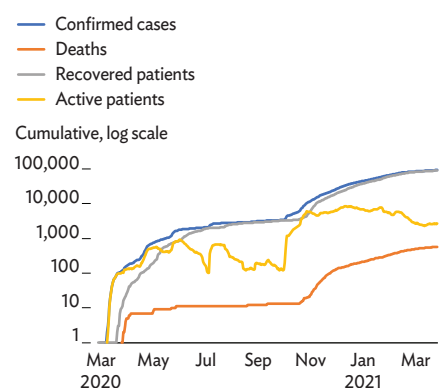
Economic performance

Sri Lanka was relatively successful in containing the first COVID-19 outbreak at the onset of the pandemic with strict domestic containment measures. A new outbreak since October 2020 affected Western Province predominantly, which is densely populated and includes the country's major economic hub (Figure 3.21.1).

The government's economic response to COVID-19 in 2020 relied mainly on monetary easing and credit creation to support the economy. The statutory reserve ratio was reduced by 300 basis points to 2.00% in June 2020, and policy rates were cut by a cumulative 250 basis points to 4.50%–5.50% by July 2020, where they have subsequently stayed (Figure 3.21.2). These actions helped reduce commercial banks' average weighted lending rate by 330 basis points to 10.29% by the end of the year. Other measures to keep lending rates low and the financial industry stable included regulatory forbearance for financial institutions, loan refinancing, guarantee facilities, and debt moratoriums for distressed borrowers.

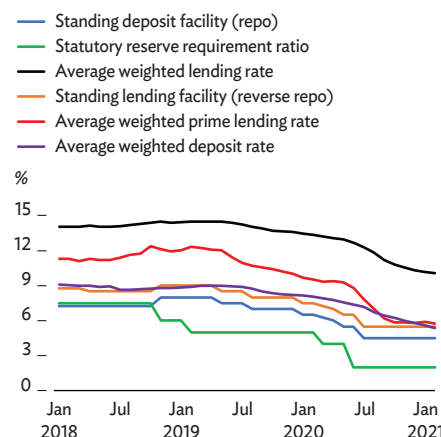
The government provided cash transfers of SLRs5,000 in three rounds to people who had lost income because of COVID-19 restrictions. The first two rounds, in April and May 2020, paid out to those registered under the country's Samurdhi poverty alleviation program or the farmers' pension scheme or receiving allowances as senior citizens or for disabilities or chronic kidney disease, as well as to private bus drivers and conductors. A third round of payments in October and November 2020 was limited to residents in districts affected by localized lockdowns following the October outbreak. Minimum wage requirements were implemented for workers affected by COVID-19 restrictions. Curbs placed

Figure 3.21.1 COVID-19 cumulative daily numbers



Source: Epidemiology Unit, Ministry of Health. http://www.epid.gov.lk/web/index.php?option=com_content&view=article&id=225&lang=en (accessed on 1 April 2021).

Figure 3.21.2 Policy and market interest rates



Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/statistics/economic-indicators> (accessed 31 March 2021).

in April 2020 on imports and capital outflow to shore up foreign reserves have since been substantially retained, though gradually eased.

When the COVID-19 pandemic struck in early 2020, the Sri Lankan economy had already been weakened by a series of growth-slowness shocks: droughts in 2016 and 2017, a constitutional crisis in late 2018, and in April 2019, just 12 months before the arrival of the calamitous virus, coordinated Easter Sunday terror attacks that stunted tourism. The fiscal response to the pandemic was limited by a tight fiscal situation.

The pandemic affected most productive sectors of the economy. Foreign exchange earnings declined markedly and, along with capital outflow, put pressure on the exchange rate and reserves. Strained finances and reserves induced several credit actions by all three major rating agencies that, by the end of 2020, had downgraded Sri Lanka by two notches—Standard & Poor's to CCC+, Fitch to CCC, and Moody's to Caa1. Exchange rate volatility and pressure on the Sri Lanka rupee was contained by Central Bank of Sri Lanka intervention, import restrictions, measures to limit capital outflow, and incentives to attract foreign savings.

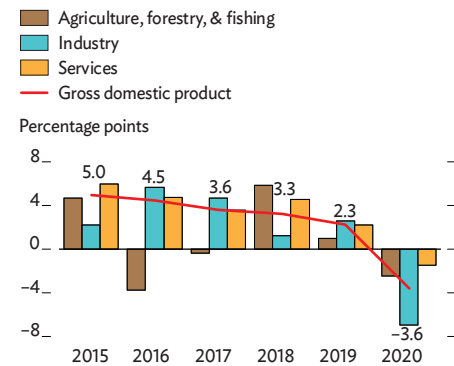
GDP contracted by 3.6% in 2020 as 1.8% contraction in the first quarter (Q1) of 2020, largely before the COVID-19 pandemic, worsened sharply to 16.4% contraction under a general lockdown in Q2. Containment success allowed the country to reopen much of the economy by early June 2020, which allowed marginal 1.3% growth in Q3. Despite a more intense and longer second outbreak, Q4 sustained growth at 1.3% in the absence of widespread lockdown measures, indicating some growth momentum in the economy. The average unemployment rate rose from 4.8% in 2019 to 5.5% in 2020.

Sector performance varied in 2020 under export contraction, factory closures, constrained mobility and tourist arrivals under containment measures, and a modality switch to working from home. Contraction was steepest, at 6.9%, in industry as construction fell by 13.2% and manufacturing by 3.9% (Figure 3.21.3). Services shrank by only 1.5% as contraction by 6.7% in transportation and a staggering 39.4% decline in accommodation and restaurants was mitigated by growth in other services, by 15.4% in telecommunications, 10.9% in finance, and 1.4% in wholesale and retail trade. Agriculture contracted by 2.4% as significant shrinkage in tea, coconut, rubber, and fisheries outweighed growth in cereals, rice, spices, and other minor crops.

Consumption expenditure contracted by 2.4% as 3.0% lower household consumption was partly offset by 4.4% expansion in government consumption. Gross fixed capital formation plummeted by 9.1% as investment halted. With import restrictions and reduced domestic demand, imports contracted more than exports, narrowing the trade deficit by 14.9% (Figure 3.21.4).

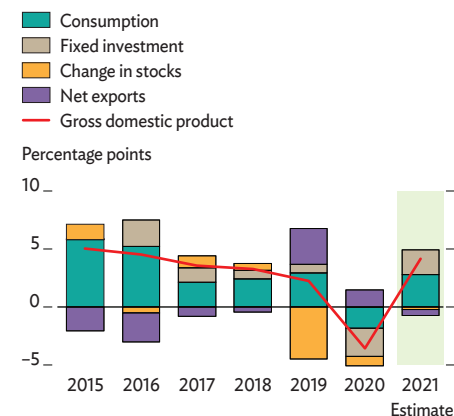
The fiscal situation in 2020 remained tight as revenue, driven lower by COVID-19 impacts and tax rate reductions implemented

Figure 3.21.3 GDP growth by sector



Source: Department of Census and Statistics of Sri Lanka. <http://www.statistics.gov.lk/NationalAccounts/StatisticalInformation/GDP> (accessed 31 March 2021).

Figure 3.21.4 Demand-side contributions to growth



Sources: Department of Census and Statistics of Sri Lanka. <http://www.statistics.gov.lk/NationalAccounts/StatisticalInformation/GDP> (accessed 31 March 2021); Asian Development Bank estimates.

at the end of 2019, contracted by an estimated 24.1%, markedly clipping revenue including grants to the equivalent of only 9.6% of GDP (Figure 3.21.5). Despite higher recurrent expenditure, total expenditure growth is estimated to have been contained at 3.0% by significant cuts in capital expenditure, edging total expenditure higher to the equivalent of 21.5% of GDP. The fiscal deficit rose from 8.2% of GDP in 2019 to an estimated 11.9% in 2020, as the primary deficit rose from 2.2% of GDP to 5.3%. With GDP contracting and the primary balance in deficit, central government debt is expected to rise from 86.8% of GDP in 2019 to 100.3% (Figure 3.21.6). Public sector debt, equal to 94.3% of GDP in 2019, likely climbed higher in 2020.

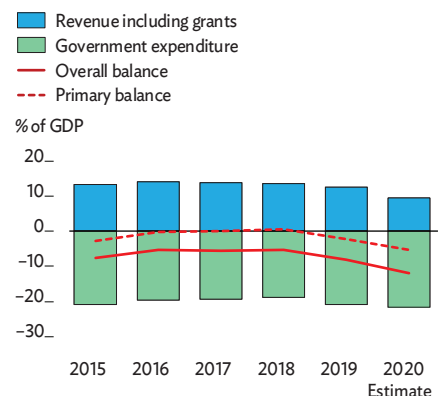
Average annual inflation, as measured by the Colombo consumer price index, rose from 4.3% in 2019 to 4.6% in 2020 (Figure 3.21.7). Food inflation accelerated to an average of 11.4% on supply constraints under restrictions on imports and domestic mobility, as well as from base effects following low food inflation in 2019. With the currency broadly stable and demand suppressed, nonfood inflation fell from 5.8% to 1.8%.

Increased money market liquidity and reduced policy rates allowed the fiscal deficit to be financed at low rates. The central bank imposed ceilings on the weighted average yield of government Treasuries at primary auctions and purchased unsold portions of Treasury auctions, raising its holdings of Treasuries by 9.7 times to SLRs725 billion at the end of 2020. Growth in broad money by 23.4% was driven by a 62.7% increase in credit to the government as the central bank monetized much of the deficit and the government increased its borrowing from banks (Figure 3.21.8). Credit to public corporations grew by 22.5%, but private sector uptake of credit grew by only 6.5%.

Nonperforming loans as a share of all loans has been rising gradually from a low of 2.5% in Q4 2017 to 4.9% in Q4 2020, reflecting multiple economic shocks and slowing GDP growth (Figure 3.21.9). Agriculture, construction, consumption, manufacturing, tourism, and trade, which received nearly 75% of banks' loans, had nonperforming loan ratios of 5%–9% at the end of September 2020. Banks have shown resilience by maintaining their capital adequacy ratios above requirements.

The current account remained in deficit in 2020 but improved from \$1.8 billion in 2019, equal to 2.2% of GDP, to \$1.1 billion in 2020, or 1.3% of GDP (Figure 3.21.10). Trade plummeted in March–June 2020 as both global and domestic economic activity contracted sharply under pandemic containment measures (Figure 3.21.11). Offsetting declines of \$1.9 billion in exports, \$2.9 billion in travel receipts, and \$1.5 billion in other service income, mainly transport and logistics, were declines of \$3.9 billion in imports under import restrictions and falling domestic demand, \$2.4 billion in service payments, and \$0.4 billion in net primary income payments, as well as a \$0.4 billion increase in remittances.

Figure 3.21.5 Central government finance

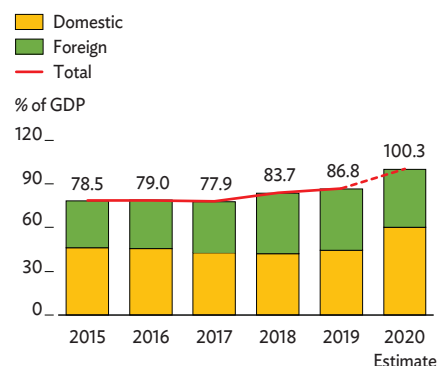


GDP = gross domestic product.

Note: Figures exclude revenue and expenditure transfers to provincial councils. Data for 2019 and 2020 are from the International Monetary Fund.

Sources: Central Bank of Sri Lanka; International Monetary Fund; Ministry of Finance.

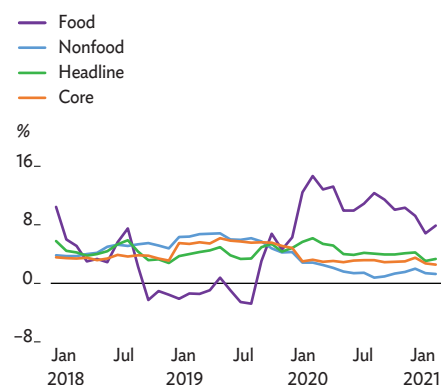
Figure 3.21.6 Central government debt



GDP = gross domestic product.

Sources: Central Bank of Sri Lanka; Asian Development Bank estimates.

Figure 3.21.7 Inflation



Source: Department of Census and Statistics of Sri Lanka. <http://www.statistics.gov.lk/InflationAndPrices/StaticInformation/MonthlyCCPI> (accessed 31 March 2021).

Tourism, a major source of foreign exchange earnings, remained shuttered for nearly 9 months to December, with arrivals falling by 73.5% from an already low base (Figure 3.21.12). Remittances rose by an unexpected 5.8%, which may be explained by a shift toward formal remittance channels, returning workers bringing home accumulated savings, and migrants sending more to their families (Figure 3.21.13).

External debt repayment and capital outflow reduced gross official reserves in 2020 by \$1.9 billion to \$5.7 billion (Figure 3.21.14). The government successfully serviced its external debt, including repayment in October of a \$1 billion international sovereign bond. Beyond external debt repayment, capital outflow in 2020 included \$553 million in net outflow from the government securities market and \$225 million in net outflow from the stock exchange. Capital inflow was largely from multilateral and bilateral development partners.

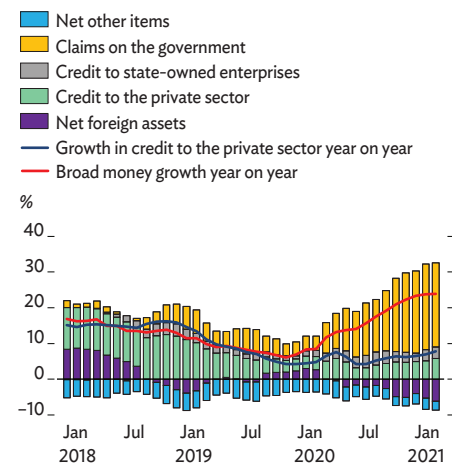
Despite volatility in April and December 2020, the rupee ended the year depreciating by only 2.6% against the US dollar, with the exchange rate at SLRs186.41 (Figure 3.21.15). Average rupee depreciation in 2020 was 3.8%. In real effective terms, the rupee depreciated by 2.1% at the end of the year. Central bank net purchases of foreign exchange on the domestic market came to \$282.5 million during 2020 after selling \$272.4 million in March and April and \$22.5 million in December to counter volatility.

Economic prospects

Growth is forecast at 4.1% in 2021, recovering on an expansive budget and stronger global demand with a marked rebound expected in the major advanced economies, as well as from a base effect following contraction in 2020. Growth is projected to slow somewhat to 3.6% in 2022 (Table 3.21.1). Building on growth momentum in Q3 and Q4 2020, the purchasing managers' index, a leading indicator of economic activity, moved strongly into expansionary territory above 50 in the 3 months to March 2021, with manufacturing above 60 and services in the high-50s (Figure 3.21.16). Growth will benefit in the near term from increased private consumption as pent-up demand is released, and consumption and investment will benefit from low interest rates and ample liquidity. Progress on the Colombo Port City special economic zone is expected to foster foreign direct investment, as does development in the Hambantota Industrial Zone. The government's reform priorities include deregulation to simplify governance structure, improvements to the judiciary, customs efficiency, financial sector regulation, and effective land use.

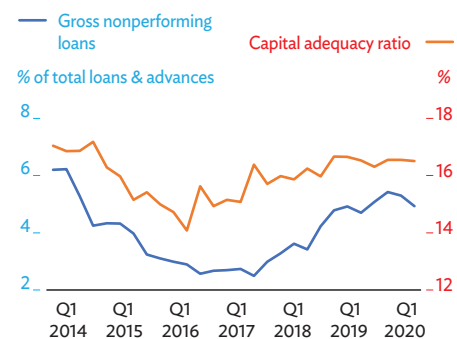
The strength of recovery in 2021 and 2022 will crucially depend, however, on the pace of vaccination in Sri Lanka and in key export and tourist markets. Sri Lanka plans to vaccinate nearly half of its population by the end of 2021.

Figure 3.21.8 Broad money growth and contributions from source side components



Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en> (accessed 2 April 2021).

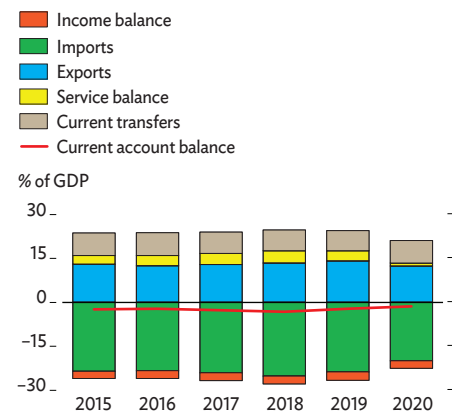
Figure 3.21.9 Bank nonperforming loans and capital adequacy ratio



Q = quarter.

Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en/statistics/statistical-tables/financial-sector> (accessed 20 March 2021).

Figure 3.21.10 Current account components



GDP = gross domestic product.

Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector> (accessed 1 April 2021).

Growth by sector in 2021 will reflect base effects from 2020, with industry bouncing back by 4.8% from its steep contraction. Manufacturing growth will be fueled by recovery in export markets, pent-up domestic demand, and import restrictions. Construction will benefit from a government focus on public investment and resumed private sector projects. Services are forecast to grow by 4.2% on gradual recovery in tourism. Agriculture expansion is projected at 3.7% in 2021 with planted area under rice and other crops in December 2020 greater than a year earlier.

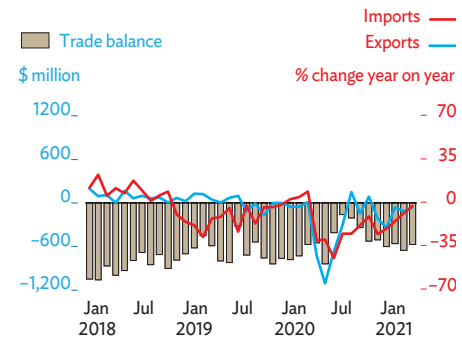
The government plans to increase public investment to 5.4% of GDP as part of its push for recovery in 2021. This increase will come from allocations for government priorities in health and education, a 100,000 kilometer road program, water for all, rural development, and primary production in agriculture, plantations, fisheries, and energy. The government projects a budget deficit at 8.8% of GDP in 2021. Given rigid recurrent expenditure, any revenue shortfall may require constraint on public investment to contain the deficit.

Domestic sources are expected to provide 94% of net deficit financing in 2021 as envisaged in the medium-term fiscal framework 2021–2025. This could push up interest rates as private sector demand for credit grows with economic recovery and perhaps crowd out some private borrowers. Low interest rates, deficit financing, pressure on the rupee, and import restrictions may push up domestic prices. Inflation averaged 3.5% in the first 3 months of 2021, accelerating in March to 4.1% year on year. Strong agricultural growth and base effects from high food inflation in 2020 are expected to contain inflation at 4.5% in 2021, rising to 5.0% in 2022.

The current account deficit is expected to edge lower to 1.1% of GDP in 2021. Exports will grow as demand recovers in major export markets. Domestic demand recovery and higher oil prices will raise imports, but continued import restrictions are expected to limit import growth and contain the deficit. Remittance inflow increased by 13.2% in the first 2 months of 2021 and is forecast to increase from 2020 as economic activity picks up in host countries. Tourist arrivals, at only 9,629 in the first 3 months of 2021, are expected to gather momentum in the second half, when vaccinations are widespread.

Foreign reserves fell to \$4.1 billion at the end of March 2021, and the rupee depreciated by 6.8% against the US dollar in the first 3 months of 2021. To shore up reserves and squelch exchange rate volatility and speculation, the central bank imposed a 3-month ban to mid-April on banks issuing foreign exchange forward contracts, and it required exporters to transfer proceeds to Sri Lanka within 180 days of shipment and convert 25% of them into local currency within 2-weeks of transfer, lowered in April to 10% within 30 days of transfer. Higher remittances were encouraged by providing an additional SLRs2 per dollar for

Figure 3.21.11 Trade indicators



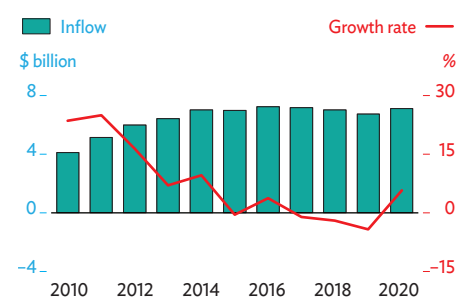
Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en/press/press-releases/external-sector-performance> (accessed 16 April 2021).

Figure 3.21.12 Tourism indicators



Source: Sri Lanka Tourist Development Authority. <https://www.slttda.gov.lk/index.html> (accessed 5 April 2021).

Figure 3.21.13 Remittances



Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector> (accessed 25 February 2021).

converted remittances, and banks were required to sell 10% of remittance inflow to the central bank. To attract deposits from nonresidents, a special depositary account introduced in April 2020 offers a higher interest rate.

Central government external debt servicing in 2021–2025 will average slightly more than \$4 billion each year. Foreign exchange requirements are higher when factoring in the external debt of the private sector and state-owned enterprises, as well as dollar-denominated government development bonds. Non-debt creating capital inflows, support from bilateral partners, and the timely disbursement of committed project financing are expected to buttress foreign exchange reserves. The People’s Bank of China provided in March 2021 a standby 3-year swap facility worth CNY10 billion to be accessed if necessary. The next month, China Development Bank approved a \$500 million second tranche from its \$1.2 billion term financing facility, which will directly support reserves. A proposed International Monetary Fund allocation of special drawing rights would further cushion reserves.

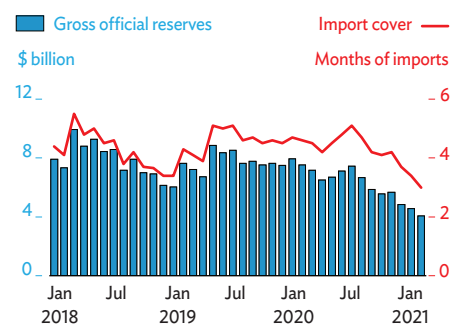
Risks to the forecast stem from uncertainty generated by the ongoing pandemic, in particular the impact of new strains and the pace of vaccination. Once forbearance measures under COVID-19 are lifted, higher nonperforming loans may constrain private sector credit growth, as may crowding-out effects under fiscal deficit monetization, limiting growth in consumption and investment. Other risks to recovery prospects are fiscal and debt challenges, import restrictions, significant external financing requirements, underlying structural issues, and extreme weather.

After years of steady improvement, the poverty rate likely worsened in 2020 as the pandemic caused income losses, especially for informal and smaller enterprises and their employees. The government has thus focused on strengthening education, health care, and rural development to preserve progress in human development achieved over many decades. However, safeguarding this progress and advancing it through higher economic growth depends on Sri Lanka overcoming its fiscal and debt challenges.

Policy challenge—reviving tourism under the new normal

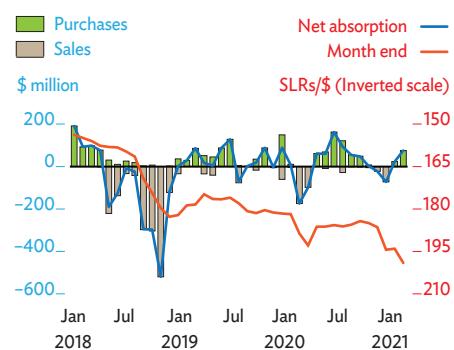
The World Travel and Tourism Council estimates that the direct, indirect, and induced contributions of travel and tourism in Sri Lanka provided 11.0% of employment in 2019 and 10.6% of GDP (Figure 3.21.17). Tourism had received a major boost with the end of civil war in 2009, and arrivals rose from 440,000 in 2008 to 2,330,000 in 2018. The share of tourism earnings in GDP steadily increased from 7.6% in 2013 to 11.2% in 2018, making it the third largest foreign exchange earner, behind worker remittances and garment exports. In 2019, coordinated Easter Sunday terror

Figure 3.21.14 Gross official reserves



Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en> (accessed 7 April 2021).

Figure 3.21.15 Exchange rate and CBSL intervention



CBSL = Central Bank of Sri Lanka.

Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en> (accessed 5 April 2021).

Table 3.21.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	2.3	-3.6	4.1	3.6
Inflation	4.3	4.6	4.5	5.0
Current acct. bal., share of GDP	-2.2	-1.3	-1.1	-1.7

GDP = gross domestic product.

Sources: Department of Census and Statistics of Sri Lanka; Central Bank of Sri Lanka. Asian Development Bank estimates.

attacks targeting hotels and churches were a major setback to the industry, to be followed in 2020 by COVID-19.

Tourist arrivals collapsed under the pandemic, with no arrivals at all for the 9 months in which borders were closed (Figure 3.21.12). After reopening to tourists in December 2020 on a pilot basis for limited flights, Sri Lanka started accepting flights from all countries in January 2021. As global tourism picks up, the industry must adjust to new requirements, cater to new kinds of demand, and compete effectively with other destinations.

Travelers in the wake of COVID-19 are likely to be more conscious of health and hygiene and require readily available information on health and safety protocols before setting off. Adopting such protocols to international standards will be important to winning travelers' confidence. Sri Lanka is one of 65 countries granted "safe travel" stamps by the World Travel and Tourism Council. Implementing the necessary protocols throughout the travel industry will be a challenge under current capacity constraints.

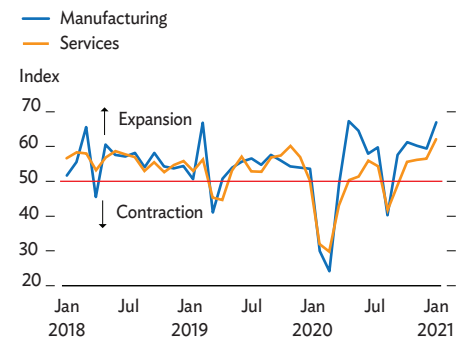
According to the Sri Lanka Tourism Development Authority, only 5.4% of registered accommodation businesses are classified as tourist hotels, while 80% are guesthouses, homestays, and bungalows. The balance of 14.6% are unclassified or boutique hotels, rented homes and apartments, or in the "others" category. To foster the implementation of health and safety protocols, the Sri Lanka Tourism Development Authority issued guidelines and conducted educational programs for accommodation managers. Small guesthouses and homestays will need more capacity building and financial support to implement the required changes.

Investment will be required in the tourism industry to increase the use of information and communication technology and thereby provide tourists with easy access to information, collect information from them, otherwise facilitate communication, and reduce common touch points that can spread the virus. Employees have to be reskilled to work with these technologies, and policy must address unemployment caused by layoffs and closures.

Overcrowding at tourist sites was a problem before COVID-19 and will be a concern once again as tourism recovers. The COVID-19 crisis provides an opportunity to address overcrowding by developing and promoting lesser-known destinations.

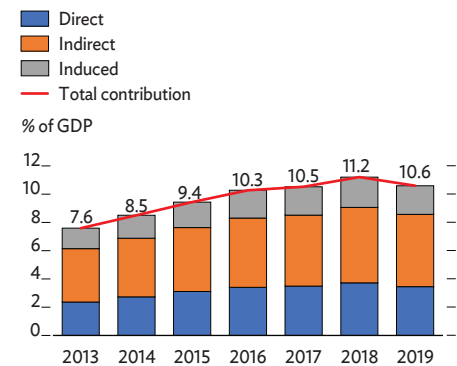
Finally, the government and the private sector need to collaborate better to boost domestic demand until international travel picks up, and to promote Sri Lanka as a safe destination. A challenge for the government will be to prioritize competing demands for reviving the economy.

Figure 3.21.16 Purchasing managers' index



Source: Central Bank of Sri Lanka. <https://www.cbsl.gov.lk/en/statistics/business-surveys/sl-purchasing-managers-index-survey> (accessed 15 March 2021).

Figure 3.21.17 Share of tourism to GDP



GDP = gross domestic product.

Sources: World Travel and Tourism Council, Department of Census and Statistics; Asian Development Bank estimates.



SOUTHEAST ASIA

Brunei Darussalam

Cambodia

Indonesia

Lao People's Democratic Republic

Malaysia

Myanmar

Philippines

Singapore

Thailand

Timor-Leste

Viet Nam

Brunei Darussalam

Although growth decelerated sharply in 2020 on the impact of the COVID-19 pandemic, growth was still achieved due to the economic contribution of a new oil refinery and petrochemical plant. The economy is expected to strengthen in 2021 and 2022 on an improving external environment. Raising the productivity of the country’s micro, small, and medium-sized enterprises (MSMEs) to make them more productive and resilient to shocks is a major policy challenge.

Economic performance

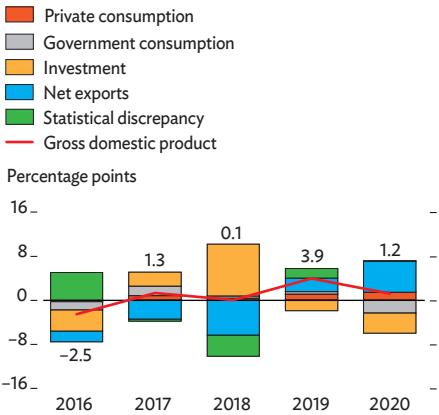
The economy grew by 1.2% in 2020, much lower than 2019’s 3.9% growth (Figure 3.22.1). The government took various measures to lessen the impact of the COVID-19 pandemic, including partially funding private sector MSME salaries and deferring loan payments of individuals and businesses affected by the pandemic. Last year’s key growth drivers were net external demand from increased exports of petroleum and gas products—mainly from Hengyi Industries starting Phase 1 of its oil refinery and petrochemical operations in November 2019—and slower import growth due to a contraction in services imports. Hengyi’s Phase 1 investment totaled \$3.5 billion. Fixed investment fell sharply on lower construction and investment in the oil industry. Government consumption dropped by 9.6% in 2020, but private consumption rose 7.3%.

Rising production at Hengyi’s oil refinery and petrochemical plant, strong export growth, and a decent expansion in household spending offset weaknesses in other parts of the economy. Other petroleum and chemical production increased more than four times last year. But services output contracted by 1.9%, with COVID-19 travel restrictions hurting hotels, restaurants, and the travel industry (Figure 3.22.2).

Inflation accelerated to 1.9% in 2020 from -0.4% in 2019 as prices in most product categories, led by food and services, rose because of the COVID-19 pandemic. Price increases of this size were last seen in 2008, when inflation averaged 2.1% (Figure 3.22.3).

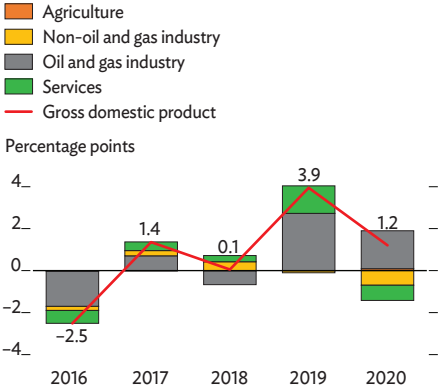
Large volume and price declines for crude oil and liquefied natural gas affected the nominal value of 2020’s exports. Although exports by Hengyi’s new plant picked up some of the slack, the US dollar value of customs-based merchandise exports fell by 8.9%. The US dollar value of customs-based merchandise imports increased by 4.7% on increased mineral fuel shipments

Figure 3.22.1 Demand-side contributions to growth



Source: CEIC Data Company (accessed 26 March 2021).

Figure 3.22.2 Supply-side contributions to growth



Source: CEIC Data Company (accessed 26 March 2021).

This chapter was written by Yothin Jinjarak and Pilipinas Quising of the Economic Research and Regional Cooperation Department, ADB, Manila.

to be used as feedstock at the Hengyi plant. The balance in external trade remained in surplus last year, but the current account surplus is estimated to have narrowed to 4.0% of GDP from 6.6% in 2019. International reserves equaled 33.3% of GDP at the end of last year, cover for 9 months of imports.

Economic prospects

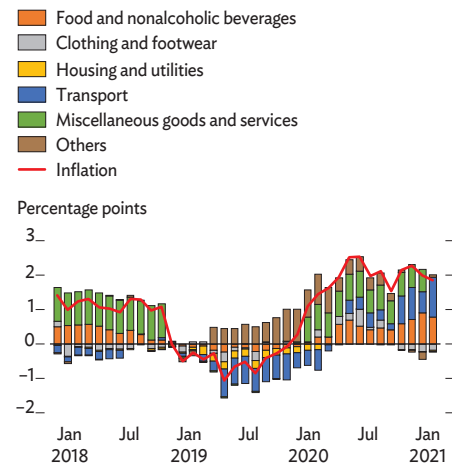
The near-term growth prospects are tempered by a fragile external environment as major trading partners continue to grapple with the COVID-19 pandemic. Although the government has been successful in containing the spread of COVID-19, the progress of vaccine rollouts both domestically and worldwide will determine the economy's strength. As of 31 March 2021, Brunei Darussalam had 210 confirmed cases and three deaths (Figure 3.22.4). The country is a COVAX member, and the government has signed a supply deal with Oxford-AstraZeneca to provide vaccines to cover 20% of the population. The government plans to vaccinate 70% of the population, beginning in the second quarter of 2021.

Growth in 2021 will be supported by a recovery in global demand and higher oil and gas prices, which will boost government revenue and support government consumption. Private consumption is expected to grow as the economy continues to strengthen. Increased production at the Hengyi plant and Brunei Fertilizer Industries starting production by the third quarter of 2021 will boost exports. Private investment and the construction industry will be bolstered by the building of a halal meat processing and distribution center and the Phase 2 expansion of the Hengyi plant, valued at about \$13 billion and expected to begin in 2021. The plant, once completed in 2024, is projected to increase oil refining capacity to 22 million tons per year from the current 8 million tons per year. GDP growth is forecast at 2.5% this year and 3.0% next year (Table 3.22.1).

The high inflation of 2020 is unlikely to continue in 2021 and 2022, as the easing of some supply constraints caused by the COVID-19 pandemic should put downward pressure on prices. Although global inflation is expected to rise in 2021 on revived economic activity, price increases are likely to remain muted as overall demand remains weak. The one-to-one peg of the Brunei dollar to the Singapore dollar and the domestic price subsidies that are in place should also keep inflation in check. Inflation is forecast at 0.7% for the next 2 years.

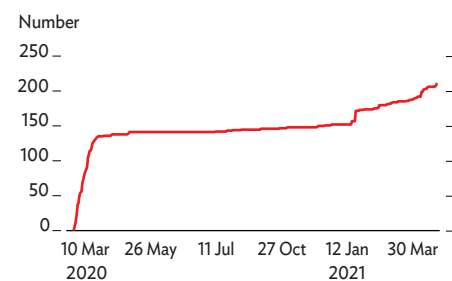
Brunei Darussalam is expected to continue turning a trade surplus in the near term after a surplus of \$1.3 billion in 2020. The trade surplus will continue to be supported by exports of oil, gas, and finished petrochemical products. This should improve the trade balance and continue to keep the current account in surplus (Figure 3.22.5). The surplus as a share of

Figure 3.22.3 Sources of inflation



Source: CEIC Data Company (accessed 26 March 2021).

Figure 3.22.4 Confirmed COVID-19 cases



COVID-19 = Coronavirus Disease 2019.

Source: CEIC Data Company (accessed 1 April 2021).

Table 3.22.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	3.9	1.2	2.5	3.0
Inflation	-0.4	1.9	0.7	0.7
Current acct. bal., (share of GDP)	6.6	4.0	8.5	10.5

GDP = gross domestic product.

Sources: CEIC Data Company; Asian Development Bank estimates.

GDP is forecast to rise in 2021 and 2022, supported by robust export growth from the Hengyi plant and higher oil and gas prices. But increased imports due to the plant's expansion and continued demand for inputs will temper the trade and the current surpluses in both years.

The main risks to the robust economic outlook are a weaker-than-expected global recovery, delays in large foreign direct investments, and unscheduled oil and gas supply disruptions.

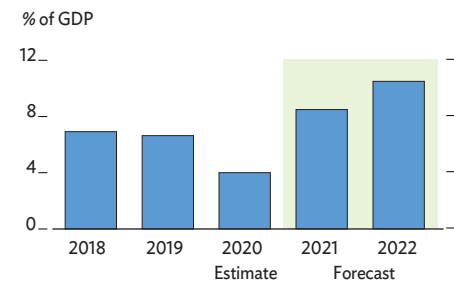
Policy challenge—making MSMEs more productive and resilient to shocks

Despite a positive economic outlook, the poor productivity of Brunei Darussalam's MSMEs are a major policy challenge—and one that existed before the COVID-19 crisis. The pandemic, however, has put their poor productivity into the spotlight, making this a policy concern for the near and medium terms. MSMEs are economically important since they constitute 97.3% of the country's 6,157 firms. Making MSMEs more productive will involve a clear understanding of the role of human capital development, imported raw materials, sectoral diversification, and foreign-market orientation on these businesses.

The COVID-19 pandemic hit MSMEs in some sectors hard, including hotels and accommodation and food services; these activities account for 10.8% of total MSME employment. The prospects for MSMEs in the wholesale and retail trade (21.5% of employment) will depend heavily on a recovery in domestic consumption. Because manufacturing MSMEs (22.7% of MSME revenue) and those involved in mining and quarrying (33.4% of revenue) are reliant on foreign markets, it remains to be seen how the global COVID-19 pandemic, which is still unravelling, will affect their businesses in 2021.

The 2019 Global Entrepreneurship Index shows Brunei Darussalam lags far behind international standards of entrepreneurship, particularly in the skills needed to start a business and process innovation (Figure 3.22.6). Brunei Darussalam can learn a lot from the good practices of neighboring economies. For instance, to what extent have the startup skills of MSMEs in the Republic of Korea and process innovation in Singapore evolved since the COVID-19 crisis? Has digitization helped Brunei Darussalam's MSMEs turn the corner faster and smoother in the economic recovery from the pandemic? Understanding the entrepreneurship capacity of the country's MSMEs should help improve the adaptability of support policies to make these firms more resilient to shocks as growth returns to its strong prepandemic trajectory.

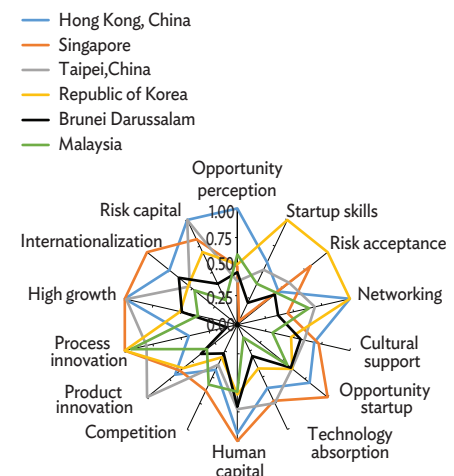
Figure 3.22.5 Current account balance



GDP = gross domestic product.

Sources: CEIC Data Company (accessed 24 March 2021); Asian Development Bank estimates.

Figure 3.22.6 Global Entrepreneurship Index scores, 2019



Source: Global Entrepreneurship and Development Institute. <https://thegedi.org> (accessed 13 January 2021).

Cambodia

Border controls helped prevent the spread of COVID-19 in 2020, but the economy contracted due to an almost complete stop in tourism and declines in construction and garment manufacturing caused by the pandemic. The current account deficit narrowed in 2020 due to one-off gold sales, but is expected to widen in 2021 and 2022. After a sharp contraction in 2020, the economy is forecast to return to growth in 2021 despite headwinds from a local COVID-19 outbreak that began in the first quarter. Growth is expected to accelerate in 2022. Monitoring the pandemic’s impacts on households and providing targeted social assistance will be crucial for ensuring an inclusive recovery.

Economic performance

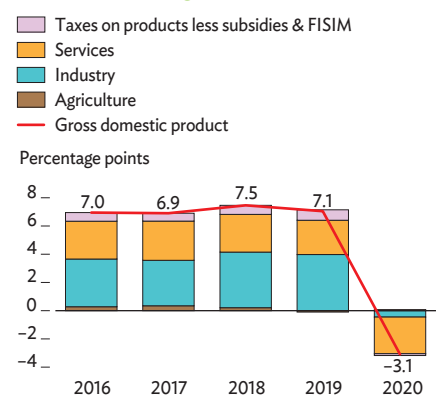
The economy contracted by 3.1% in 2020 due to the impact of the COVID-19 pandemic, although Cambodia did not experience a major outbreak last year. Even so, the pandemic caused a total shutdown of international tourism; a drop in exports of garments, footwear, and travel goods; and a contraction in construction.

Industrial output declined by 1.2% in 2020. The garments, footwear, and travel goods sector was hit by a wave of canceled orders as the pandemic triggered lockdowns in key markets (Figure 3.23.1). The sector rebounded in the second half, but full-year exports were down by 9.9%. Non-garment light manufacturing performed remarkably well, with exports rising by 23.1% last year.

Cambodia stopped issuing tourist visas in March 2020 and introduced mandatory quarantining for arrivals in April (Figure 3.23.2). As a result, international arrivals declined by 80.2% in 2020, leading to a 36.0% decline in hotel and restaurant output. Agricultural production increased by only 0.5%. Low water levels in rivers and lakes affected fisheries production for much of the year, while flash floods in October hit crop production.

Rising food prices saw average inflation increase from 1.9% in 2019 to 2.9% in 2020. While high dollarization levels constrained monetary policy, the National Bank of Cambodia moved quickly to maintain liquidity and encourage banks to continue lending. Growth in broad money decelerated to 15.3% in 2020 from 18.2% in 2019, and private sector credit growth slowed to 17.7% from 26.7%.

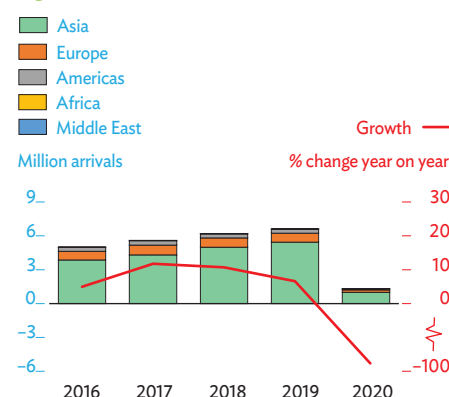
Figure 3.23.1 Supply-side contributions to growth



FISIM = financial intermediation services indirectly measured.

Sources: National Institute of Statistics; Ministry of Economy and Finance; Asian Development Bank estimates.

Figure 3.23.2 Tourist arrivals



Sources: CEIC Data Company (accessed 30 March 2021); Ministry of Tourism; Asian Development Bank estimates.

Accommodative fiscal policy helped cushion the impact of the COVID-19 pandemic (Figure 3.23.3). Tax relief for tourism firms and the garments, footwear, and travel goods sector contributed to a 15.3% decline in domestic revenue in 2020, the equivalent of 22.7% of GDP. The government also reprioritized its spending and rolled out new stimulus packages. Public spending increased to the equivalent of 25.3% of GDP in 2020. Because of these measures, the general government budget balance moved from a surplus of 3.0% in 2019 to a deficit of 2.6% in 2020. And as a result, public external debt rose to the equivalent of 31.9% of GDP from 28.1% in the same period.

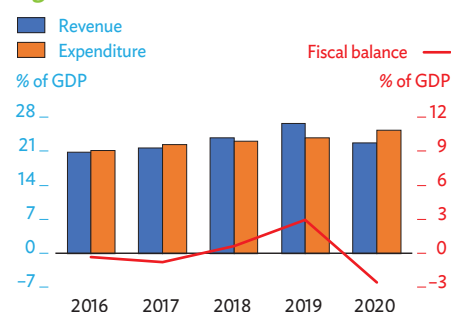
Cambodia's long-standing current account deficit was expected to widen substantially due to the drop in tourism (Figure 3.23.4). The deficit, however, narrowed last year to the equivalent of 11.4% of GDP. The current-account shift was driven by a 5.4% decline in merchandise imports and a 16.5% surge in merchandise exports. Private gold sales were the main reason for the rise in exports. Excluding these sales, merchandise exports declined by 1.1%. The narrower current account deficit and continued capital inflows from foreign direct investment and other sources supported a continued increase in gross foreign reserves, which rose to \$21.3 billion at the end of 2020 from \$18.8 billion at the end of 2019.

Economic prospects

The economy is forecast to expand by 4.0% in 2021 and 5.5% in 2022 (Figure 3.23.5 and Table 3.23.1). The economic recovery in major trading partners will support strong demand for Cambodia's merchandise exports and continued foreign direct investment. Industrial production is expected to grow strongly, expanding by 7.1% in 2021 and 7.0% in 2022 on the back of a rebound in the garments, footwear, and travel goods sector and growth in light manufacturing. Agriculture is also expected to pick up, growing by 1.3% in 2021 and 1.2% in 2022, underpinned by higher crop production after last year's flood damage, continued aquaculture growth, and rising agriculture exports to the People's Republic of China from a new bilateral free trade agreement.

Services output will recover more slowly. Efforts to contain a local outbreak of COVID-19 that began in February 2021 are dampening activities in this sector. Travel restrictions are expected to remain in place for most of 2021 which means that tourism will not contribute to service sector growth this year. Growth in services output is projected at 3.3% in 2021, accelerating to 6.2% in 2022 as travel restrictions are eased. Real estate is expected to recover steadily from last year's contraction in line with a similar trend for the construction industry.

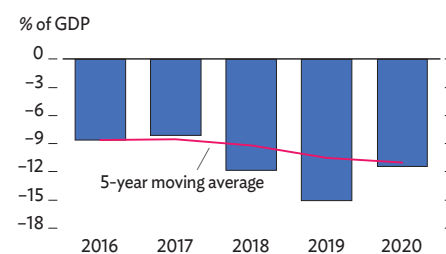
Figure 3.23.3 Fiscal indicators



GDP = gross domestic product.

Source: Ministry of Economy and Finance.

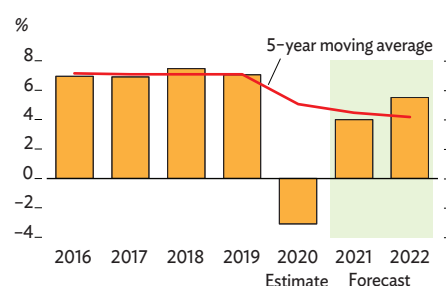
Figure 3.23.4 Current account balance



GDP = gross domestic product.

Source: Asian Development Outlook database.

Figure 3.23.5 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

Inflation is forecast to rise to an average of 3.1% in 2021 and 3.0% in 2022 on rising international fuel prices and a recovery in domestic demand (Figure 3.23.6). Monetary policy will continue to target price stability with the implicit goal of encouraging greater use of the local currency and maintaining exchange rate stability. The planned phasing out of the loan restructuring program and other regulatory interventions to ease the impact of COVID-19 will be a critical factor in the development of the finance sector in 2021 and 2022. The sector remains well-capitalized, but rising nonperforming loans and loan impairments could put pressure on individual banks and microfinance institutions, threatening the sector's stability.

The government is expected to maintain its accommodative fiscal policy stance this year and next to support growth. The 2021 State Budget anticipates an overall deficit equal to 3.1% of GDP, with domestic revenue budgeted at 21.4% of GDP and expenditure at 24.5%. Despite the widening deficit, Cambodia will remain at low risk of debt distress, with total public external debt projected to rise to the equivalent of 34.6% of GDP in 2021 and 35.9% in 2022.

The current account deficit is projected to widen to 15.6% of GDP in 2021 and 12.3% in 2022 under the assumption that the large gold sales seen in 2020 do not continue. Goods and services exports are forecast to decline by 1.4% in 2021 and rise by 12.8% in 2022 as the global recovery drives demand for Cambodian products. Imports are expected to increase by 5.5% in 2021 and 10.3% in 2022 as domestic demand recovers. The current account deficit is expected to be offset by capital inflows, enabling a modest increase in gross international reserves to \$23.4 billion by the end of 2022.

The uneven pace of the recovery across sectors will continue to put pressure on some households and firms this year—and this will slow the overall recovery. Key risks to the outlook include continued weakness in domestic demand, local community transmission of COVID-19, and hard landings in construction and banking. Many households and firms saw large falls in income and sales in 2020 and resorted to temporary coping strategies.

Policy challenge—a recovery that leaves no one behind

COVID-19 caused the largest shock to household incomes in Cambodia since the Paris Peace Agreements were signed in 1991, ending over 2 decades of conflict. Recognizing the threat to vulnerable households, the government ring-fenced its existing social assistance programs, expanded its cash-for-work schemes, and moved quickly to set up a new cash

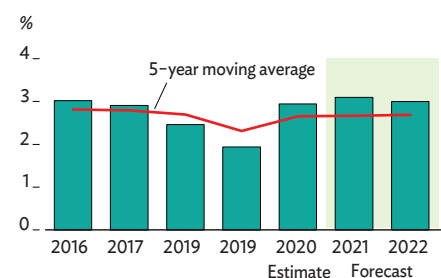
Table 3.23.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	7.1	-3.1	4.0	5.5
Inflation	1.9	2.9	3.1	3.0
Current acct. bal., share of GDP	-15.0	-11.4	-15.6	-12.3

GDP = gross domestic product.

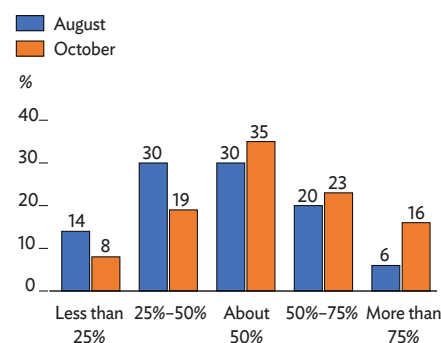
Sources: National Institute of Statistics; Ministry of Economy and Finance; National Bank of Cambodia; Asian Development Bank estimates.

Figure 3.23.6 Inflation



Source: Asian Development Outlook database.

Figure 3.23.7 Magnitude of income reductions reported by households in August and October 2020



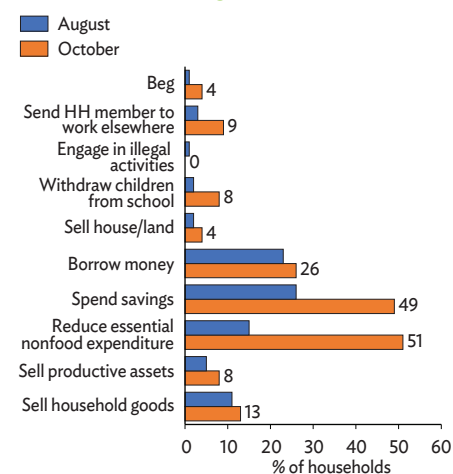
Source: UNICEF.

transfer program that has mechanisms for channeling support to newly poor households.

By October 2020, this program had disbursed monthly cash payments to over 660,000 households. The program has helped to mitigate the pandemic's socioeconomic impacts. Even so, surveys show that 2020 saw large and widespread drops in household income (Figure 3.23.7). Households have used various strategies to cope, including spending savings, selling assets, and reducing spending (Figure 3.23.8). These strategies have already depressed household consumption and could have a long-term impact on welfare and productivity if this continues well into 2021.

The return to growth in 2021 will help ease the pressure on household incomes, but not all sectors and regions will benefit equally from the recovery. Because of this it will be essential to continue to closely monitor household welfare. Rigorous analysis that integrates data from telephone and field surveys with new data sources, such as remote sensing, and big data can help provide a clearer and more detailed picture. Using this analysis to guide how cash transfers and other social assistance can be calibrated will help to ensure that no one is left behind.

Figure 3.23.8 Prevalence of different household coping strategies for responding to income loss in August and October 2020



HH = households.
Source: UNICEF.

Indonesia

Despite the alarming global impact of COVID-19, the economy contracted moderately in 2020—relative to some of its neighbors—due to well-coordinated and well-communicated policy responses, a smaller share of affected sectors, and a recovery in commodity prices. The economy is expected to rebound in 2021 and 2022—just how solidly will depend on how well the government manages the COVID-19 infection curve, adjusts its macroeconomic strategy, and enhances the efficiency of the fiscal package. Over the medium term, the main policy challenge will be how to sustain the economic recovery and green the future.

Economic performance

Indonesia’s economy contracted last year for the first time since the Asian financial crisis. Private consumption and investment declined sharply as the COVID-19 pandemic suppressed domestic economic activity. Real GDP fell by 2.1% in 2020 from an average of 5.0% growth over the previous 5 years.

On balance, Indonesia has fared well given the severity and unprecedented nature of the COVID-19 pandemic. The good performance was underpinned by limited mobility restrictions, the smaller share of the tourism and export sectors in the economy, and a large, well-coordinated, and well-communicated macroeconomic policy response. The rebound in commodity prices, particularly palm oil, along with increased production of steel, nickel, and other precious metals, also contributed.

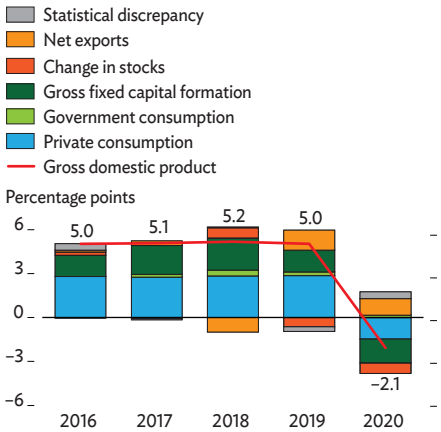
Private consumption contracted by 2.7% in 2020, reflecting the cumulative impact of a weakened labor market, a reduction in income, and fragile consumer sentiment (Figure 3.24.1).

Fixed investment fell by 4.9% in 2020 as the highly volatile COVID-19 situation and weak pricing power soured business sentiment. Because of this, most firms put their capital spending and construction projects on hold.

Government consumption (national accounts basis) grew by 1.9% in 2020, down from a 3.3% increase in 2019, reflecting a reallocation of spending to support the fiscal stimulus program. Even though exports of goods and services fell by 7.7% in real terms last year, net external demand made a 1.1 percentage-points contribution to GDP growth, as imports contracted by 14.7% in real terms on lackluster domestic demand.

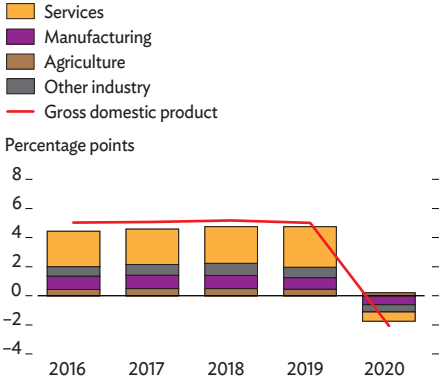
Services, the biggest supply-side contributor to GDP growth, shrank by 1.4% in 2020 after 6.4% growth in 2019

Figure 3.24.1 Demand-side contributions to growth



Source: CEIC Data Company (accessed 31 March 2021).

Figure 3.24.2 Supply-side contributions to growth



Source: CEIC Data Company (accessed 31 March 2021).

This chapter was written by James Villafuerte of the Economic Research and Regional Cooperation Department, ADB, Manila, and Priasto Aji of the Indonesia Resident Mission, ADB, Jakarta.

(Figure 3.24.2). Transportation, accommodation, and wholesale and retail trade slowed sharply due to the decline in private consumption. With demand shrinking at home and abroad, GDP contracted across all industry subsectors. Growth in agriculture slowed to 1.8%, reflecting lower demand and distribution hurdles for agricultural commodities.

Inflation subsided to 1.7% at the end of 2020 from 2.7% at the end of 2019 as mobility restrictions reduced demand for goods and services (Figure 3.24.3). Inflation averaged 2.0% last year.

Slower economic growth weakened the labor market, which lost about 2.6 million jobs from February to August 2020, a period when the working-age population (ages 15–64) increased by 4.6 million. The unemployment rate surged to 7.1% in August 2020, its highest in 9 years.

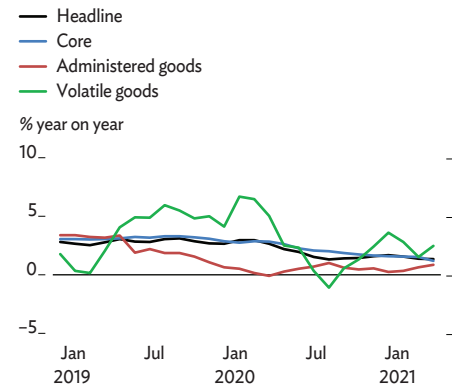
The poverty and social impact of COVID-19 has been severe. Despite lower prices, worsening labor market conditions increased the number of people living below the national poverty line in 2020 to 27.6 million or 10.2% of the population—the first reversal of a downward trend in the poverty rate since 2015. Estimates indicate that from February to August 2020, the livelihoods of nearly 30 million people were affected by COVID-19, with 1.8 million people not working temporarily, 2.6 million losing their jobs, and 24.0 million on reduced working hours.

The pandemic has also severely hit micro, small, and medium-sized enterprises (MSMEs). According to a survey conducted by UNICEF, UNDP, Australia Indonesia Partnership for Economic Development, and the SMERU Research Institute from October to November 2020, 52.4% of MSMEs had no cash or savings, 51.5% had to cut staff, 48.8% had to temporarily close, and 37.9% reported a drop in income of over 30%.

Bank Indonesia reduced its policy interest rate five times by a cumulative 125 basis points to 3.75% in 2020 (Figure 3.23.4). The central bank also lowered the reserve requirement ratios for banks and increased the frequency of its repo, reverse repo, and foreign currency swap operations. On 6 July 2020, the government and Bank Indonesia announced the burden sharing scheme. These measures enabled the central bank to directly inject liquidity to banks and purchase government bonds to finance public-good spending for health and social assistance. The central bank also relaxed some macroprudential regulations to prop up credit and liquidity. Despite these measures, credit growth still contracted by 2.7% in 2020 as the demand for loans shrank and banks tightened their credit assessments, putting their excess liquidity in government securities.

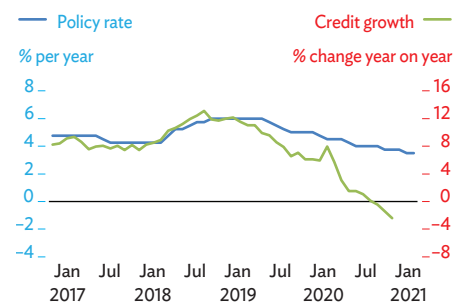
Fiscal policy boosted economic growth in 2020. Despite a 40% decline in revenue on reduced corporate profits and lower household incomes, the government launched a \$46.7 billion fiscal stimulus package, equivalent to about 4.5% of GDP. To do this, it lifted the budget deficit ceiling for 2020 and 2021

Figure 3.24.3 Inflation



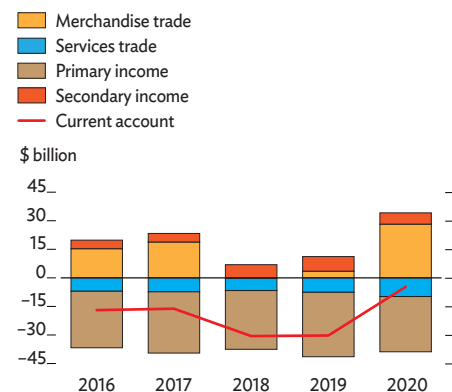
Source: CEIC Data Company (accessed 31 March 2021).

Figure 3.24.4 Policy rate and credit growth



Source: CEIC Data Company (accessed 31 March 2021).

Figure 3.24.5 Current account balance



Source: CEIC Data Company (accessed 31 March 2021).

to create extra room for its COVID-19 response. The stimulus package provided support to the health care sector for testing and treatment and to low-income households through social assistance, unemployment benefits, and tax relief. The package also reduced corporate taxes. With a reallocation of spending, total nominal spending last year was only 3.3% higher than in 2019. The budget outcome was a deficit of 6.1%, from 2.2% in 2019, but this was smaller than the 6.4% budgeted deficit. The national government's debt-to-GDP ratio rose to 38.8% in 2020 from 30.0% a year earlier, still well below the debt sustainability threshold of 60% of GDP.

Merchandise exports fell by 3.0% in US dollar terms last year, weighed down by flagging demand in major markets. Merchandise imports fell by 18.1% in US dollar terms because of subdued domestic demand. Consequently, the trade surplus rose eightfold to \$28.2 billion. The current account deficit narrowed to \$4.7 billion, equal to 0.4% of GDP, reflecting the large trade surplus and lower deficits in primary income (Figure 3.24.5).

Foreign direct investment inflows, at \$18.6 billion in 2020, were the lowest since 2017 (Figure 3.24.6). Net portfolio investment, at \$3.9 billion, was down 82.1% from 2019 due to elevated global financial market uncertainty. The deficit in other investment widened to \$10.2 billion as a reduction in external government loans was offset fully by an increase in payments on maturing loans and the placement of private sector deposits and other assets abroad.

Despite a smaller surplus in the capital and financial account, the narrowing current account deficit yielded a \$2.6 billion balance-of-payments surplus (Figure 3.24.7).

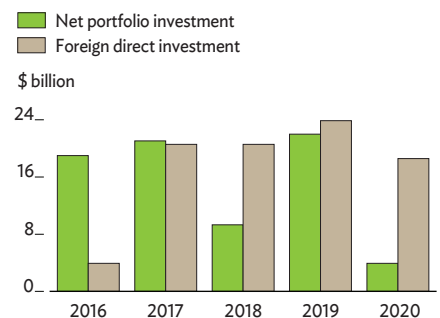
Gross international reserves rose by \$6.7 billion to \$135.9 billion in 2020, cover for 10.2 months of imports (Figure 3.24.8). With exchange rate stability supported by regular central bank auctions of derivatives and government securities, the rupiah depreciated slightly by 1.4% against the US dollar in 2020.

Economic prospects

Indonesia's economy will rebound aided by accommodative fiscal and monetary policies; a pickup in pent-up consumer demand; a slow but steady opening of the economy as COVID-19 vaccination gains traction, particularly in big cities where COVID-19 cases are concentrated; and improvements in the external environment. GDP growth is forecast to rise to 4.5% in 2021 and 5.0% in 2022 (Table 3.24.1).

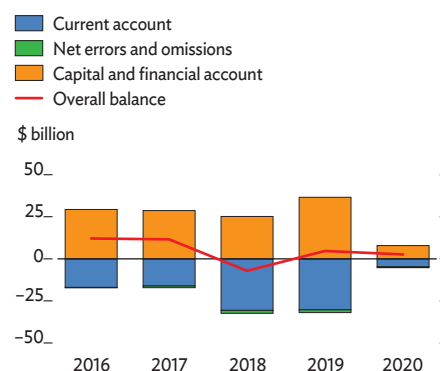
Fiscal policy will continue to support growth this year. The 2021 budget approved by the government in October 2020 sets a deficit target of 5.7% of GDP to support the national recovery effort. With COVID-19 flaring up, the government raised the national recovery program budget to \$46.9 billion, equal to 4.0% of the government's GDP forecast. The 2021

Figure 3.24.6 Investments



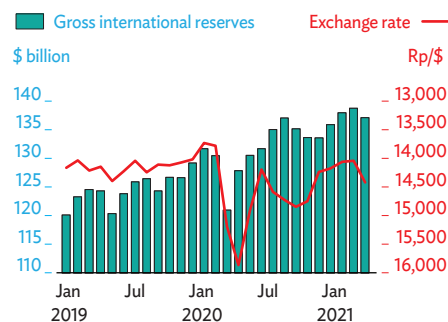
Source: CEIC Data Company (accessed 31 March 2021).

Figure 3.24.7 Balance of payments



Source: CEIC Data Company (accessed 31 March 2021).

Figure 3.24.8 Reserves and exchange rates



Source: CEIC Data Company (accessed 8 April 2021).

recovery program focuses on health, social assistance, priority programs, MSME support, and corporate financing clusters.

Monetary policy will remain accommodative, with inflation expected to fall within Bank Indonesia's new inflation target range of 3% \pm 1%. In February 2021, the central bank further cut its 7-day reverse repo rate by 25 basis points to 3.5%—the lowest since the rate was introduced in 2016. In the first 2 months of 2021, inflation averaged 1.5%, a level that is in line with compressed demand and ample supply.

The government's vaccination program entails 181.5 million people (67.3% of the population) being vaccinated for free in two phases. The first phase will cover 1.3 million health workers, 17.4 million public service officers, and 21.5 million people over age 60. The second phase will cover 63.9 million socially and economically vulnerable people at high transmission risk and 77.4 million community leaders and people who contribute to local businesses. As of 30 March 2021, close to 11 million people had been vaccinated, equivalent to 3 people per 100 population. All health workers and about 50% of public service officers have been vaccinated. The daily vaccination rate increased from the 7-day average of 51,762 jabs at the end of January to 99,865 by the end of February and then peaked at 438,097 by 26 March, before coming down to 297,219 in the first week April (Figure 3.24.9). The decline in the vaccination rate reflects the limited supply of vaccines that have arrived in the country. Concern is rising that stiff global competition for vaccines, vaccine nationalism, rising COVID-19 infections in vaccine-producing countries, and supply chain glitches could derail the government's vaccination plans and stall the reopening of the economy.

Consumption is expected to pick up in 2021 as vaccination progresses and reopening efforts cover more areas of the economy. Retail sales continued to contract in the first 2 months of this year, reflecting the cumulative effects of job losses and additional COVID-19 restrictions imposed on Jakarta and a few other locations. Consumer sentiment, however, improved somewhat in February on a stronger perception of income and job availability conditions (Figure 3.24.10). Expectations of future economic conditions also improved, with most consumers seeing higher income in the next 6 months. Private consumption is expected to grow by 4.5% in 2021.

Investment will bounce back on improvements in economic activities. In March 2021, Indonesia's factory activity rose to its highest level in nearly 10 years—solid evidence of an expansion in manufacturing activity. Reflecting more optimism from businesses, Indonesia's manufacturing purchasing managers' index peaked at 53.2 in March: the fifth consecutive monthly reading above 50 (Figure 3.4.11). However, the rebound in investment will likely lag behind the recovery in consumption,

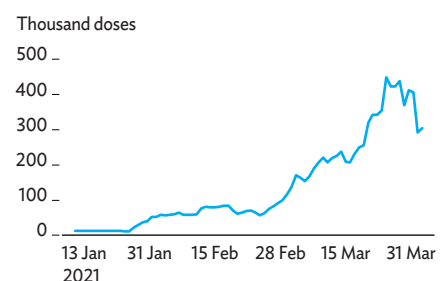
Table 3.24.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	5.0	-2.1	4.5	5.0
Inflation	2.8	2.0	2.4	2.8
Current acct. bal., share of GDP	-2.7	-0.4	-0.8	-1.3

GDP = gross domestic product.

Sources: CEIC Data Company (accessed 31 March 2021); Asian Development Bank estimates.

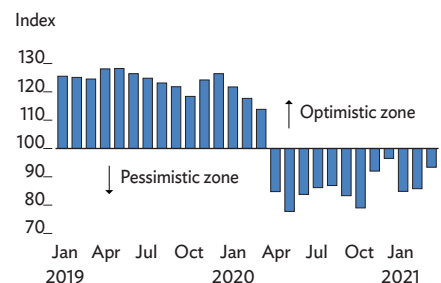
Figure 3.24.9 Daily COVID-19 vaccinations, 7-day smoothed



COVID-19 = Coronavirus Disease 2019.

Source: CEIC Data Company (accessed 8 April 2021).

Figure 3.24.10 Consumer confidence



Source: CEIC Data Company (accessed 9 April 2021).

as uncertainty continues to affect investor sentiment. Capacity utilization, while much improved from the second quarter of last year, is still down (Figure 3.24.12). The pace of investment growth will pick up more strongly next year on intensified efforts to make the investment environment more friendly. In February, the Indonesian Investment Authority was formally launched to address investment bottlenecks and attract foreign funding.

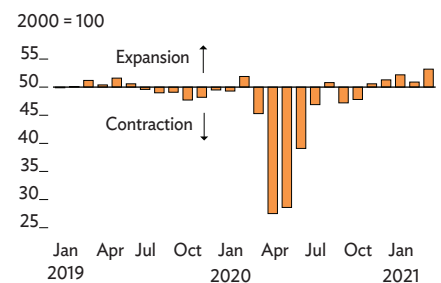
Faster improvement in external conditions will keep net trade positive in 2021. Since November last year, exports have expanded for four straight consecutive months. From January to February this year, the value of merchandise exports rose by 10.4% on average in step with improving global trade and higher commodity prices. Merchandise imports rose for the first time in February by 14.9%. The increase partly reflects cyclical factors attributed to factory closures in the People's Republic of China in the same month last year and increased demand for electronic devices. For the whole of 2021, net trade is expected to remain in surplus and the current account deficit to widen to the equivalent 0.8% of GDP in 2021 and 1.3% in 2022. A small surplus in the balance of payments should be realized as portfolio inflows and foreign direct investment improve.

The inflation rate dipped to 1.6% in February, below the Bank of Indonesia's target range, and it is likely to remain subdued during the first half of 2021. But inflationary pressure could build up as domestic demand recovers and prices of oil and other commodities rise. Overall, inflation is forecast at 2.4% this year, accelerating to 2.8% next year.

The outlook has several downside risks. The main external risks are the uneven pace of vaccination globally and coronavirus variants that could derail the expected global recovery and weaken the external environment. Multispeed recoveries could also pose financial risks if US interest rates rise further in an unexpected manner and financial conditions tighten sharply and affect capital inflows, currencies, foreign reserves, and stock markets in emerging markets. Three domestic risks are worth watching. First, a spike in COVID-19 cases could reemerge during the fasting months of Ramadan in April and May. Second, the vaccination program could be derailed by limited global vaccine supply, logistic challenges, and limited medical staff capacities. And third, weak revenue mobilization might compromise efforts to rebuild infrastructure and provide the needed fiscal boost to the economy.

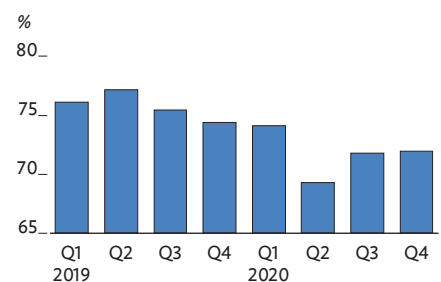
Debt sustainability analysis suggests that Indonesia's sovereign debt-to-GDP ratio will remain stable in 2021 and 2022—as long as the recovery in growth holds. But if a COVID-19 outbreak and delays in vaccination efforts disrupt growth, the moderate debt levels could still pose a considerable

Figure 3.24.11 Manufacturing purchasing managers' index



Source: CEIC Data Company (accessed 2 April 2021).

Figure 3.24.12 Capacity utilization



Q = quarter.

Source: CEIC Data Company (accessed 31 March 2021).

risk to the country's financial market. To tackle this concern, domestic resource mobilization efforts for development will be critical.

Policy challenge—sustaining the economic recovery

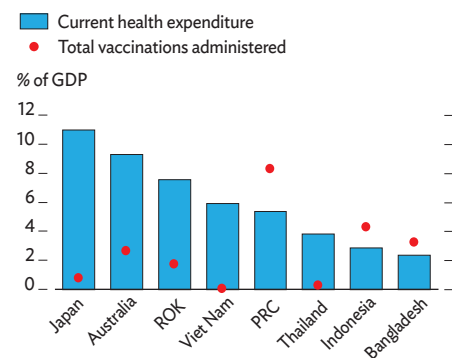
The COVID-19 pandemic has devastated health, economic, and social systems in Indonesia. A key policy challenge is how to move from crisis management to economic recovery. Recovery can only begin if the authorities permanently tackle the underlying causes of the crisis. Here, three critical actions are needed.

The first is to safeguard health and human development, and build trust through smart health policies. The capacity of Indonesia's health sector was relatively thin before the crisis. It will be essential to invest more in core health sector capabilities, such as a comprehensive health surveillance system, training health workers to respond to emergencies, and building up subnational and community health systems (Figure 3.24.13). More than a year into the COVID-19 pandemic, the social devastation remains widespread, and improving the targeting and delivery of social assistance, including using big data, will be vital.

The second action is to reopen and reconnect markets, create jobs, and boost consumption. To achieve this, the vaccination effort needs to be significantly stepped up to allow greater easing of stringency measures. Prioritizing locations with high numbers of cases and inadequate health facilities, and those that make large contributions to the economy, could help the country both protect communities and reopen sooner. Reviving MSMEs hit by the pandemic will be essential given their economic importance, as they accounted for 61% of GDP and 97% of total employment (Figure 3.24.14). Harnessing the digital economy to expand MSME product lines, market reach, and productivity could help, as would steps to foster a start-up friendly business climate, greater financial access, and clusters and networks of MSMEs that can promote agglomeration and innovation.

The third action is to pursue broader and deeper structural reforms to raise productivity and growth. Promoting a growth-friendly macroeconomic, regulatory, and institutional environment will be essential. The 2020 Omnibus Law on Job Creation is a step in the right direction. Much higher levels of foreign direct investment need to be attracted to spur innovation through transfer of technology and management skills. Investments are needed in human capital, including through digital education and online training in the workplace. In schools, improving access to smart devices, raising the

Figure 3.24.13 Health expenditure and vaccines administered in selected economies

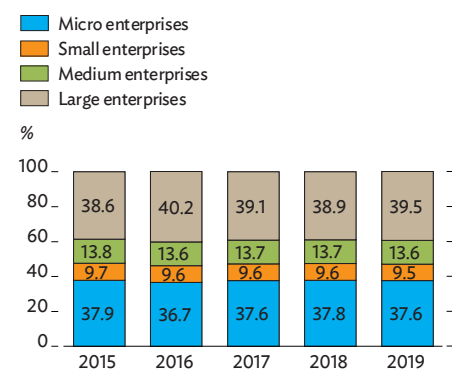


GDP = gross domestic product, PRC = People's Republic of China, ROK = Republic of Korea.

Note: Data for total vaccinations administered are as of 31 March 2021. Data for health expenditure are for 2018.

Sources: CEIC Data Company; World Bank. World Development Indicators database. <https://databank.worldbank.org/reports.aspx?source=World-Development-Indicators#> (both accessed 5 April 2021).

Figure 3.24.14 Share to GDP, by firm size



GDP = gross domestic product.

Source: Ministry of Cooperatives and Small and Medium Enterprises. <http://kemenkopukm.go.id/data-umkm> (accessed 31 March 2021).

relevance and quality of education, and improving teaching competency and certification would also help.

A green recovery is important. For Indonesia, a return to business-as-usual would not only cause further damage to the environment but also harm society. A green recovery can help strengthen the country's resilience to future pandemics—and generate jobs, as estimated multipliers for green spending are 2 to 7 times larger than non-eco-friendly expenditure.

As concerns over the country's large fiscal deficit and quantitative easing continue, a clear exit plan from this expansionary policy setting should be adopted and communicated early to tackle any potential debt overhang issues in the future. Fiscal reforms are needed to broaden the tax base through stronger property, environmental, and digital taxation; improve tax administration; strengthen tax compliance; and simplify incentives to plug tax leakages. Encouraging forced savings schemes in provident or health care funds, which are not taxes but have similar economic implications, could also help. It will also be important to raise the quality of financial infrastructure, services, and products—including greater use of digital payment options—to help widen the investor base and allow for more efficient capital allocation.

Lao People’s Democratic Republic

The economy went into recession in 2020 due to the COVID-19 pandemic after 2 decades of robust growth. The recovery in 2021 and 2022 will be supported by improved agriculture production and sustained power generation offsetting the effects of slow growth in services due to a prolonged COVID-19 pandemic throughout Asia. To achieve more sustainable and inclusive growth during the postpandemic recovery, the government must vigorously undertake public finance management reforms.

Economic performance

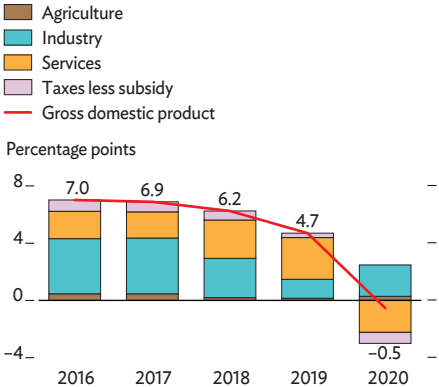
Economic growth in the Lao People’s Democratic Republic (Lao PDR) contracted for the first time since the Asian financial crisis, buffeted by the COVID-19 pandemic (Figure 3.25.1). Real GDP slid from 4.7% growth in 2019 to a 0.5% contraction in 2020. Severe restrictions on inbound visitors averted a large-scale domestic public health crisis, but stifled domestic and external demand. The unemployment rate is estimated to have reached 23.4% in 2020, up from 16.0% in 2018.

By sector, services, constituting 43.6% of GDP, were worst hit, contracting by 5.5% in 2020. Visitor arrivals plunged by 81.5% as restrictions caused travelers to postpone trips (Figure 3.25.2). As tourism ground to a halt, accommodation and food services shrank by 15.0%. Industry, comprising 30.8% of GDP, grew by 6.2%, up from 3.7% in 2019, fueled by strong growth in electricity production, with generation capacity expanding by 13.2%. Growth in construction continued to be buoyed by large infrastructure development projects, including the Lao PDR–People’s Republic of China railway and the Vientiane–Vang Vieng expressway. Agriculture, constituting 15.5% of GDP, grew by 2.1% in 2020 from 1.0% in 2019, primarily on an improved harvest.

Inflation accelerated to 5.1% in 2020, up from 3.3% in 2019, driven mainly by rising food prices after natural disasters in 2019; animal disease, particularly African swine fever; and a local currency depreciating against the US dollar by 4.6% in 2020 in the official market and 10.7% in the parallel market (Figure 3.25.3).

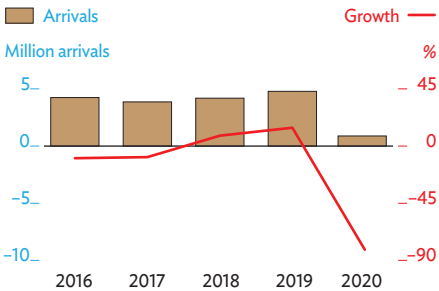
On fiscal policy, a 14.6% contraction in 2020 revenue collection reversed 2019 growth of 3.1%, heightening fiscal stress. Despite budget cuts, expenditure still grew by 0.8% to

Figure 3.25.1 Supply-side contributions to growth



Sources: Lao Statistics Bureau. <https://www.lsb.gov.la> (accessed 23 March 2021); Asian Development Bank estimates.

Figure 3.25.2 Tourist arrivals



Source: Ministry of Information, Culture and Tourism.

This chapter was written by Emma Allen, Rattanatay Luanglatbandith, and Soulinthone Leuangkhamsing of the Lao PDR Resident Mission, ADB, Vientiane.

support the finalization of capital investments and maintain public services. This resulted in a 2020 budget deficit equivalent to 5.3% of GDP, up from 3.3% in 2019. Public debt climbed to an estimated 60.6% of GDP in 2020 from 57.9% in 2019 (Figure 3.25.4). To manage rising public debt, China Southern Power Grid committed investment of \$2 billion through a joint venture company with Électricité du Laos (EDL) for a 90% stake in its transmission line assets. In parallel, EDL sold 24% of its shares in EDL-Generation Public Company to Phongsupthavy Energy Group.

The current account balance narrowed from a deficit of \$2.3 billion in 2019 to \$1.4 billion in 2020 on import compression associated with slowing domestic demand. But electricity exports to neighboring countries remained robust. The COVID-19 pandemic affected the primary income account through lower profit and remittances in 2020. Overall, the current account deficit is forecast to narrow from the equivalent of 12.1% of GDP in 2019 to 7.3% in 2020 (Figure 3.25.5).

The external position remains fragile. Gross official reserves rose to \$1.3 billion at the end of 2020, cover for 2.4 months of imports. The reserves, however, may be overstated due to predetermined and contingent short-term net drains on foreign currency assets and persistent external arrears. Moody's Investors Service downgraded the Lao PDR's sovereign credit rating in August 2020 and Fitch Ratings in September on rising external liquidity pressure due to large sovereign debt coming to maturity, coupled with limited external financing options.

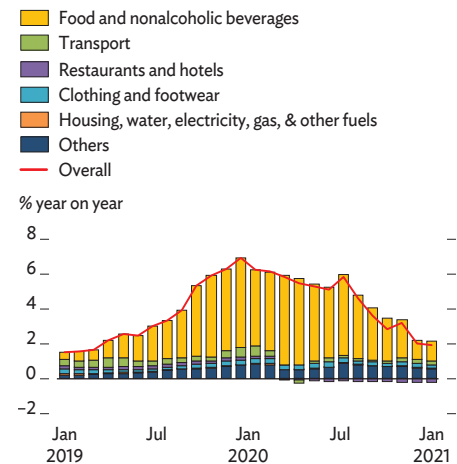
Economic prospects

Real GDP growth is forecast at 4.0% in 2021 and 4.5% in 2022 on higher agriculture production, sustained power generation, and ongoing large infrastructure projects offsetting the effects of a slow recovery in services due to gradual vaccine rollouts and delays in international border reopenings (Table 3.25.1). A moderate recovery in agriculture is forecast for this year, largely due to growth in the livestock trade. But cooler weather and water shortages are delaying the planting of food crops.

Industry is expected to grow at 5.3% this year, boosted by increased electricity production (Figure 3.25.6). Continuing investment in large infrastructure, mining, and urban property are expected in 2021 and 2022. This should create jobs and support a decline in the unemployment rate to 15% by 2025.

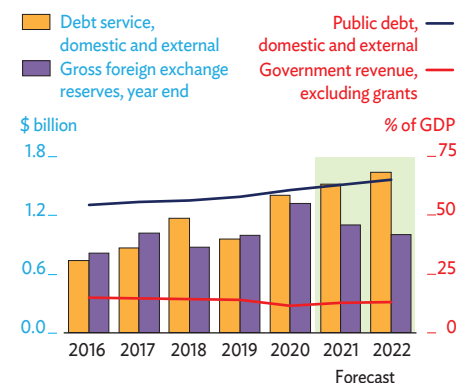
Services growth at a moderate 1.9% is forecast for 2021 on a recovery in domestic consumption that supports trade, transport, and hospitality. The Vientiane–Vang Vieng expressway will help boost trade and tourism. With international tourism for business and leisure normalizing in 2022, the drivers of economic recovery in the medium term are

Figure 3.25.3 Monthly inflation



Source: Lao Statistics Bureau. <https://www.lsb.gov.la> (accessed 23 March 2021).

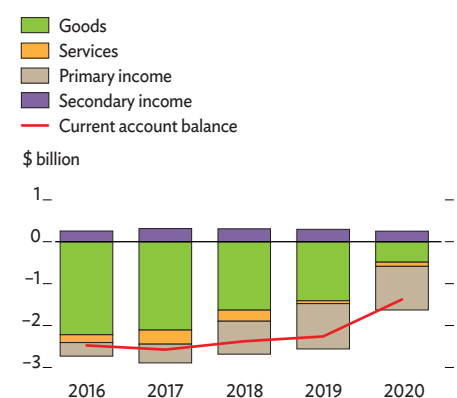
Figure 3.25.4 Fiscal indicators



GDP = gross domestic product.

Sources: Ministry of Finance; International Monetary Fund; Haver Analytics (accessed 17 March 2021); Asian Development Bank estimates.

Figure 3.25.5 Current account balance



Source: Asian Development Outlook database.

expected to be wholesale and retail trade, transportation, and communications.

Increasing food production is expected to keep inflation at 4.5% in 2021 and 5.0% in 2022. The kip's depreciation against the US dollar and the baht will, however, add pressure to inflation from imported goods.

The current account deficit is projected at the equivalent of 7.8% of GDP in 2021 and 8.0% in 2022 due to high import bills for machinery and equipment needed for railway and other infrastructure projects, increasing imports of raw materials, and higher profit remittances to investors. Imports will be partially counterbalanced by exports of electricity, minerals, and agricultural products. With portfolio investments maturing and direct investors postponing new investment decisions, the surplus in the financial account is expected to narrow, putting the balance of payments in deficit in the near term.

Ongoing difficulties in domestic resource mobilization associated with structural challenges that are being exacerbated by the COVID-19 pandemic are likely to keep the fiscal deficit elevated in the near term. However, the deficit is expected to moderate over the medium term, averaging 3% of GDP between 2021 and 2025 as the economy gradually recovers and revenue collection strengthens. Public debt service for domestic and external loans is estimated at \$1.5 billion this year and next.

The macroeconomic framework remains fragile given the high risk of debt distress, increased debt-service pressure, and potentially higher refinancing rates. Downside domestic risks to the outlook are a drawn-out COVID-19 vaccine rollout, slow progress in tackling macro-fiscal vulnerabilities, failure to meet financing needs amid large external debt maturity, and adverse weather conditions. External risks include a slow rebound in global demand and the continued closure of international borders.

Policy challenge—effective public finance management for a green and inclusive recovery

The Lao PDR entered 2020 with significant development challenges because of its overreliance on natural resources, low resilience to shocks, and competitiveness deficits. COVID-19 exacerbated these challenges by limiting the country's attractiveness as an investment destination and exposing the growth model as vulnerable to shocks.

The country's ease-of-doing business ranking was 154th out of 190 economies in 2020 (Figure 3.25.7). Complex business administration systems are a concern, as they affect the

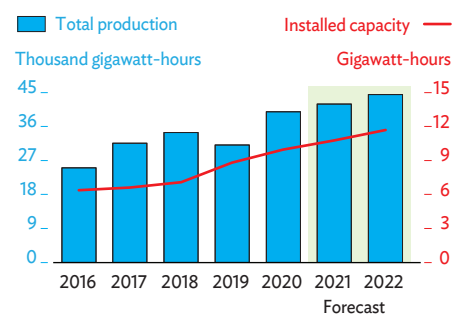
Table 3.25.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	4.7	-0.5	4.0	4.5
Inflation	3.3	5.1	4.5	5.0
Current acct. bal., share of GDP	-12.1	-7.3	-7.8	-8.0

GDP = gross domestic product.

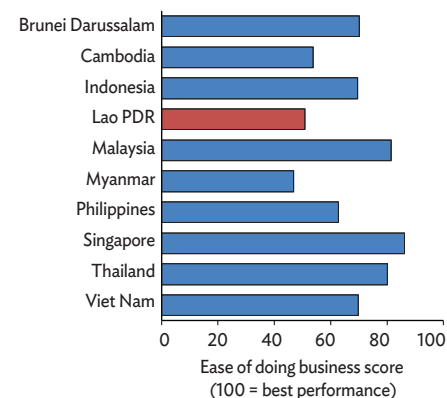
Sources: Lao Statistics Bureau; Asian Development Bank estimates.

Figure 3.25.6 Power generation capacity and production



Sources: Lao Statistics Bureau. <https://www.lsb.gov.la> (accessed 31 March 2021); Ministry of Energy and Mines.

Figure 3.25.7 Ease of doing business in selected economies, 2020



Lao PDR = Lao People's Democratic Republic.

Source: World Bank. <https://www.doingbusiness.org> (accessed 1 April 2021).

certainty of investment outcomes, particularly when coupled with weak governance and limited transparency.

The government needs to improve its information disclosure to attract quality investors to secure a sustainable and inclusive growth path. The 9th National Socioeconomic Development Plan (NSEDP), 2021–2025 emphasizes the need for inclusive and sustainable green growth. This will require capital investments that are better targeted and of higher value than for a normal growth path. A recovery characterized by this type of growth will be difficult without the effective implementation of public finance management reforms, including on debt sustainability. To create the fiscal space needed for more resilient growth, fiscal policy should pursue reforms for better transparency and management of public debt. Fiscal policy should also improve the mobilization of domestic resources and expand alternative financing options.

In parallel to these efforts, simplifying business licensing and related regulations will be vital for attracting more and greener private sector investment and financing—including financiers for a low-carbon recovery and a clean-energy transition. The NSEDP relies heavily on private financing to achieve its objectives. Robust monitoring, reporting, and verification mechanisms are needed to help ensure a lower-carbon and socially responsible footprint of development. Fiscal measures targeted to specific environmental goals will also be critical for fostering a green and inclusive recovery.

Malaysia

Restrictions to control the spread of COVID-19 cut economic growth in 2020 to its lowest level since the Asian financial crisis. The economy is expected to rebound strongly in 2021, supported by the rollout of COVID-19 vaccines, a more stable business environment, and accommodative policies. In line with the growth recovery, inflation will return in the near term and the current account surplus will narrow, mostly on strengthening imports. The technological upgrading of small and medium-sized manufacturing enterprises is emerging as the key policy challenge.

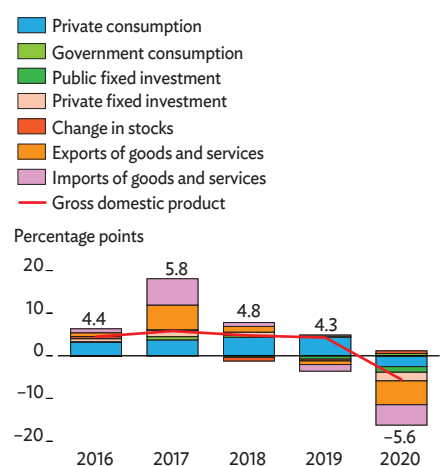
Economic performance

GDP contracted by 5.6% year on year in 2020 as the economy reeled from the impact of the COVID-19 pandemic and a continued fall in oil prices. In 2019, GDP grew by 4.3% (Figure 3.26.1). A nationwide Movement Control Order in March 2020 helped reduce the spread of the virus, but mobility restrictions and supply chain disruptions took a toll on the economy. Hydrocarbons, a major export, continued to underperform as global fuel prices tumbled again in 2020, exacerbated by the pandemic. As a result, domestic and external demand fell, pushing GDP to its sharpest half-year contraction on record, at 8.3%. Economic conditions turned a corner in the third quarter, but the recovery stalled as COVID-19 cases spiked again in October, causing the reimposition of movement restrictions in November. The impact of these restrictions, however, was less pronounced as their rules allowed most economic activities to continue (Figure 3.26.2).

Private consumption contracted by 2.5% year on year in 2020 due to job and income losses. Stricter lockdown measures weighed heavily on business operations, forcing some firms to reduce their workforce (Figure 3.26.3). This worsened the unemployment rate in the first half, which peaked at 5.1% in May, surpassing its 5-year average of 3.3%. The rate eased to about 4.7% from July to December, boosted by the substantial and timely release of government income-support measures, such as wage subsidies, reskilling and upskilling programs, and social protection schemes. Wages, however, fell in the first half of 2020 from their 2019 levels due to shortened hours and pay cuts, but the gradual reopening of the economy

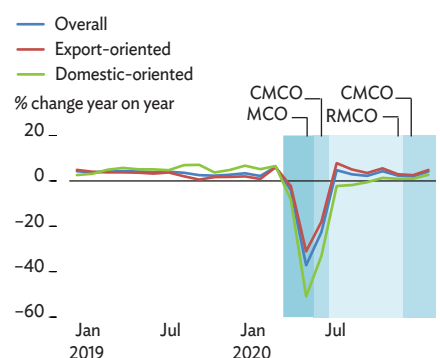
This chapter was written by Thiam Hee Ng of the Southeast Asia Department, ADB, Manila and Shiela Camingue-Romance of the Economic Research and Regional Cooperation Department, ADB, Manila.

Figure 3.26.1 Demand-side contributions to growth



Sources: Haver Analytics; Bank Negara Malaysia. 2021. *Monthly Statistical Bulletin*. February. <http://www.bnm.gov.my> (both accessed 26 February 2021).

Figure 3.26.2 Industrial production



CMCO = Conditional Movement Control Order, MCO = Movement Control Order, RMCO = Recovery Movement Control Order.

Note: Color shade indicates intensity of movement control measures, with MCO being the strictest.

Source: Haver Analytics (accessed 3 March 2020).

helped somewhat to stabilize incomes and improve spending (Figure 3.26.4). Public consumption expanded by 0.5% in 2020 from 0.3% in 2019 due to increased spending on supplies and services.

Total investment shrank by 12.2% in 2020 on weaknesses in both private and public investment. Public investment fell for the third straight year, plunging by 21.4% due to the slowdown in government infrastructure spending as COVID-19 disrupted construction activity. Private investment contracted by 11.9% in 2020 as weak business activity and waning investor confidence caused firms to cut capital spending.

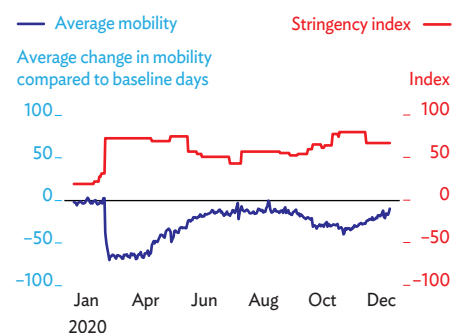
Exports of goods and services in real terms fell by 8.8% in 2020 on weak external demand, supply chain disruptions, and a large drop in tourism. Exports of oil products and manufactured goods fell from their 2019 levels; that fall, however, was less steep for machinery and transportation goods. The drop in exports was larger from January to June, but the pace of contraction softened from July to December on a pickup in shipments of electronics and medical products. Imports shrank by 8.3% in 2020, reflecting depressed domestic demand and disruptions to global production networks and regional supply chains.

By sector, agriculture contracted by 2.2% in 2020 after a 2.0% expansion in 2019, with slower growth in palm oil and other agricultural products weighing on the sector last year. Industry output fell by 6.5%, led by a 19.4% drop in construction and a 10.0% contraction in mining, due to restrictions on construction activity and suspensions in some mining operations. The decline in manufacturing output was smaller, at 2.6%, as some factories were allowed to operate during the implementation of movement controls to meet stronger demand for electrical and electronic products and medical gloves. Services, which account for 58.0% of GDP, fell by 5.5% in 2020 due to the impact of COVID-19 mobility restrictions and the closure of national borders on wholesale and retail trade and transport and storage.

Weakening economic activity was accompanied by consumer prices falling by 1.1% in 2020—and this despite an accommodative monetary policy (Figure 3.26.5). The central bank cut the overnight policy rate by a cumulative 100 basis points to 1.75% in July, the lowest since 2004, to provide some stimulus to the economy. But core inflation, which excludes food and energy prices, stayed positive, at 0.9%, in 2020. Food prices rose by 1.3%, while nonfood prices fell by 2.0% due to lower retail fuel prices and the huge discount on electricity bills imposed by the government from April to September.

The finance sector remained stable with banks still well capitalized despite a 6-month moratorium on loan repayments by small and medium-sized enterprises (SMEs) and individuals introduced in 2020 to provide a respite to borrowers during

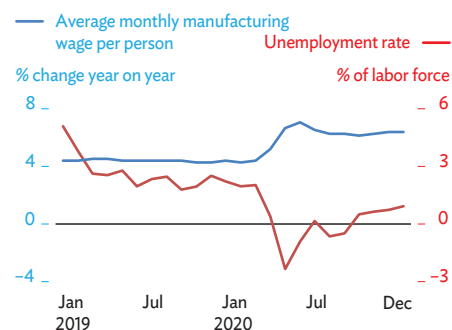
Figure 3.26.3 Stringency and mobility restrictions



Notes: The stringency index refers to the average score of nine containment and closure policy indicators. A value that equals 0 means less stringent; 100 is the most stringent. Average mobility is the average change in visitors or time spent in five categorized places, excluding to residences, compared with baseline days or the median value from the 5-week period 3 January to 6 February 2020 when widespread restrictions in mobility had not yet taken place.

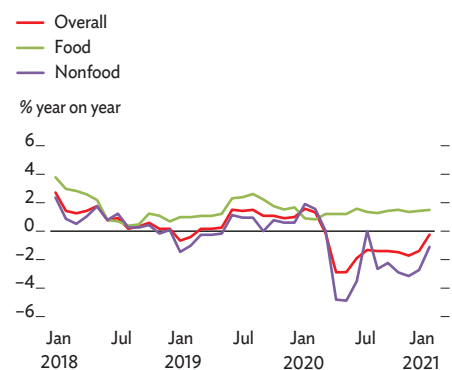
Sources: T. Hale et al. 2020. Oxford COVID-19 Government Response Tracker. Blavatnik School of Government. <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker>; Google COVID-19 Community Mobility Reports. <https://www.google.com/covid19/mobility> (both accessed 3 March 2021).

Figure 3.26.4 Labor indicators



Source: Haver Analytics (accessed 3 March 2021).

Figure 3.26.5 Monthly inflation



Sources: Haver Analytics; Bank Negara Malaysia. 2021. Monthly Highlights and Statistics. March. <http://www.bnm.gov.my> (accessed 3 March 2021).

the COVID-19 pandemic. Intensified credit risk monitoring on vulnerable sectors and borrowers also helped contain losses as it enabled banks to preemptively reschedule or restructure debts. Lower interest rates and the cut in the statutory reserve requirement for banks from 3% to 2% on 20 March 2020 supported domestic liquidity and eased monetary conditions in the economy. As a result, money supply expanded from 3.5% at the end of 2019 to 4.0% in 2020.

Public spending fell by 1.0% in 2020, despite a RM38 billion allocation for a special COVID-19 fund. The decline reflected mostly the large drop in public infrastructure spending and the government's medium-term commitment to consolidate the budget. Government revenue shrank by an estimated 14.9% last year due to weak income tax and nontax receipts, such as petroleum royalties and returns on investment. Lower oil prices and income losses reduced Petronas's dividend contributions to the government budget by 37%. These factors caused a significant rise in the fiscal deficit to 6.2% of GDP in 2020 from 3.4% in 2019.

The dollar value of merchandise exports fell by 6% in 2020 despite exports of medical equipment and work-from-home information technology products picking up in the second half of the year (Figure 3.26.6). Imports declined by 9% on sluggish domestic consumption and investment. As imports shrank, the trade surplus widened from \$29.8 billion in 2019 (equal to 8.2% of GDP) to \$33.1 billion in 2020 (9.8% of GDP). The deficit in trade in services reached a record \$11.4 billion in 2020 as COVID-19 restrictions brought international travel almost to a complete halt. As a result, the current account surplus improved from the equivalent of 3.4% of GDP in 2019 to 4.4% in 2020 (Figure 3.26.7).

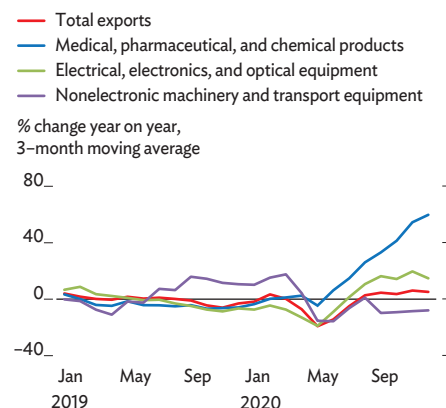
Foreign direct investment plunged in 2020 with a net outflow of \$38.6 billion. Portfolio investments also declined. The financial account of the balance of payments recorded an outflow of \$18.8 billion last year, far higher than 2019's \$8.2 billion. On the plus side, international reserves, at \$107.6 billion at the end of December 2020, were enough to finance 6.8 months of imports.

Economic prospects

GDP growth is expected to rebound to 6.0% in 2021 and stabilize at about 5.7% in 2022, supported by the rollout of COVID-19 vaccines and continued accommodative fiscal and monetary policies (Figure 3.26.8 and Table 3.26.1). Recovering consumer and capital spending are set to revive domestic activity, while a pickup in global demand should boost exports and foreign investment.

Growth in private consumption will be underpinned by government stimulus packages and further supported by

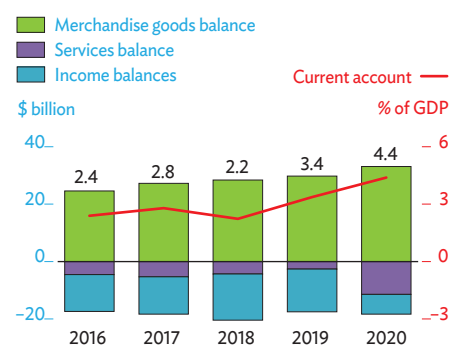
Figure 3.26.6 Selected exports



Notes: Medical, pharmaceutical, and chemical products generally refer to Standard International Trade Classification (SITC) Revision 3 Division codes 51, 52, 54, 848, and 872. Electrical, electronics, and optical equipment covers SITC Revision 3 codes 75, 76, 77 and 87; nonelectronic machinery and transportation covers codes 71 to 74 and 78 to 79.

Source: Asian Development Bank estimates using data from CEIC Data Company and Haver Analytics (both accessed 3 March 2021).

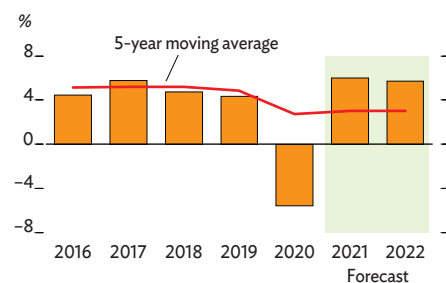
Figure 3.26.7 Current account components



GDP = gross domestic product.

Sources: Haver Analytics; Bank Negara Malaysia. 2021. *Monthly Statistical Bulletin*. February. <http://www.bnm.gov.my> (both accessed 28 February 2021).

Figure 3.26.8 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

an effective vaccination program. On 17 March 2021, the government announced an additional RM20 billion stimulus package, which includes tax breaks, wage and fuel subsidies, cash handouts, and price ceilings on petrol and diesel, to help lessen the financial burden on households and businesses. The government started its vaccination program in February, and it plans to vaccinate at least 80% of the country's 32 million population in 12 months. As of mid-March, 2 million doses had been administered. Although the vaccine rollout should help improve consumer confidence, spending will likely remain muted until labor market conditions show sustained improvement.

The recovery in investment is likely to be modest as the resumption in construction activity will face near-term setbacks with the reintroduction of some pandemic-related restrictions. Vaccine availability and firming foreign demand will boost business sentiment and, in turn, support the recovery in private investment. The resumption of construction on the East Coast Rail Link, MRT Line 2, and the Pan Borneo Highway is also expected to lift public investment in 2021.

The government's 2021 budget is expansionary, with fiscal stimulus measures totaling RM322.5 billion (equal to 20.6% of GDP). The measures—which include an extension of wage subsidies, cash handouts, and income tax cuts—should boost consumer spending. The budget also includes investment incentive packages to attract technology and high value-added investments, income tax incentives for pharmaceutical companies, and other financial support to struggling sectors. Monetary policy conditions are expected to remain accommodative to support a recovery in domestic demand.

Inflation is expected to return over 2021 and 2022, and remain closely linked to commodity and oil price fluctuations and domestic price control measures. Inflation is forecast to edge up to 1.8% in 2021. A mild recovery in global energy and commodity prices, combined with the normalization of economic activity, are expected to raise consumer prices by 2.0% in 2022 (Figure 3.26.9).

The current account balance is expected to remain in surplus in the near term, with the surplus equal to about 4.4% of GDP in 2021 and 2022 (Figure 3.26.10). The merchandise trade balance should remain positive, buoyed by rising crude and palm oil prices; sustained demand for electrical, electronic, and medical products; and an improving outlook for the global economy. Malaysian exports to the United States should benefit from the \$1.9 trillion US stimulus package. The services account will remain in deficit, however, as international transport and insurance costs continue to form a large part of the services bill. The primary and secondary income accounts will also remain in deficit, reflecting the continued repatriation of profits by

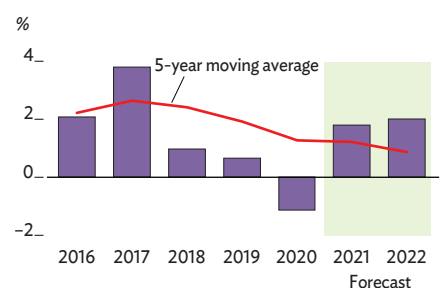
Table 3.26.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	4.3	-5.6	6.0	5.7
Inflation	0.7	-1.1	1.8	2.0
Current acct. bal., share of GDP	3.4	4.4	4.4	4.4

GDP = gross domestic product.

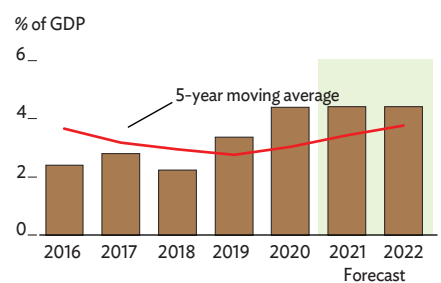
Sources: Haver Analytics; Asian Development Bank estimates.

Figure 3.26.9 Annual inflation



Source: Asian Development Outlook database.

Figure 3.26.10 Current account balance



GDP = gross domestic product.

Source: Asian Development Outlook database.

foreign firms with local operations and outward remittances by foreign workers.

The major risks to the outlook are renewed outbreaks of COVID-19, unexpected delays in vaccine rollouts, and a lower-than-expected recovery in major advanced economies. While the positive news on vaccines are grounds for optimism, uncertainties remain over their distribution, both globally and domestically. A further concern is the likely impact of renewed restrictions on supply chains as this could further delay the rebound in manufacturing activity.

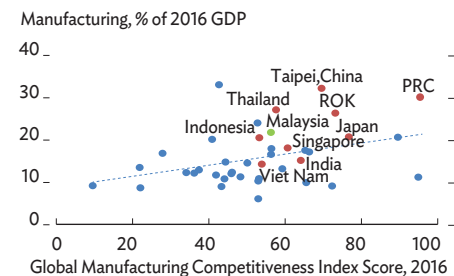
Policy challenge—upgrading manufacturing SMEs

Manufacturing constitutes about 22% of GDP and plays a key role in Malaysia's growth process through its forward and backward linkages with many other sectors of the economy. To keep up with rising global competition and trends in technology, Malaysian factories have gradually adopted Industry 4.0, a new global industrial paradigm to bring in a range of new technologies combining the physical, digital, and biological worlds. But because manufacturing in Malaysia consists mostly (98.5%) of SMEs, defined as firms employing less than 200 employees, technology adoption has been uneven—and this has hindered the sector from fully realizing its economic potential (Figure 3.26.11).

The government launched the Industry4WRD plan in October 2018 to help SMEs accelerate the adoption of new digital technologies. The plan, which runs until 2025, is Malaysia's response to Industry 4.0. It calls for the manufacturing sector and its related services to become smarter and stronger, and to be driven by people, processes, and technology. The goal in transforming the manufacturing sector is to make Malaysia a preferred location for regional and global companies. The 2019 budget allocated RM5 billion to Industry4WRD of which about RM210 million will be spent from 2019 to 2021 on the Industry4WRD Readiness Assessment program to determine the state of readiness of SMEs, areas for improvement, and feasible strategies.

The readiness assessment program is progressing slowly, however. The Ministry of International Trade and Industry reports that only 849 SMEs had applied for the program in 2019, of which only 508 fulfilled the requirements for government support. This indicates a lack of awareness of the program among SMEs. The results of an online survey of 10,000 SMEs conducted by the SME Association of Malaysia in 2019 showed that only 74% of them understood even the basic concept of Industry 4.0. In that survey, only 2.7% of respondents had implemented initiatives in certain business

Figure 3.26.11 Manufacturing competitiveness, selected economies



GDP = gross domestic product, PRC = People's Republic of China, ROK = Republic of Korea.

Note: The Global Manufacturing Competitiveness Index ranks the manufacturing competitiveness of a country based on factors including labor, materials, energy, and access to talented workers, with 100 (0) being the highest (lowest) rank.

Sources: Deloitte Touche Tohmatsu Limited and US Council on Competitiveness. 2016 Global Manufacturing Competitiveness Index. <https://www2.deloitte.com/global/en/pages/manufacturing/articles/global-manufacturing-competitiveness-index.html>; World Bank. World Development Indicators database; Haver Analytics (all accessed 16 March 2021).

processes, while 75.0% had taken no action to upgrade digital processes. In 2020, participation in the readiness assessment program dropped as upgrading became more difficult due to disruptions from COVID-19. Even so, improvements are being made in front-end business processes, such as e-commerce and web development, as shown by the 31.4% annual increase in the online retail sales index, but the upgrading of back-end processes is still lagging behind.

Identifying and addressing the constraints preventing SMEs from fully harnessing digital technologies is a key policy challenge. It is important to realize that upgrading takes time and hence a long-term strategic focus is needed. Continued public awareness programs and e-commerce initiatives designed to facilitate SME exports by providing platforms, e-fulfillment activities, and enhanced trade facilitation measures are steps in the right direction. As consumer behavior changes and competition rises once the COVID-19 pandemic is over, businesses need to evolve and aim for the entire business process transformation itself, including training and upskilling workers to improve their technical competencies. The government should also encourage more collaborations and further enhance public–private partnerships to help manufacturing SMEs upgrade.

Myanmar

Growth decelerated in fiscal 2020 as the COVID-19 pandemic disrupted economic activity. Growth is likely to contract this fiscal year. The disruptions in supply chains and transportation bottlenecks due to political unrest will accelerate inflation. The fiscal deficit is likely to widen, reflecting lower revenue collection, and the current account deficit will continue to widen. Achieving political stability, effective COVID-19 control, and maintaining fiscal sustainability will be critical for putting the economy back on its prepandemic growth outlook.

Economic performance

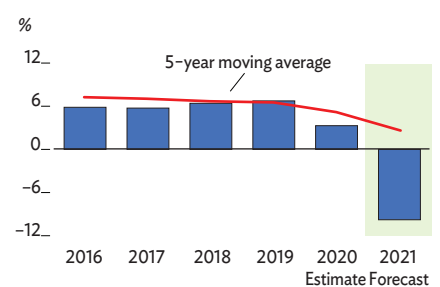
GDP growth more than halved from 6.8% in fiscal year 2019 (FY2019, ended 30 September 2019) to 3.3% in FY2020. Despite rising public spending and the Central Bank of Myanmar easing monetary conditions, the economy still felt the impact of the COVID-19 pandemic (Figure 3.27.1).

Industry growth slowed by an estimated 5.1% in FY2020 from 8.6% in FY2019, while services growth decelerated to an estimated 2.5% from 8.3%. Lockdowns and mobility restrictions constrained business operations and dampened production (Figure 3.27.2). Although the drop in tourism activities was more than offset by an expansion in information and communication technology services, the services sector overall still suffered from a sharp decline in growth in FY2020. Agriculture was less affected by the pandemic, with the sector benefiting from favorable weather and increased demand. Agriculture production grew by an estimated 1.8% in FY2020 after rising 1.6% in FY2019.

Inflationary pressures eased in FY2020 as economic growth plummeted. Lower prices for food, clothing, education, and transportation more than offset price increases in household equipment and maintenance, health care, and rent. As a result, consumer price inflation decelerated from 8.6% in FY2019 to 5.7% in FY2020.

The current account deficit is estimated to have widened sharply from the equivalent of 0.4% of GDP in FY2019 to 4.0% in FY2020. Supported by steady demand, agriculture and mineral exports increased, but manufacturing and gas exports fell significantly on weak global demand and factory closures due to the COVID-19 pandemic (Figure 3.27.3). Imports rose sharply on rising demand for imports of capital and investment goods.

Figure 3.27.1 GDP growth

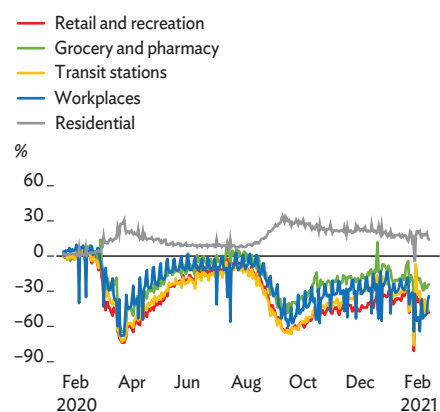


GDP = gross domestic product.

Note: Years are fiscal years ending on 30 September of that year.

Sources: Central Bank of Myanmar; Asian Development Bank estimates.

Figure 3.27.2 Mobility during the COVID-19 pandemic



Source: Google COVID-19 Community Mobility Report. <https://www.google.com/covid19/mobility/> (accessed 24 February 2021).

But imports of intermediate goods fell due to the slump in global demand for garments. Encouragingly, foreign direct investment (FDI), mostly into manufacturing, real estate development, and power, was resilient. FDI approvals totaled \$5.5 billion in FY2020, up 32.9% from the previous year.

The government took several measures to mitigate the impact of the COVID-19 pandemic on financial institutions and borrowers. Monetary policy remained growth-supportive. The central bank lowered its policy interest rate to 7% in May 2020 from 10%. In other supportive actions, the central bank reduced the cash reserve requirement ratio for banks and eased prudential regulations to allow banks to increase lending to help revive the ailing economy.

On the fiscal side, the government provided tax relief measures and raised spending on public health care and infrastructure. This will cause the fiscal deficit to widen to an estimated 4.9% of GDP in FY2020 from 4.1% in the previous year.

Economic prospects

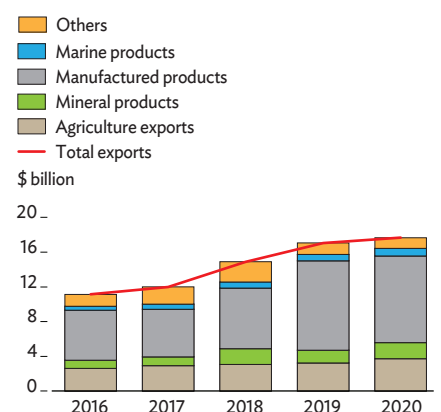
The economy will likely weaken further in the near term, with GDP growth expected to contract by 9.8% in FY2021 (Figure 3.27.4). Continued disruptions of government operations and mass political protests would worsen the woes of an economy already reeling from the COVID-19 pandemic. The reintroduction of stricter measures to contain the second wave of infections since late August 2020 and the current political unrest will severely depress domestic production, incomes, and spending (Table 3.27.1).

The latest outbreak of COVID-19 infections in October 2020 and the political uncertainties will continue to weigh heavily on growth over the rest of FY2021, especially in the second and third quarters. After the reintroduction of pandemic containment measures in October 2020, the purchasing managers' index declined to an average of 39.5 in first quarter of FY2021 from 51.6 in the year-ago quarter—signaling lower growth prospects in the near term. Given this, industry is projected to contract 10.8% in FY2021 and services 15.1%. Agriculture is expected to sustain modest growth of 1.9% on demand for staple foods remaining steady.

Inflation is expected to accelerate to 6.2% in FY2021 from 5.7% in FY2020. Prolonged political and civic unrest will cause further disruptions to supply chains, weaken the local currency, raise the costs of inputs, and increase commodity prices.

A moderate widening in the current account deficit to the equivalent of 4.4% of GDP is projected for FY2021, as political tensions pose a significant downside risk to Myanmar's exports, and this could also dampen imports for intermediate and capital goods for foreign-invested infrastructure (Figure 3.27.5). FDI approvals totaled \$0.7 billion in January 2021, down by

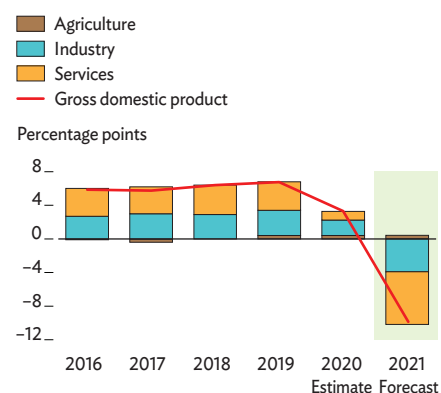
Figure 3.27.3 Exports by sector



Note: From 2016 to 2017, years are fiscal years ending on 31 March of the next year; from 2018, the fiscal year is from 1 October 1 to 30 September.

Source: Ministry of Commerce.

Figure 3.27.4 Supply-side contribution to growth



Note: Years are fiscal years ending on 30 September of that year.

Sources: Central Statistical Organization; Central Bank of Myanmar; Asian Development Bank estimates.

Table 3.27.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	6.8	3.3	-9.8	...
Inflation	8.6	5.7	6.2	...
Current acct. bal., share of GDP	0.4	-4.0	-4.4	...

... = unavailable, GDP = gross domestic product.

Note: Years are presented as fiscal years ending 30 September of that year.

Sources: Central Statistical Organization; Central Bank of Myanmar; Asian Development Bank estimates.

67.8% from the year-ago month. A worsening in the domestic COVID-19 pandemic and political volatility would derail the positive outlook for FDI.

The budget deficit is expected to widen to the equivalent of 5.2% of GDP in FY2021 on weaker revenue collection due to the political unrest (Figure 3.27.6). A slower pace in public spending due to disruptions to government operations is seen to limit the budget deficit. The current monetary policy stance should help alleviate financial stress across the economy and maintain growth-supportive monetary conditions.

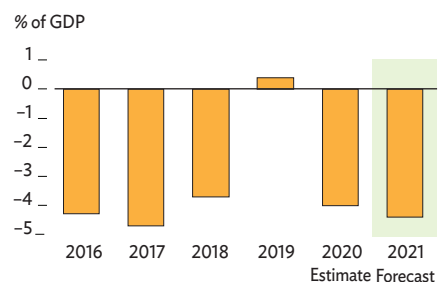
Risks to the outlook are a weakening in public administration and an inability to control the spread of COVID-19 infections.

Policy challenge—getting the economy back on to a high-growth path

The key policy focus should be returning the economy to high growth. Fiscal spending should concentrate on containing the economic impact of the COVID-19 pandemic while protecting those most vulnerable to the virus. The effective prevention and control of infections should avert further business closures and job losses. The pandemic has heightened the need for the government to adopt growth-supportive fiscal, monetary, and other policy measures. Its countercyclical economic program—which involves additional spending of \$2.5 billion in FY2020 and FY2021—will not be enough to effectively contain the second wave of COVID-19 infections, which seems to be more severe than the first wave (Figure 3.27.7). This highlights the need for scaling up public spending.

In the context of the COVID-19 crisis, public financial management reforms should encompass both short- and long-term measures to put the economy on a higher growth trajectory. In the near term, these reforms should focus on better public spending on health care and social assistance to vulnerable groups. But it is not just a matter of spending more; it is equally important to improve the efficiency and effectiveness of that spending. What Myanmar needs most at this juncture is well-targeted and time-bound public spending on health care and social assistance. Effectively containing COVID-19, including vaccinating a significant percentage of the population, is the need of the hour. Over the longer term, public financial management reforms should focus on improving tax collection, spending better, and managing fiscal risks.

Figure 3.27.5 Current account balance

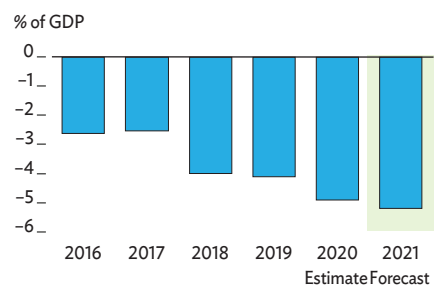


GDP = gross domestic product.

Note: From 2016 to 2017, years are fiscal years ending on 31 March of the next year; from 2018, the fiscal year is from 1 October 1 to 30 September.

Sources: Central Bank of Myanmar; Asian Development Bank estimates.

Figure 3.27.6 Fiscal balance

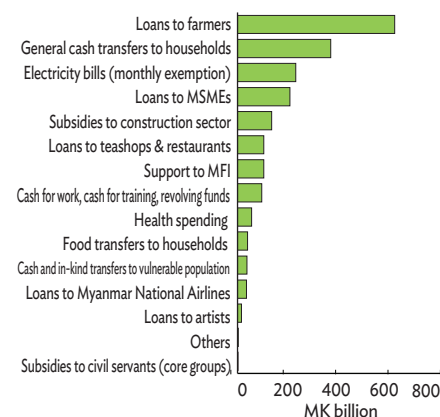


GDP = gross domestic product.

Note: From 2016 to 2017, years are fiscal years ending on 31 March of the next year; from 2018, the fiscal year is from 1 October to September 30.

Sources: Central Bank of Myanmar; Asian Development Bank estimates.

Figure 3.27.7 Provision of loans and subsidies during the pandemic



MFI = microfinance institution, MSMEs = micro, small, and medium-sized enterprises.

Source: Ministry of Planning, Finance and Industry.

Philippines

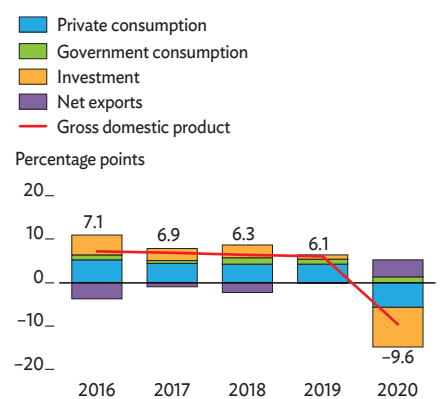
The economy fell sharply in 2020 and the recovery in 2021 will be fragile before growth picks up in 2022. Considerable uncertainty over how the COVID-19 pandemic unfolds will continue to weigh on consumer and business sentiment, although progress in the vaccination rollout will help restore confidence. An expansionary fiscal policy will continue to support growth, especially infrastructure investment. Inflation will pick up, reflecting supply-side constraints. The current account balance turned a surplus in 2020 on weak domestic demand, but it will narrow in 2021. The COVID-19 shock underscores the importance of reforms to mitigate the negative long-lasting effects on the performance of the labor market.

Economic performance

GDP fell by 9.6% in 2020 under the impact of COVID-19, the first recession since the Asian financial crisis. Steep declines in consumption and investment were only partly offset by higher government spending (Figure 3.28.1). The GDP contraction was sharpest in the second quarter, at 17.0%, when the strictest lockdown level was imposed to contain the spread of COVID-19. The contraction eased as mobility and business restrictions were gradually relaxed in the second half, although GDP was still lower by 8.3% year on year in the fourth quarter.

The COVID-19 pandemic caused private consumption—which accounts for three-fourths of GDP—to contract by 7.9% last year, reversing average annual private consumption growth of 6.2% since 2015. Pandemic containment measures starting in March last year severely limited the movement of people and commerce, putting the labor market under pressure, with the unemployment rate peaking at 17.6% in April. The rate eased to 8.7% in October, although it was still elevated compared with the pre-pandemic level of 5.3% in January. Wage workers in the services sector and workers in the informal sector were most affected. Remittances from workers overseas were resilient, rebounding in the second half with 2.4% growth year on year, which resulted in remittances contracting just 0.8% for the whole of 2020. In contrast to private consumption, public consumption rose by 10.5%, with significant increases in spending on social assistance, wage subsidies, and health services, which helped mitigate the pandemic's worst effects on poor and middle-class households.

Figure 3.28.1 Demand-side contributions to growth



Sources: Asian Development Outlook database; CEIC Data Company (accessed 12 March 2021).

Fixed investment plunged by 27.5% last year. Outlays for industrial machinery fell by 25.1% and 34.4% for transport equipment. Private construction fell by 36.9%, while public construction declined 10.4% as lockdowns disrupted projects. Net exports of goods and services contributed to GDP growth through a steeper contraction in imports of goods and services compared with exports. The collapse in imports reflected the weakness in domestic demand, especially investment, and disruptions to global supply chains.

Services—accounting for 61% of GDP—fell by 9.2% last year, leading the decline in the supply-side contributions to growth (Figure 3.28.2). Border closures disrupted tourism, transportation, and trade. International visitor arrivals plunged by 82.1% last year from 2019. Air transport sharply contracted (–69.1%), as did accommodation and food services (–45.4%).

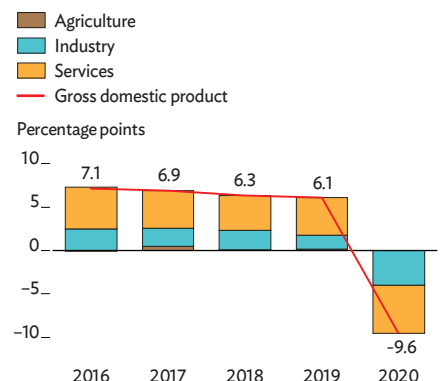
Industry output fell by 13.2% on a slump in manufacturing and construction (Figure 3.28.3). Manufacturing, which accounts for two-thirds of industry output, fell by 9.8%, depressed by weak exports, restricted mobility because of the COVID-19 pandemic, and lower domestic demand in the wake of income and job losses. Disruptions to global value chains also affected manufactures. Agriculture was almost flat at –0.2%, with higher production of major crops, including rice (3.1%) and corn (2.4%), offset by lower livestock, poultry, and fishing output.

Inflation averaged 2.6% in 2020, edging higher toward the end of the year, with higher food prices among the contributors (Figure 3.28.4). Inflation averaged 4.5% in the first quarter of 2021 on supply-side pressures from weather- and disease-related disturbances, including African swine fever. Food inflation stood at 6.6% in the first quarter, with meat and vegetables as the major drivers. Mobility restrictions disrupted the production and supply of goods and services, while higher global oil prices led to upward adjustments in domestic petroleum prices.

Cuts in the policy interest rate totaled a cumulative 200 basis points (bps) in 2020, including 25 bps in November, bringing the overnight reverse repurchase rate to a record low of 2%. The reserve requirement ratio for big banks was cut by 200 bps in April 2020. Liquidity (M3) rose by 9.4% year on year in February 2021, swelled by credit to the government, while private sector credit fell by 2.4%.

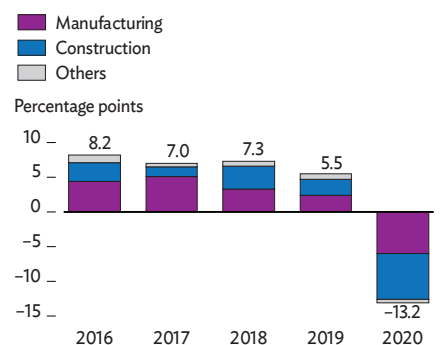
The contraction in GDP caused government revenue to fall by 9% last year, while expenditure rose by 11.3%. The fiscal deficit widened from the equivalent of 3.4% of GDP in 2019 to 7.6% in 2020. Tax revenue was lower by 11.4%, partly offset by higher dividend remittances from corporations owned or controlled by the government. The ratio of tax revenue to GDP fell to 14.0% from 14.5% in 2019. Government debt rose to equal 54.6% of GDP at the end of 2020 from 39.6% of GDP at the end

Figure 3.28.2 Supply-side contributions to growth



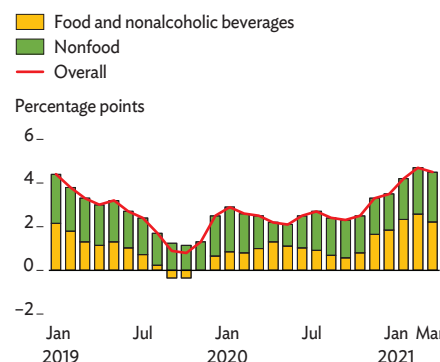
Sources: Asian Development Outlook database; CEIC Data Company (accessed 12 March 2021).

Figure 3.28.3 Contributions to industry growth



Sources: Asian Development Outlook database; CEIC Data Company (accessed 9 April 2021).

Figure 3.28.4 Sources of inflation



Source: CEIC Data Company (accessed 8 April 2021).

of 2019 on higher borrowing to fund the COVID-19 pandemic response.

The overall balance of payments turned a surplus equal to 4.4% of GDP, up from 2019's 2.1% surplus. A current account surplus equivalent to 3.6% of GDP, reversing a 0.8% deficit in 2019, underpinned last year's balance-of-payments surplus (Figure 3.28.5). The merchandise trade deficit narrowed to 8.8% of GDP from 13.1% as merchandise exports (-11.3%) declined less than the drop in imports (-22.9%). Exports of services, especially tourism, declined significantly. In the financial account, net foreign direct investment was lower by 24.6% to \$6.5 billion, while portfolio investment reversed to a net outflow.

Official reserves rose to \$110.1 billion at the end of 2020, cover for 12.6 months of imports and service and income payments. The ratio of external debt to GDP rose to 27.2% at the end of 2020 from 22.2% at the end of 2019. The peso appreciated 5.8% against the US dollar in 2020.

Economic prospects

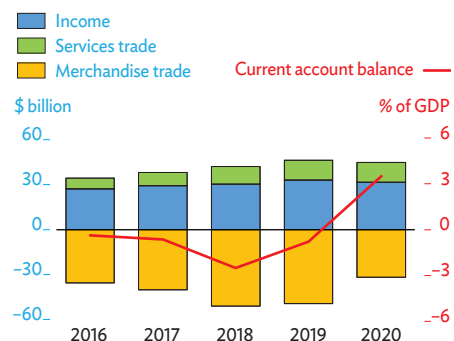
GDP growth is projected to recover to 4.5% in 2021 and pick up to 5.5% in 2022 (Table 3.28.1). The outlook assumes a modest fiscal expansion, especially through infrastructure spending and social assistance, COVID-19 vaccination advancing in the second half, and a global economic recovery.

The recovery in the Philippines is expected to be fragile. Uncertainties over the course of COVID-19 continue to weigh on household and business sentiment. Rising infections led to the reimposition of strict community quarantine in late March for 2 weeks in Metro Manila and some neighboring provinces. Mobility restrictions are being gradually lifted. The schedule for lifting the quarantine in specific areas will be reviewed in light of changes in COVID-19's spread. Vaccination started in March 2021. The government aims to vaccinate 60%–70% of the population this year, although global supply shortages may hamper the rollout.

Household consumption is expected to pick up modestly this year. The unemployment rate remains high, and was at 8.7% in January 2021, equivalent to 4 million jobless, a third of which were young people (Figure 3.28.6). The youth unemployment rate, at 19.8%, was 45% higher than in January 2020. Remittances from overseas workers are expected to remain resilient and will continue to support household consumption. While growth in remittances will be moderate because of the repatriation of displaced overseas workers due to the COVID-19 pandemic, the diversity of jobs and geographic locations of these workers will support remittances.

Public investment will drive domestic investment. Roads, bridges, expressways, ports, and railways are among the

Figure 3.28.5 Current account components



GDP = gross domestic product.

Source: CEIC Data Company (accessed 2 April 2021).

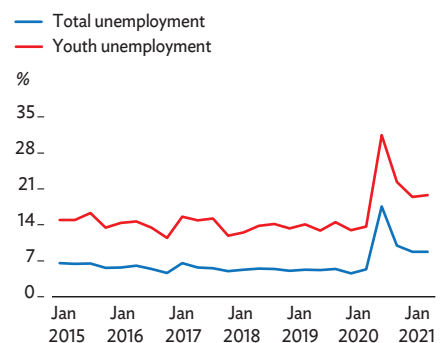
Table 3.28.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	6.1	-9.6	4.5	5.5
Inflation	2.5	2.6	4.1	3.5
Current acct. bal., share of GDP	-0.8	3.6	2.5	1.8

GDP = gross domestic product.

Sources: CEIC Data Company; Asian Development Bank estimates.

Figure 3.28.6 Unemployment



Sources: Asian Development Outlook database; CEIC Data Company (accessed 2 April 2021).

major infrastructure projects underway. Election-related spending ahead of the national elections in May 2022 will provide a modest lift to aggregate demand. Prospects for private investment are subdued. Some indicators have bottomed out and point to a gradual recovery. The manufacturing purchasing managers' index (PMI) rebounded to above the 50-threshold in December, indicating an expansion, and was at 53.2 in March, the highest in a year, supported by higher orders and recovering demand (Figure 3.28.7). The services PMI, at 41.0, and the retail and wholesale PMI, at 46.9, were still low in March, as COVID-19 restrictions continued to take their toll on both. Community quarantines, public caution, and social distancing measures dampened spending on travel, recreation, restaurants, and visits to malls. The effect of this on the services sector as a whole was partly cushioned by higher spending on telecommunications and digital services.

Firms are deferring capital expenditure because capacity utilization remains low. Credit growth to businesses has slowed since the first quarter of 2020, contracting by 1.3% year on year in February 2021. Lending was lower to the wholesale and retail trade and manufacturing. The decline, however, was partly tempered by sustained credit to other sectors, including real estate, transportation, and storage. The government has expanded credit facilities and provided credit guarantee systems for micro, small, and medium-sized enterprises to help spur lending.

Fiscal policy will continue to support growth. After a fiscal deficit equal to 7.6% of GDP in 2020, the government set a 2021 deficit target of 8.9%, indicating that fiscal policy will be expansionary by 1.3 percentage points of GDP this year. A fiscal deficit is planned at 7.3% of GDP in 2022. The 2021 budget expenditure plan is 9.9% higher than the 2020 budget, with larger outlays planned for infrastructure development and social programs. The share of social services (one-third of the budget) will grow by 11.6%. Social spending includes programs to strengthen the health sector's capacity, push ahead with universal health care, and provide cash transfers for poor families, and for livelihood and education programs, including e-learning. The government plans to strengthen labor market programs, and assist the recovery of micro, small, and medium-sized enterprises and sectors affected by the COVID-19 pandemic, including agriculture and tourism. The infrastructure budget, 8.5% higher than the last year's budget, is equivalent to 5.4% of GDP in 2021, up from 4.2% of GDP in 2020.

Ongoing reforms will promote investment and support economic recovery. The Corporate Recovery and Tax Incentives for Enterprises Act, approved in March 2021, reduces the corporate income tax rate from 30% to 20% for small, medium-sized businesses and to 25% for all other businesses. It also reforms fiscal incentives to investors to make them time-bound and performance-based. The Financial Institutions Strategic

Figure 3.28.7 Purchasing managers' index



Note: An index above 50 indicates an expansion, and an index below 50 implies a contraction.

Source: Bangko Sentral ng Pilipinas. www.bsp.gov.ph (accessed 9 April 2021).

Transfer Act, approved in February, allows banks and other financial institutions to dispose of nonperforming loans and assets through asset management companies, enabling them to clear out their bad loans and free up liquidity for lending.

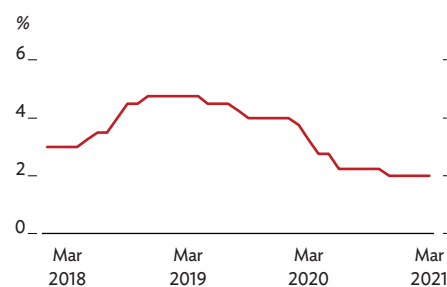
Inflation is forecast to rise to 4.1% in 2021, up from 2.6% in 2020, on the recent buildup of price pressures. Rising global commodity prices and other supply-side factors, including African swine fever, have driven inflation higher. The government has taken measures to tackle price pressures from pork supply disruptions. A price ceiling for pork and chicken was set from February to early April, and the government approved in April lower duties on imported pork for 1 year. This will help ease the transitory impact on prices, and inflation is forecast to ease to 3.5% in 2022. Core inflation is projected to stay modest this year and next in line with the gradual recovery in domestic demand.

Monetary policy is expected to stay accommodative, although further easing may be put on hold. In March, the Bangko Sentral ng Pilipinas, the central bank, maintained the overnight reverse repurchase rate at 2.0% on expectations of inflation remaining elevated in the coming months (Figure 3.28.8).

The current account surplus is forecast to narrow in 2021 and 2022. Merchandise exports are expected to increase with the upturn in global merchandise trade; imports will also rebound, especially for capital goods to support public infrastructure development. Imports of raw materials and components to manufacture exports will also rise. Higher international prices for oil and other global commodities will drive the cost of imports. Of services exports, business processing outsourcing receipts will rebound in line with the improved prospects of major advanced economies, but tourism will take longer to recover. The current account surplus is forecast to narrow to 2.5% of GDP in 2021 and 1.8% in 2022.

The forecast comes with downside risks. The uncertain course of the COVID-19 pandemic and the possibility of more resilient coronavirus variants could hamper the recovery and weigh on confidence globally. Domestically, the vaccine rollout may suffer supply delays as wealthy nations have stockpiled vaccines and community quarantines could be prolonged to curb the spread of COVID-19. Another risk is the possible disruption to government programs from the implementation in 2022 of a Supreme Court ruling on higher internal revenue allotments to local governments units, the so-called Mandanas ruling. Because of this some functions of the national government will be devolved, including local infrastructure projects, such as school buildings and social protection programs. The concern is that transitioning these functions may temporarily disrupt the implementation of public programs. Transition plans being prepared by the government will be crucial to facilitate the devolution and delineation of functions.

Figure 3.28.8 Policy interest rate



Note: Interest rate refers to the overnight reverse repurchase rate.

Source: CEIC Data Company (accessed 9 April 2021).

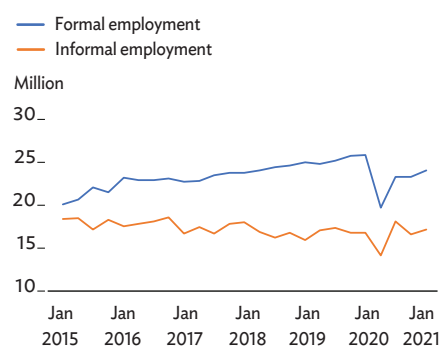
Development challenge—mitigating hysteresis effects on the labor market

The COVID-19 pandemic drove the Philippine economy into recession, reversing strong gains in employment over the past 5 years. The slow recovery risks delayed effects in the labor market in which the unemployment rate continues to rise even after the economy has started to grow again. This labor market phenomenon, called hysteresis, can indicate a permanent change in the workforce from the loss of job skills making workers less employable even after a recession has ended. About one-third of the total workforce is in vulnerable employment, and this could swell with the observed shift from wage and salary employment to self-employment during the pandemic. This wiped out 1.7 million wage and salary jobs in private establishments and government in the 12 months to January 2021. In contrast, employment in the informal sector, mainly self-employed, rose by about 435,000 (Figure 3.28.9).

Four factors could create long-lasting effects in the labor market. First, productive capacity in some sectors may be destroyed, with a prolonged recession leading to further job losses—and some employment-intensive sectors like tourism will take longer to recover. Second, companies are modifying their business models to rely more on technology. Digital transformation and remote working will also transform jobs, facilities, processes, and skills needs, including skills required for higher value-added services and to diversify labor skill sets to encourage specialization. Third, the economic impact of the COVID-19 pandemic, coupled with structural shifts like automation, are reshaping the labor market and increasing demand for new skills. And fourth, the number of jobseekers is expected to increase because the first batch of graduates from the K to 12 Basic Education Program will be entering the labor market. The program added 2 more years of high school to help prepare students for college and work. Students who will not complete high school due to the socioeconomic effects of the pandemic are expected to join the labor force too. Reforms will therefore be crucial to mitigate these impacts and to adapt to structural changes in the labor market.

To support job creation and productivity, governments are increasingly focusing efforts on reforming and scaling up apprenticeship schemes and introducing employer-led skills-funding programs to help job seekers acquire marketable skills. Employers are willing to take a more active role in designing and delivering skills development programs for two reasons—the COVID-19 pandemic has shown the need for rapid upskilling for short-term demand surges, and to emerge stronger from the pandemic, companies need to start reskilling their workforce now. The temporary declines in some industries provide an opportunity for upskilling for future skill-growth areas and enabling

Figure 3.28.9 Formal and informal employment



Source: CEIC Data Company (accessed 9 April 2021).

individuals to move into careers aligned with future skills trends. In the Philippines, flaws in apprenticeship programs have resulted in an extremely low uptake in apprenticeships, causing skills shortages. Flaws include 6-month limits on the duration of most apprenticeship programs, limited opportunities for certification, and inadequate funding. Apprenticeship reforms, drawing on international best practices, should include setting up an apprenticeship council to oversee policy, industry-led development of apprenticeship programs with a mix of formal learning and on-the-job training and apprenticeship salary scales, and extending apprenticeships from 6 months to 2–4 years. They should also include monitoring the compliance of enterprises with industry apprenticeship programs. Another best international practice is matching grant schemes that nurture networks of enterprises to implement their own customized short-term training programs. Evidence shows these are cost-effective ways for upskilling workers employed by firms. Grant schemes can also include requirements that a specific share of trainees are job seekers and informal workers.

It is critically important that the Social Security System has a well-funded unemployment insurance scheme for workers to access during major economic shocks and disruptions to the labor market. Temporary wage subsidy schemes are essential to encourage employers to stay attached to employees during economic crises. An unemployment insurance scheme can also provide short-term income stability to private sector workers during spells of involuntary unemployment. An appropriately designed unemployment insurance scheme can reduce fiscal costs to the government in providing social assistance to unemployed workers. Empirical research shows that unemployment insurance simultaneously enhances productivity and stabilizes consumption as it acts like an automatic stabilizer cushioning the impacts of economic crises and helps to prepare for the next growth period. An unemployment insurance scheme can also be linked to active labor market and training programs, especially for reskilling and upskilling. Good examples of these are Malaysia's Employment Insurance Scheme, which uses a national pooled insurance fund, and Chile's Unemployment Insurance Scheme, which uses individual savings accounts and a pooled fund. Under the Malaysian scheme, both employers and employees make monthly contributions to a pooled fund. The government provides funding if there is a financing gap. Workers can access an unemployment allowance only if involuntarily unemployed. Under the Chilean scheme, employers and employees make monthly contributions to a savings account in the name of the employee. This is complemented by the Solidarity Unemployment Fund financed through employer and government contributions. Employees can access allowances from the Solidarity Unemployment Fund only after depleting individual savings accounts and for periods of involuntary unemployment. As a fully funded system, the Chilean scheme does not create contingent fiscal liabilities.

Social dialogue with employers, workers, and other stakeholders, such as those conducted in April 2021 by the Government of the Philippines, can help coordinate and prioritize actions.

Singapore

Growth contracted in 2020 as the COVID-19 pandemic took its toll on economic activity and demand. The consumer price index fell marginally, and the current account surplus rose. Growth will resume in 2021 as the pandemic is brought under control, manufacturing and services expand, and domestic demand rebounds. Inflation will rise but remain subdued. The current account surplus will narrow as imports rise. A key policy challenge is to accelerate the digital transformation of the country's small and medium-sized enterprises (SMEs).

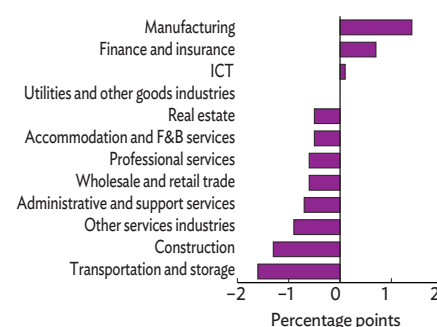
Economic performance

Singapore's economy shrank by 5.4% in 2020, as the COVID-19 pandemic affected most sectors. Total demand plunged on low consumer spending amid mobility restrictions and weaker external demand. Construction was hardest hit, contracting by 35.9% in 2020, cutting 1.3 percentage points from GDP growth at factor cost. The services sector fell by 6.9%, cutting 4.6 points from growth on a significant decline in tourism and external activities. Strong demand for electronic transactions, however, buoyed finance and information and communication technology. Overall, manufacturing expanded by 7.3%, contributing 1.4 points to growth; the sector benefited from higher output in the electronics and biomedical clusters (Figure 3.29.1).

Domestic demand contracted by 10.7% in 2020, cutting 7.9 percentage points from GDP growth, as private consumption and investment plummeted by double digits. Government consumption, however, grew by 12.6% on fiscal stimulus, equivalent to 20% of GDP. Investment contracted by 14.9% due to lower private and public spending, especially on construction. Imports contracted by 7.1% in real terms, larger than the 4.3% decline in exports, so that net exports expanded by 11.6%, adding 3.1 points to growth (Figure 3.29.2).

Both headline and core inflation dropped to -0.2% in 2020 as oil prices and the cost of services, including health care, and nonessential goods moderated. Accommodation costs, however, rose by 0.4% as rents increased and the prices of food, communication, and housing durables increased on rising demand during the COVID-19 pandemic (Figure 3.29.3).

Figure 3.29.1 Supply-side contributions to growth

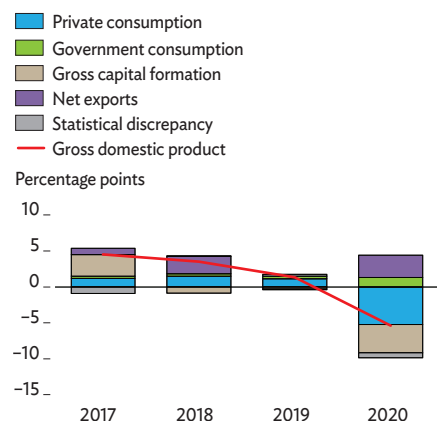


F&B = food and beverage, ICT = information and communication technology.

Notes: Excluding net indirect taxes. Other service industries include dwellings.

Source: Ministry of Trade and Industry. Economic Survey Singapore 2020. <https://www.mti.gov.sg/Resources/Economic-Survey-of-Singapore/2020/Economic-Survey-of-Singapore-2020> (accessed 17 February 2021).

Figure 3.29.2 Demand-side contributions to growth



Source: Ministry of Trade and Industry. Economic Survey Singapore 2020. <https://www.mti.gov.sg/Resources/Economic-Survey-of-Singapore/2020/Economic-Survey-of-Singapore-2020> (accessed 17 February 2021).

Merchandise exports fell by 6.7% in US dollar terms in 2020 as oil trade slumped on lower oil prices. Non-oil domestic exports, however, increased on higher shipments of both nonelectronic and electronic products. A 7.7% contraction in merchandise imports on lower oil imports caused the trade surplus to increase to the equivalent of 27.5% of GDP. Net services exports rose to 4.4% of GDP as finance and insurance receipts exceeded charges for the use of intellectual property and manufacturing services. The current account surplus rose to the equivalent of 17.6% of GDP. The overall balance of payments turned a surplus of \$74.9 billion in 2020 due to lower capital outflows (Figure 3.29.4). Gross foreign reserves rose to \$362.3 billion, cover for 9 months of imports.

In April 2020, the Monetary Authority of Singapore set the rate of appreciation of the nominal effective exchange rate's policy band at 0%, allowing the Singapore dollar to depreciate by 2.2% in nominal effective terms last year, although it appreciated by 1.8% against the US dollar (Figure 3.29.5). The interbank overnight rate fell by 177 basis points in 2020. Outstanding bank loans to the private sector declined by 2.0% and money supply growth accelerated to 13.2%.

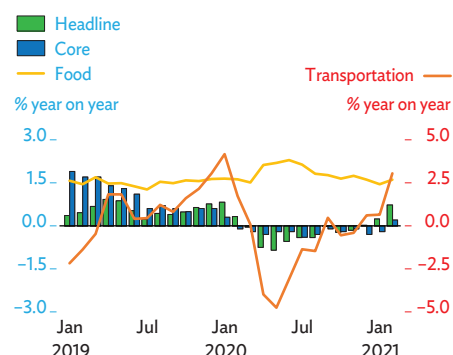
In response to the COVID-19 pandemic, government spending, including special transfers, rose by 63.2% in fiscal year 2020 (FY2020, ended 31 March 2021), with nearly S\$100 billion allocated to households and businesses affected by the pandemic. Operating revenue, however, declined by 13.0% on lower tax receipts from corporations and taxes on goods and services, pushing the overall budget deficit to the equivalent of 13.8% of FY2020's GDP.

Economic prospects

The economy is expected to recover with GDP growth rebounding to 6.0% in 2021 and 4.1% in 2022 (Table 3.29.1). Singapore was the first country in Southeast Asia to roll out vaccination, which began on 30 December 2020. All residents are expected to be vaccinated by the end of 2021. Domestically, recovery signs are evident in most sectors, and external demand will improve as the vaccination programs of major trading partners get underway, facilitating their economic recovery.

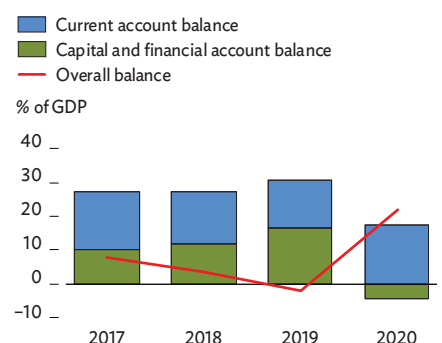
Manufacturing will likely be the main driver of growth in 2021, as indicated by the increase in the manufacturing purchasing managers' index (PMI) to 50.5 and the electronics PMI to 50.8 in February 2021 (Figure 3.29.6). The sector should benefit from rising demand for semiconductors and medical devices. The government's Business Expectations Survey shows that services firms had an optimistic outlook for January–June 2021, although the sector's recovery is likely to be uneven (Figure 3.39.7). Finance and insurance is expected to

Figure 3.29.3 Inflation



Source: CEIC Data Company (accessed 23 March 2021).

Figure 3.29.4 Balance of payments



GDP = gross domestic product.

Source: Ministry of Trade and Industry, Economic Survey Singapore 2020. <https://www.mti.gov.sg/Resources/Economic-Survey-of-Singapore/2020/Economic-Survey-of-Singapore-2020> (accessed 17 February 2021).

Figure 3.29.5 Exchange rates



Source: CEIC Data Company (accessed 4 March 2021).

benefit from a strong expansion in electronic transactions and higher demand for insurance due to the COVID-19 pandemic. Awarded construction contracts increased by 91.7% quarter-on-quarter in the fourth quarter of 2020, signaling that construction activities should gradually recover.

With the resumption of social activities and reduced mobility restrictions since December 2020, private consumption and investment should gradually pick up. Private investment should benefit from a 13.2% rise in commitments in 2020. Public investment will also rise in 2021 on an anticipated expansion in major infrastructure works and the setting up of COVID-19 vaccination facilities.

Merchandise exports increased by 2.5% in February 2021, spurred by higher non-oil exports, but imports declined as oil imports contracted (Figure 3.29.8). Exports will recover this year, buoyed by strong demand for electronic and biomedical products, but imports will grow faster as domestic activity rebounds, narrowing the trade surplus. However, with rising net services receipts, supported mainly by financial services, the current account surplus should grow, but its ratio to GDP is expected to fall to 17% in 2021 and 2022.

Inflation rose to 0.7% in February 2021 due to higher food and oil prices and services costs. Inflation is expected to rise to 1.0% for the year amid fading government subsidies, higher oil prices, and rising demand for durable goods and domestic services. With taxes on goods and services starting to increase in 2022, inflation should edge up to 1.2%.

Fiscal policy will remain expansionary in FY2021, but the overall budget deficit is expected to fall to the equivalent of 2.2% of GDP. Government expenditure, including transfers, is slated at 21.5% of GDP and total revenue at 19.3% of GDP, higher than 17.6% in FY2020. The Monetary Authority of Singapore is expected to maintain its expansionary monetary policy stance.

Risks to the outlook include uncertainty over the containment of the COVID-19 pandemic because of the emergence and spread of new coronavirus variants, which may result in the slower-than-expected reopening of borders. If this happens, it will hit external-oriented services and tourism. The financial stress caused by the pandemic and continued trade tensions among the major economies pose further risks to Singapore's recovery.

Policy challenge—accelerate the digital transformation of SMEs during the recovery

The disruption to economic activity has had a big impact on Singapore's SMEs, the main contributors to GDP and employment. The weaker demand and disruption to cash-flow

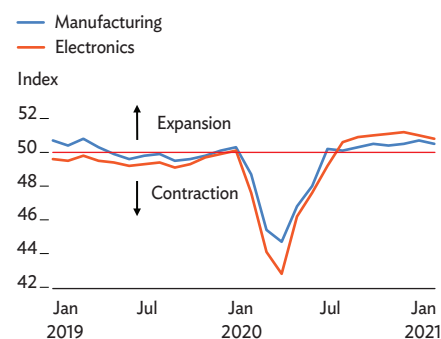
Table 3.29.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	1.3	-5.4	6.0	4.1
Inflation	0.6	-0.2	1.0	1.2
Current acct. bal., share of GDP	14.3	17.6	17.0	17.0

GDP = gross domestic product.

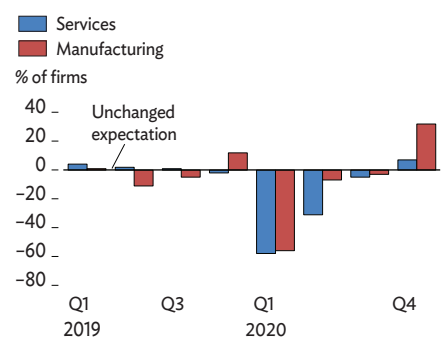
Sources: Ministry of Trade and Industry; Asian Development Bank estimates.

Figure 3.29.6 Manufacturing and electronics purchasing managers' index



Source: CEIC Data Company (accessed 4 March 2021).

Figure 3.29.7 Business expectations



Q = quarter.

Sources: CEIC Data Company; Singapore Department of Statistics, Business Expectations Survey. <https://www.singstat.gov.sg/find-data/search-by-theme/industry/business-expectations/latest-data> (both accessed 17 February 2021).

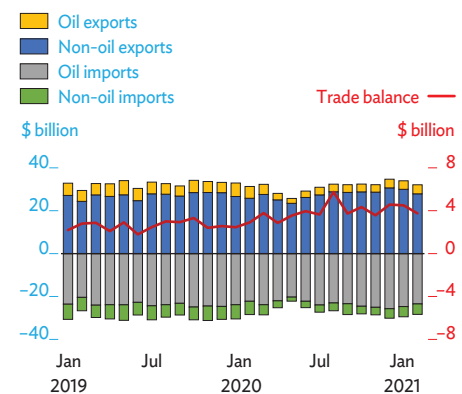
cycles have increased their need for financing, access to which is usually difficult. Supporting SMEs to accelerate digital transformation will help sustain their businesses during economic disruptions. Digitalization will make SMEs more resilient and, in turn, improve the economy's ability to withstand shocks.

With its advanced digital infrastructure and human capital development, Singapore scored the highest in the Economist Intelligence Unit's Asian Digital Transformation Index 2018 (Figure 3.29.9). Indeed, having been supported by various policy instruments and sizable public financing, Singapore's digital transformation over the past few years has led to innovation and improved capabilities in local businesses.

Despite these developments, the digital transformation of Singapore's SMEs faces three main challenges. First, SMEs lack talent in digitalization. The Cisco 2020 APAC SMB Digital Maturity Study ranks Singapore first in terms of SME digital maturity in Asia and the Pacific, but 26% of Singapore SME respondents said lack of talent was a challenge to digitalization, a rate much higher than the region's average of 17%. Second, high implementation costs remain the top barrier to SMEs adopting digital technology. The 2020 SME Digital Transformation Study conducted by Microsoft Singapore and the Association of Small & Medium Enterprises found that 54% of SMEs postponed digital transformation during the COVID-19 pandemic, partly because of falling revenue. And third, Singapore's high internet adoption implies a higher cybersecurity risk. In 2019, cybercrime accounted for 26.8% of total crime in Singapore, up 51.7% from 2018. The pandemic has exacerbated cybercrime. And the lack of digital talent and investment in cybersecurity is exposing SMEs to greater cybersecurity risk.

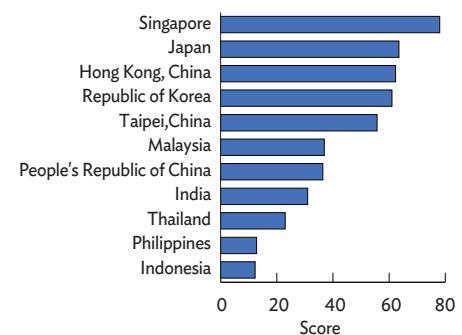
Policy actions are needed to increase SME capacity so that these firms can identify and adopt existing digital technology and solutions, and strengthen cybersecurity risk management. While these policies should be calibrated to the needs and demands of different SMEs, three broad policy actions are recommended. First, to increase the supply of digitalization talent, policy makers should foster digitalization-related education and upgrade the workforce with the knowledge and capacity needed for digital transformation. Policy makers can also attract digitalization expertise from abroad that is difficult to obtain locally. Second, the government can provide knowledge support and capacity building events to help SMEs better understand the latest digital technology in the market and to bring novel digital business solutions to the attention of local industry. The government should also make existing financial support, such as grants and subsidies, better known to SMEs and reduce costs related to their digital transformation. And third, training and other interventions are needed to increase the awareness of SMEs to cybersecurity risks.

Figure 3.29.8 Trade indicators



Source: CEIC Data Company (accessed 17 March 2021).

Figure 3.29.9 Asian Digital Transformation Index 2018



Source: Economist Intelligence Unit. 2018. Asian Digital Transformation Index 2018. <http://connectedfuture.economist.com/article/asian-digital-transformation-index-2018/> (accessed 17 February 2021).

Thailand

The COVID-19 pandemic severely affected the economy in 2020. A mild recovery is expected this year and next as the economic climate improves on the progress being made globally in the rollout of COVID-19 vaccines. But given the uncertainty over how the pandemic unfolds, risks to the outlook are tilted to the downside. Because the economic impact of the pandemic has been highly uneven across sectors, policy makers should focus on fostering a sectorally balanced recovery.

Economic performance

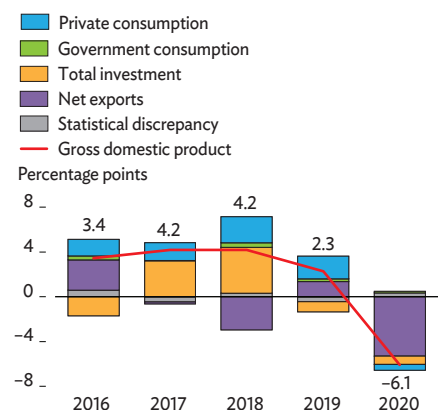
GDP contracted by 6.1% in 2020 after growing 2.3% in 2019. The spread of COVID-19 and stringent pandemic containment measures in the second quarter of last year disrupted economic activity. Tourism was hardest hit, as the government imposed travel restrictions on foreign tourists (Figure 3.30.1).

On the demand side, the US dollar value of exports of goods and services fell by 19.4% in 2020 after a 3.0% decline in 2019. Merchandise exports dropped by 5.8%, and were lower in almost all product categories and markets. Exports of automobiles and petroleum products fell by double digits, pressured by the global economic slowdown, COVID-19 travel restrictions, and lower crude oil prices. Agriculture and agro product exports slumped partly because of a drought that particularly affected rice, tapioca, and sugarcane production.

Large increases in freight rates and a shortage of shipping containers also affected exports. Container turnaround times lengthened because of a decline in handling capacity in Europe and the United States (US) due to the COVID-19 pandemic, and fewer containers returning to Asia, including to Thailand. Exports to major trading partners declined, particularly to India, the Republic of Korea, Europe, the Middle East, Japan, and other countries in Southeast Asia. Exports grew by 9.6% to the US and 2.0% to the People's Republic of China (PRC), supported by improved demand in the second half of 2020.

The US dollar value of services exports contracted by 60.0% year on year in 2020 because of international travel restrictions after declining 0.5% in 2019. The number of foreign tourists plunged to 6.7 million in 2020 from 39.9 million in the previous year. In September 2020, Thailand introduced a special 90-day tourist visa for long-staying visitors as part

Figure 3.30.1 Demand-side contributions to growth



Source: Office of the National Economic and Social Development Council. https://www.nesdc.go.th/nesdb_en/main.php?filename=index (accessed 18 March 2021).

of plans to revive the tourism industry; the visa scheme runs until the end of 2021. Despite effective COVID-19 control and prevention measures, international arrivals from October to December 2020 numbered just 10,822, compared with 10.4 million in the fourth quarter of 2019 (Figure 3.30.2).

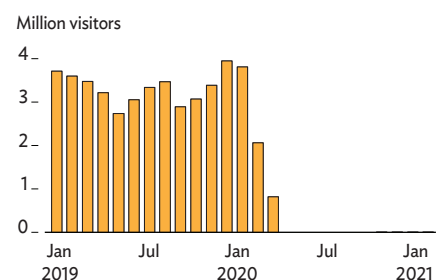
With the collapse in external demand, domestic private consumption and investment dropped substantially. Private consumption fell by 1% in 2020, reversing an expansion of 4% in 2019. The COVID-19 pandemic depressed services consumption, especially accommodation and transportation, but sales of essential goods rose in 2020. Private consumption gradually recovered from the third quarter of last year, supported by government stimulus measures. These included a co-payment program that allows registered individuals to pay half price if buying from a small shop and a domestic travel program where the government subsidized various perks, including air fares, hotel and accommodation, and food at tourist destinations. Additional public holidays announced by the government helped boost domestic consumption in the second half of 2020.

Private investment fell by 8.4% in 2020 after growth of 2.7% in 2019 as investors sold off inventories and held back projects due to sluggish demand, weak business confidence, and the tighter credit underwriting standards of financial institutions. Because of weak aggregate demand, imports of goods and services shrank by 13.3% in 2020, sharper than 2019's 5.2% contraction.

Current and capital public expenditure expanded, partially mitigating the economic impact of COVID-19. The total budget disbursement in fiscal year 2020 (FY2020, ended 30 September 2020) totaled B3.2 trillion, up 4.1% from FY2019. Revenue collection, however, declined by 6.7% in FY2020 due to the economic impact of the COVID-19 pandemic and tax relief measures to support individuals and businesses. In sum, the government ran a budget deficit equivalent to 5.2% of GDP, a considerable increase on FY2019's 3.0%. But fiscal stability remained sound. The ratio of public debt to GDP was 49.4% at the end of FY2020, up from 41.1% in FY2019 (Figure 3.30.3).

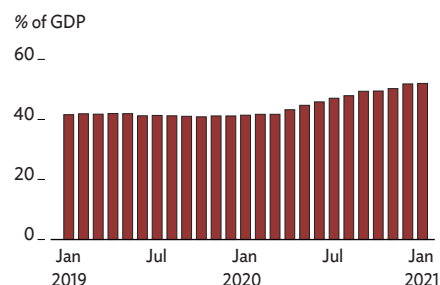
By sector, the collapse in tourism led to widespread job and income losses. Agriculture production declined by 3.4% in 2020, hit by a month-long drought. Manufacturing growth declined by 5.7% in tandem with weak aggregate demand. In particular, manufacturing in export-oriented sectors—the automotive industry, rubber and plastics, and integrated circuits and semiconductors—suffered from a fall in global demand. Services contracted by 6.5% last year, reversing a 3.9% expansion in 2019. Accommodation and food services, and transportation and storage, were severely affected. Digital information and communication services expanded, however. Mobility restrictions and limited outdoor activities caused by

Figure 3.30.2 International tourists



Sources: Bank of Thailand. <https://www.bot.or.th/English/Pages/default.aspx>; CEIC Data Company (both accessed 18 March 2021).

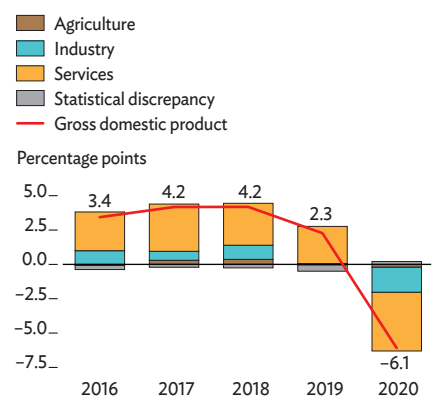
Figure 3.30.3 Public debt



GDP = gross domestic product.

Source: Public Debt Management Office. <https://www.pdmo.go.th/en> (accessed 18 March 2021).

Figure 3.30.4 Supply-side contributions to growth



Source: Office of the National Economic and Social Development Council. https://www.nesdc.go.th/nesdb_en/main.php?filename=index (accessed 18 March 2021).

the COVID-19 pandemic drove more consumers in Thailand to e-commerce. The economy's widespread contraction caused the unemployment rate to rise to 1.5% at the end of 2020 from 0.96% at the end of 2019. Many of those with jobs often suffered from work-hour cuts, resulting in income losses and lower purchasing power (Figure 3.30.4).

Because aggregate demand collapsed and the economy slowed, headline inflation declined from 0.7% in 2019 to -0.8% in 2020. The policy interest rate stayed low at 0.5%, maintained from the last cut in May 2020 to support economic recovery (Figure 3.30.5).

On Thailand's external transactions, the current account turned a surplus of \$16.3 billion in 2020, equivalent to 3.2% of GDP. The narrower surplus—after it equaled 7.0% of GDP in 2019—was because of the decline in merchandise exports and earnings from tourism. The capital and financial account posted net outflows of \$3.6 billion mainly due to large nonresident portfolio outflows over COVID-19 concerns. Consequently, the overall balance of payments was in surplus, at \$18.4 billion (Figure 3.30.6). International reserves stood at \$258.1 billion, cover for 13.3 months of imports and 3.5 times short-term external debt. The baht slightly depreciated by 0.8% year on year against the US dollar in 2020.

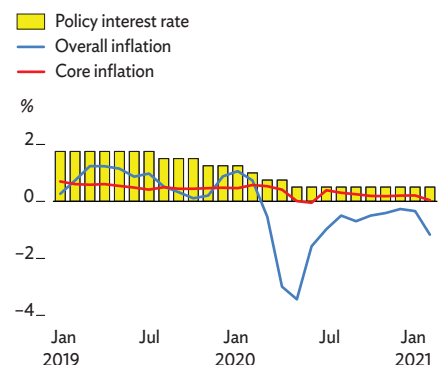
Economic prospects

Growth is forecast at 3.0% in 2021—a mild recovery since the global COVID-19 pandemic will continue to hamper world trade and international travel this year. The economy is expected to rebound in 2022, with the growth rate forecast to rise to 4.5% as increasing numbers of people get vaccinated and global trade and tourism pick up (Figure 3.30.7 and Table 3.30.1).

Exports of goods and services are projected to rise by 5.6% in 2021 and 12.5% in 2022. A pick-up in global trade should underpin Thailand's merchandise exports this year. Shipments of major products, such as automobiles and parts, electronics, and agriculture products, are expected to increase in line with a recovery in external demand from trading partners, including Japan, the PRC, and the US. Services exports will remain subdued this year because of an anticipated delay in tourism recovery but should pick up next year as international tourism to Thailand strengthens.

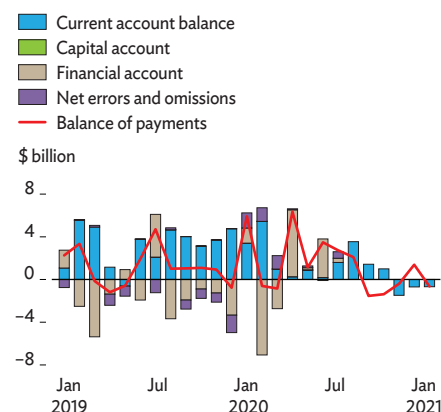
A modest 2.1% rebound in private consumption is forecast for 2021, and this is expected to gather pace to 3.0% next year in line with a gradual economic recovery. Consumer spending is expected to contract sharply in the first quarter of 2021 on the back of partial lockdown and more people working from home because of the COVID-19 pandemic. But this spending should bounce back over the rest of the year. Private investment is forecast to grow by 3.5% in 2021 and 5.0% in 2022. Some signs

Figure 3.30.5 Inflation and policy interest rate



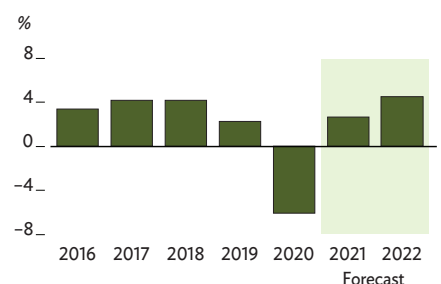
Sources: Bank of Thailand. <https://www.bot.or.th/English/Pages/default.aspx>; CEIC Data Company (both accessed 18 March 2021).

Figure 3.30.6 Balance of payments



Sources: Bank of Thailand. <https://www.bot.or.th/English/Pages/default.aspx>; CEIC Data Company (both accessed 18 March 2021).

Figure 3.30.7 GDP growth



GDP = gross domestic product.

Source: Asian Development Outlook database.

are already evident of a recovery in investment in export sectors and government infrastructure projects. Foremost among these is the construction in the Eastern Economic Corridor area of a 220-kilometer high-speed rail link connecting three airports.

Public investment is forecast to grow at an annual rate of about 6% in 2021 and 2022, buoyed by several ongoing infrastructure projects. A further expansion in public consumption is likely as the government is expected to continue its support to rehabilitate the economy by providing relief to sectors most affected by COVID-19. Public consumption is forecast to increase by 5.2% in 2021 and slow to 2.0% in 2022, when economic activity returns to prepandemic levels. Imports will pick up as exports gather pace and investment and consumption rebound in line with improved aggregate demand. Imports are projected to increase by 4.7% in 2021 and 8.4% in 2022 to provide much-needed imports of intermediate inputs.

By sector, agriculture production is forecast to grow by 2.6% this year and 3.4% in 2022. Favorable weather conditions are expected to brighten the sector's outlook. Farm output is expected to rise in the first half of 2021 on increased rainfall caused by the La Niña weather pattern. As with exports and domestic demand, industrial output is expected to pick up. The outlook for services will depend largely on the progress of COVID-19 vaccinations. Assuming good progress in worldwide vaccination, Thailand's tourism sector should gradually recover.

Strict public health measures are expected to continue over most of 2021. The government plans to vaccinate 1 million of the most vulnerable people by May 2021 and then start mass vaccination. By the end of this year, more than 50% of the adult population is expected to be vaccinated. Under the government's current plans, Thailand will start reopening for international tourism in the last quarter of 2021. International arrivals are forecast at about 4 million this year and close to the prepandemic level of 39.9 million in 2022.

Inflation is expected to pick up but will remain subdued at 1.1% in 2021 and 1% in 2022 in tandem with the gradual recovery in demand. Higher fresh food and energy prices will put some upward pressure on prices (Figure 3.30.8). The current account should remain positive in the near term.

How the COVID-19 pandemic develops abroad will affect the admission of foreign tourists to Thailand. A delay in the government's vaccination plan, the potential for new waves of COVID-19, and the fiscal measures taken to tackle the economic impact of the pandemic having a lower-than-expected effect could weigh on private consumption and investment. Delays in public infrastructure projects could also slow the recovery.

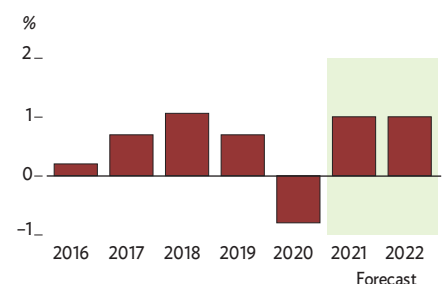
Table 3.30.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	2.3	-6.1	3.0	4.5
Inflation	0.7	-0.8	1.1	1.0
Current acct. bal., share of GDP	7.0	3.2	4.0	6.5

GDP = gross domestic product.

Sources: Office of the National Economic and Social Development Council; Bank of Thailand; Asian Development Bank estimates.

Figure 3.30.8 Inflation



Source: Asian Development Outlook database.

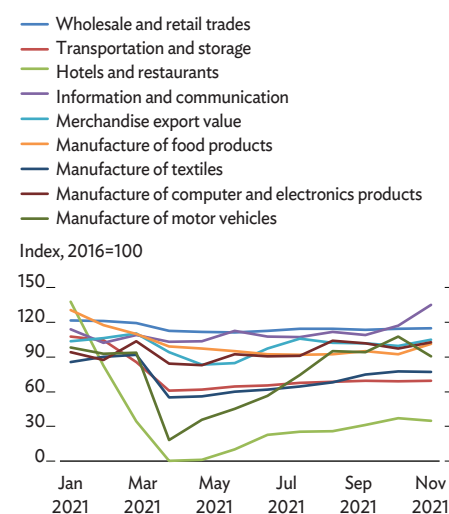
Policy challenge—a sectorally balanced economic recovery

After a record economic contraction of 12.2% in the second quarter of 2020 that brought almost all economic activity to a standstill, data for the third and fourth quarters show some improvement. That said, the recovery is highly uneven among sectors. Activities in some industries rebounded quickly after containment measures were relaxed in mid-June 2020. Businesses in the manufacturing sector, particularly those in electronics, electrical appliances, processed food, and medical devices have returned to normal operations. But the recovery in services, particularly hotels and restaurants, the retail trade, and transportation, has been lackluster.

The government has launched several stimulus packages to boost economic activity, particularly in services, but progress has been very uneven (Figure 3.30.9). Because of this, more public resources should be allocated to sectors that are struggling to deal with the economic impact of the COVID-19 pandemic. These include hotels and accommodation, aviation, the garment and textile industry, retail trade, and restaurants.

The pandemic has hurt sectors employing low- and semi-skilled workers, graduates entering the labor market, and people who have lost their jobs in the services sector. Policy makers should focus on fostering a sectorally broad-based economic recovery and implement well-targeted and time-bound relief measures to prevent business closures and debt defaults. Policy measures should protect only viable and productive firms, and not be taken to support financially ailing firms. For individuals, employment and social policies should reach the most disadvantaged and vulnerable groups in the labor market. Policies should be calibrated at the sector level so that they can be responsive to a sector's specific situation. Above all, support policies should be carefully designed to limit the increase in corporate and household indebtedness, and identify new opportunities for affected workers.

Figure 3.30.9 Manufacturing and service production index



Sources: Bank of Thailand. <https://www.bot.or.th/English/Pages/default.aspx>; Office of Industrial Economics. <http://www.oie.go.th/view/1/Home/EN-US> (both accessed 18 March 2021).

Timor-Leste

The economy contracted in 2020 on the global economic slowdown caused by the COVID-19 pandemic, a state of emergency at home, and the delayed passing of the 2020 state budget. Inflation remained subdued last year, but the current account turned a large deficit. The economy's recovery is hindered by a surge in COVID-19 cases since March 2021 and severe damage from floods in April, among the worst to hit the country. The country's key policy challenge is positioning the country for post-pandemic recovery, while formulating measures to raise the economy's productivity.

Economic performance

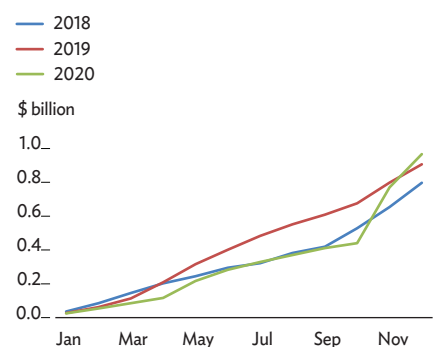
The economy faced a dual challenge in 2020—a deteriorating global and regional economy and a domestic political crisis that stopped the state budget from being passed until October. As a result, GDP contracted by an estimated 7.9% last year, down from a modest 1.8% expansion in 2019. Private consumption fell by an estimated 3.1%, and public consumption rose slightly by 1.0% on increased public spending to tackle COVID-19, which maintained recurrent spending levels (Figures 3.31.1). Private investment fell by 39% and public capital spending dropped by about 50% (Figure 3.31.2). Mobility restrictions disrupted growth in many sectors.

Slumping economic growth, relatively low international oil prices, and subdued international food prices kept inflationary pressures in check. Consumer prices edged up by 0.5% in 2020 (Figure 3.31.3).

The dollar value of merchandise exports fell by 33% in 2020. Exports of coffee, a major source of non-oil export earnings, plunged by 83% (Figure 3.31.4). The dollar value of merchandise imports fell by 11%. Net receipts from travel services—the main source of earnings from services exports—dropped by 63.6%. The departure of many expatriates because of COVID-19 caused a significant fall in consumer spending. (Figure 3.31.5).

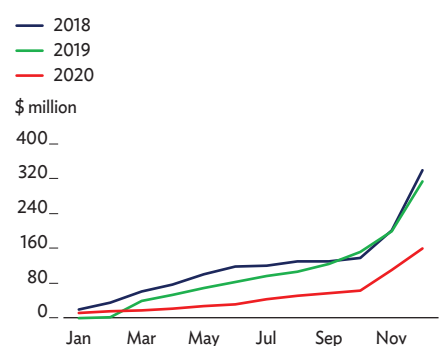
Non-oil domestic revenue for 2020 is estimated to have declined by 2%. Oil revenue, which accounts for 80% of total fiscal revenue, also declined. Royalties and profits from oil dropped from an estimated \$428.9 million in 2019 to \$169.3 million last year, and oil taxes from \$327.3 million to \$136.8

Figure 3.31.1 Cumulative recurrent expenditure



Source: Timor-Leste Budget Transparency Portal. <http://budgettransparency.gov.tl> (accessed 23 March 2021).

Figure 3.31.2 Cumulative capital expenditure



Source: Timor-Leste Budget Transparency Portal. <http://budgettransparency.gov.tl> (accessed 23 March 2021).

million. The Petroleum Fund—a sovereign wealth fund—lost \$660 million in value in the first quarter of 2020 before recovering in later months. Returns on the fund’s investment reached a record closing value of \$18.9 billion in December 2020, up from \$17.7 billion a year earlier (Figure 3.31.6). Other revenue sources also contracted on slower economy and the suspension or deferral of some types of payments, such as rents on government buildings and electricity and water fees.

In April 2020, the government set up the \$332.2 million COVID-19 fund using an emergency withdrawal from the Petroleum Fund. By December, \$194.6 million—76.1% of the fund—had been disbursed to finance the medical facilities needed to contain the spread of the pandemic and maintain people’s access to food and other essential services through cash transfers and food supplies.

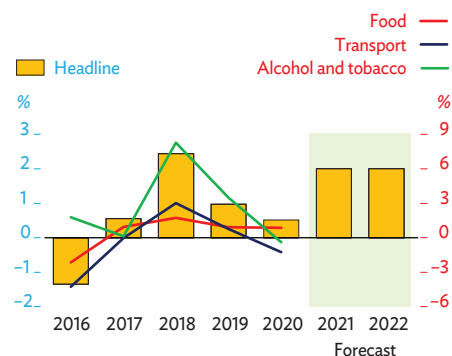
Economic prospects

Timor-Leste has been hit by the worst floods in 40 years causing severe damage to homes, agricultural land, and critical infrastructure, including electrical lines and communication networks in Dili and surrounding areas. The calamity could worsen the spread of the COVID-19 pandemic, and cause outbreaks of water- and vector-borne diseases. The country’s response to COVID-19 was quite effective, with relatively few cases and no deaths, until community testing in February and March detected cases of local transmission, causing the government to impose a lockdown, which included putting up “sanitary fences” around Dili and other municipalities. The government has a \$200 million emergency package to mitigate the socioeconomic impact of the lockdown, and it has also allocated resources from the 2021 state budget for the flood response. With support from development partners, the government plans to buy COVID-19 vaccines to distribute them to hospitals, starting June 2021.

Timor-Leste aims to use the COVAX program, which will provide free vaccines to cover 20% of the population. In the program’s first phase, starting April 2021, the focus will be on vaccinating frontline medical workers and people with underlying pathologies living near the land border with Indonesia. The second phase will cover citizens over 60 years old and the most at-risk professions, such as health workers, teachers, and municipal officials. The vaccines are scheduled to arrive in several batches over the second and third quarters of this year. Australia has announced that it will support Timor-Leste’s vaccination program. Provisions for vaccinating the remaining 80% of the population are being discussed within the government.

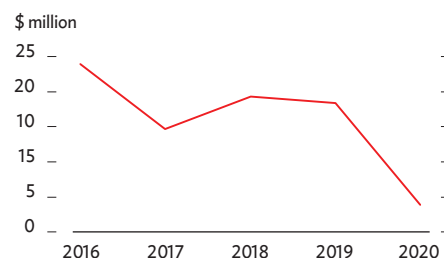
In August 2020, the government announced its Economic Recovery Plan for the short and medium term. This aims to provide additional financial support to businesses and citizens in

Figure 3.31.3 Inflation



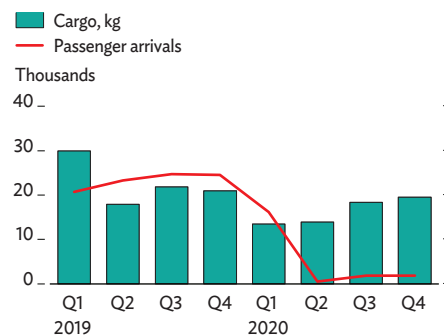
Sources: Statistics Timor-Leste. <https://www.statistics.gov.tl> (accessed 23 March 2021); Asian Development Bank estimates.

Figure 3.31.4 Coffee exports



Source: Statistics Timor-Leste. <https://www.statistics.gov.tl> (accessed 23 March 2021).

Figure 3.31.5 Cargo and passenger arrivals



Kg = kilogram, Q = quarter.

Source: Statistics Timor-Leste. <https://www.statistics.gov.tl> (accessed 23 March 2021).

the form of subsidies and consumption vouchers. Medium-term measures include large public investments in social programs to be financed by state budgets. The 2021 budget approved public spending of \$1.9 billion, equivalent to 125% of 2020's GDP. This is Timor-Leste's second largest budget since 2016.

GDP growth is forecast at 3.4% in 2021 and 4.3% in 2022 (Figure 3.31.7 and Table 3.31.1). A large increase in government spending underpins these forecasts. Under the Economic Recovery Plan, public spending is set to rise by up 30% over the next 3 years, financed mostly from the Petroleum Fund. The increased public spending will be targeted toward agriculture, tourism, education, and health and social protection services, and the related infrastructure to these sectors.

Inflation will edge up as growth picks up. The expected increase in international food prices should add to the inflationary pressures. The current account on the balance of payments turned a large deficit of \$301.9 million (equal to 19.3% of GDP) in 2020, and this is expected to widen to \$436.2 million (26.5% of GDP) in 2021 on a big drop in production and exports from the Bayu-Undan oil field.

A major risk to the outlook would be heavy volatility in global financial markets, which could affect the Petroleum Fund's investment portfolio.

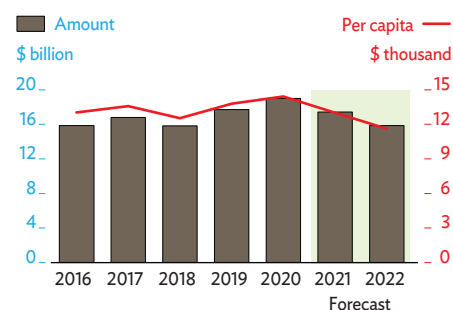
Policy challenge—increasing productivity

Economic growth in Timor-Leste is heavily dependent on government spending. To tackle the socioeconomic decline caused by the COVID-19 pandemic, the Economic Recovery Plan initially plans to strengthen health services, and promote food security and social protection. Over the longer term, however, the need is pressing to raise productivity across sectors. To do this, the economy needs to diversify beyond the mainstays of oil and petroleum products and raise the skills of the country's youth, a rapidly expanding demographic.

The Economic Recovery Plan emphasizes the need to increase productivity to accelerate and sustain growth. A major challenge to achieving this will be enabling the country's youth to acquire the skills necessary for diversifying the economy. This will require increasing the use of technology to improve agricultural productivity and develop tourism. The plan acknowledges the need to improve the skills of the country's youth.

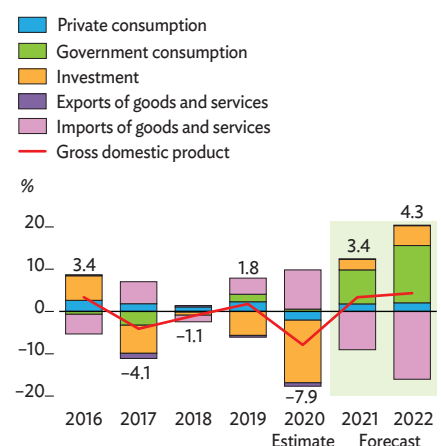
A related policy challenge is the urgent need to reform Timor-Leste's institutions so that they are better able to develop efficient markets, improve public utilities, and strengthen connectivity across the country. The ambitious Economic Recovery Plan is an opportunity to push the reforms that are necessary to increase productivity by diversifying the economy away from oil and petroleum products into other sectors and businesses.

Figure 3.31.6 Petroleum Fund balance at year-end



Sources: Ministry of Finance. <https://www.mof.gov.tl>; Banco Central de Timor-Leste. <https://www.bancocentral.tl> (both accessed 25 March 2021); Asian Development Bank estimates.

Figure 3.31.7 Demand-side contributions to growth



Sources: Statistics Timor-Leste. <https://www.statistics.gov.tl> (accessed 23 March 2021); Asian Development Bank estimates.

Table 3.31.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	1.8	-7.9	3.4	4.3
Inflation	1.0	0.5	2.0	2.0
Current acct. bal., share of GDP	7.9	-19.3	-26.5	-43.0

GDP = gross domestic product.

Note: GDP refers to non-oil growth.

Sources: Statistics Timor-Leste; Banco Central de Timor-Leste; Asian Development Bank estimates.

Viet Nam

The economy grew in 2020 despite the COVID-19 pandemic and the ensuing downturn in global growth. Expectations that COVID-19 will be effectively controlled and gains in industry, trade, and investment will push growth markedly higher in 2021 and 2022. Inflation should edge up slightly and the current account surplus narrow. The economy, however, will only be able to return to its strong prepandemic growth path if COVID-19 is brought under control. A key policy challenge is to soften the pandemic's impact on poverty and incomes.

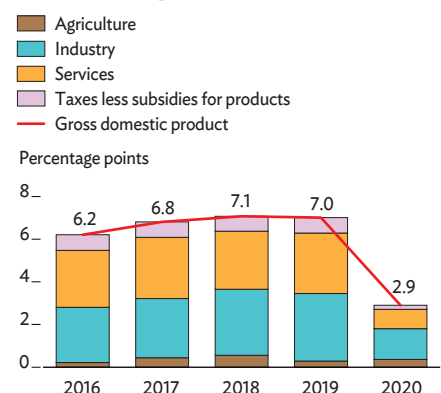
Economic performance

Effective measures taken by the government managed to largely insulate the economy from the COVID-19 pandemic in 2020, when GDP grew by 2.9%—one of last year's highest growth rates in the world. Even so, it was Viet Nam's lowest growth in a decade (Figure 3.32.1). Agriculture grew by 2.7% in 2020 from 2.0% in 2019, with the sector buoyed by proactive export promotion; structural transformation (for example, shifting from rice to high-value cash crops and livestock); and a dynamic private sector. Agriculture contributed 0.4 percentage points to GDP growth last year—a strong performance given severe floods and drought, increased salinity intrusion, and a sharp drop in external demand.

Industry and construction growth moderated to 4.0% in 2020, contributing 1.4 percentage points to growth, as effective COVID-19 controls helped maintain a stable supply of labor. Weak external demand cut manufacturing growth by almost half to 5.8%. The sharp drop in global demand for oil and related commodities caused the expansion in Viet Nam's mining industry to slow. Construction growth slowed to 6.8% in 2020 from 9.1% in 2019. Services growth fell 2.3% despite a strong recovery in the fourth quarter of last year in spending on health and financial services, retail sales, and e-commerce. The services sector took a big hit from a 78.7% plunge in international tourist arrivals (Figure 3.32.2). In all, the contribution of services to GDP growth fell to 0.9 percentage points in 2020 from 2.8% in 2019.

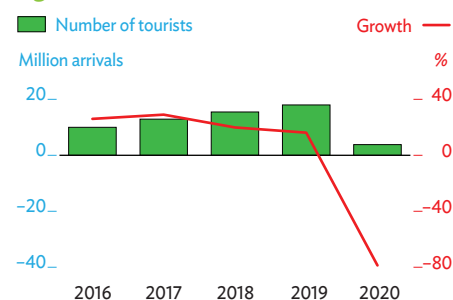
On the demand side, consumption fell sharply on firm insolvencies and impaired incomes due to the COVID-19 pandemic. Consumption growth of only 1.1% in 2020 reduced consumption's contribution to GDP growth to 0.8 percentage

Figure 3.32.1 Supply-side contributions to growth



Source: General Statistics Office. <https://www.gso.gov.vn/en/homepage/> (accessed 7 April 2021).

Figure 3.32.2 Tourist arrivals



Sources: General Statistics Office. <https://www.gso.gov.vn/en/homepage/>; Haver Analytics (both accessed 7 April 2021).

points. Private consumption growth fell to 0.6%, but public consumption rose by 6.2%. The expansion of total gross capital formation halved to 4.1% last year, contributing 1.4 points to growth. A slowdown in private investment was compensated by a 34.5% increase in public investment, among the highest levels of public investment support in Southeast Asia. External trade performed robustly despite headwinds from COVID-19. Net exports of goods and services contributed 0.3 points to growth, with export growth of 4.4% exceeding import growth of 3.9%.

Inflation averaged 3.2% in 2020 and was only slightly higher than 2019's 2.8%, despite an unexpected increase in pork prices in the first quarter of 2020 and severe floods in the third quarter. Subdued domestic demand and a steep fall in global fuel prices largely tamed inflation (Figure 3.32.3).

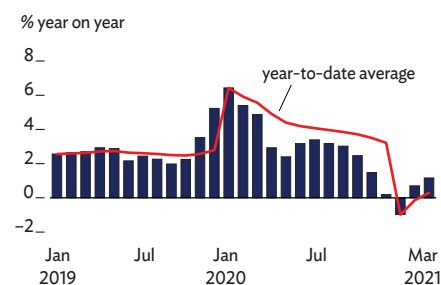
The State Bank of Viet Nam, the central bank, cut refinancing rates three times last year from 6.0% to a record low of 4.0%; the discount rate fell from 4.0% to 2.5%. The central bank reduced interest rate caps on dong deposits of less than 6 months and on the short-term lending rate to priority sectors. It also provided credit support through debt restructuring, waiving or reducing interest rates for existing loans and preferential rates for new loans to priority sectors. But a stagnant business climate and firm insolvencies weakened credit demand. By the end of 2020, outstanding bank credit growth was estimated at 11.0% from 2019, its lowest level in 7 years. Money supply increased by an estimated 12.6% in 2020, up from 12.1% in 2019 (Figure 3.32.4).

The current account surplus stood at an estimated 4.6% of GDP last year, little changed from 2019, supported by a sizable trade surplus, despite a decline in net services and incomes. Exports expanded by 7.0%, boosted by multilateral and bilateral trade agreements, the country's diversification into global value chains, and trade diversion. Exports to the United States, mainly mobile phones, spare parts, and textiles, increased by 25.0%. The People's Republic of China (PRC) surpassed the European Union to become Viet Nam's second largest export market after the US. Imports increased by 3.6%, with the PRC remaining the largest source of imports, followed by the Republic of Korea and the economies of Southeast Asia.

The financial account surplus more than halved to 3.1% of GDP last year largely on the decline in net inflows of medium- and long-term loans and portfolio capital. Because of this, the overall balance-of-payments surplus fell sharply to the equivalent of 6.1% of GDP (Figure 3.32.5). Foreign exchange reserves rose to an estimated 4.2 months of imports at the end of 2020.

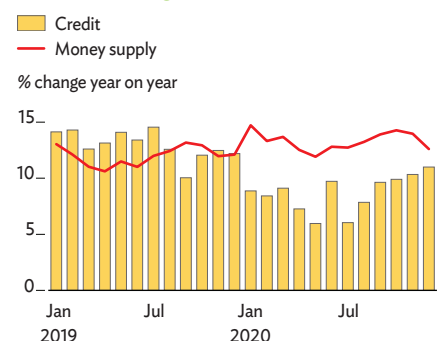
The fiscal deficit in 2020 widened to an estimated 5.8% of GDP. Budget revenue fell by 9.2% due to the shortfall in international trade, lower value-added tax receipts, and the losses from the drop in global crude oil prices. Total budget expenditure rose by only 1.2%, as the bulk of government spending on social security programs and infrastructure development, estimated at

Figure 3.32.3 Monthly inflation



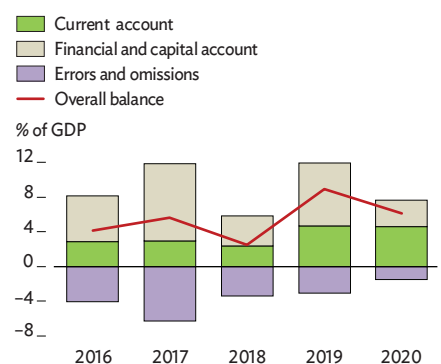
Sources: General Statistics Office. <https://www.gso.gov.vn/en/homepage/>; Haver Analytics (both accessed 7 April 2021).

Figure 3.32.4 Credit and money supply growth



Sources: State Bank of Viet Nam; Asian Development Bank estimate.

Figure 3.32.5 Balance of payments indicators



GDP = gross domestic product.

Sources: State Bank of Viet Nam; Asian Development Bank estimates.

the equivalent 11.5% of GDP, was sourced from unspent revenue from previous years, contingencies, and off-budget funds. Public debt is estimated to have inched up to 55.4% of GDP in 2020 from 55.0% in 2019.

Viet Nam's stock market plunged in the first quarter of 2020, but quickly recovered as COVID-19 was brought under control and the central bank implemented its rate cuts, attracting domestic investors back to the market. The VN Index hit 1,200 in the first quarter of 2021.

Economic prospects

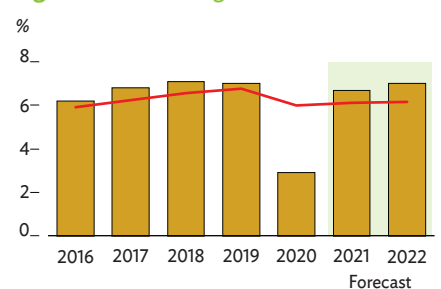
The economy is expected to grow by 6.7% in 2021 and 7.0% in 2022—strong and steady growth made possible by Viet Nam's success in containing the COVID-19 pandemic (Figure 3.32.6). The drivers of this growth will be industry, especially export-oriented manufacturing, increased investment, and expanding trade. Industry is forecast to expand by 9.5% in 2021, contributing 3.5 percentage points to GDP growth. The sector got off to a strong start in the first quarter of 2021, when it grew by 6.3% from the first three months of 2020. The purchasing managers' index rose to 53.6 in March, its highest since January 2019 (Figure 3.32.7). New foreign and local firms are expected to be established due to COVID-19 vaccines enabling greater mobility at home and, in the case of foreign investors, travel to Viet Nam. The economic recovery of major trading partners will increase demand for manufacturing exports. Construction is expected to pick up quickly as the government continues to accelerate major infrastructure projects in 2021 and low interest rates stimulate property development.

Services are expected to rebound by 6.0% in 2021, contributing 2.3 percentage points to GDP growth. The growth in services is coming from the digital transformation, increased spending on COVID-19 vaccines, buoyant business sentiment, and low interest rates. A stronger agriculture sector is expected this year on continued structural reforms, greater market access for agriculture exports under regional free trade agreements, and higher global food prices due to rising demand.

Increased investment will be a key growth driver this year and next. Viet Nam's success in containing COVID-19 and the Investment Law, passed in January 2021, to reduce business regulations are expected to further attract foreign investment. Registered foreign direct investment increased by 17.8% in the first quarter of 2021 from the year-ago quarter (Figure 3.32.8). Overall investment growth will be further spurred by private investment, which has already risen substantially, stimulated by low interest rates and rising public spending.

Private consumption is expected to recover in tandem with private investment and modest inflation. Retail sales rose 5.1% in first quarter of 2021, indicating a recovery in consumer

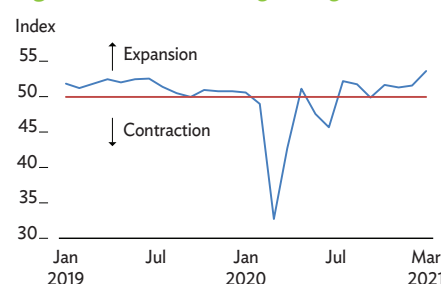
Figure 3.32.6 GDP growth



GDP = gross domestic product.

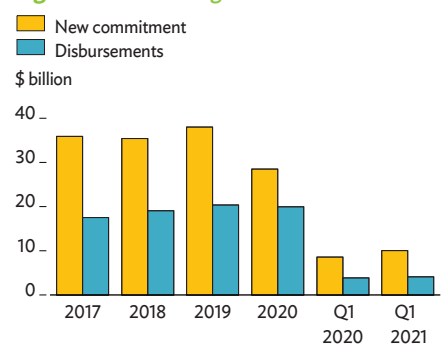
Source: Asian Development Outlook database.

Figure 3.32.7 Purchasing managers' index



Source: IHS Markit. <https://www.markiteconomics.com> (accessed 7 April 2021).

Figure 3.32.8 Foreign direct investment



Source: Haver Analytics (accessed 7 April 2021).

confidence. Business sentiment is buoyant, as shown by a December 2020 survey in which 80% of respondents expected business conditions to either improve in 2021 or remain stable.

Inflation in the first quarter of 2021 slid to its lowest level since 2016 due to lower transport costs and subdued demand. But rising international oil prices on the back of global economic recovery and increased domestic consumption are expected to edge inflation up to 3.8% this year and 4.0% in 2022 (Figure 3.32.9).

Trade will remain robust in 2021, supported by strong economic recoveries in the PRC and the US, Viet Nam's two major trading partners, and the country's participation in 15 major free trade agreements involving almost all advanced economies. Viet Nam posted a \$2 billion merchandise trade surplus in the first quarter of 2021, with exports surging 34.3% to the PRC and 32.8% to the US. Merchandise exports are forecast to rise by 8.0% this year and the next. Viet Nam's continued economic dependency on foreign direct investment—which will see increased imports of capital goods and manufacturing inputs—and rising oil prices will push imports to grow by 5.0%, narrowing the current account surplus to the equivalent 2.0% of GDP this year and 2.5% in 2022.

Credit growth should improve in 2021, aided by interest rate cuts in 2020 and revived credit demand from businesses. The central bank set the target growth rate for credit and total liquidity at 12.0% for this year. It instructed commercial banks to continue restructuring their debt, and to waive or reduce interest rates until the end of 2021 to support businesses struggling to cope with the impact of the COVID-19 pandemic. The rise in the stock and real estate markets since the end of the first quarter of 2021, an expected increase in nonperforming loans once the pandemic passes, and slightly higher inflation in 2020 despite lower growth all argue against monetary policy being further loosened in the coming months. Fiscal policy, however, will remain expansionary given the need for spending on social security, health care, and vaccinations, and for possible additional fiscal support. This could potentially push the fiscal deficit beyond the planned 2021 deficit target of the equivalent of 4.0% of GDP.

The major downside risks are the pandemic reemerging from new coronavirus variants and delays in the government's vaccination plan. A faltering global COVID-19 vaccine rollout could have an immediate impact on Viet Nam being able to return to its strong prepandemic growth path given the country's reliance on external demand. The fast revival of domestic private investment may also heighten the risk of asset bubbles if credit is not channelled to productive sectors. On the plus side, faster-than-expected recoveries in the PRC and the US would considerably expand trade and growth prospects.

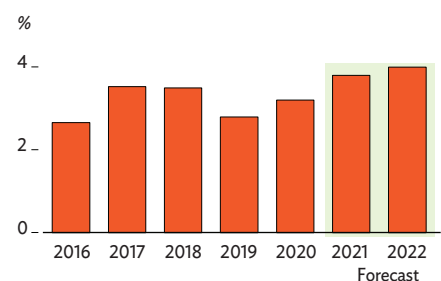
Table 3.32.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	7.0	2.9	6.7	7.0
Inflation	2.8	3.2	3.8	4.0
Current acct. bal., share of GDP	4.6	4.6	2.0	2.5

GDP = gross domestic product.

Sources: General Statistics Office of Viet Nam; Asian Development Bank estimates.

Figure 3.32.9 Inflation



Source: Asian Development Outlook database.

Policy challenge—containing the impact of COVID-19 on income and poverty

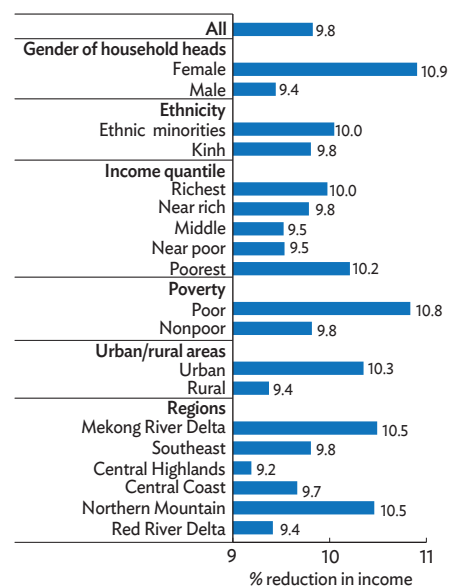
ADB calculations in December 2020 show the significant impact that the COVID-19 pandemic will have on income. In particular, the impact of the pandemic will reduce household per-capita income on average by 9.8% and the poorest income group will suffer a 10.2% income drop, while the poverty rate of households in the poorest income quintile will rise by 40% (Figure 3.32.10). Because rural households supply more migrant workers, they face bigger losses of remittances than urban households, and households headed by women will experience more losses of both domestic and international remittances than households headed by men (Figure 3.32.11). ADB's calculations show that the increase in the poverty rate of ethnic minority households will be lower than for nonethnic minority households, but the number of poor people living in ethnic minority households is larger and so the absolute number will increase more significantly than in nonethnic minority households.

To tackle the COVID-19 pandemic's impacts on income and poverty, the government, on 9 April 2020, passed Resolution 42, a social security program equal to 0.2% of GDP (approximately \$0.5 billion) to provide cash transfers to individuals, households, and businesses. Resolution 42 is expected to help reduce the 2020 poverty rate by 1.3 percentage points to 4.9%. The program is expected to particularly benefit households headed by ethnic minorities, which are typically in the poorest income quintile, and those in rural areas, because their incomes have tended to be hardest hit by the pandemic. Progress in disbursing Resolution 42 funds has been slow. By the end of 2020, only half of the funds had been disbursed due to the lack of well-defined selection criteria and a dedicated disbursement system. Although Resolution 42 could be highly effective in reducing poverty, the program in itself will not be enough to lift the most vulnerable groups out of poverty due to the size of the funds available and large poverty gaps.

The cash transfer program needs to be strengthened to prevent further income losses among the poorest and most vulnerable groups. Because COVID-19's impact on income has been highly heterogeneous, support to those working in the most affected sectors should be prioritized. Building a comprehensive monitoring and evaluation system for current and potential social assistance beneficiaries that also includes those in the informal sector would be useful for reaching those in need.

Because cash transfers in general have insignificant fiscal implications, they should be used as a short-term solution to overcome income shocks, such as the one caused by the COVID-19 pandemic. A more sustainable long-term strategy should be to help the poor and vulnerable to diversify their livelihoods through, for example, short-term vocational training and improved access to microfinance for establishing new businesses.

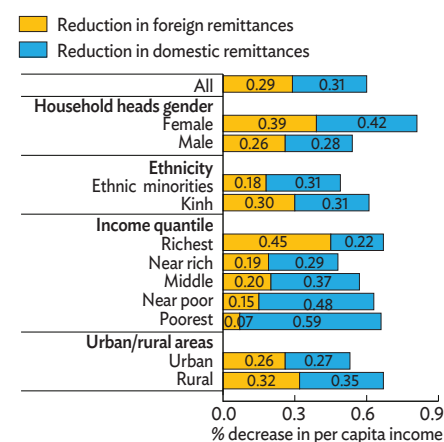
Figure 3.32.10 Impact of COVID-19 on income



COVID-19 = Coronavirus Disease 2019.

Source: Asian Development Bank calculations using data from the Viet Nam Household Living Standards Survey 2018. <https://www.gso.gov.vn/en/data-and-statistics/2020/05/result-of-the-vietnam-household-living-standards-survey-2018/> (accessed 20 December 2020).

Figure 3.32.11 Per capita income due to reductions in remittances



Source: Asian Development Bank calculations using data from the Viet Nam Household Living Standards Survey 2018. <https://www.gso.gov.vn/en/data-and-statistics/2020/05/result-of-the-vietnam-household-living-standards-survey-2018/> (accessed 20 December 2020).

THE PACIFIC

Fiji



Papua New Guinea



Solomon Islands



Vanuatu



Central Pacific economies



North Pacific economies



South Pacific economies



Fiji

The economy suffered its deepest contraction on record in 2020 under COVID-19, with the collapse of tourism having widespread implications for income and employment. Expansionary fiscal and monetary policies were unable to offset closed borders or prevent deflation and a sharply wider current account deficit. Bright spots were remittances and agriculture, which has development potential. Growth is expected to return in 2021 after 2 years of contraction, raising inflation and gradually narrowing the current account deficit.

Economic performance

After declining by 0.4% in 2019, the economy contracted further by an unprecedented 19.0% in 2020, erasing several years of economic gains. Services subtracted 14 percentage points from growth and industry 6 points (Figure 3.33.1). Agriculture contributed just under 1 point with higher production of primary commodities such as kava and taro.

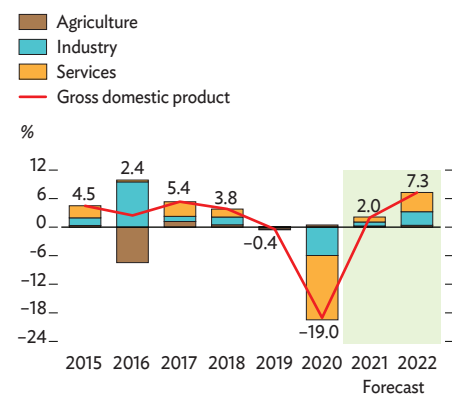
Visitor arrivals plunged by 83.6% in 2020 to their lowest since 1970 (Figure 3.33.2). The resulting drop in hotel occupancy, combined with slow retail, put about 115,000 workers, or a third of the labor force, out of work or on reduced hours. Advertised job vacancies declined by two-thirds.

Major economic indicators declined: value-added tax collection by 38.3%, new commercial bank lending for consumption by 27.2%, new car registration by 50.4%, and secondhand car registration by 40.3%. Construction was also hit, with cement sales down by 13.3% and new investment lending by 24.9%. Credit to the private sector declined by 3.0% in 2020 with less for wholesale and retail, real estate, and building and construction.

The fiscal deficit increased from the equivalent of 3.6% of GDP in fiscal year 2019 (FY2019, ended 31 July 2019) to 8.2% in FY2020, pushing debt up to the equivalent of 65.6% of GDP at the end of July 2020 (Figure 3.33.3). With tourism remaining stalled and reduction in import duties, revenue fell by 15.1%, while expenditure decreased by 1.8%. In the first half of FY2021, revenue fell by 44.2% from a year earlier and expenditure by 11.5%.

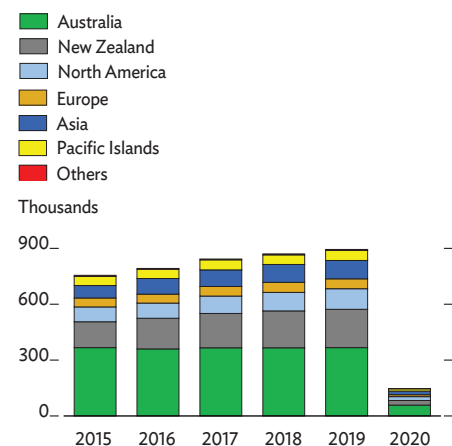
Commercial banks maintained strong liquidity in 2020, reducing the weighted average lending rate for outstanding loans from 6.3% at the end of 2019 to 6.1% a year later.

Figure 3.33.1 Supply-side contributions to growth



Sources: Fiji Bureau of Statistics. <https://www.statsfiji.gov.fj> (accessed on 31 March 2021); Asian Development Bank estimates.

Figure 3.33.2 Visitor arrivals



Source: Fiji Bureau of Statistics. <https://www.statsfiji.gov.fj> (accessed on 31 March 2021).

Consumer prices declined by 2.6% in 2020 led by low prices for fuel and other imported commodities, depressed domestic consumption, and higher agricultural output as workers turned from tourism to farming. Also suppressing retail prices were broadly lower import duties and increased surveillance by the government price regulator.

The current account deficit in 2020 widened to the equivalent of 17.8% of GDP as a decline in imports by 26.4% was outstripped by that of service exports. Earnings from tourism, which contributed 34.0% of GDP and 26.3% of employment in 2019, plunged by 84.8%, with receipts in the last 3 quarters falling from \$783.3 million a year earlier to less than \$5.0 million. Remittances, on the other hand, surged in 2020 by 11.1% to \$301 million. Foreign reserves increased in 2020 to 7.3 months of retained imports of goods and nonfactor services from 5.3 a year ago, supported by increases in foreign borrowing.

Economic prospects

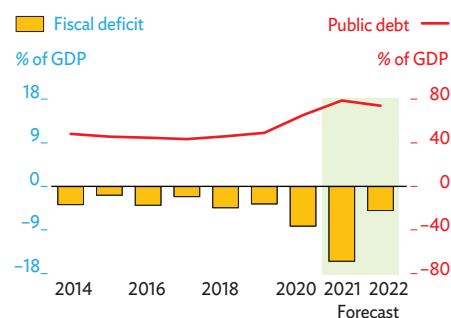
The economy is projected to grow by 2.0% in 2021 and 7.3% in 2022, assuming recovery in tourism with effective vaccination both in Fiji and in its major tourist markets that builds public confidence (Table 3.33.1). Revived tourism would mitigate some of the damage caused by COVID-19, but it may take several years for the economy to return to pre-pandemic levels. Accommodation and transport and storage are expected to be the first movers, with forward bookings providing cash flow. Growth in wholesale and retail trade will likely follow once travelers return.

Mirroring the outlook for growth and key commodity prices, especially fuel, inflation is projected at 3.5% in 2021 and 3.0% in 2022 (Figure 3.33.4). Given the recent tropical cyclones and flooding, agricultural prices are projected to remain high in the next 6–12 months until supply normalizes.

These events are also likely to divert already stretched public resources. The government budgeted for FY2021 a fiscal deficit equal to 20.2% of GDP, ending with government debt equal to 83.4% of GDP. Better than expected revenue and expenditure outcomes in the first half of FY2021 indicate, if continued, an actual deficit lower than budgeted. Without support from development partners, the government will have to prioritize rehabilitating critical transport links, notably with Fiji's second largest island, Vanua Levu, which were severely damaged by Cyclone Ana in January 2021. The government targets a fiscal deficit equal to 5.0% of GDP in FY2022 with debt declining to 79.9% of GDP, but this will require significant fiscal consolidation.

The current account deficit will likely start to narrow in the second half of 2021 with border reopening, taking it down to

Figure 3.33.3 Fiscal balance and public debt



GDP = gross domestic product.

Note: Calendar year data for 2014; from 2015 years are fiscal years ending 31 July of that year.

Sources: Fiji Ministry of Economy; Reserve Bank of Fiji. <https://www.rbf.gov.fj> (accessed 31 March 2021).

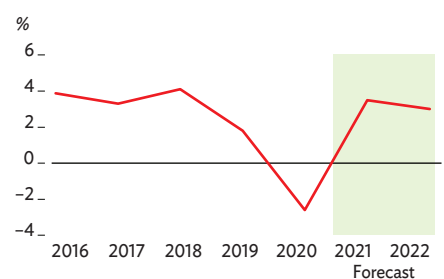
Table 3.33.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	-0.4	-19.0	2.0	7.3
Inflation	1.8	-2.6	3.5	3.0
Current acct. bal., share of GDP	-4.8	-17.8	-15.9	-13.5

GDP = gross domestic product.

Sources: Fiji Bureau of Statistics; Asian Development Bank estimates.

Figure 3.33.4 Inflation



Sources: Fiji Bureau of Statistics. <https://www.statsfiji.gov.fj> (accessed on 31 March 2021); Asian Development Bank estimates.

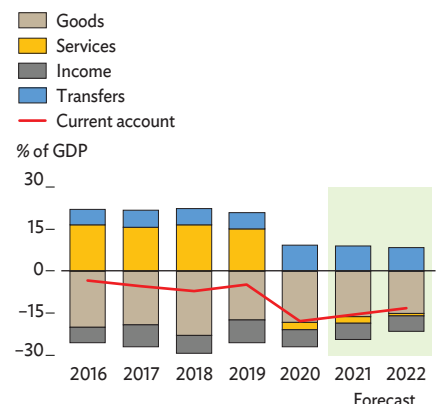
15.9% of GDP in 2021 and 13.5% in 2022 (Figure 3.33.5). Tourism earnings are projected to rise and remittances to sustain their recent gains. Higher commodity prices will drive up the trade deficit, partly offset by normalized demand for key niche exports such as mineral water.

Policy challenge—unlocking potential in the primary sector

The current economic crisis has highlighted Fiji's heavy dependence on tourism. With the release last year of skilled workers from tourism, Fiji has an opportunity to explore economic alternatives and strengthen its shock resilience. Nurturing growth in the primary sector may also improve distribution by elevating incomes in areas beyond Suva and tourism hubs. The poverty rate before COVID-19 was estimated at 29.9%, with 62.2% of the poor residing in rural areas. Both percentages may have since increased significantly.

The primary sector has not benefitted much from large investments in tourism, as hotels and restaurants rely mostly on imported food to ensure stable supply. The government has offered tax incentives to encourage commercial agriculture and agro-processing. With labor returning to rural communities, there may be opportunities to harness underused agricultural land. Streamlining land transactions would help expand area available for farming, especially by large commercial undertakings. A study by the International Finance Corporation in 2018 recommended product-specific analysis of value chains for domestic produce to determine the financial and technical feasibility of increasing local production, perhaps through vertical integration and international partnerships. Seed capital and technical support for business and financial planning may be expanded to promote new entrants. The government should coordinate supply chain improvement, preferably facilitating private channels. Finally, integrating agricultural and environmental policy would ensure economic sustainability and the long-term preservation of wilderness areas.

Figure 3.33.5 Current account balance



GDP = gross domestic product.

Sources: Fiji Bureau of Statistics. <https://www.statsfiji.gov.fj> (accessed on 31 March 2021); Asian Development Bank estimates.

Papua New Guinea

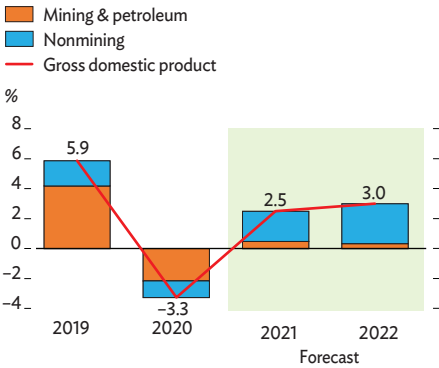
The economy contracted as COVID-19 reduced demand for exports and brought countrywide lockdowns that impeded commerce and mobility and severely restricted international travel and trade. Development partners responded with budgetary support, taking comfort from an International Monetary Fund Staff Monitored Program scheduled to close in June 2021. The economy should begin to recover in 2021, though a recent surge in COVID-19 cases threatens this. Development partners are assisting with budgetary support and the delivery of COVID-19 vaccinations.

Economic performance

The economy shrank by 3.3% in 2020 as it was battered by the COVID-19 pandemic. Papua New Guinea (PNG) confirmed its first case of COVID-19 on 20 March and declared a state of emergency and lockdown lasting from 23 March to 27 April. Borders were closed, international and domestic flights suspended, businesses shut, and movement of people severely restricted. A second lockdown was imposed at the end of July for 2 weeks. The lockdowns crippled business activity and trade. Beyond the effect of the lockdowns, international travel to PNG was restricted for most of 2020, severely hampering business travel and inward investment and delaying major infrastructure projects. In April, at the height of the pandemic, the government decided not to renew a mining license for Porgera—the country’s second largest gold mine—interrupting production for several months.

Mining and petroleum extraction, which provides close to one-quarter of GDP, significantly subtracted from GDP growth in 2020 (Figure 3.34.1). Within this, mining and quarrying, which typically contribute about 12% of GDP, contracted by an estimated 22%, with the closure of Porgera having the largest impact. Mining operations were suspended as well at Ok Tedi, a large gold and copper mine, for 6 weeks because of an outbreak of COVID-19. Lihir, the largest gold mine in PNG, performed poorly because of poor ore and unplanned downtime unrelated to COVID-19. Meanwhile, oil and gas production expanded, though exploration and investment activities were significantly affected. Employment in minerals and petroleum as a whole contracted by 30% in the first 3 quarters of 2020, according to an employment survey of the

Figure 3.34.1 GDP growth



GDP = gross domestic product.
Source: Asian Development Bank estimates using data from Papua New Guinea National Statistical Office.

This chapter was written by Edward Faber and Magdelyn Kuari of the Papua New Guinea Resident Mission, ADB, Port Moresby.

Bank of Papua New Guinea, the central bank, with low oil prices contributing to staff reductions in exploration.

Apart from mining and petroleum, the economy contracted by more than 1% in 2020. Construction and real estate, transport and storage, accommodation and food services, and manufacturing were all constrained by lockdowns and labor mobility challenges. Transport and storage are estimated to have contracted by 15% or more, as are accommodation and food services. Construction and real estate are also thought to have contracted for lack of demand from the private sector. However, government spending on infrastructure provided some cushioning, especially toward the later part of the year. The agriculture, forestry, and fishing sector, which provides about 16% of GDP, posted marginal growth. While agricultural production for domestic consumption continued to climb, plantation output was hit by disrupted international demand and the restrictive environment for labor mobility and trade, as were forestry and fisheries. Palm oil production is thought to have performed at close to 2019 levels, supported by rising prices, particularly in the second half of the year.

Inflation accelerated to 4.9% in 2020, driven by a spike in the second quarter of the year caused primarily by supply constraints under COVID-19 but also currency depreciation and a quantitative easing program (Figure 3.34.2). Health-care costs soared by 21.5%, hotel and restaurant prices by 12.2%, alcohol and betel nut by 9.7%, and transportation by 9.1%. By contrast, food prices increased by only 1.6% during the year. The central bank cut its kina facility rate from 5% to 3% in April 2020 to support economic activity (Figure 3.34.3).

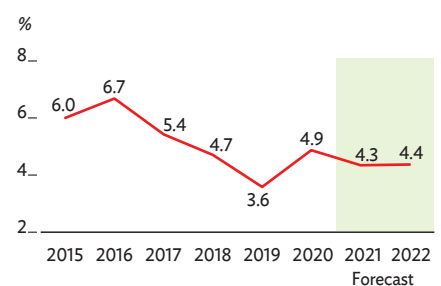
The current account surplus fell from the equivalent of 22.0% of GDP in 2019 to 18.8% in 2020 (Figure 3.34.4). Exports contracted by about 18%, while imports contracted even more as businesses scaled back investment and trade orders under COVID-19.

The fiscal deficit ballooned from the equivalent of 5.0% of GDP in 2019 to 8.1% in 2020 as government revenue contracted and capital expenditure was boosted to support the economy (Figure 3.34.5). Development partners were the main sources of financing. The ratio of debt to GDP increased to just shy of 50%, requiring an amendment to a fiscal responsibility act to raise the country's legal debt limit from 45% of GDP to 60% (Figure 3.34.6).

Economic prospects

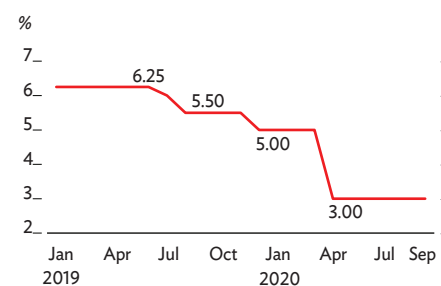
Growth is forecast at 2.5% in 2021 and 3.0% in 2022 as the economy slowly recovers (Table 3.34.1). However, the economic environment will remain challenging, with real GDP not expected to match 2019 levels until 2022. A weak business and investment climate is likely to persist, given

Figure 3.34.2 Inflation



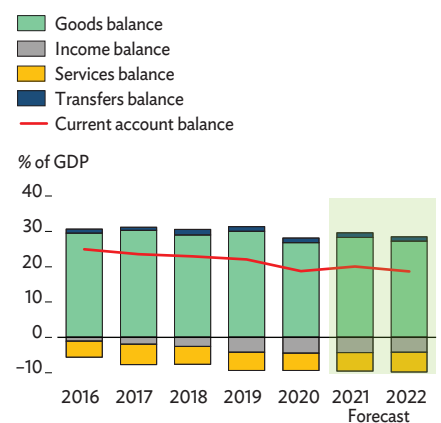
Source: Asian Development Bank estimates using data from Papua New Guinea National Statistical Office.

Figure 3.34.3 Kina facility rate



Source: Bank of Papua New Guinea.

Figure 3.34.4 Current account balance



GDP = gross domestic product.

Sources: Bank of Papua New Guinea; Asian Development Bank estimates.

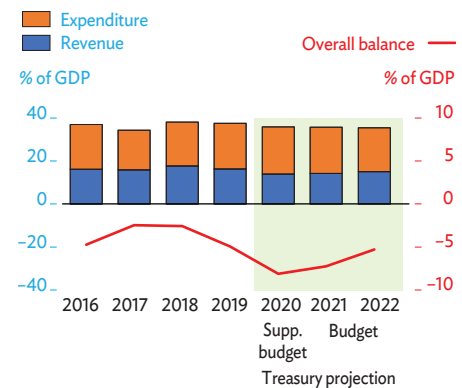
ongoing shortages of foreign exchange, a hard stance from the current government toward foreign investment, and the continuing COVID-19 pandemic. The government plans to support growth through fiscal spending. An International Monetary Fund Staff-Monitored Program, under which the government is tasked with achieving measurable reform goals, is set to conclude in June 2021. Program success would sustain PNG access to financial support from development partners. Politics will remain fluid, however, and could threaten progress on important reforms. Rising commodity prices may help to accelerate recovery faster than anticipated.

After relatively few cases of COVID-19 in 2020, the case load spiked in the first quarter of 2021. Lockdowns remain a possibility, especially considering the increasingly strained health system. However, no countrywide hard lockdown had been imposed as of mid-April 2021, the government instead preferring to reinforce measures such as social distancing, mask wearing, and placing restrictions on nonessential travel. Vaccinations will be rolled out slowly with assistance from development partners. Australia provided 8,000 doses in March for frontline health workers, and Gavi, the Vaccine Alliance, has committed 588,000 vaccine doses for PNG before the end of June 2021 under COVID-19 Vaccines Global Access (COVAX) Advance Market Commitment. Vaccinating most of the PNG population will likely take considerable time, though, given fragile public health institutions, a dispersed population, and vaccination hesitancy. As the global economy recovers and more international travelers are vaccinated, business travel to PNG and associated investment should resume.

Mine and quarry production should increase in 2021 and 2022 as favorable international metal prices spur production. The Porgera gold mine is also expected to reopen following an agreement reached between the operator and the government. Lihir and Ok Tedi are both expected to expand gold production in 2021 after a challenging year in 2020. Oil and gas production is expected to plateau, but two major mineral and petroleum investments on the horizon have potential to drive significant growth: the Wafi Golpu gold and copper mine and Papua LNG project, both multibillion-dollar projects. Papua LNG is expected to proceed to front-end engineering and design in 2021.

The agriculture, forestry, and fisheries sector is expected to grow by over 3% in 2021, but this is largely because of low production in 2020. Transport and storage, hotels and accommodation, and construction should also rebound as conditions improve. Capital expenditure in the 2021 national budget is set to expand by 16.9% in 2021 and a further 9.7% in 2022. The resulting stimulus will support growth and local businesses, but effective execution will depend on support from development partners.

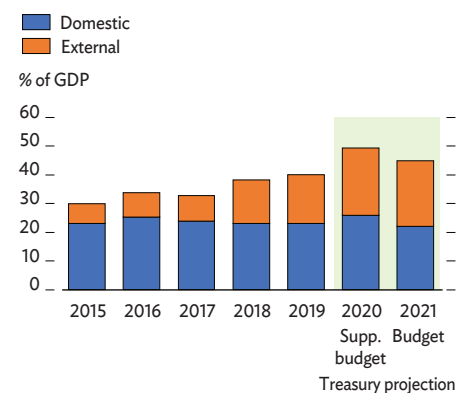
Figure 3.34.5 Fiscal balance



GDP = gross domestic product.

Source: Papua New Guinea Department of Treasury.

Figure 3.34.6 Public debt



GDP = gross domestic product.

Source: Papua New Guinea Department of Treasury.

Inflation is projected to persist as the kina continues to depreciate. A second round of quantitative easing is expected in 2021, which should increase the money supply, with consequent inflationary impact. Unlike in advanced economies, quantitative easing in PNG is used primarily for deficit financing, as central bank purchases of government securities on the secondary market create headroom for banks and other institutions to purchase new government securities on the primary market.

The current account surplus will expand in 2021, following rising commodity prices, and is expected to settle slightly lower thereafter in 2022 as imports pick up with improving economic conditions. However, foreign exchange shortages will persist as an overvalued kina continues to deter foreign investment and the foreign exchange inflows it would bring.

The budget deficit is projected equal to 7.3% of GDP in 2021 and 5.3% in 2022. These wide deficits reflect the government's strategy to stimulate the economy, largely through the capital budget. The deficit is to be financed by a mix of external and domestic sources. Concessional loans from development partners will be the main source of external financing. Planned reforms, if implemented, will allow foreign investors to buy domestic securities.

Policy challenge—reforming state-owned enterprises

Most essential services in PNG are provided through state-owned enterprises (SOEs), including energy, water supply, telecommunications, ports, and air transport. The financial performance of SOEs has been poor. Kumul Consolidated Holdings, the government-owned holding company for nine SOEs in the non-resource sector, reported a net loss of K335 million in 2018 and K237 million in 2019. Consolidated SOE debt was estimated at K5.8 billion as of March 2019, of which K2.1 billion was commercial debt. Given the important and often monopolistic roles that SOEs play in service delivery, their continued weak performance makes services expensive, inefficient, and low quality, and the economy less competitive. Poorly performing SOEs drag on the government's fiscal position, and SOE debt is a contingent liability on the state.

Assessing the performance of SOEs in PNG is difficult, partly because of inadequate audited financial information. Additionally, most SOEs do not prepare statements of corporate intent or systematically develop key performance indicators. The boards and management of many SOEs lack qualified and experienced personnel, and some directors have been appointed through opaque processes. Women are underrepresented on SOE boards. Many SOEs face particular

Table 3.34.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	5.9	-3.3	2.5	3.0
Inflation	3.6	4.9	4.3	4.4
Current acct. bal., share of GDP	22.0	18.8	20.1	18.7

GDP = gross domestic product.

Source: Asian Development Bank estimates.

financial constraints that affect their performance. PNG Power, for example, bears a high debt burden and has not systematically pursued commercially attractive opportunities. Air Niugini has struggled in the past because it operates flight routes that are not commercially viable. Two better performers have been PNG Post and Motor Vehicle Insurance Limited.

Recognizing SOE reform as being of central importance, the government approved in November 2019 a blueprint for a comprehensive SOE reform program that lays out reforms to be undertaken across the sector from 2019 to 2022. The current administration emphasizes the need for SOEs to be accountable and financially sustainable, and to return dividends to consolidated revenue. While progress has been slowed by COVID-19, the government remains committed to SOE reform.

The reform program comprises three areas: (i) strengthening legislative and policy frameworks, (ii) enhancing governance and transparency, and (iii) improving the financial sustainability of specific SOEs. Under the first area, key objectives include amending the Kumul Consolidated Holdings Act that governs SOEs, with the aim of (i) reducing political interference in decision making, (ii) reinforcing the timely public release of corporate plans and audited annual financial statements, and (iii) identifying requirements and costs for community service obligations. Implementing the Public–Private Partnership Act, 2014 is a further goal in the first area of reform. Under the second area, reforms target improved director selection by promoting transparent and merit-based approaches and more conscientious consideration of female applicants. Requiring the publication of timely audited financial statements and corporate plans is a further goal under the second area of reform. Under the third area, specific interventions target certain SOEs. Consideration is to be given to divesting Air Niugini’s noncore assets, for example, and to developing a debt policy for the SOE.

Progress is being made. During 2020, several directors were appointed in accordance with guidelines for transparent and merit-based selection. In addition, audited accounts were brought up to date for six SOEs. Continued progress must be sustained, however, if PNG is to show tangible benefits. Incentives for PNG to stay the course come from development partners, as much of their continued support hinges on seeing reforms make headway.

Solomon Islands

The economy contracted as logging and fishing output fell and construction of major projects stalled. Even as inflation accelerated, lower imports and higher grants shrank the current account deficit. Growth is expected to return this year as fishing recovers and construction resumes, but with fiscal conditions remaining tight. Benefits from rapid population growth can be realized by investing in infrastructure and human capital and by properly coordinating resources.

Economic performance

The economy contracted by 4.5% in 2020 with log output falling by 12% and fish catch by 40% largely due to quarantine restrictions (Box 3.35.1) on production and shipping (Figure 3.35.1). Construction slowed as the movement of equipment, materials, and workers from overseas was delayed. Logging and crop production also suffered under the impact of Cyclone Harold, which struck in April.

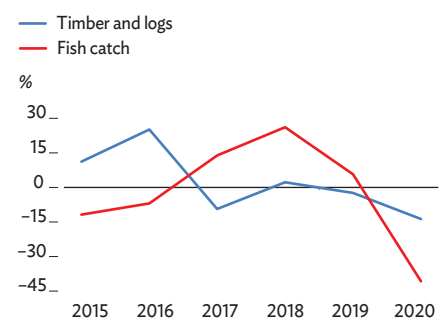
Growth in public services accelerated from 1.3% in 2019 to 1.7% in 2020 due to COVID-19 related spending. An economic stimulus package contributed to an increase in the fiscal deficit from the equivalent of 2.0% of GDP in 2019 to 2.5% (Figure 3.35.2). In November 2020, the government announced components of a major policy redirection to focus on protection from COVID-19, economic recovery, and sustainable development. It also delayed passage of the 2021 budget until April 2021.

Inflation almost doubled from 1.6% in 2019 to 3.0% in 2020, reflecting in part a tripling of the price of betel nut in early 2020 as adverse weather affected supply (Figure 3.35.3). Food prices rose by 1.3% in 2020 because of damage from Cyclone Harold and tax hikes for rice, sugar, and sugary beverages.

Higher inflow of grants and declining imports shrank the current account deficit significantly, outweighing the 18% fall in exports, which saw logs and timber down by 21% and fish by 16%. Imports fell by 19%, led by declines of 28% for machinery and vehicles, 23% for manufactured goods, and 20% for fuel.

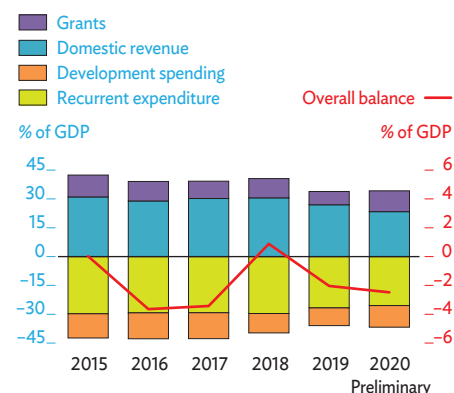
To address stress on the balance of payments caused by COVID-19, the government secured in June \$28.5 million in financing from the Rapid Credit Facility and the Rapid Financing Instrument of the International Monetary

Figure 3.35.1 Logging output and fish catch



Sources: Central Bank of Solomon Islands; Asian Development Bank estimates.

Figure 3.35.2 Fiscal balance



GDP = gross domestic product.

Source: Asian Development Bank estimates using data from budget documents and the International Monetary Fund.

Box 3.35.1 Solomon Islands COVID-19 timeline, 2020

16 March	Public schools closed, along with all food markets in Honiara except the Central Market
22 March	Entry of noncitizens barred, mandatory 14-day offshore quarantine for all sea vessels
25 March	State of Public Emergency (SOPE) declared and price controls announced; nonessential businesses in Honiara closed
26 March	Honiara residents encouraged to return to home province
27 March	International flights and cruise ships banned
31 March	Public service operations scaled down
27 April	Most schools reopened
8 May	Most businesses in Honiara allowed to reopen
20 May	Start of 36-hour trial lockdown in Honiara
27 May	First repatriation flights from Vanuatu and Fiji
15 June	Public service operations restored
24 July	SOPE extended
3 October	First COVID-19 positive case: a student repatriated from the Philippines
24 November	SOPE extended to 24 March 2021, which was further extended to July 2021.

Source: Solomon Islands Government Portal. www.solomons.gov.sb.

Fund, which also provided debt service relief through the Catastrophe Containment and Relief Trust. Gross international reserves were up by 12.4% at the end of 2020 and were sufficient to cover 19 months of merchandise imports.

Economic prospects

Growth is expected to recover to 1.0% in 2021 and 4.5% in 2022 as fishing and construction rebound (Figure 3.35.4 and Table 3.35.1). Logging output is expected to continue falling.

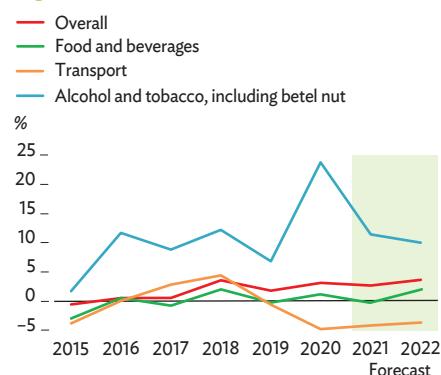
As part of its policy redirection, the government declared a hiring freeze in February with positions vacant since January made inactive. Although essential services and education are exempted, the freeze will contract public services.

Growth in construction and related business is expected to benefit from infrastructure projects: notably the Tina River Hydropower Project, upgrades to transport, the rehabilitation and expansion of water-supply and sanitation systems, and construction for the 2023 Pacific Games.

The fish catch will likely rebound in 2021 and 2022, but logging output is expected to fall further to 1.8 million cubic meters, reflecting government efforts to improve sustainability.

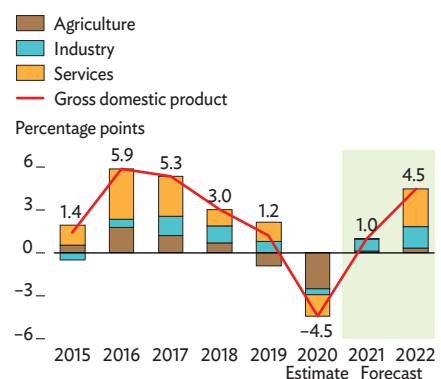
The government is relying on the COVID-19 Vaccines Global Access Facility (COVAX) to provide vaccines for about 20% of the population, and development partners for the remainder. It aims to vaccinate the whole population by the end of 2021, but this may prove to be a challenge, especially on outer islands. Only 19 cases of COVID-19 had been recorded as of 31 March 2021, all of them repatriates.

Figure 3.35.3 Inflation



Source: Solomon Islands National Statistics Office; Central Bank of Solomon Islands; Asian Development Bank estimates.

Figure 3.35.4 Supply-side contributions to growth



Sources: Solomon Islands National Statistics Office; Asian Development Bank estimates.

Despite the cuts in spending, budget deficits are expected to persist in 2021 and 2022 with the need to continue funding for COVID-19 preparedness and support to the economy, subsidies to keep Solomon Airlines operational, and expenditures for the Pacific Games.

Inflation is expected to ease to 2.5% in 2021 as food supply chains normalize, then accelerate to 3.5% in 2022 in tandem with global price increases. Although exports—in particular fish, crops, and minerals—are expected to rise, the current account deficit is forecast to widen to equal 9.0% of GDP in 2021 and 11.0% in 2022 as imports rise to supply construction projects (Figure 3.35.5).

Policy challenge—benefitting from rapid population growth

The 2019 national census showed average annual population growth since 2009 at 2.7%, one of the fastest rates in the Pacific. Honiara, the capital, grew by 5.8%, taking population density to 5,950 people per square kilometer, higher than any other urban area in the Pacific (Figure 3.35.6).

Rapid population growth and urbanization have brought myriad social and economic challenges such as unplanned settlements, heavy traffic, and inadequate infrastructure and public services. Combined with habits such as sharing betel nut, urban congestion can speed the transmission of disease. Risk from COVID-19 prompted the authorities to try to ease congestion in Honiara in the early months of the pandemic by encouraging people to return to their provinces.

Urban agglomerations can catalyze growth and innovation, creating synergies across sectors, industries, and social groups. With proper planning, they facilitate economies of scale in the delivery of public services. Achieving this requires human capital development, especially through education and health care, and expansion of infrastructure to support mobility and the delivery of food, energy, and water-supply and sanitation services.

These issues are partly addressed in the 2018 Greater Honiara Urban Development Strategy and Action Plan. With support from development partners, large infrastructure projects are under way, though delayed by the pandemic.

Tremendous challenges remain in terms of creating opportunities outside the main urban areas through improved agricultural productivity. Higher investments in transport and communications are also needed. However, real impact and benefits to people will depend on fiscal strengthening, budget prioritization, and enhancing implementation capacity.

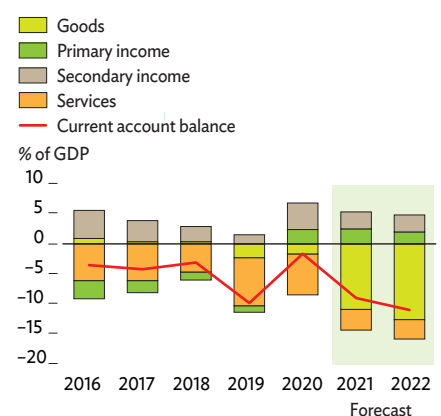
Table 3.35.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	1.2	-4.5	1.0	4.5
Inflation	1.6	3.0	2.5	3.5
Current acct. bal., share of GDP	-9.9	-1.7	-9.0	-11.0

GDP = gross domestic product.

Sources: Ministry of Finance and Treasury, Solomon Islands National Statistics Office; International Monetary Fund; Asian Development Bank estimates.

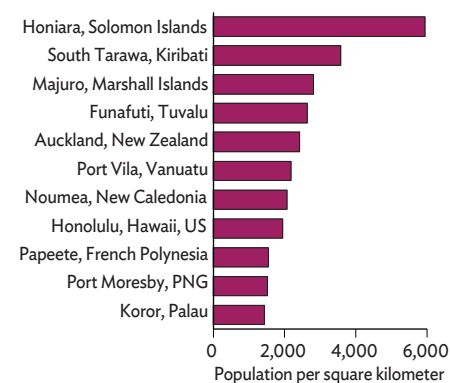
Figure 3.35.5 Current account balance



GDP = gross domestic product.

Source: Asian Development Bank estimates using data from the Central Bank of Solomon Islands and the International Monetary Fund.

Figure 3.35.6 Population density in Honiara compared with other Pacific cities



PNG = Papua New Guinea, US = United States.

Source: Asian Development Bank estimates using data from national statistical agencies.

Vanuatu

The economy contracted in 2020 under trade and travel restrictions induced by COVID-19 and the effects of Cyclone Harold. Higher spending on health care was not enough to offset falls in agriculture and tourism-related services. Inflation accelerated, and the current account fell into deficit as tourism receipts collapsed. The economy is forecast to recover in 2021 and 2022 as travel restrictions are gradually lifted. With graduation from least-developed country status, Vanuatu should emphasize human capital development.

Economic performance

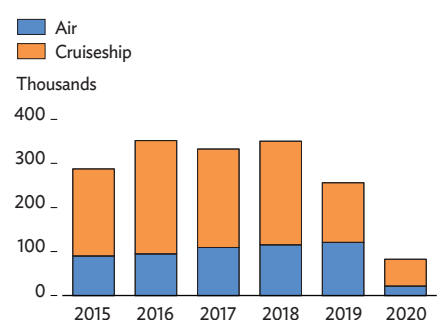
The combined impacts of COVID-19 and Cyclone Harold led to economic contraction of 9.8% in 2020. A fall in tourism severely affected the service sector, crop destruction devastated agriculture, and a pause in construction shrank industry.

In March 2020, the government responded to COVID-19 by declaring a state of emergency and imposing travel restrictions. With international travel curtailed, visitor arrivals by air contracted by 82% in 2020, and cruise ship arrivals by 60% (Figure 3.36.1). In April, the Vanuatu Tourism Office reported the tourism industry suffering a 70% reduction in full-time employment, with part-time employment down by a third.

In the first week of April, category 5 Cyclone Harold hit Vanuatu, causing major damage in and around Luganville, the second-largest city. Agriculture contracted significantly as the storm damaged root crops and other staples. Industry also contracted. Whereas quick mobilization of resources for reconstruction after Cyclone Pam in 2015 allowed Vanuatu to avoid economic contraction that year, such mobilization was impossible in 2020 as trade and travel restrictions hampered the importation of construction materials and workers.

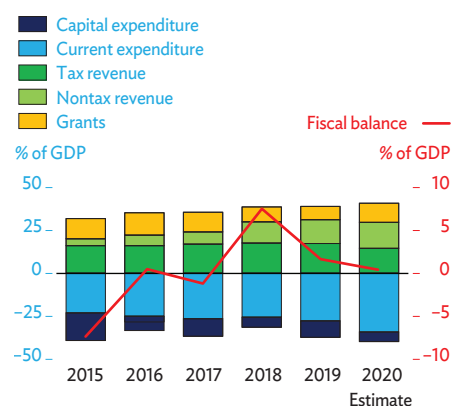
Restrictions on imports deferred several public projects, reducing capital spending by 36%. The government, however, increased spending on health preparedness and economic stimulus, providing massive increases in subsidies and transfers. Current expenditure increased by 14%. Grants from development partners rose by 19% over 2019, and nontax revenue, mainly from Honorary Citizenship Programs, increased by 9%. With weak consumption pushing tax revenue lower by 20%, the overall fiscal surplus in 2020 went down to 0.4% of GDP, from 1.7% in 2019. (Figure 3.36.2).

Figure 3.36.1 Visitor arrivals



Source: Vanuatu National Statistics Office.

Figure 3.36.2 Fiscal balance



GDP = gross domestic product.

Source: Asian Development Bank estimates using data from Vanuatu Department of Finance and Treasury.

Inflation accelerated to 4.3% in the first half (H1) of 2020 in response to crop damage and supply disruption but slowed in H2 as the economy weakened. Inflation in the whole of 2020 increased slightly from 2.8% in 2019 to 3.0% (Figure 3.36.3). The Reserve Bank of Vanuatu, the central bank, cut its key policy rate from 2.90% to 2.25% and reduced capital adequacy requirements in March, maintaining these expansionary policies for the rest of the year. The current account reversed a surplus equal to 12.3% of GDP in 2019 with a 1.0% deficit in 2020, largely reflecting the steep fall in tourism receipts.

Economic prospects

Growth is expected to return at 2.0% in 2021 and double to 4.0% in 2022 as trade and travel restrictions are gradually lifted (Figure 3.36.4 and Table 3.36.1). Recovery will hinge on a successful vaccination rollout and the establishment of travel bubbles with Vanuatu's main tourism markets: Australia, which provides 50% of visitors by air; New Zealand, providing 13%; and New Caledonia, 12%.

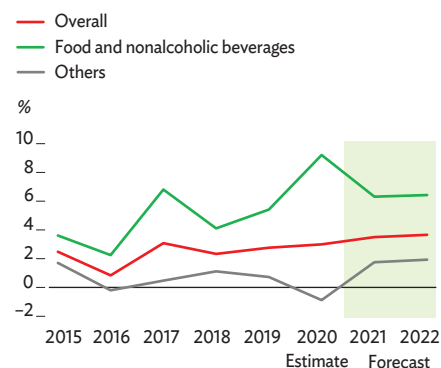
Vanuatu will rely mainly on development partners for vaccines. The COVID-19 Vaccines Global Access (COVAX) is expected to provide free doses for 20% of the population in a vaccination program scheduled to begin in H2 2021, with widespread coverage anticipated toward the end of 2023. Considering Vanuatu's geographic challenges, economic and tourist centers may receive vaccinations first to speed recovery. As of 31 March, Vanuatu had recorded three COVID-19 cases, all repatriates.

With air travel restrictions expected to ease in H2 2021, air arrivals in 2021 are forecast higher than the 22,000 recorded in 2020. Stronger tourism growth is expected in 2022, but restoring peak air arrivals—120,600, recorded in 2019—is not expected in the medium term. Growth in cruise ship arrivals may be stronger than air arrivals, but they tend to benefit the local economy less. Construction is expected to accelerate with priority on reconstructing schools and health facilities damaged by Cyclone Harold. Other high-priority projects include transport infrastructure and improving access to energy and telecommunications services, especially in rural areas.

The 2021 budget projects a fiscal deficit equal to 4.0% of GDP with expenditure rising by 8.1% while revenues are down by 3.5%. The fall in revenues is mainly driven by the 34.5% decline in grants, despite the 25.7% increase in taxes. While current expenditure is expected to increase by 11.0%, capital expenditure is seen to fall by 6.0%. Fixed asset investment in 2021 is seen to tap funds carried over from 2020 (Figure 3.36.5).

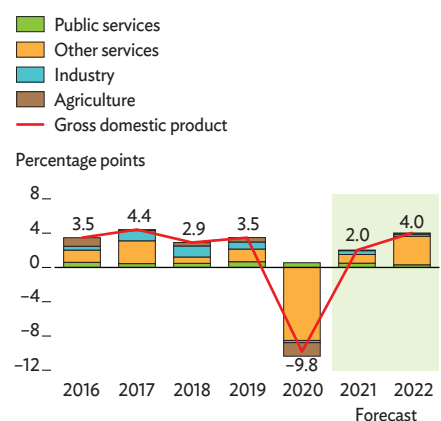
Inflation is expected to rise gradually to 3.5% in 2021 and 3.7% in 2022 in tandem with higher global commodity prices and domestic demand as the economy recovers. With inflation

Figure 3.36.3 Inflation



Source: Vanuatu National Statistics Office; Asian Development Bank estimates.

Figure 3.36.4 Supply-side contributions to growth



Source: Asian Development Bank estimates using data from the Vanuatu National Statistics Office.

Table 3.36.1 Selected economic indicators, %

	2019	2020	2021	2022
GDP growth	3.5	-9.8	2.0	4.0
Inflation	2.8	3.0	3.5	3.7
Current acct. bal., share of GDP	12.3	-1.0	-2.5	1.8

GDP = gross domestic product.

Sources: Vanuatu National Statistics Office; International Monetary Fund; Asian Development Bank estimates.

likely to remain within the central bank target band of 1%–4%, accommodative monetary policy is expected to continue. The current account is forecast to remain in deficit in 2021 before returning to surplus in 2022 as tourism recovers (Figure 3.36.6). Aside from tourism receipts, the size of the 2021 deficit will depend on grants, the pace of reconstruction and associated imports, and Honorary Citizen Program revenue. Remittances from workers participating in seasonal worker programs in Australia and New Zealand are expected to rise but remain relatively small.

The main risk to the forecast stems from uncertainty about tourism. If borders remain closed for the rest of 2021, the economy is likely to contract further, which may widen fiscal and current account deficits.

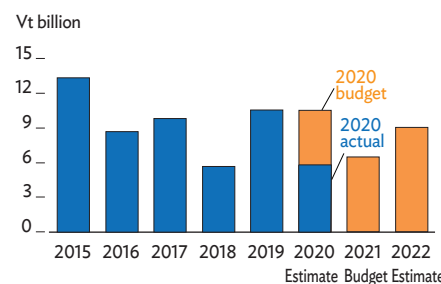
Policy challenge—accelerating human capital development

In 2020, Vanuatu graduated from least-developed country status by meeting two thresholds, for income per capita and, since 2001, human assets. A third criteria, economic vulnerability, is unlikely to be met soon mainly due to Vanuatu's exposure to climatic and volcanic hazards. Human capital development is a strength of Vanuatu, with significant improvements in maternal mortality and adult literacy as income per capita rose (Figure 3.36.7).

Human asset accumulation must accelerate to speed development as the economy recovers. The pandemic has shown how jobs and entire industries can disappear overnight. Workers need to adapt quickly and learn new skills. The capacity to reskill relies on basic literacy and numeracy learned in primary and secondary school. A Department of Tourism survey revealed that more than 85% of medium and large businesses find it difficult to recruit enough workers with the required skills.

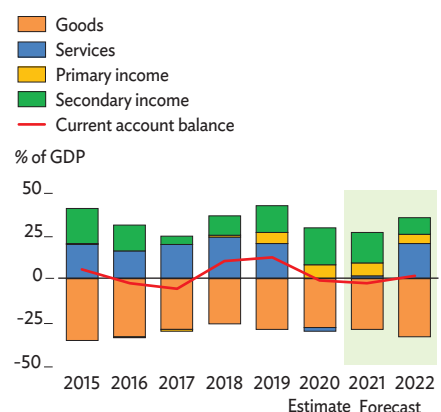
Plans to achieve Sustainable Development Goals for improved human capital and other targets were outlined in the Voluntary National Review 2019. A language policy was developed and the curriculum revised to make the vernacular the language of instruction in early grades to improve literacy. School grants provided under the Universal Primary Education Policy to ensure truly free education up to grade 6 have been instrumental in boosting primary school enrollment to 100%. The government aims to extend free education to secondary school by 2030, to raise enrollment rate from 47% in 2019. Education and other targets are regularly monitored in budget policy statements to ensure proper financing and the achievement of midterm targets.

Figure 3.36.5 Fixed asset investments



Sources: Vanuatu Department of Finance and Treasury; International Monetary Fund; Asian Development Bank estimates.

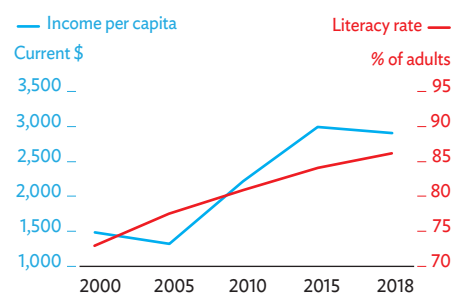
Figure 3.36.6 Current account balance



GDP = gross domestic product.

Source: Asian Development Bank estimates using data from the Reserve Bank of Vanuatu.

Figure 3.36.7 Income per capita and literacy



Note: Income per capita is based on gross national income using World Bank Atlas methodology for converting the local currencies into United States dollars. Indicator values are 3-year averages.

Source: United Nations Committee for Development Policy Secretariat.

Central Pacific economies

Although free of COVID-19 infections so far, the Central Pacific economies of Kiribati, Nauru, and Tuvalu saw economic growth slow as trade and travel restrictions delayed infrastructure projects. Despite some supply problems, inflation remained subdued in line with soft global prices. Growth is expected to recover in Nauru and Tuvalu in 2021 but deteriorate further in Kiribati. With higher spending needed for health preparedness, governments must set spending priorities and implement financial reform to enable steady and sustainable recovery.

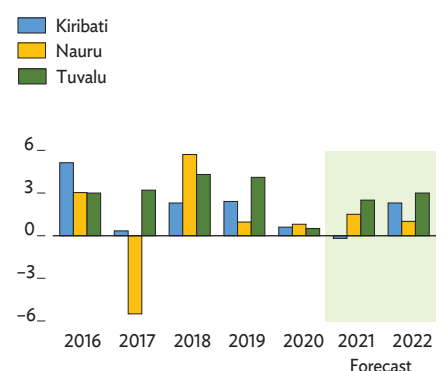
Economic performance and prospects

Kiribati

Despite a global economic downturn, the Kiribati economy grew slightly in 2020, though less than in 2019 (Figure 3.37.1 and Table 3.37.1). Border closure in response to COVID-19 interrupted imports of goods for large infrastructure projects and the services of stranded international contractors and consultants, which adversely affected hotels, restaurants, and retail. The economy is expected to shrink by 0.2% in 2021 as the resumption of economic activity is further delayed by the government's continued restrictions on the movement of goods and people until after the arrival of the first batch of vaccines, likely in the second quarter (Q2) of 2021. Vaccines are expected to be administered to 20% of the population by the end of that quarter or in Q3. The restrictions are likely to continue to affect major infrastructure projects. Further, reduced port operations could slow locally financed construction. Growth is expected to recover to 2.3% in 2022 driven by the resumption of major infrastructure projects and locally financed construction as ports operations normalize.

For the first time since 2012, Kiribati posted a fiscal deficit in 2020, equal to 0.7% of GDP, as the government ramped up current expenditure by 34.9% (Figure 3.37.2). Fishing revenue was 19.0% lower than in 2019 but still slightly above recent historical trend (Figure 3.37.3). The forecast fiscal gap in 2021 equals 13.3% of GDP, to be filled with a planned \$28.6 million drawdown from the Revenue Equalization Reserve Fund. Recurrent costs such as wages and salaries, social welfare

Figure 3.37.1 GDP growth

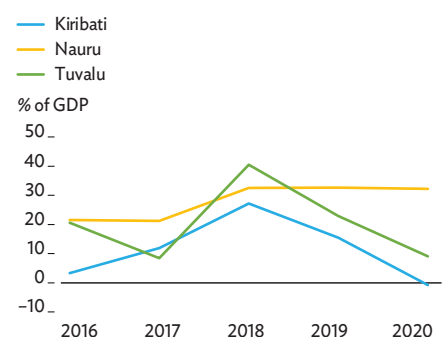


GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year in Nauru and coinciding with the calendar year in Kiribati and Tuvalu.

Sources: Kiribati budget documents; Nauru budget documents; Tuvalu budget documents; International Monetary Fund Article IV Reports; Asian Development Bank estimates.

Figure 3.37.2 Fiscal balance



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year in Nauru and coinciding with the calendar year in Kiribati and Tuvalu.

Sources: Kiribati budget documents; Nauru budget documents; Tuvalu budget documents; International Monetary Fund Article IV Reports; Asian Development Bank estimates.

benefits, and land rents are the main contributors to the deficit. The fiscal position in 2022 will be a deficit equal to 12.7% of GDP, sustained by a resumption of infrastructure projects following vaccine rollout and likely financed from government cash reserves.

Inflation turned positive in 2020 but remained subdued with global fuel prices declining from 2019 to 2020 (Figure 3.37.4). Inflation from Q4 2021 and into 2022 is projected to pick up slightly as costs for imports of commodities and construction materials rise with economic recovery in major markets.

The current account surplus narrowed to the equivalent of 3.9% of GDP in 2020 as import interruption failed to match lower fishing receipts (Figure 3.37.5). The surplus is expected to narrow further in 2021 as fishing revenue falls further. In 2022, the surplus is expected to revive to 2019 levels as a rebound in fishing receipts outpaces higher imports for capital projects, which will resume in Q4 2021 and into 2022.

Nauru

Economic growth in Nauru eased slightly to 0.8% in fiscal year 2020 (FY2020, ended 30 June 2020), mainly from pandemic-induced disruption to travel and shipping. GDP growth is expected to revive to 1.5% in FY2021 with the continuation of infrastructure projects including Nauru Port rehabilitation and upgrade (with construction expected to extend through FY2022). Growth will then move back down to 1.0% in FY2022 with the impending closure of the Australia-financed Regional Processing Centre (RPC). Full vaccination is expected by July 2021.

Government expenditure rose by 22.3% in FY2020, a significant amount of it was used to prepare health facilities and support state-owned enterprises that provide vital public services. Operations at the RPC, which provides half of fiscal revenue, were extended from June to December 2020 and subsequently to June 2021. Total revenue rose by 17.3% in FY2020, leaving a fiscal surplus equal to 32.2% of GDP, little changed from the previous year.

Expenditure is expected to grow in FY2021 by more than 18% from FY2020 largely from the purchase of a freight aircraft for Nauru Air and costs associated with RPC extension. As grants and other revenue are expected to increase by only 5.0%, the fiscal surplus is forecast to fall by nearly half to the equivalent of 16.7% of GDP. Fiscal surpluses go mainly into the Nauru Trust Fund and a fiscal cash buffer.

Inflation eased in FY2020 to 1.0% with lower price increases for food, alcoholic beverages, tobacco, and communication. To ensure the continued supply of goods, the government maintained at least one weekly freight flight to Brisbane, Australia. Inflation is expected to remain low.

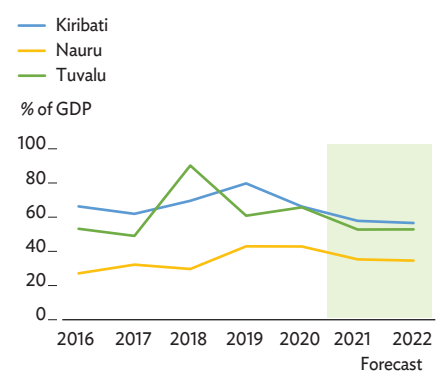
Table 3.37.1 Selected economic indicators, %

Kiribati	2019	2020	2021	2022
GDP growth	2.4	0.6	-0.2	2.3
Inflation	-1.8	1.0	1.1	1.5
Current acct. bal., share of GDP	7.5	3.9	2.8	7.5
Nauru				
GDP growth	1.0	0.8	1.5	1.0
Inflation	4.3	1.0	1.1	2.0
Current acct. bal., share of GDP	10.4	4.6	...	...
Tuvalu				
GDP growth	4.1	0.5	2.5	3.0
Inflation	3.5	1.6	3.3	3.5
Current acct. bal., share of GDP	-6.9	-0.4	1.9	4.5

... = unavailable, GDP = gross domestic product.

Source: Asian Development Bank estimates.

Figure 3.37.3 Fishing license revenue



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year in Nauru and coinciding with the calendar year in Kiribati and Tuvalu.

Sources: Kiribati budget documents; Nauru budget documents; Tuvalu budget documents; International Monetary Fund Article IV Reports; Asian Development Bank estimates.

A 1.9% increase in Q1 FY2021 from a year earlier reflected a 20% increase in cigarette and alcohol import duties but is expected to be offset in the year as a whole by lower residential electricity tariffs.

The current account surplus fell to equal 4.6% of GDP in FY2020 as service exports suffered with reduced operations by Nauru Airlines. With uncertainty over the future of the RPC, the International Monetary Fund recommended setting up a fiscal cash buffer holding enough to cover at least 2 months of non-RPC related expenditure. At the end of Q2 FY2021, the buffer was estimated to have four times this requirement.

Tuvalu

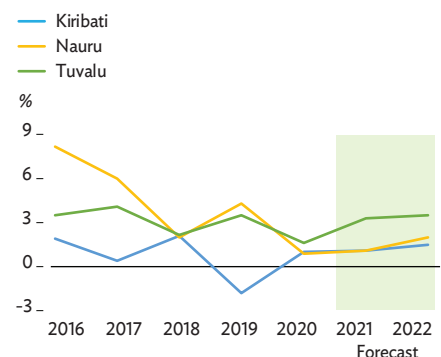
Tuvalu posted GDP growth estimated at 0.5% in 2020 as fiscal stimulus remained stable despite a drop in recurrent revenue. Early action to restrict international travel kept the country COVID-19 free but hampered capital projects. The growth outlook over the medium term remains positive, at 2.5% in 2021 and 3.0% in 2022, with support from new infrastructure projects under the government's strategic plan, 2021–2030.

Higher fishing revenue and budget support from development partners helped offset the government's pandemic-related spending to procure personal protective equipment, repatriate its citizens, and cover cash relief payments. The fiscal balance was a surplus equal to 9.1% of GDP in 2020 but lower than 22.9% in 2019. Despite an anticipated 22.7% increase in expenditure in 2021, the government planned a balanced budget achieved through a 20.7% rise in budget support from development partners and a 13.1% increase in domestic revenue. A key outlay will be preparations to establish a new domestic airline, and a boost to capital revenue is expected from the sale of a ship.

Inflation is estimated to have been lower at 1.6% in 2020, held down by subdued international commodity prices and price surveillance measures introduced by the government. Little change is expected in 2021 or 2022, but prices are foreseen coming under pressure further into the future from higher commodity prices and increased duties on unhealthy products.

The current account deficit equaled 0.4% of GDP in 2020, a notable drop after capital imports ran up the trade deficit in 2019. Projected imports for grant-funded infrastructure projects in 2021 to 2022 are forecast to be partly offset by higher fishing receipts.

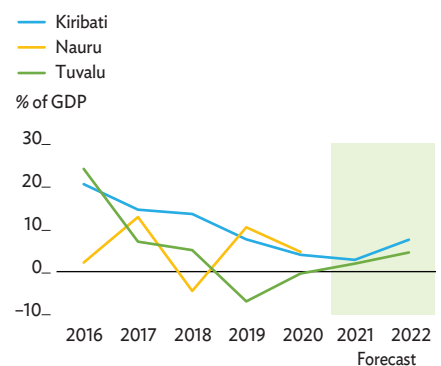
Figure 3.37.4 Inflation



Note: Years are fiscal years ending on 30 June of that year in Nauru and coinciding with the calendar year in Kiribati and Tuvalu.

Sources: International Monetary Fund Article IV Reports; Asian Development Bank estimates.

Figure 3.37.5 Current account balance



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 June of that year in Nauru and coinciding with the calendar year in Kiribati and Tuvalu. Forecasts are unavailable for Nauru.

Sources: International Monetary Fund Article IV Reports; Asian Development Bank estimates.

Policy challenge—pursuing fiscally strategic policies amid pandemic spending

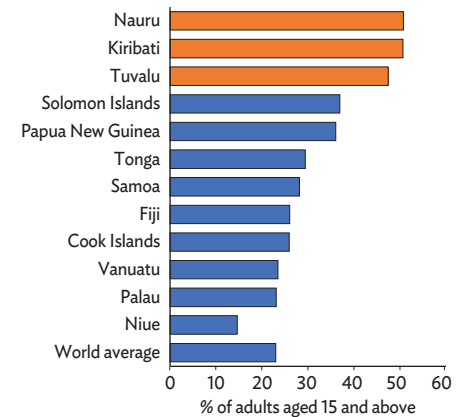
The three Central Pacific economies are fortunate not to have suffered a single case of COVID-19. Their geographic isolation and dispersion, long regarded as economic hindrances, helped a lot. However, quick government action was also crucial—closing borders and implementing quarantine and testing protocols—all the more necessary in light of how vulnerable their populations were because of scarce health facilities and high incidence of risk factors from preexisting conditions. Adult obesity, for example, is well above the world average of 13% in all three countries: at 61% in Nauru, 52% in Tuvalu, and 46% in Kiribati. Evidence is mounting of a link between obesity and worse health consequences from COVID-19. Further, the World Health Organization reported in 2020 that half of adults in these three island states use tobacco, or double the global average of 24% (Figure 3.37.6).

Despite severe fiscal constraints and no sign of the virus on their shores, governments in the Central Pacific passed large COVID-19 response packages, their costs ranging from the equivalent of 12% of GDP in Kiribati to 20% in Nauru and 47% in Tuvalu. These packages were necessary to meet the cost of health preparedness and to strengthen weak health-care systems. They imposed additional burdens on the finances of these countries, however, and stretched their relatively weak public financial management systems. As these small economies gear up for recovery, a challenge is to deploy these response packages judiciously. Using them to pursue long-term development goals can offer strategic advantages to countries with limited resources.

All of the response packages allocated spending to social protection and support for businesses to mitigate the economic impact of the pandemic. Kiribati also supported health preparedness, looking to tap its Revenue Equalization Reserve Fund. Nauru provided support to its national airline and shipping line to ensure uninterrupted deliveries of consumer goods. Tuvalu's social protection program initially included a monthly cash payment to every citizen but was later amended to target only those unemployed as a result of the pandemic. While universal cash payments are costly, governments sometimes opt for them, especially in the heat of a crisis, if the risk of exclusion error is high.

As governments roll out their response packages, they need to undertake the delicate task of balancing people's immediate needs with making investments that optimize limited resources over the long term. While sharply increased government spending is warranted in a crisis, prudent fiscal management over the medium term should be a guiding principle. Unfettered spending can threaten the sustainability of already

Figure 3.37.6 Tobacco use in the Pacific



Source: World Health Organization. 2020. World Health Statistics. <https://www.who.int/gho/en/> (accessed 20 June 2020).

stretched resources, especially in Tuvalu and Nauru. Kiribati still needs to ensure that its healthy cash balance supports long-term investment with solid development outcomes. Some capital expenditures, such as aircraft and ship purchases, have long-term fiscal implications in terms of operation and maintenance, subsidies, and associated infrastructure.

Response packages provide opportunities to pursue strategic reform that improves public financial management, thereby addressing concerns over the short and long term. Nauru raised sin taxes on alcohol and tobacco, for example, to raise domestic revenue in the short term but also to promote healthier lifestyle choices and enjoy their benefits over the long term. Tuvalu charges excise duties on alcohol, tobacco, and unhealthy processed foods. Encouraging the consumption of locally caught fish helps domestic fishers while reducing the consumption of less healthy options such as canned goods.

Governments may also consider strengthening primary health-care services as part of their recovery plans. Beyond COVID-19 response, this would better enable them to handle general public health concerns and noncommunicable lifestyle diseases. Improving facilities in satellite health clinics, for example, can ease the burden on larger hospitals, allowing them to focus more on curative care. The main hospitals in all three of these countries are generally in disrepair and struggle to deliver basic services. They and the people they serve would benefit from increased investment and operational funding to strengthen health-care services.

North Pacific economies

Restrictions on travel and mobility stalled tourism in Palau and trade in the Federated States of Micronesia and the Marshall Islands, sharply contracting economies across the North Pacific in the past fiscal year. Declines are forecast to persist through the current fiscal year, but ongoing vaccine rollouts should spur recovery thereafter. Inflation will likely remain subdued. Well-targeted assistance is critical to protecting the vulnerable during the crisis and supporting sustainable economic recovery over the medium term.

Economic performance

The COVID-19 pandemic depressed economic performance across the North Pacific in fiscal year 2020 (FY2020, ended 30 September 2020) as pandemic-related mobility restrictions stifled activity in major sectors (Figure 3.38.1).

The economy of the Federated States of Micronesia (FSM) contracted by an estimated 5.4% in FY2020, largely reflecting the impact of the COVID-19 pandemic on the private sector. Border closures and public health restrictions reduced economic activity in transportation and communications, hotels and restaurants, and wholesale and retail trade. Construction also declined but less severely.

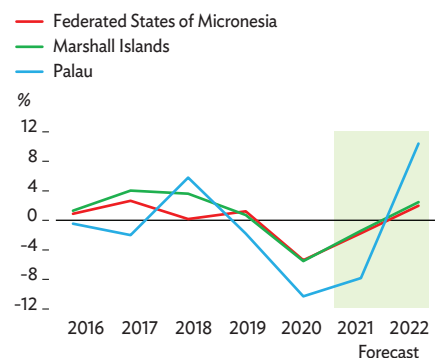
The national government entered the COVID-19 crisis in a strong fiscal position with budget surpluses over the past few years, mainly thanks to revenue from fishing fees and offshore corporate tax payments. This allowed the government to roll out a \$58.7 million response program for FY2020–FY2021 to provide economic stimulus while safeguarding health care and social protection.

The pandemic has, however, adversely affected the government's fiscal position by increasing demand for spending while eroding tax revenue. Further, fishing license fee revenues declined from the equivalent of 20.6% of GDP in FY2019 to 18.0% in FY2020, depleting the government's fiscal surplus in FY2020.

Inflation picked up to 1.6% in FY2020 owing largely to supply shocks from pandemic-related restrictions. Similarly, travel and quarantine measures affected fishing operations, modestly depressing the current account surplus.

The Marshall Islands economy also contracted in FY2020, by 5.5%. Although construction projects were implemented largely as planned, quarantine requirements for vessels

Figure 3.38.1 GDP growth in the North Pacific economies



GDP = gross domestic product.

Note: Years are fiscal years ending on 30 September of that year.

Sources: Asian Development Bank estimates using data from Republic of the Marshall Islands, Federated States of Micronesia, and Republic of Palau FY2018 *Economic Briefs* and COVID-19 *Economic Impact Assessments*.

reduced fishing output and related manufacturing, as well as demand for such onshore services as fish containerization and transshipment, supply provisioning, and net repair. Further, travel restrictions, including a general ban on inbound travel since March 2020, stalled activity in the country's limited hospitality services. Fewer visitors and reduced local demand shrank wholesale and retail trade.

Mobility restrictions caused supply bottlenecks that helped push up prices, but this was offset by diminished demand, keeping inflation low. These factors also reduced imports, narrowing the merchandise trade deficit. This smaller trade deficit, together with higher grant inflows from development partners to help the Marshall Islands respond to the COVID-19 pandemic, expanded the current account surplus to 13.8% of GDP from 9.4% in FY2019.

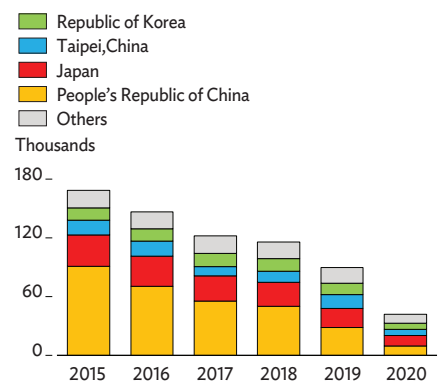
The fiscal deficit widened to equal 4.9% of GDP in FY2020, more than double the FY2019 deficit, as diminished economic activity cut revenue and the Marshall Islands' Coronavirus Preparedness and Response Plan boosted spending. Rather than borrow, the government reallocated unspent funds and obtained grant assistance from development partners. Public debt was estimated to equal 30.6% of GDP at the end of FY2020, down slightly from 31.5% at the end of FY2019.

The economy of Palau—among the most tourism-driven in the world, with a tourist-resident ratio of almost 10:1 in FY2015—recorded double-digit contraction in FY2020. Global travel restrictions in response to the COVID-19 pandemic cut short a nascent recovery from a tourism downturn that started in FY2016. From October 2019 to January 2020, the first 4 months of FY2020, visitor arrivals had already reached 46.4% of arrivals in the whole of FY2019. However, the pandemic saw arrivals fall by 43% year on year in February 2020, by 70% in March, and by 99% in April–September. As a result, arrivals in the whole of FY2020 fell by 53% to below 42,000 (Figure 3.38.2).

To counter the economic impact of border closures in response to the pandemic, the government established the \$20 million Coronavirus Relief One-Stop Shop (CROSS) Program, which provides assistance to the private sector. Additional spending under this program, along with a 25% decline in tax collections from subdued economic activity, pushed Palau in FY2020 into its first fiscal deficit in a decade, equal to 11.2% of GDP.

Weak domestic demand and soft international commodity prices kept inflation in check during FY2020 (Figure 3.38.3). Although low commodity prices also helped reduce the import bill, this was not enough to offset the collapse in tourism receipts, and the Palau current account deficit widened to 32.6% of GDP in 2020.

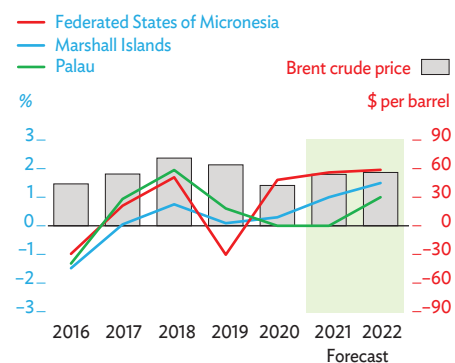
Figure 3.38.2 Visitor arrivals in Palau, by source



Notes: Years are fiscal years ending on 30 September of that year.

Source: Palau Bureau of Labor and Immigration.

Figure 3.38.3 Inflation in the North Pacific economies



Note: Years are fiscal years ending on 30 September of that year.

Sources: Asian Development Bank estimates using data from Republic of the Marshall Islands, Federated States of Micronesia, and Republic of Palau FY2018 *Economic Briefs*.

Economic prospects

The North Pacific economies are projected to continue to contract in FY2021, though less than in FY2020, and recover in FY2022 as the impact of the COVID-19 pandemic dissipates (Table 3.38.1). The primary risk to this outlook arises from possibly delayed vaccine rollouts, particularly in these island states' main economic partners. If sources of tourists and fishing fleets continue to experience COVID-19 disruptions beyond FY2021, recovery will be weaker in FY2022.

After sharp contraction in FY2020, GDP in the FSM is expected to shrink more moderately in FY2021 before returning to 2.0% growth in FY2022. The outlook assumes that public health measures restricting travel, trade, and mobility will remain in force through most of FY2021. Consequently, sustained declines are seen in transportation, tourism, and related services. Transportation is projected to decline by a further 14% in FY2021, while formal employment in hotels and restaurants is expected to fall by a further 75%, following a 46% decline in FY2020.

Sustained progress in vaccination will likely allow easier restrictions on mobility and economic activity within the forecast horizon. At the end of March 2021, 14.9% of the population had received their first dose and 9.3% had been fully vaccinated, according to the US Center for Disease Control Vaccine Tracking System (here and other country data below).

Inflation is forecast to rise gradually to 1.9% in FY2021 and 2.0% in FY2022 in line with a projected recovery in economic activity despite continuing pandemic-related restrictions. Prolonged restrictions may continue to reduce remittances and revenue from fishing, thereby further narrowing the current account surplus.

In the Marshall Islands, construction, trade, and transportation are expected to remain subdued for most of FY2021, and the economy is projected to contract by 1.4%. However, vaccination against COVID-19 is expected to allow cautious reopening of the economy in late FY2021. At the end of March 2021, 21.4% of the population had received their first dose and 13.6% were fully vaccinated. The economy is expected to return to expansion in FY2022, growing by 2.5% as more of the population is protected from COVID-19 and business activity resumes.

Inflation is forecast to accelerate to 1.0% in FY2021 and 1.5% in FY2022 in line with higher international commodity prices and domestic demand. The Marshall Islands is projected to realize current account surpluses in both years but lower than in FY2020 as grant inflows decline and imports normalize. The fiscal deficit is projected to equal 15.4% of GDP in FY2021 and 3.8% in FY2022, influenced by spending under the country's COVID-19 response plan (Figure 3.38.4).

Table 3.38.1 Selected economic indicators, %

Federated States of Micronesia	2019	2020	2021	2022
GDP growth	1.2	-5.4	-1.8	2.0
Inflation	-1.0	1.6	1.9	2.0
Current acct. bal., share of GDP	24.8	21.6	15.0	10.2
Marshall Islands				
GDP growth	0.7	-5.5	-1.4	2.5
Inflation	0.1	0.3	1.0	1.5
Current acct. bal., share of GDP	9.4	13.8	8.2	5.6
Palau				
GDP growth	-1.8	-10.3	-7.8	10.4
Inflation	0.6	0.0	0.0	1.0
Current acct. bal., share of GDP	-26.9	-32.6	-36.0	-33.0

GDP - gross domestic product.
 Note: Years are fiscal years ending on 30 September of that year.
 Source: Asian Development Bank estimates.

Further contraction of 7.8% is projected for Palau in FY2021 (Figure 3.38.5). A travel bubble with Taipei, China—Palau's third-largest source of tourists before COVID-19—started in April and has provided a welcome boost to tourism. At the end of March 2021, 46.9% of the population had received their first dose and 29.3% were fully vaccinated. This should put Palau among the first countries globally to be mostly vaccinated against COVID-19, creating potential for broader resumption in tourism late in the fiscal year. However, these achievements are unlikely to stave off a further decline in annual arrivals this year. In FY2022, economic growth of 10.4% is expected, with tourist arrivals expected to rebound to above the FY2020 total, but with full recovery to the level before COVID-19 seen occurring in FY2023 at the earliest.

A low-inflation environment is expected to persist in FY2021 and FY2022 as domestic demand remains depressed amid lingering COVID-19 economic impacts. Reflecting projected trends in tourism receipts, the current account deficit is forecast to widen further in FY2021 before narrowing in FY2022 as arrivals begin to recover.

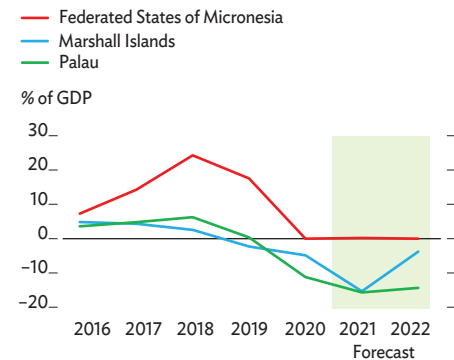
Policy challenge—supporting livelihoods and mitigating social vulnerability

Although extensive precautions prevented significant COVID-19 outbreaks in the FSM and the Marshall Islands—and allowed Palau to avoid any COVID-19 cases—their economic fallout has been severe (Table 3.38.2). The brunt of the impact has fallen on private businesses, whose fund flows are less stable than those of the public sector, and on women and informal workers, who may lack access to social safety nets that tend to be more available to the formally employed. Prolonged local mobility restrictions have made it difficult for people to access education and health care, affecting long-term human capital development and growth.

COVID-19 response plans in the North Pacific were developed to mitigate losses of income and livelihoods arising from the pandemic and to protect the vulnerable. These plans also include measures to head off the risk of outbreak by building health sector capacity to better detect and manage any local cases of COVID-19.

The FSM is implementing an economic stimulus package comprising subsidies and rebates to qualified businesses, temporary unemployment assistance to migrant workers rendered jobless by the pandemic, and concessional lending to small and microenterprises. The plan includes social protection measures such as a food security program and financial support to eligible low-income households and citizens stranded abroad.

Figure 3.38.4 Fiscal balances in the North Pacific economies

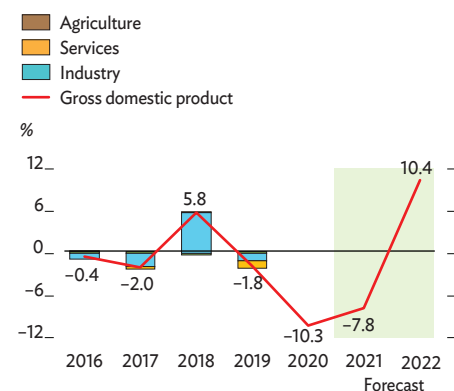


GDP = gross domestic product.

Note: Years are fiscal years ending on 30 September of that year.

Sources: Asian Development Bank estimates using data from Republic of the Marshall Islands, Federated States of Micronesia, and Republic of Palau FY2018 *Economic Briefs* and COVID-19 *Economic Impact Assessments*.

Figure 3.38.5 Supply-side contributions to growth in Palau



Note: Years are fiscal years ending on 30 September of that year.

Sources: Republic of Palau FY2019 *Economic Review*; Asian Development Bank estimates.

The Marshall Islands' Coronavirus Preparedness and Response Plan provides, among other benefits, \$900–\$50,000 in assistance to businesses, including small and informal ones, that can demonstrate adverse impacts from the COVID-19 pandemic; fishing and farming equipment and monthly food baskets to more remote communities; and support for such essential services as water supply, sanitation, and education. The government is working to sustain ongoing prepandemic social protection programs that specifically target women, children with disabilities, and other vulnerable groups.

In Palau, relief measures under the CROSS Program include (i) unemployment benefits of up to \$100 per week for workers whose employment was terminated, suspended, or reduced; (ii) temporary employment schemes shifting private sector workers to projects administered by the public sector or nongovernment organizations; (iii) the expansion of a lifeline utility subsidy to cover pandemic-affected households; and (iv) interest-free lending to finance affected businesses' fixed costs. The program covers migrant workers as well as self-employed people and informal businesses. CROSS Program assistance was initially scheduled to expire after January 2021 but has been extended—possibly to the end of FY2021.

Higher resource requirements imposed by COVID-19 response plans are being met by grants, own-fund reallocation by governments, and, in Palau, concessional borrowing. All three North Pacific economies have benefited from additional pandemic relief under the US Coronavirus Aid, Relief, and Economic Security Act. In Palau, for example, some 1,200 beneficiaries had received \$14.6 million in unemployment assistance by November 2020. Such substantial financial assistance immediately mitigates the adverse impacts of the ongoing downturn, then should facilitate swift economic recovery.

Efficient targeting and implementation will be key to maximizing the impact of these response plans. Development partners supported the design of parts of these plans and helped conduct rapid assessments to identify the most vulnerable households. Support for, and expansion of, ongoing programs enable the use of existing mechanisms to provide assistance. Besides mitigating significant risks to public health, these COVID-19 response plans are expected to help keep businesses open and bolster consumer demand, especially from lower-income households, thereby sustaining human capital development.

Table 3.38.2 COVID-19 cases in the North Pacific

Country	Active cases	Recovered	Deaths
Federated States of Micronesia	0	1	0
Marshall Islands	0	4	0
Palau	0	0	0

COVID-19 = Coronavirus Disease 2019.

Note: Data as of 31 March 2021.

Source: M. Roser et al. 2020. *Coronavirus Pandemic (COVID-19)*. <https://ourworldindata.org/coronavirus>.

South Pacific economies

Tourist-dependent economies continue to deteriorate in the South Pacific as the COVID-19 pandemic drags on, with economic contraction and fiscal deficits forecast to deepen in 2021, especially in the Cook Islands. Inflation is muted and projected to remain so, but the collapse of tourism will intensify pressure on current account balances. Until tourists return, the survival of the private sector and its eventual contributions to recovery depend on effective government stimulus and capital programs.

Economic performance and prospects

Recovery in the South Pacific following economic contraction induced by COVID-19 in fiscal year 2020 (FY2020, ended 30 June 2020) will be uneven. It will depend on the diverse fiscal and border responses of these small island states and on their varying reliance on tourism. All economies will remain below their pre-pandemic levels until after FY2022 (Figure 3.39.1).

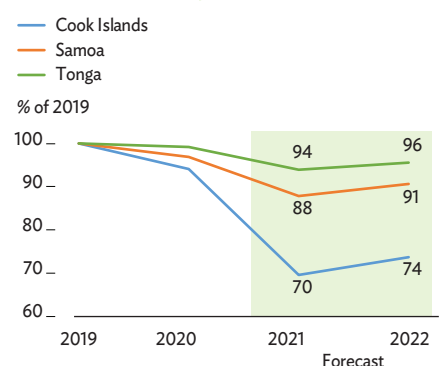
Cook Islands

While ensuring no local COVID-19 cases, border closures delayed construction and eliminated tourist arrivals. Government response measures moderated the impact of these closures, but the economy still reversed 5.3% growth in FY2019 to contract by 5.9% in FY2020 (Figure 3.39.2 and Table 3.39.1). Economic activity is projected to contract by a further 26.0% in FY2021 with gradual recovery expected only at the very end of 2021, if a proposed travel bubble between the Cook Islands and New Zealand materializes. Quarantine-free travel only for Cook Islands residents and migrant workers has operated sporadically since 21 January 2021. The government expects to roll out a nationwide COVID-19 vaccination program in the second half of 2021.

The economy is expected to recover with growth at 6.0% in FY2022, when two-way quarantine-free travel with New Zealand is expected. Downside risks would be further delays to the commencement of travel for tourists, as well as the possibility of new local cases in New Zealand or the Cook Islands.

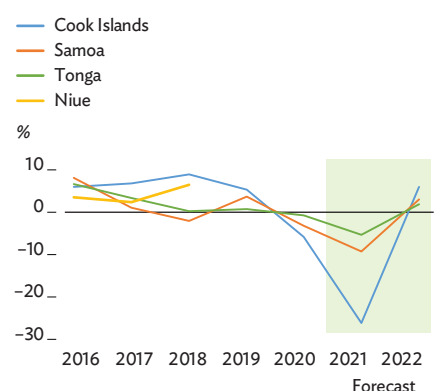
Inflation remained low at 0.7% in FY2020 (Figure 3.39.3). Slight price increases for electricity, fuel, communication, food,

Figure 3.39.1 Gross domestic product compared with 2019



Note: Years are fiscal years ending on 30 June of that year. Sources: Cook Islands Ministry of Finance and Economic Management; Samoa Bureau of Statistics; Tonga Department of Statistics; Asian Development Bank estimates.

Figure 3.39.2 Economic growth



Note: Years are fiscal years ending on 30 June of that year. Sources: Cook Islands Ministry of Finance and Economic Management; Statistics Niue; Samoa Bureau of Statistics; Tonga Department of Statistics; Asian Development Bank estimates.

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and nonalcoholic beverages were countered by falling prices for electronic equipment. Inflation is forecast to accelerate to 1.0% in FY2021 before falling back to 0.7% in FY2022.

The government reported a fiscal deficit equal to 2.8% of GDP in FY2020, reversing a 5.0% surplus in FY2019 (Figure 3.39.4). The deficit is projected to reach 33.1% of GDP in FY2021, reflecting 14.9% of GDP in government spending in response to COVID-19, mainly wage and business subsidies, and a 45.2% fall in tax revenue. The deficit is expected to be financed by government cash reserves, grant financing from New Zealand, and a loan from the Asian Development Bank. A fiscal deficit equal to 11.2% of GDP is projected for FY2022 as tax revenue begins to improve and spending normalizes. Net government debt equaled 16.3% of GDP at the end of June 2020, but the government expects it to reach 42.3% by the end of FY2021, well above the national guideline threshold of 35.0%.

The current account fell from surplus into a deficit equal to 6.0% of GDP in FY2020 as tourism receipts plummeted (Figure 3.39.5). The deficit is projected to double to 12.5% of GDP in FY2021 after a full fiscal year of almost no tourism. Expected tourism recovery in FY2022 should restore the current account to a surplus of 5.1%.

Samoa

A measles outbreak in late 2019 and COVID-19 in 2020 caused GDP to contract by 3.2% in FY2020 despite government stimulus costing the equivalent of 3.1% of GDP. As visitor arrivals fell by 30.2% (Figure 3.39.6), commerce declined by 4.4% and manufacturing by 12.8%. Remittances held strong, growing by 4.9%.

Economic recovery is forecast for 2022, only after full vaccine coverage is achieved and international travelers return in significant numbers. By then, Samoa will have had no international tourists for 2 years. Despite government stimulus equal to 4.2% of GDP, the forecast is for GDP to contract by 9.2% in FY2021, recovering to 3.1% growth in 2022 amid intense competition for tourists.

After moderating to 1.5% in FY2020, consumer inflation turned negative in the second half of 2020. Deflation is expected to reach 2.5% in FY2021 as agricultural production rises and prices fall for imports and for domestic utilities subsidized through government stimulus. Recovery in local demand and import prices is expected to revive inflation to 2.7% in FY2022.

Samoa recorded a fiscal surplus equal to 6.2% of GDP in FY2020 as international grant assistance complemented domestic tax receipts that exceeded expectations, and as underspending of the capital budget saw capital expenditure plunge by 47.2%. The resulting avoidance of debt financing

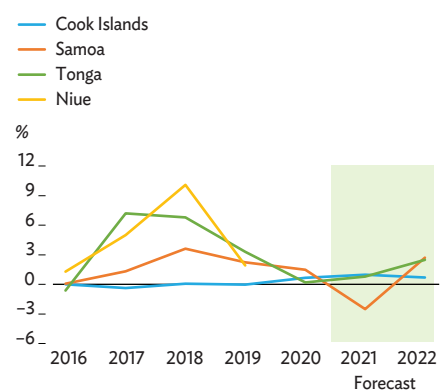
Table 3.39.1 Selected economic indicators (%)

Cook Islands	2019	2020	2021	2022
GDP growth	5.3	-5.9	-26.0	6.0
Inflation	0.0	0.7	1.0	0.7
Current acct. bal. (share of GDP)	33.4	-6.0	-12.5	5.1
Samoa				
GDP growth	3.6	-3.2	-9.2	3.1
Inflation	2.2	1.5	-2.5	2.7
Current acct. bal. (share of GDP)	3.0	1.2	-6.4	-10.4
Tonga				
GDP growth	0.7	-0.8	-5.3	1.8
Inflation	3.3	0.2	0.8	2.5
Current acct. bal. (share of GDP)	-0.8	-3.8	-11.5	-9.4

GDP = gross domestic product.

Sources: Cook Islands Ministry of Finance and Economic Management; Samoa Bureau of Statistics; Tonga Department of Statistics; Asian Development Bank estimates.

Figure 3.39.3 Inflation



Note: Years are fiscal years ending on 30 June of that year.

Sources: Cook Islands Ministry of Finance and Economic Management; Statistics Niue; Samoa Bureau of Statistics; Tonga Department of Statistics; Asian Development Bank estimates.

reduced government debt outstanding to the equivalent of 46.3% of GDP by the end of FY2020. A fiscal deficit equal to 3.1% of GDP is projected in FY2021 due to continued stimulus measures and weakness in tax receipts offsetting a rapid increase in grant financing from development partners.

The current account surplus narrowed to 1.2% of GDP in FY2020 as a 20.4% fall in tourism receipts and other service exports dwarfed a 6.7% decline in goods imports. Despite robust remittances in FY2021, the current account is forecast to fall into a deficit equal to 6.4% of GDP because of increased imports to supply construction and a complete absence of tourism receipts. Remittances are expected to moderate from recent highs in FY2022, with the current account deficit projected widening to 10.4% of GDP.

Tonga

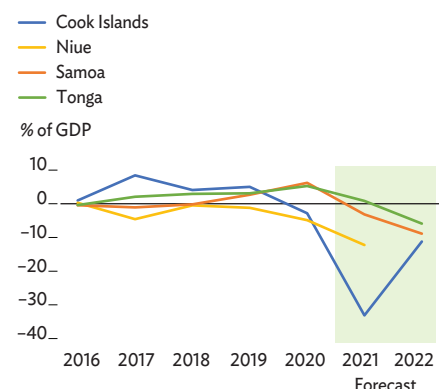
Already slow recovery from Tropical Cyclone Gita in February 2018 was derailed by the twin shocks of Tropical Cyclone Harold in April 2020 and COVID-19, causing the economy to contract by an estimated 0.8% in FY2020, most notably from declines in construction and tourism. A further decline in tourism and delays in construction projects are forecast to cause a deeper contraction of 5.3% in FY2021. While growth is expected to return in FY2022, it will be constrained to a projected 1.8% as remittances normalize off recent record highs and the private sector languishes. The delayed reopening of borders and intense competition for returning tourists are likely to hamper the ability of businesses in the sector to recover for a number of years.

Lower global oil and food prices, and agricultural recovery following Cyclone Gita, slowed inflation to 0.2% in FY2020. It is forecast to stay muted at 0.8% in FY2021 with low import prices and accelerate to 2.5% in FY2022 as domestic construction revives and global prices return to trend.

The fiscal surplus equaled 5.3% of GDP in FY2020 following unprecedented grant support from development partners and delays affecting capital projects and the government's implementation of stimulus spending. It will likely narrow to 0.8% of GDP in FY2021 as stimulus expenditure rises and falling tax revenue is only partly offset by grants. With grant normalization and continued weakness in tax revenue, the government will likely run a fiscal deficit in FY2022 equal to 5.9% of GDP. External debt eased slightly from 36.4% of GDP in FY2019 to 36.2% in FY2020.

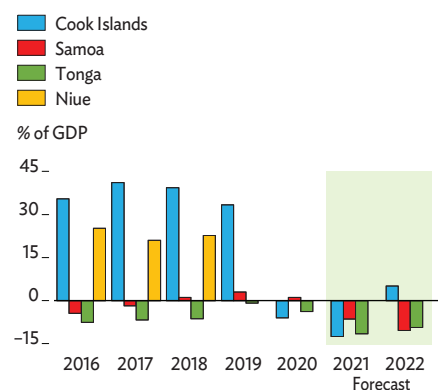
Tourism woes pushed the current account deficit wider to 3.8% of GDP in FY2020, even as official grants jumped by 40.8% and remittances rose by 2.8%. The total collapse of tourism receipts in FY2021 and a softening of remittances will likely widen the deficit to 11.5% of GDP in FY2021 before it

Figure 3.39.4 Fiscal balance



Note: Years are fiscal years ending on 30 June of that year.
Sources: Sources: Cook Islands Ministry of Finance and Economic Management; Niue Department of Finance and Planning; Samoa Ministry of Finance; Tonga Ministry of Finance and National Planning; Asian Development Bank estimates.

Figure 3.39.5 Current account balance



Note: Years are fiscal years ending on 30 June of that year.
Sources: Cook Islands Ministry of Finance and Economic Management; Statistics Niue; Samoa Bureau of Statistics; Tonga Department of Statistics; Asian Development Bank estimates.

eases back to 9.4% in FY2022 with tourism reopening in the latter half of that fiscal year.

Niue

Dramatically reduced tourist arrivals in an economy recently dependent on tourism receipts for a third of annual GDP likely caused contraction in FY2020, ending a 7-year stretch of uninterrupted growth averaging 4.6% annually since FY2013. On top of the tourism decline, travel restrictions stalled capital projects financed by development partners. Even more severe contraction is forecast for FY2021 as tourism remains suspended perhaps for the entire year.

Tax revenue fell by 3.7% in FY2020, and recurrent spending rose to finance preparations for and responses to COVID-19, widening the fiscal deficit from the equivalent of 1.2% of GDP in FY2019 to 4.6% in FY2020. The FY2021 budget projects the deficit widening to 11.0% of GDP as tax revenue declines by a further 40.7% and budgeted recurrent spending rises by 21.2%. With support from New Zealand, the FY2021 budget will sustain COVID-19 impact mitigation, including continued support for Niue Power Corporation as consumer bills are deferred. The cost of measures for health care equals 1.5% of GDP, food security 0.8%, and private sector relief 3.3%.

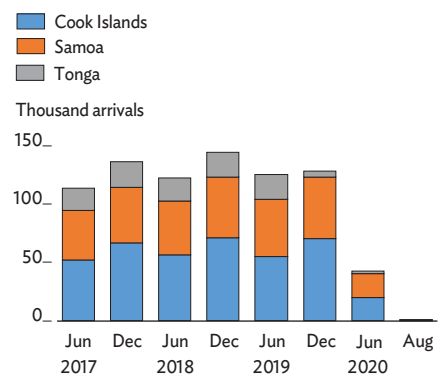
Economic recovery is projected in FY2022, assuming the establishment of a travel bubble with New Zealand in the last quarter of FY2021 following parallel COVID-19 vaccination drives in both countries, the Niue effort financially supported by New Zealand. Further, Niue is receiving technical assistance from New Zealand, the World Health Organization, and the Secretariat of the Pacific Community with the aim of achieving quarantine-free travel.

Policy challenge—ensuring private sector recovery

COVID-19 has profoundly affected private business in the South Pacific, especially employment and business viability in tourism, receipts from which in FY2019 provided 61.4% of GDP in the Cook Islands, 23.1% in Samoa, and 9.7% in Tonga (Figure 3.39.7)—all falling to zero so far in FY2021. Direct and indirect impacts on national value chains may not be fully appreciated until historical datasets become available, but the scope of economic contraction is undoubtedly profound. As the pandemic drags on, governments will be forced to weigh the risk of importing COVID-19 cases against those of keeping their borders closed and extending support measures at public expense.

With no firm date for travel resumption in the region, financial impacts will continue to worsen. Repayment holidays,

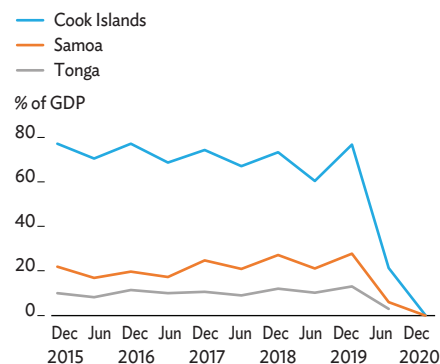
Figure 3.39.6 Total visitor arrivals from Australia and New Zealand to the Cook Islands, Samoa, and Tonga



Note: Figures shown are arrivals in the preceding 6 months.

Sources: Australian Bureau of Statistics; Statistics New Zealand.

Figure 3.39.7 Tourism receipts



Note: Figures are 6-month averages as percentages of Asian Development Bank estimates of half-yearly gross domestic product.

Sources: Cook Islands Ministry of Finance and Economic Management; Central Bank of Samoa; Tonga Statistics Department; Asian Development Bank estimates.

liquidity support, and other measures have provided some relief, but physical assets such as beach resorts still need to be maintained to avoid costly refurbishment or replacement. Large properties may enjoy support from institutional investors within the region and beyond, but smaller ones may fail to meet debt servicing costs without government assistance or find new sources of liquidity. Marginal businesses may never reopen.

Evidence shows skilled workers moving out of tourism or even abroad. An estimated 3,500 of 6,000 tourism workers in Samoa have found other employment. Workers in the Cook Islands are being recruited as seasonal labor in New Zealand with no need for special visas, and many may not return. This situation recalls mass migration from the Cook Islands after an economic crisis in the 1990s.

As with the measles outbreak in Samoa in late 2019, mass vaccination is the surest route for border reopening and economic recovery. The first vaccines to arrive, in the fourth quarter of FY2021, will be sufficient to vaccinate only the most vulnerable, with complete coverage in the region coming as late as 2022, depending on vaccine supply and logistical constraints. Travel bubbles such as those between New Zealand and the Cook Islands and Niue may allow earlier opening of some borders. Such initiatives are likely to offer significant first-mover advantages, as tourists from both Australia and New Zealand are unlikely to have many international travel alternatives outside of the subregion. However, travel bubbles—an unproven strategy—may be vulnerable to COVID-19 cases emerging in either country. Samoa and Tonga will observe the Cook Islands experience before deciding for themselves. With timelines for open travel uncertain, it is imperative that government stimulus sustain the capacity of private business to survive and participate in eventual economic recovery. Additional measures including policy reform will be needed during the recovery phase, which may last until 2023 or beyond.

The Cook Islands announced its extension of support measures until June 2021 in line with the expected travel bubble in May, and Samoa and Tonga will explore options in their upcoming budget deliberations. Such extensions may be enabled by government spending and revenue outcomes more favorable than anticipated and by unprecedented financial support from development partners. Debt encumbrance is relatively low in the South Pacific, and the costs of front-loading fiscal support must be weighed against that of simply leaving the private sector to its fate. Continued support for domestic consumption will clearly be necessary to ensure that the current crisis does not permanently dull growth prospects for the private sector.



STATISTICAL APPENDIX

Statistical notes and tables

The statistical appendix presents selected economic indicators for the 46 developing member economies of the Asian Development Bank (ADB) in 18 tables. The economies are grouped into five subregions: Central Asia, East Asia, South Asia, Southeast Asia, and the Pacific. Most of the tables contain historical data from 2016 to 2020; some have forecasts for 2021 and 2022.

The data were standardized to the degree possible to allow comparability over time and across economies, but differences in statistical methodology, definitions, coverage, and practices make full comparability impossible. The national income accounts section is based on the United Nations System of National Accounts, while the data on the balance of payments use International Monetary Fund (IMF) accounting standards. Historical data were obtained from official sources, statistical publications, and databases, as well as the documents of ADB, the IMF, and the World Bank. For some economies, data for 2020 were estimated from the latest available information. Projections for 2021 and 2022 are generally ADB estimates based on available quarterly or monthly data, though some projections are from governments.

Most economies report by calendar year. The following record their government finance data by fiscal year: Brunei Darussalam; Fiji; Hong Kong, China; Singapore; Tajikistan; Thailand; and Uzbekistan. Reporting all variables by fiscal year are South Asian countries (except for Maldives and Sri Lanka), the Cook Islands, the Federated States of Micronesia, Myanmar, Nauru, Palau, the Republic of Marshall Islands, Samoa, and Tonga. In Myanmar, the 2016 fiscal year ended on 31 March of the following year, but since 2018 the fiscal year is from 1 October of the previous year to 30 September of the current year.

Regional and subregional averages or totals are provided for seven tables: A1, A2, A6, A11, A12, A13, and A14. For tables A1, A2, A6, A11, A12, and A14, averages were computed using weights derived from gross national income (GNI) in current US dollars following the World Bank Atlas method. The GNI data for 2016–2019 were obtained from the World Bank's World Development Indicators online. Weights for 2019 were carried over through 2022. The GNI data for the Cook Islands and Taipei, China were estimated using the Atlas conversion factor. For Table A13, the regional and subregional totals were computed using a consistent sum, which means that if country data were missing for a given year, the sum excluded that country.

Tables A1, A2, A3, A4, and A5 show data on output growth, production, and demand. Changes to the national income accounts series for some countries were made to accommodate a change in source, methodology,

and/or base year. The series for Afghanistan, Bhutan, India, Myanmar, and Pakistan reflect fiscal year data, rather than calendar year data, and those for Timor-Leste reflect gross domestic product (GDP) excluding the offshore petroleum sector. In Myanmar, growth rates for fiscal year 2016 were computed in reference to the previous fiscal year ending on 31 March with real GDP at constant 2010–2011 prices, and growth rates from 2017 were computed in reference to the full 12 months ending on 30 September of the current year with real GDP at constant 2015–2016 prices.

Table A1: Growth rate of GDP (% per year). The table shows annual growth rates of GDP valued at constant market prices, factor costs, or basic prices. GDP at market prices is the aggregation of value added by all resident producers at producers' prices including taxes less subsidies on imports plus all nondeductible value-added or similar taxes. Constant factor cost measures differ from market price measures in that they exclude taxes on production and include subsidies. Basic price valuation is the factor cost plus some taxes on production, such as property and payroll taxes, and less some subsidies, such as for labor but not for products. Most economies use constant market price valuation. Pakistan uses constant factor costs, and Fiji and Maldives use basic prices.

Table A2: Growth rate of GDP per capita (% per year). The table provides the growth rates of real GDP per capita, which is defined as GDP at constant prices divided by population. Nepal uses GDP at constant factor cost. Also shown are data on gross national income per capita in US dollar terms (Atlas method) for 2019, sourced from the World Bank's World Development Indicators online. Data for the Cook Islands and Taipei, China were estimated using the Atlas conversion factor.

Table A3: Growth rate of value added in agriculture (% per year). The table shows the growth rates of value added in agriculture at constant prices and agriculture's share of GDP in 2019 at current prices. The agriculture sector comprises plant crops, livestock, poultry, fisheries, and forestry.

Table A4: Growth rate of value added in industry (% per year). The table provides the growth rates of value added in industry at constant prices and the industry's share of GDP in 2019 at current prices. This sector comprises manufacturing, mining and quarrying, and, generally, construction and utilities.

Table A5: Growth rate of value added in services (% per year). The table gives the growth rates of value added in services at constant prices and services' share of GDP in 2019 at current prices. Subsectors generally include trade, banking, finance, real estate, and similar businesses, as well as public administration. For Malaysia, electricity, gas, water supply, and waste management are included under services.

Table A6: Inflation (% per year). Data on inflation rates are period averages. Inflation rates are based on consumer price indexes. The consumer price indexes of the following economies are for a given city only: Cambodia is for Phnom Penh, the Marshall Islands for Majuro, Sri Lanka for Colombo, and Solomon Islands for Honiara. For Uzbekistan, data from 2016 onward reflect the IMF fixed weight method of estimating the consumer price index, as adopted by the government, which has not revised annual average inflation data for 2016, for which IMF average

consumer price data are used. For Indonesia, there is a series break starting in 2019 because of a change in base year from 2012 to 2018.

Table A7: Change in money supply (% per year). This table tracks annual percentage change in broad money supply at the end of the period, M2 for most economies. M2 is defined as the sum of currency in circulation plus demand deposits (M1) plus quasi-money, which consists of time and savings deposits including foreign currency deposits. For Georgia; Hong Kong, China; India; and Kazakhstan, broad money is M3, which adds longer-term time deposits. For Sri Lanka broad money is M2b, or M2 plus bond funds, and for Armenia it is M2X, or M2 plus foreign currency accounts.

Tables A8, A9, and A10: Government finance. These tables give the revenue and expenditure transactions and the fiscal balance of the central government expressed as percentages of GDP in nominal terms. Where full-year data are not yet available, the shares to GDP are estimated using available monthly or quarterly data. For Cambodia, Georgia, India, Kazakhstan, the Kyrgyz Republic, Mongolia, the People's Republic of China, and Tajikistan, transactions are those reported by the general government. From 2016, the series for Cambodia is based on the IMF *Government Finance Statistics Manual 2014* format.

Table A8: Central government revenue (% of GDP). Central government revenue comprises all nonrepayable receipts, both current and capital, plus grants. These amounts are computed as a percentage of GDP at current prices. For the Republic of Korea, revenue excludes social security contributions. For Kazakhstan, revenue includes transfers from the national fund. Grants are excluded for Cambodia, Malaysia, and Thailand; revenue from disinvestment is included for India, and only current revenue is included for Bangladesh.

Table A9: Central government expenditure (% of GDP). Central government expenditure comprises all nonrepayable payments to meet both current and capital expenses, plus net lending. These amounts are computed as shares of GDP at current prices. For Thailand, expenditure refers to budgetary expenditure excluding externally financed expenditure and borrowing. For Tajikistan, expenditure includes externally financed public investment programs. Onetime expenditures are excluded for Pakistan.

Table A10: Fiscal balance of central government (% of GDP). Fiscal balance is the difference between central government revenue and expenditure. The difference is computed as a share of GDP at current prices. Data variation may arise from statistical discrepancy when, for example, balancing items for general governments (central plus selected subnational governments), and from differences between coverage used in individual revenue and expenditure calculations and fiscal balance calculations. For Fiji, the fiscal balance excludes loan repayment. For Georgia, the fiscal balance is calculated according to the IMF *Government Finance Statistics Manual 2001* format, as is the Cambodia general government fiscal balance using the 2014 manual. For Thailand, the fiscal balance is the cash balance of the combined budgetary and nonbudgetary balances. For Uzbekistan, the augmented fiscal balance includes the Fund for Reconstruction and Development. Some off-budget accounts are

included in the computation of the fiscal balance for Turkmenistan. For Singapore, fiscal balance excludes special transfers (top-ups to endowment and trust funds) and contributions from net investment returns, while for the Republic of Korea, it excludes funds related to social security.

Tables A11, A12, A13, and A14: Balance of payments. These tables show the annual flows of selected international economic transactions of countries as recorded in the balance of payments.

Tables A11 and A12: Growth rates of merchandise exports and imports (% per year). These tables show the annual growth rates of exports and imports of goods. Data are in million US dollars, primarily obtained from the balance-of-payments accounts of each economy. Export data are reported free on board. Import data are reported free onboard except for the following economies, which value them based on cost, insurance, and freight: Afghanistan; Hong Kong, China; Georgia; India; the Lao People's Democratic Republic; Myanmar; Singapore; and Thailand.

Table A13: Trade balance (\$ million). The trade balance is the difference between merchandise exports and merchandise imports. Figures in this table are based on the export and import amounts used to generate tables A11 and A12.

Table A14: Current account balance (% of GDP). The current account balance is the sum of the balance of trade in merchandise, net trade in services and factor income, and net transfers. The values reported are divided by GDP at current prices in US dollars.

Table A15: Exchange rates to the US dollar (annual average). Annual average exchange rates are quoted as the local currency per US dollar.

Table A16: Gross international reserves (\$ million). Gross international reserves are defined as the US dollar value of holdings of foreign exchange, special drawing rights, reserve position in the IMF, and gold at the end of a given period. For Taipei, China, this heading refers to foreign exchange reserves only. In some economies, the rubric is foreign assets plus the reserves of national monetary authorities (the net foreign reserves of, for example, the State Bank of Pakistan) plus national funds for earnings from oil or other natural resources.

Table A17: External debt outstanding (\$ million). For most economies, external debt outstanding includes short, medium, and long-term debt, public and private, as well as IMF credit. For Armenia and Cambodia, only public external debt is reported. Intercompany lending is excluded for Georgia. For Singapore and Thailand, the figures for 2020 are as of the end of September. For Sri Lanka, 2020 data are as of the end of March 2021.

Table A18: Debt service ratio (% of exports of goods and services). This table generally presents the total debt service payments of each economy, which comprise principal repayment (excluding short-term debt) and interest payments on outstanding external debt, given as a percentage of exports of goods and services. For Cambodia, debt service refers to external public debt only. For the Philippines, income and exports of goods and services are used as the denominator. For Bangladesh, the ratio presents debt service payments on medium- and long-term loans as a percentage of exports of goods, nonfactor services, and overseas workers' remittances. For Azerbaijan, the ratio presents public and publicly guaranteed external debt service payments as a percentage of exports of goods and nonfactor services.

Table A1 Growth rate of GDP (% per year)

	2016	2017	2018	2019	2020	2021	2022
Central Asia	2.5	4.2	4.5	4.9	-1.9	3.4	4.0
Armenia	0.2	7.5	5.2	7.6	-7.6	1.8	3.0
Azerbaijan	-3.1	0.2	1.5	2.5	-4.3	1.9	2.5
Georgia	2.9	4.8	4.8	5.0	-6.2	3.5	6.0
Kazakhstan	1.1	4.1	4.1	4.5	-2.6	3.2	3.5
Kyrgyz Republic	4.3	4.7	3.8	4.6	-8.6	3.5	5.0
Tajikistan	6.9	7.1	7.3	7.5	4.5	5.0	5.5
Turkmenistan	6.2	6.5	6.2	6.3	1.6	4.8	4.9
Uzbekistan	6.1	4.5	5.4	5.8	1.6	4.0	5.0
East Asia	6.1	6.3	6.1	5.3	1.8	7.4	5.1
Hong Kong, China	2.2	3.8	2.8	-1.2	-6.1	4.6	4.5
Mongolia	1.2	5.3	7.2	5.2	-5.3	4.8	5.7
People's Republic of China	6.8	6.9	6.7	6.0	2.3	8.1	5.5
Republic of Korea	2.9	3.2	2.9	2.0	-1.0	3.5	3.1
Taipei, China	2.2	3.3	2.8	3.0	3.1	4.6	3.0
South Asia	7.6	6.6	6.4	4.2	-6.0	9.5	6.6
Afghanistan	2.3	2.6	1.2	3.9	-5.0	3.0	4.0
Bangladesh	7.1	7.3	7.9	8.2	5.2	6.8	7.2
Bhutan	7.4	6.3	3.8	4.3	0.9	-3.4	3.7
India	8.3	6.8	6.5	4.0	-8.0	11.0	7.0
Maldives	6.3	7.2	8.1	7.0	-32.0	13.1	14.0
Nepal	0.4	9.0	7.6	6.7	-1.9	3.1	5.1
Pakistan	4.6	5.2	5.5	1.9	-0.4	2.0	4.0
Sri Lanka	4.5	3.6	3.3	2.3	-3.6	4.1	3.6
Southeast Asia	4.9	5.4	5.1	4.4	-4.0	4.4	5.1
Brunei Darussalam	-2.5	1.3	0.1	3.9	1.2	2.5	3.0
Cambodia	7.0	6.9	7.5	7.1	-3.1	4.0	5.5
Indonesia	5.0	5.1	5.2	5.0	-2.1	4.5	5.0
Lao People's Dem. Rep.	7.0	6.9	6.2	4.7	-0.5	4.0	4.5
Malaysia	4.4	5.8	4.8	4.3	-5.6	6.0	5.7
Myanmar	5.9	5.8	6.4	6.8	3.3	-9.8	...
Philippines	7.1	6.9	6.3	6.1	-9.6	4.5	5.5
Singapore	3.3	4.5	3.5	1.3	-5.4	6.0	4.1
Thailand	3.4	4.2	4.2	2.3	-6.1	3.0	4.5
Timor-Leste	3.4	-4.1	-1.1	1.8	-7.9	3.4	4.3
Viet Nam	6.2	6.8	7.1	7.0	2.9	6.7	7.0
The Pacific	4.9	3.7	0.8	4.3	-5.8	1.4	3.8
Cook Islands	6.0	6.8	8.9	5.3	-5.9	-26.0	6.0
Federated States of Micronesia	0.9	2.7	0.2	1.2	-5.4	-1.8	2.0
Fiji	2.4	5.4	3.8	-0.4	-19.0	2.0	7.3
Kiribati	5.1	0.3	2.3	2.4	0.6	-0.2	2.3
Marshall Islands	1.3	4.1	3.6	0.7	-5.5	-1.4	2.5
Nauru	3.0	-5.5	5.7	1.0	0.8	1.5	1.0
Niue	3.5	2.4	6.5	...	...	...	...
Palau	-0.4	-2.0	5.8	-1.8	-10.3	-7.8	10.4
Papua New Guinea	5.5	3.5	-0.3	5.9	-3.3	2.5	3.0
Samoa	8.1	1.0	-2.1	3.6	-3.2	-9.2	3.1
Solomon Islands	5.9	5.3	3.0	1.2	-4.5	1.0	4.5
Tonga	6.6	3.3	0.3	0.7	-0.8	-5.3	1.8
Tuvalu	3.0	3.2	4.3	4.1	0.5	2.5	3.0
Vanuatu	3.5	4.4	2.9	3.5	-9.8	2.0	4.0
Developing Asia	6.1	6.2	6.0	5.0	-0.2	7.3	5.3
Developing Asia excluding the NIEs	6.6	6.6	6.5	5.5	0.0	7.7	5.6

... = data not available.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Table A2 Growth rate of GDP per capita (% per year)

	2016	2017	2018	2019	2020	2021	2022	Per capita GNI, \$, 2019
Central Asia	1.1	2.5	3.2	3.5	-3.2	2.2	2.7	
Armenia	0.6	8.0	5.6	7.8	-7.8	2.0	3.0	4,680
Azerbaijan	-4.3	-0.9	0.6	1.6	-5.1	1.3	1.7	4,480
Georgia	2.7	4.9	4.8	5.2	-6.0	3.5	6.0	4,780
Kazakhstan	-0.3	2.7	2.8	3.1	-4.0	1.8	2.1	8,820
Kyrgyz Republic	2.2	2.7	1.9	2.5	-10.7	1.6	3.0	1,240
Tajikistan	4.5	4.8	5.1	3.1	4.5	2.9	3.4	1,030
Turkmenistan	4.8	1.9	5.1	4.8	0.1	3.8	3.9	6,800
Uzbekistan	4.4	2.6	3.6	4.0	-0.2	2.2	3.2	1,800
East Asia	5.6	5.8	5.6	5.0	1.5	6.9	4.6	
Hong Kong, China	1.5	3.0	2.0	-2.0	-5.8	3.2	3.6	50,800
Mongolia	-0.8	3.4	5.2	3.3	-7.0	2.9	3.8	3,790
People's Republic of China	6.3	6.3	6.2	5.7	1.9	7.5	5.0	10,390
Republic of Korea	2.5	2.9	2.4	1.8	-1.4	3.1	2.7	33,790
Taipei, China	1.9	3.1	2.7	2.9	3.1	4.6	3.0	27,491
South Asia	6.2	3.9	4.9	3.3	-7.1	8.3	5.4	
Afghanistan	-0.5	0.0	-1.2	1.5	-7.2	0.7	1.7	530
Bangladesh	5.7	6.0	6.6	6.9	4.0	5.5	5.8	1,940
Bhutan	5.8	11.1	4.0	3.3	0.0	-4.4	2.7	3,140
India	6.9	3.9	5.3	3.3	-8.9	9.8	5.9	2,120
Maldives	2.3	3.0	3.8	2.6	-34.8	10.9	11.8	9,680
Nepal	-1.4	7.2	5.9	4.9	-3.3	1.7	3.8	1,090
Pakistan	2.6	3.3	1.1	0.3	-2.7	-0.2	1.7	1,410
Sri Lanka	3.3	2.4	2.2	1.6	-4.1	3.5	3.1	4,020
Southeast Asia	3.8	4.4	4.1	3.4	-4.8	3.6	4.1	
Brunei Darussalam	-3.6	-1.6	-2.9	0.0	0.2	1.5	2.1	32,230
Cambodia	5.7	4.4	6.0	5.6	-4.4	2.6	3.8	1,530
Indonesia	3.9	3.9	4.1	3.9	-3.3	3.7	4.0	4,050
Lao People's Dem. Rep.	5.2	5.2	4.6	3.1	-1.9	2.4	2.9	2,570
Malaysia	3.0	4.5	3.6	3.9	-6.0	5.0	4.8	11,230
Myanmar	4.9	4.8	5.5	5.8	2.4	-10.6	...	1,390
Philippines	5.5	5.2	4.7	4.6	-10.8	3.1	4.2	3,850
Singapore	2.0	4.4	3.0	0.2	-5.1	5.7	3.2	59,590
Thailand	3.1	3.8	3.8	2.0	-6.6	2.5	4.0	7,260
Timor-Leste	1.4	-6.0	-3.0	-0.2	-9.5	1.5	2.5	2,020
Viet Nam	5.1	5.8	5.9	5.0	1.7	5.4	5.6	2,590
The Pacific	2.4	1.3	-1.5	1.8	-8.1	-1.0	1.3	
Cook Islands	1.7	7.3	9.5	5.8	-5.4	-25.6	6.5	19,804
Federated States of Micronesia	1.0	2.8	-0.9	1.1	-5.6	-1.6	2.2	3,450
Fiji	1.9	4.9	3.2	-1.0	-19.5	1.4	6.7	5,800
Kiribati	3.9	-0.9	1.1	1.2	-0.6	-1.4	1.1	3,350
Marshall Islands	0.9	3.7	3.2	0.3	-5.9	-1.8	2.1	5,081
Nauru	1.4	-7.0	4.0	-0.7	-0.4	0.3	0.2	14,230
Niue	2.3	1.3	2.3	...	...	...	...	...
Palau	-1.4	-2.9	4.8	-2.7	-11.2	-8.7	9.3	16,490
Papua New Guinea	2.3	0.4	-3.3	2.7	-6.2	-0.6	-0.1	2,750
Samoa	7.1	0.2	-2.9	2.7	-3.9	-10.0	2.2	4,190
Solomon Islands	3.1	2.6	0.3	-1.6	-7.0	-1.6	1.7	2,390
Tonga	6.4	3.0	0.1	0.4	-1.1	-5.6	1.5	5,000
Tuvalu	4.3	-0.8	-4.4	3.2	-0.3	1.7	...	5,620
Vanuatu	2.0	2.1	0.8	1.3	-10.9	-0.2	1.8	3,210
Developing Asia	5.3	5.2	5.3	4.5	-0.7	6.6	4.7	
Developing Asia excluding NIEs	5.8	5.6	5.7	5.0	-0.6	7.0	4.9	

... = data not available, GNI = gross national income.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Table A3 Growth rate of value added in agriculture (% per year)

	2016	2017	2018	2019	2020	Sector share, 2019, %
Central Asia						
Armenia	-5.0	-5.1	-6.9	-2.6	-4.0	13.2
Azerbaijan	2.6	4.2	4.6	7.3	1.9	6.3
Georgia	-2.7	-7.7	14.0	0.8	3.5	7.4
Kazakhstan	5.4	3.2	3.8	-0.1	5.6	4.8
Kyrgyz Republic	2.9	2.2	2.6	2.6	1.1	13.5
Tajikistan	5.2	6.8	4.0	7.1	8.8	23.1
Turkmenistan	9.0	5.9	3.5	4.0	5.0	10.8
Uzbekistan	6.2	1.2	0.3	3.1	3.0	28.0
East Asia						
Hong Kong, China	-2.0	-5.1	-1.8	-0.4	4.6	0.1
Mongolia	6.2	1.8	4.5	8.4	6.2	12.1
People's Republic of China	3.3	4.0	3.5	3.1	3.0	6.9
Republic of Korea	-5.6	2.3	0.2	2.3	-3.4	1.8
Taipei, China	-9.7	8.3	4.5	-1.8	1.3	1.7
South Asia						
Afghanistan	6.0	6.4	-4.4	17.5	5.0	20.7
Bangladesh	2.8	3.0	4.2	3.9	3.1	13.3
Bhutan	4.4	3.6	3.6	2.7	2.6	16.8
India	6.8	6.6	2.6	4.3	3.0	18.4
Maldives	1.5	8.3	4.8	5.0	6.4	6.0
Nepal	-0.1	5.2	2.6	5.2	2.2	24.9
Pakistan	0.2	2.2	4.0	0.6	2.7	19.3
Sri Lanka	-3.7	-0.4	5.8	1.0	-2.4	8.1
Southeast Asia						
Brunei Darussalam	-3.6	-1.7	-1.4	-1.4	11.7	1.0
Cambodia	1.3	1.7	1.1	-0.5	0.5	22.1
Indonesia	3.4	3.9	3.9	3.6	1.8	13.3
Lao People's Dem. Rep.	2.8	2.9	1.3	1.0	2.1	17.1
Malaysia	-3.7	5.9	0.1	2.0	-2.2	7.3
Myanmar	-0.5	-1.5	0.1	1.6	1.8	21.4
Philippines	-1.0	4.2	1.1	1.2	-0.2	8.8
Singapore	-0.4	2.9	3.2	6.4	-10.0	0.0
Thailand	-1.2	4.8	5.8	-0.6	-3.4	8.1
Timor-Leste	-1.3	-3.0	2.9	2.5	-7.9	17.0
Viet Nam	1.4	2.9	3.8	2.0	2.7	15.5
The Pacific						
Cook Islands	-4.5	2.5	0.0	-2.1	-8.6	2.7
Federated States of Micronesia	-4.8	-0.9	0.1	1.7	-0.8	28.7
Fiji	-10.9	10.8	3.7	4.4	4.3	10.1
Kiribati	10.7	9.0	...	...	...	...
Marshall Islands	-1.6	1.8	4.2	-1.6	-22.9	...
Nauru	...	...	...	...	...	...
Niue	1.2	3.5	1.7	...	...	...
Palau	7.7	8.4	-5.2	-4.2	...	3.4
Papua New Guinea	2.7	2.4	4.6	0.1	0.8	17.9
Samoa	1.9	16.0	-7.9	-6.0	-2.2	9.8
Solomon Islands	5.7	3.6	2.1	-2.9	-4.5	31.0
Tonga	-1.3	-2.5	0.4	3.6	...	23.4
Tuvalu	...	...	...	...	...	...
Vanuatu	5.1	0.4	0.9	2.9	-9.6	23.3

... = data not available.

Table A4 Growth rate of value added in industry (% per year)

	2016	2017	2018	2019	2020	Sector share, 2019, %
Central Asia						
Armenia	-0.3	9.0	3.7	7.1	-2.8	26.8
Azerbaijan	-5.9	-3.1	-0.7	1.0	-5.7	53.6
Georgia	6.7	4.4	-0.3	2.3	-2.8	23.2
Kazakhstan	1.1	6.8	4.4	5.5	1.6	35.5
Kyrgyz Republic	7.1	8.6	5.9	8.0	-10.3	32.9
Tajikistan	16.0	21.3	11.8	13.6	9.7	36.6
Turkmenistan	2.5	5.4	6.0	6.9	1.3	42.1
Uzbekistan	5.4	5.2	10.8	5.0	0.7	35.9
East Asia						
Hong Kong, China	3.0	-0.6	2.4	-3.9	-8.3	6.5
Mongolia	-0.4	0.7	7.9	3.1	-6.2	43.1
People's Republic of China	6.0	5.9	5.8	4.9	2.6	45.2
Republic of Korea	3.1	4.2	2.0	0.8	-0.5	35.9
Taipei, China	3.7	4.7	2.6	1.6	6.1	35.6
South Asia						
Afghanistan	-0.8	9.2	11.1	4.8	-5.0	29.3
Bangladesh	11.1	10.2	12.1	12.7	6.5	31.2
Bhutan	7.6	4.7	-1.3	-1.6	-1.1	39.2
India	7.7	5.9	5.3	-1.2	-8.2	26.7
Maldives	8.9	13.0	15.6	1.5	-21.3	13.5
Nepal	-4.1	17.1	10.4	7.4	-4.2	15.0
Pakistan	5.7	4.6	4.9	-2.3	-2.9	19.3
Sri Lanka	5.7	4.7	1.3	2.6	-6.9	29.5
Southeast Asia						
Brunei Darussalam	-2.9	1.5	-0.4	4.2	2.9	61.5
Cambodia	10.6	9.7	11.6	11.3	-1.2	36.5
Indonesia	3.8	4.1	4.3	3.8	-2.8	40.6
Lao People's Dem. Rep.	12.0	11.6	7.8	3.7	6.2	34.7
Malaysia	4.3	4.8	3.2	2.0	-6.5	35.1
Myanmar	8.9	8.7	8.3	8.4	5.1	38.0
Philippines	8.2	7.0	7.3	5.5	-13.2	30.2
Singapore	2.6	6.9	5.5	-0.8	-0.4	26.2
Thailand	2.7	1.7	2.8	0.1	-5.3	33.6
Timor-Leste	7.6	-26.5	5.3	-4.7	-7.9	14.9
Viet Nam	7.6	8.0	8.9	8.9	4.0	38.3
The Pacific						
Cook Islands	-13.6	11.1	11.7	25.6	-27.5	8.4
Federated States of Micronesia	6.5	2.9	-7.3	15.8	-5.2	6.2
Fiji	7.2	4.2	5.5	-0.5	-27.0	21.3
Kiribati	-2.4	-15.8	...	...	...	...
Marshall Islands	-5.6	2.7	13.0	-0.4	-3.0	...
Nauru	...	...	...	...	...	...
Niue	2.3	-4.7	90.4	...	...	...
Palau	0.2	-5.8	2.3	5.9	...	10.4
Papua New Guinea	12.1	4.7	-7.5	11.4	-5.7	38.6
Samoa	10.9	-6.0	-12.4	10.2	-7.7	15.6
Solomon Islands	4.3	10.5	9.0	5.6	-6.1	20.0
Tonga	12.7	9.7	-14.4	4.6	...	18.0
Tuvalu	...	...	...	...	...	...
Vanuatu	4.2	7.1	4.9	7.7	-2.0	11.3

... = data not available.

Table A5 Growth rate of value added in services (% per year)

	2016	2017	2018	2019	2020	Sector share, 2019, %
Central Asia						
Armenia	3.4	10.4	9.2	10.4	-9.2	59.9
Azerbaijan	-0.7	3.1	3.8	3.8	-3.9	40.1
Georgia	2.8	6.4	5.6	6.4	-7.8	69.4
Kazakhstan	0.9	2.5	3.9	4.4	-5.6	59.7
Kyrgyz Republic	3.4	3.3	2.8	3.2	-10.0	53.7
Tajikistan	-0.3	1.8	2.1	2.9	-2.6	40.3
Turkmenistan	10.8	7.9	7.0	7.0	1.2	47.1
Uzbekistan	6.3	6.4	5.5	6.3	0.1	36.1
East Asia						
Hong Kong, China	2.3	3.5	3.1	-0.3	-6.8	93.4
Mongolia	1.1	7.7	4.7	5.8	-7.1	44.8
People's Republic of China	8.1	8.3	8.0	7.2	2.1	47.9
Republic of Korea	2.9	2.6	3.8	2.9	-1.1	62.4
Taipei, China	1.2	2.9	3.0	3.5	1.2	62.7
South Asia						
Afghanistan	2.0	-0.7	1.9	-1.4	-9.6	50.0
Bangladesh	6.2	6.7	6.4	6.8	5.3	55.5
Bhutan	9.2	8.2	7.8	10.8	3.8	44.0
India	8.5	6.3	7.2	7.2	-8.1	55.0
Maldives	6.7	6.2	7.3	8.0	-32.7	80.5
Nepal	1.2	8.4	9.3	6.8	-3.6	60.1
Pakistan	5.7	6.5	6.3	3.8	-0.6	61.4
Sri Lanka	4.8	3.6	4.6	2.2	-1.5	62.4
Southeast Asia						
Brunei Darussalam	-1.6	1.1	0.8	3.4	-1.9	37.5
Cambodia	6.8	7.0	6.8	6.2	-6.7	41.4
Indonesia	5.7	5.7	5.8	6.4	-1.4	46.1
Lao People's Dem. Rep.	4.7	4.5	6.8	7.4	-5.5	48.2
Malaysia	5.7	6.3	6.8	6.1	-5.5	57.6
Myanmar	8.1	8.1	8.7	8.3	2.5	40.7
Philippines	8.2	7.4	6.7	7.2	-9.2	61.0
Singapore	2.7	3.6	3.2	2.2	-6.4	73.8
Thailand	4.7	5.6	4.8	4.0	-6.9	58.3
Timor-Leste	5.7	3.2	-2.5	3.1	-7.9	68.1
Viet Nam	7.0	7.4	7.0	7.3	2.3	46.2
The Pacific						
Cook Islands	7.9	9.5	7.0	4.3	-1.3	88.9
Federated States of Micronesia	2.8	2.9	0.7	0.0	-7.2	65.1
Fiji	0.1	3.6	1.7	0.2	-19.1	68.6
Kiribati	6.6	3.3	...	...	...	...
Marshall Islands	2.3	5.4	2.8	1.2	-5.1	...
Nauru	...	...	...	...	...	...
Niue	4.2	2.4	4.7	...	...	...
Palau	-0.7	-2.8	9.3	0.6	...	86.2
Papua New Guinea	2.3	1.4	5.0	2.5	-1.0	43.5
Samoa	8.2	0.8	1.2	3.6	-2.3	74.7
Solomon Islands	6.7	5.0	2.0	2.5	-4.1	49.1
Tonga	5.5	1.8	3.3	0.8	...	58.6
Tuvalu	...	...	...	...	...	...
Vanuatu	2.9	2.9	0.8	3.4	-13.5	65.4

... = data not available.

Table A6 Inflation (% per year)

	2016	2017	2018	2019	2020	2021	2022
Central Asia	10.4	9.2	8.2	7.2	7.5	6.8	6.3
Armenia	-1.4	1.0	2.5	1.4	1.2	3.8	2.5
Azerbaijan	12.4	12.9	2.3	2.6	2.8	3.5	3.0
Georgia	2.1	6.0	2.6	4.9	5.2	5.0	3.5
Kazakhstan	14.6	7.4	6.0	5.3	6.8	6.5	6.2
Kyrgyz Republic	0.4	3.2	1.5	1.1	6.3	7.0	7.0
Tajikistan	6.1	6.7	5.4	8.0	9.4	9.0	8.0
Turkmenistan	3.6	8.0	13.2	13.0	10.0	8.0	8.0
Uzbekistan	8.8	13.7	17.5	14.6	12.9	10.0	9.0
East Asia	1.9	1.6	2.0	2.6	2.2	1.5	2.2
Hong Kong, China	2.4	1.5	2.4	2.9	0.3	1.3	2.0
Mongolia	1.1	4.3	6.8	7.3	3.7	6.9	8.5
People's Republic of China	2.0	1.6	2.1	2.9	2.5	1.5	2.3
Republic of Korea	1.0	1.9	1.5	0.4	0.5	1.3	1.5
Taipei, China	1.4	0.6	1.3	0.6	-0.2	1.1	1.1
South Asia	4.5	3.9	3.7	5.0	6.5	5.5	5.1
Afghanistan	4.4	5.0	0.6	2.3	5.6	5.0	4.0
Bangladesh	5.9	5.4	5.8	5.5	5.7	5.8	5.8
Bhutan	3.3	4.3	3.6	2.8	3.0	6.4	5.3
India	4.5	3.6	3.4	4.8	6.2	5.2	4.8
Maldives	0.5	2.8	-0.1	0.2	-1.4	3.0	2.5
Nepal	9.9	4.5	4.2	4.6	6.2	5.0	6.0
Pakistan	2.9	4.8	4.7	6.8	10.7	8.7	7.5
Sri Lanka	4.0	6.6	4.3	4.3	4.6	4.5	5.0
Southeast Asia	2.0	2.7	2.9	2.1	1.2	2.4	2.4
Brunei Darussalam	-0.3	-1.3	1.0	-0.4	1.9	0.7	0.7
Cambodia	3.0	2.9	2.5	1.9	2.9	3.1	3.0
Indonesia	3.5	3.8	3.8	2.8	2.0	2.4	2.8
Lao People's Dem. Rep.	1.6	0.8	2.0	3.3	5.1	4.5	5.0
Malaysia	2.1	3.8	1.0	0.7	-1.1	1.8	2.0
Myanmar	6.8	4.0	5.9	8.6	5.7	6.2	...
Philippines	1.3	2.9	5.2	2.5	2.6	4.1	3.5
Singapore	-0.5	0.6	0.4	0.6	-0.2	1.0	1.2
Thailand	0.2	0.7	1.1	0.7	-0.8	1.1	1.0
Timor-Leste	-1.3	0.6	2.4	1.0	0.5	2.0	2.0
Viet Nam	2.7	3.5	3.5	2.8	3.2	3.8	4.0
The Pacific	5.3	4.5	4.3	3.0	3.3	3.7	3.9
Cook Islands	0.0	-0.4	0.1	0.0	0.7	1.0	0.7
Federated States of Micronesia	-1.0	0.7	1.7	-1.0	1.6	1.9	2.0
Fiji	3.8	3.3	4.1	1.8	-2.6	3.5	3.0
Kiribati	1.9	0.4	2.1	-1.8	1.0	1.1	1.5
Marshall Islands	-1.5	0.0	0.8	0.1	0.3	1.0	1.5
Nauru	8.2	5.1	0.5	4.3	1.0	1.1	2.0
Niue	1.3	5.0	10.1	1.9	2.7	...	...
Palau	-1.3	0.9	2.0	0.6	0.0	0.0	1.0
Papua New Guinea	6.7	5.4	4.7	3.6	4.9	4.3	4.4
Samoa	0.1	1.3	3.6	2.2	1.5	-2.5	2.7
Solomon Islands	0.5	0.5	3.5	1.6	3.0	2.5	3.5
Tonga	-0.6	7.2	6.8	3.3	0.2	0.8	2.5
Tuvalu	3.5	4.1	2.2	3.5	1.6	3.3	3.5
Vanuatu	0.8	3.1	2.3	2.8	3.0	3.5	3.7
Developing Asia	2.4	2.2	2.5	2.9	2.8	2.3	2.7
Developing Asia excluding the NIEs	2.7	2.3	2.6	3.3	3.1	2.4	2.9

... = data not available.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Table A7 Change in money supply (% per year)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	17.5	18.5	7.4	11.2	9.0
Azerbaijan	-2.0	9.0	5.7	20.0	1.1
Georgia	20.2	14.8	14.7	16.7	23.3
Kazakhstan	15.6	-1.7	7.0	2.4	16.9
Kyrgyz Republic	14.6	17.9	5.5	12.8	23.9
Tajikistan	37.1	21.8	5.1	17.0	18.4
Turkmenistan	9.4	11.4	8.4	12.9	9.1
Uzbekistan	23.6	41.0	13.2	13.8	17.9
East Asia					
Hong Kong, China	8.9	11.6	3.7	2.3	6.5
Mongolia	21.0	30.5	22.8	7.0	16.3
People's Republic of China	11.3	9.0	8.1	8.7	10.1
Republic of Korea	7.1	5.1	6.7	7.9	9.8
Taipei, China	3.6	3.6	2.7	4.5	9.4
South Asia					
Afghanistan	9.7	4.1	2.6	5.7	12.1
Bangladesh	16.3	10.9	9.2	9.9	12.7
Bhutan	23.0	17.4	6.5	13.1	21.0
India	10.1	9.2	10.5	8.9	12.4
Maldives	-0.2	5.2	3.4	9.5	14.2
Nepal	19.5	15.5	19.4	15.8	18.1
Pakistan	13.7	13.7	9.7	11.3	15.9
Sri Lanka	18.4	16.7	13.0	7.0	23.4
Southeast Asia					
Brunei Darussalam	1.5	-0.4	2.8	4.3	-0.4
Cambodia	21.0	23.1	26.6	18.2	15.3
Indonesia	10.0	8.3	6.3	6.5	12.4
Lao People's Dem. Rep.	10.9	12.2	8.4	18.9	17.0
Malaysia	3.2	4.9	9.1	3.5	4.0
Myanmar	19.4	18.0	18.6	15.4	15.4
Philippines	12.8	11.9	9.5	11.5	9.5
Singapore	6.3	11.1	3.2	5.5	12.7
Thailand	4.2	5.0	4.7	3.6	10.1
Timor-Leste	14.2	12.1	3.1	-7.1	-5.4
Viet Nam	18.4	15.0	12.4	12.1	12.6
The Pacific					
Cook Islands	-2.7	12.3	14.8	7.3	...
Federated States of Micronesia	...	...	...	...	...
Fiji	4.6	8.5	3.1	2.5	1.7
Kiribati	...	...	...	...	...
Marshall Islands	...	...	...	...	...
Nauru	...	...	...	...	...
Niue	...	...	...	...	...
Palau	...	...	...	...	...
Papua New Guinea	10.9	-0.7	-4.0	4.7	...
Samoa	7.1	7.8	16.5	9.9	-0.9
Solomon Islands	13.4	3.5	6.8	-3.1	6.6
Tonga	15.7	11.1	3.0	-15.6	...
Tuvalu	...	...	...	...	...
Vanuatu	10.6	9.3	13.1	7.0	-0.7

... = data not available.

Table A8 Central government revenue (% of GDP)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	23.1	22.2	22.3	23.8	25.2
Azerbaijan	29.0	23.4	28.0	29.5	34.1
Georgia	27.0	26.8	26.5	26.2	25.1
Kazakhstan	19.8	21.3	17.5	18.3	20.7
Kyrgyz Republic	27.4	28.2	26.6	27.0	25.4
Tajikistan	30.4	30.6	29.1	26.7	27.2
Turkmenistan	11.7	14.9	13.5	13.2	13.0
Uzbekistan	24.4	23.7	26.8	26.9	26.9
East Asia					
Hong Kong, China	22.6	22.9	21.0	21.0	20.0
Mongolia	24.4	28.5	31.0	32.0	28.1
People's Republic of China	21.4	20.7	19.9	19.3	18.0
Republic of Korea	17.1	17.7	19.8	19.8	19.6
Taipei, China	10.8	10.8	11.0	10.6	10.7
South Asia					
Afghanistan	28.2	27.1	30.6	26.9	27.0
Bangladesh	10.0	10.2	9.6	9.9	9.4
Bhutan	30.7	28.0	31.9	24.3	29.3
India	9.4	9.1	8.8	8.6	8.2
Maldives	27.6	27.7	27.2	26.8	25.4
Nepal	20.0	20.8	22.2	22.4	21.8
Pakistan	15.3	15.5	15.1	12.7	14.3
Sri Lanka	14.1	13.8	13.5	12.6	9.6
Southeast Asia					
Brunei Darussalam	22.7	22.7	32.7	26.3	10.9
Cambodia	20.8	21.6	23.7	26.8	22.7
Indonesia	12.5	12.3	13.1	12.4	10.6
Lao People's Dem. Rep.	16.4	16.1	16.2	15.6	12.8
Malaysia	17.0	16.1	16.1	17.5	15.9
Myanmar	20.3	18.6	19.2	18.2	18.1
Philippines	14.5	14.9	15.6	16.1	15.9
Singapore	15.7	16.0	14.5	14.5	13.8
Thailand	16.8	15.4	15.6	15.1	14.7
Timor-Leste	61.0	67.9	79.9	91.3	63.7
Viet Nam	24.6	25.8	25.9	24.1	21.0
The Pacific					
Cook Islands	36.4	43.8	45.9	42.3	37.1
Federated States of Micronesia	69.0	78.3	79.9	79.8	79.3
Fiji	28.8	26.4	28.6	27.3	26.4
Kiribati	118.2	130.8	116.1	117.3	116.6
Marshall Islands	61.0	68.3	62.6	65.0	69.9
Nauru	114.9	121.8	129.3	138.3	157.5
Niue	69.9	58.0	69.3	81.0	50.1
Palau	42.0	40.0	44.4	43.5	42.8
Papua New Guinea	16.1	15.9	17.7	16.3	13.9
Samoa	28.5	29.3	30.6	31.7	36.7
Solomon Islands	39.1	39.2	40.6	33.9	34.4
Tonga	39.1	42.4	42.6	41.7	36.3
Tuvalu	176.5	127.3	190.4	168.2	153.5
Vanuatu	35.4	35.6	38.8	39.1	41.1

Table A9 Central government expenditure (% of GDP)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	28.6	27.0	24.0	24.8	30.6
Azerbaijan	29.4	25.0	28.4	29.8	36.5
Georgia	28.3	27.6	27.2	28.2	34.4
Kazakhstan	21.4	23.9	18.8	20.2	24.7
Kyrgyz Republic	30.2	28.8	27.7	27.1	28.7
Tajikistan	32.7	35.7	31.9	30.4	30.2
Turkmenistan	14.1	17.8	13.7	13.6	12.9
Uzbekistan	24.3	23.2	26.1	28.4	29.1
East Asia					
Hong Kong, China	18.3	17.4	18.6	21.6	30.3
Mongolia	39.7	32.3	28.5	30.7	37.8
People's Republic of China	25.2	24.4	24.0	24.2	24.2
Republic of Korea	18.4	18.7	20.4	22.6	25.7
Taipei, China	11.1	10.9	10.9	11.2	12.5
South Asia					
Afghanistan	28.0	27.7	28.9	28.0	29.5
Bangladesh	13.8	13.6	14.3	15.4	14.9
Bhutan	31.9	31.5	32.2	25.9	32.0
India	12.9	12.5	12.3	13.2	17.7
Maldives	37.6	30.8	32.5	33.4	52.9
Nepal	20.4	25.1	29.7	29.9	29.1
Pakistan	19.9	21.3	21.6	21.6	23.5
Sri Lanka	19.5	19.3	18.8	20.8	21.5
Southeast Asia					
Brunei Darussalam	39.3	35.7	32.5	31.9	28.0
Cambodia	21.1	22.4	23.0	23.8	25.3
Indonesia	15.0	14.8	14.9	14.6	16.8
Lao People's Dem. Rep.	21.5	21.6	20.9	18.8	18.1
Malaysia	20.1	19.0	19.8	20.9	19.4
Myanmar	22.9	21.5	23.2	22.3	23.0
Philippines	16.8	17.1	18.7	19.5	23.5
Singapore	16.1	15.5	15.3	14.8	20.1
Thailand	19.1	18.3	17.8	32.7	19.3
Timor-Leste	110.5	85.5	85.9	83.1	72.7
Viet Nam	26.8	27.1	25.9	27.6	26.8
The Pacific					
Cook Islands	35.4	35.4	41.8	37.3	39.8
Federated States of Micronesia	61.7	64.0	55.6	62.2	79.3
Fiji	32.7	28.5	33.0	30.9	34.6
Kiribati	114.8	118.9	88.9	101.8	117.2
Marshall Islands	56.2	64.0	60.1	67.3	74.8
Nauru	93.4	100.6	96.8	105.6	125.4
Niue	69.7	62.6	69.7	82.2	55.0
Palau	38.4	35.2	38.2	43.1	54.0
Papua New Guinea	20.9	18.4	20.3	21.2	22.0
Samoa	28.9	30.3	30.8	29.0	30.5
Solomon Islands	42.7	42.7	39.7	35.9	36.9
Tonga	39.5	40.3	39.7	38.6	31.1
Tuvalu	155.9	118.9	149.8	145.3	144.4
Vanuatu	34.9	36.8	31.3	37.4	40.7

Table A10 Fiscal balance of central government (% of GDP)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	-5.5	-4.8	-1.8	-1.0	-5.4
Azerbaijan	-0.4	-1.6	-0.4	-0.3	-2.4
Georgia	-1.3	-0.8	-0.7	-2.0	-9.3
Kazakhstan	-1.6	-2.7	-1.3	-1.9	-4.0
Kyrgyz Republic	-2.8	-0.6	-1.1	-0.1	-3.3
Tajikistan	-2.3	-5.1	-2.8	-3.8	-3.0
Turkmenistan	-2.4	-2.8	-0.2	-0.4	0.1
Uzbekistan	0.1	0.5	0.7	-1.5	-2.3
East Asia					
Hong Kong, China	4.4	5.5	2.4	-0.6	-9.5
Mongolia	-15.3	-3.8	2.6	1.4	-9.6
People's Republic of China	-3.8	-3.7	-4.1	-4.9	-6.2
Republic of Korea	-1.3	-1.0	-0.6	-2.8	-6.1
Taipei, China	-0.3	-0.1	0.1	-0.6	-1.9
South Asia					
Afghanistan	0.1	-0.7	1.6	-1.1	-2.5
Bangladesh	-3.8	-3.5	-4.7	-5.5	-5.5
Bhutan	-1.1	-3.5	-0.3	-1.6	-2.7
India	-3.5	-3.5	-3.4	-4.6	-9.5
Maldives	-10.0	-3.1	-5.3	-6.6	-27.5
Nepal	1.1	-2.8	-5.8	-5.0	-5.5
Pakistan	-4.6	-5.8	-6.5	-8.9	-9.1
Sri Lanka	-5.3	-5.5	-5.3	-8.2	-11.9
Southeast Asia					
Brunei Darussalam	-16.6	-13.0	0.2	-5.6	-17.1
Cambodia	-0.3	-0.8	0.7	3.0	-2.6
Indonesia	-2.5	-2.5	-1.8	-2.2	-6.2
Lao People's Dem. Rep.	-5.2	-5.6	-4.7	-3.3	-5.3
Malaysia	-3.1	-2.9	-3.7	-3.4	-3.5
Myanmar	-2.6	-2.9	-4.0	-4.1	-4.9
Philippines	-2.3	-2.1	-3.1	-3.4	-7.6
Singapore	-0.5	0.5	-0.8	-0.2	-6.3
Thailand	-2.7	-2.7	-2.5	-1.8	-6.1
Timor-Leste	-49.4	-17.5	-6.0	8.2	-9.0
Viet Nam	-2.2	-1.2	-0.1	-3.5	-5.8
The Pacific					
Cook Islands	1.0	8.4	4.1	5.0	-2.8
Federated States of Micronesia	7.3	14.3	24.3	17.6	0.0
Fiji	-3.9	-2.1	-4.4	-3.6	-8.2
Kiribati	3.4	11.9	27.2	15.5	-0.7
Marshall Islands	4.8	4.3	2.5	-2.3	-4.9
Nauru	21.5	21.3	32.6	32.7	32.2
Niue	0.3	-4.6	-0.5	-1.2	-4.9
Palau	3.6	4.8	6.2	0.3	-11.2
Papua New Guinea	-4.8	-2.5	-2.6	-5.0	-8.1
Samoa	-0.4	-1.1	-0.2	2.7	6.2
Solomon Islands	-3.6	-3.4	0.9	-2.0	-2.5
Tonga	-0.4	2.1	2.9	3.1	5.3
Tuvalu	20.6	8.4	40.6	22.9	9.1
Vanuatu	0.6	-1.2	7.5	1.7	0.4

Table A11 Growth rate of merchandise exports (% per year)

	2016	2017	2018	2019	2020	2021	2022
Central Asia	-16.5	22.7	25.4	4.6	-18.3	20.8	4.4
Armenia	16.5	26.2	12.7	19.4	-15.5	5.5	8.5
Azerbaijan	-15.2	14.7	37.2	-4.5	-36.6	20.7	0.7
Georgia	-5.4	24.0	22.4	12.2	-12.3	4.5	8.9
Kazakhstan	-20.8	33.3	26.5	-2.8	-19.4	31.6	2.8
Kyrgyz Republic	-0.7	14.4	4.2	6.6	-1.6	5.0	5.0
Tajikistan	0.8	9.4	-10.4	9.3	19.8	-7.0	8.0
Turkmenistan	-38.2	3.6	49.6	8.2	-24.2	5.0	7.0
Uzbekistan	-8.8	17.5	12.0	22.1	-7.7	17.8	6.6
East Asia	-6.9	11.5	8.6	-2.4	3.3	9.6	4.3
Hong Kong, China	0.0	7.8	5.1	-3.6	0.8	5.0	4.9
Mongolia	8.0	21.4	12.4	9.6	-2.2	10.9	4.1
People's Republic of China	-7.2	11.4	9.1	-1.3	4.6	10.0	4.1
Republic of Korea	-5.7	13.4	7.9	-11.1	-7.2	8.0	6.0
Taipei, China	-9.0	10.8	0.8	-4.3	4.3	7.7	4.0
South Asia	3.6	8.7	9.2	-3.2	-12.0	21.3	10.9
Afghanistan	6.3	27.6	11.6	-1.3	-10.1	33.8	30.2
Bangladesh	8.9	1.7	6.7	9.1	-17.1	13.0	9.0
Bhutan	-14.7	12.3	8.6	0.9	6.7	3.1	5.6
India	5.2	10.3	9.1	-5.0	-11.9	22.4	10.0
Maldives	6.8	24.3	6.6	6.3	-28.9	12.7	13.0
Nepal	-28.7	9.8	15.8	12.4	-7.5	14.2	6.5
Pakistan	-8.8	0.1	12.6	-2.1	-7.2	0.0	20.0
Sri Lanka	-2.2	10.2	4.7	0.4	-15.9	16.3	11.0
Southeast Asia	-1.8	15.3	7.7	-2.8	-4.4	8.1	8.8
Brunei Darussalam	-21.4	13.8	18.2	11.4	-8.3	25.3	7.4
Cambodia	10.0	9.3	15.5	15.6	16.5	-2.5	7.0
Indonesia	-3.1	16.9	7.0	-6.8	-3.0	7.5	8.0
Lao People's Dem. Rep.	9.7	14.8	18.6	2.9	4.1	5.5	6.0
Malaysia	-5.1	12.5	10.4	-4.3	-6.0	10.5	7.8
Myanmar	-0.4	10.5	7.4	-6.8	3.4	-5.5	...
Philippines	-1.1	21.2	0.3	2.9	-11.3	6.6	10.2
Singapore	-5.8	11.6	10.2	-3.8	-6.7	5.0	4.2
Thailand	0.1	9.5	7.5	-3.3	-6.6	13.0	13.8
Timor-Leste	11.1	-17.4	48.6	5.5	-33.0	8.1	12.2
Viet Nam	8.9	21.2	13.9	8.4	7.0	8.0	8.0
The Pacific	0.3	16.4	5.1	5.2	-17.7	13.9	7.9
Cook Islands	-0.2	-16.4	91.6	-56.3	110.6	...	...
Federated States of Micronesia	24.7	11.2	-14.7	38.4	-3.4	1.5	1.4
Fiji	-5.3	6.9	3.0	1.7	-22.2	10.0	20.3
Kiribati	15.8	-11.6	21.3	-6.9	4.5	8.5	0.9
Marshall Islands	-12.6	16.9	5.1	-0.9	-20.1	-5.0	20.2
Nauru	90.0	-45.4	-38.7	-64.9	-9.0	...	...
Niue	-6.1	26.4	-2.8	...	...	...	...
Palau	2.1	5.5	-1.9	-18.5	-23.5	-7.0	25.0
Papua New Guinea	-2.4	21.6	5.4	8.7	-19.7	16.4	6.2
Samoa	32.3	2.9	-4.6	38.0	-7.4	-11.3	-2.2
Solomon Islands	2.6	8.3	14.5	-14.0	-17.7	-4.0	-0.4
Tonga	28.0	-18.5	-34.2	6.0	24.7	-7.8	7.9
Tuvalu	3.5	11.5	4.9	1.7	10.2	6.3	...
Vanuatu	28.7	20.3	4.4	-27.8	-40.7	51.0	0.8
Developing Asia	-4.9	11.8	8.8	-2.5	-0.3	11.2	5.9
Developing Asia excluding the NIEs	-4.7	11.7	9.2	-1.7	0.2	11.8	5.9

... = data not available.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Table A12 Growth rate of merchandise imports (% per year)

	2016	2017	2018	2019	2020	2021	2022
Central Asia	-12.3	8.9	13.7	11.7	-10.9	6.6	7.1
Armenia	2.1	32.0	17.4	12.8	-19.5	6.5	7.5
Azerbaijan	-7.9	0.4	21.2	3.5	-11.1	2.5	2.7
Georgia	-8.8	9.3	15.1	1.8	-13.8	3.6	5.8
Kazakhstan	-21.0	16.5	12.0	16.9	-9.7	4.3	8.2
Kyrgyz Republic	-3.0	11.4	18.7	-5.7	-26.2	10.0	10.0
Tajikistan	-11.5	-8.5	13.5	4.8	-5.9	15.0	5.0
Turkmenistan	-6.2	-22.7	-47.8	3.2	-10.8	6.0	8.0
Uzbekistan	-4.7	12.1	47.5	16.1	-10.1	15.5	0.0
East Asia	-4.6	15.8	15.8	-2.8	-1.4	5.9	5.9
Hong Kong, China	-1.2	8.7	6.6	-6.1	-1.0	5.2	5.9
Mongolia	-10.8	25.2	35.5	2.4	-12.7	12.8	9.3
People's Republic of China	-4.2	16.0	17.1	-2.1	-0.6	5.4	5.3
Republic of Korea	-6.5	18.0	10.6	-7.6	-8.8	9.5	10.5
Taipei,China	-10.6	9.7	6.5	-1.9	-1.1	7.5	6.5
South Asia	-0.4	18.2	12.1	-6.8	-19.3	26.9	9.7
Afghanistan	-14.3	8.2	-1.8	-6.6	-4.5	4.6	1.0
Bangladesh	5.9	9.0	25.2	1.8	-8.6	6.0	8.0
Bhutan	2.0	-0.3	0.5	-2.1	-11.8	-7.0	6.1
India	-1.0	19.5	10.3	-7.6	-20.7	32.0	10.0
Maldives	10.6	6.3	24.2	-0.4	-39.1	7.0	12.5
Nepal	-7.1	29.4	27.9	5.2	-18.9	10.5	10.0
Pakistan	-0.2	18.0	16.0	-6.8	-18.2	9.0	9.0
Sri Lanka	1.3	9.4	6.0	-10.3	-19.5	11.0	12.0
Southeast Asia	-0.6	15.1	15.3	-4.7	-13.2	8.3	10.5
Brunei Darussalam	-17.3	15.5	33.7	21.8	6.9	15.8	4.3
Cambodia	6.3	9.8	21.3	18.3	-5.4	5.5	10.3
Indonesia	-4.4	16.2	20.6	-8.8	-18.1	6.5	13.0
Lao People's Dem. Rep.	-11.4	7.9	6.0	-0.8	-9.4	8.6	8.3
Malaysia	-3.7	12.9	11.4	-5.8	-9.0	9.7	7.9
Myanmar	2.4	9.3	2.9	-13.8	5.2	-0.5	...
Philippines	17.7	17.6	11.9	-0.2	-22.9	9.6	12.5
Singapore	-6.7	11.4	13.3	-3.6	-7.7	7.0	5.5
Thailand	-5.1	13.2	13.7	-5.6	-13.5	13.5	11.5
Timor-Leste	-13.3	11.4	-2.9	-3.4	-11.0	20.9	31.3
Viet Nam	7.0	22.3	12.2	7.0	3.7	5.0	5.0
The Pacific	-13.0	34.6	13.2	6.3	-24.2	16.1	12.6
Cook Islands	-4.7	11.4	15.2	-5.0	-5.0	...	...
Federated States of Micronesia	-4.6	9.6	0.1	-4.4	-0.5	-1.6	0.5
Fiji	4.0	5.0	14.4	-13.6	-20.5	1.7	11.5
Kiribati	7.5	9.5	3.4	-0.7	4.2	8.7	1.2
Marshall Islands	-9.8	13.7	10.4	4.7	-20.0	7.0	15.0
Nauru	-7.8	-5.9	12.9	-3.9	-8.1	...	...
Niue	-7.4	27.3	10.6	...	...	...	...
Palau	-1.5	4.0	-1.0	2.9	-17.0	-6.8	17.0
Papua New Guinea	-18.6	47.9	14.7	12.1	-28.2	20.6	13.6
Samoa	-4.4	0.4	6.7	6.2	-9.5	-8.8	3.7
Solomon Islands	-4.2	10.2	14.7	-6.2	-18.6	31.8	7.3
Tonga	-8.5	5.5	0.6	-1.4	3.1	-9.3	6.1
Tuvalu	-47.0	11.5	16.7	-2.4	3.5	-13.3	...
Vanuatu	3.6	-1.4	-4.2	6.1	-16.4	17.6	20.4
Developing Asia	-3.7	16.0	15.1	-3.4	-5.8	9.4	7.0
Developing Asia excluding the NIEs	-3.2	16.2	15.9	-3.1	-5.8	9.6	6.8

... = data not available.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei,China.

Table A13 Trade balance (\$ million)

	2016	2017	2018	2019	2020	2021	2022
Central Asia	-4,955	7,544	22,003	14,170	2,045	16,113	15,208
Armenia	-977	-1,401	-1,759	-1,805	-1,327	-1,440	-1,520
Azerbaijan	4,206	6,115	9,841	8,533	2,512	4,865	4,693
Georgia	-5,225	-5,311	-5,982	-5,719	-4,688	-4,802	-4,972
Kazakhstan	9,253	16,728	25,579	18,131	10,704	23,948	22,589
Kyrgyz Republic	-2,137	-2,332	-3,034	-2,626	-1,413	-1,655	-1,926
Tajikistan	-2,027	-1,639	-2,104	-2,165	-1,718	-2,303	-2,377
Turkmenistan	-5,657	-2,401	6,328	7,113	4,200	4,400	4,620
Uzbekistan	-2,392	-2,215	-6,867	-7,291	-6,225	-6,900	-5,900
East Asia	660,934	649,374	525,588	515,548	667,424	818,999	813,336
Hong Kong, China	-16,708	-22,912	-32,282	-16,086	-6,031	-7,449	-13,685
Mongolia	1,338	1,494	676	1,158	1,767	1,860	1,628
People's Republic of China	488,883	475,941	380,074	392,993	515,000	658,000	660,000
Republic of Korea	116,462	113,593	110,087	79,812	81,945	85,551	88,374
Taipei, China	70,960	81,258	67,034	57,671	74,742	81,037	77,020
South Asia	-161,437	-222,554	-260,085	-228,423	-156,309	-218,600	-236,633
Afghanistan	-5,595	-5,932	-5,721	-5,294	-5,103	-5,538	-5,374
Bangladesh	-6,460	-9,472	-18,178	-15,835	-17,861	-16,635	-17,594
Bhutan	-536	-472	-430	-402	-242	-159	-172
India	-112,442	-160,036	-180,283	-157,506	-96,642	-154,858	-170,341
Maldives	-1,839	-1,908	-2,425	-2,392	-1,420	-1,505	-1,692
Nepal	-6,409	-8,434	-10,882	-11,384	-9,122	-10,045	-11,087
Pakistan	-19,283	-26,680	-30,903	-27,612	-19,910	-23,728	-23,387
Sri Lanka	-8,873	-9,619	-10,343	-7,997	-6,008	-6,132	-6,985
Southeast Asia	132,332	141,751	107,650	118,779	187,022	199,741	218,443
Brunei Darussalam	2,153	2,403	2,365	2,211	1,266	2,095	2,440
Cambodia	-3,846	-4,278	-5,844	-7,255	-3,593	-5,191	-6,284
Indonesia	15,318	18,814	-228	3,508	28,201	31,667	27,004
Lao People's Dem. Rep.	-2,219	-2,108	-1,632	-1,408	-487	-715	-918
Malaysia	24,599	27,233	28,405	29,773	33,099	37,936	40,757
Myanmar	-4,409	-4,696	-4,362	-2,978	-3,321	-5,880	...
Philippines	-35,549	-40,215	-50,972	-49,312	-31,839	-36,352	-42,034
Singapore	90,013	101,062	101,580	96,862	93,661	91,983	91,422
Thailand	35,776	32,581	22,388	26,725	39,820	44,077	54,937
Timor-Leste	-546	-615	-589	-566	-510	-619	-816
Viet Nam	11,042	11,570	16,540	21,221	30,725	40,741	51,936
The Pacific	3,885	4,555	4,322	5,078	4,250	5,230	5,291
Cook Islands	-92	-107	-114	-120	-102	...	...
Federated States of Micronesia	-110	-120	-129	-103	-104	-101	-101
Fiji	-992	-1,025	-1,284	-954	-775	-721	-726
Kiribati	-97	-108	-110	-110	-115	-125	-126
Marshall Islands	-49	-54	-63	-70	-56	-66	-73
Nauru	-21	-34	-49	-54	-50	...	...
Niue	-13	-16	-18	...	...	...	...
Palau	-134	-139	-138	-145	-121	-113	-131
Papua New Guinea	6,111	6,888	6,973	7,461	6,329	7,245	7,439
Samoa	-270	-270	-293	-299	-270	-247	-259
Solomon Islands	13	6	6	-36	-26	-170	-210
Tonga	-167	-182	-191	-187	-190	-172	-182
Tuvalu	-22	-25	-29	-28	-29	-25	...
Vanuatu	-270	-256	-240	-276	-242	-275	-339
Developing Asia	630,759	580,671	399,478	425,153	704,431	821,483	815,645
Developing Asia excluding NIEs	370,033	307,669	153,059	206,894	460,114	570,361	572,515

... = data not available.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Table A14 Current account balance (% of GDP)

	2016	2017	2018	2019	2020	2021	2022
Central Asia	-5.9	-1.8	-0.2	-2.4	-3.0	-1.2	-1.5
Armenia	-1.0	-1.5	-6.9	-7.2	-3.1	-5.8	-5.5
Azerbaijan	-3.6	4.1	12.8	9.1	-0.5	3.9	5.5
Georgia	-12.5	-8.1	-6.8	-5.5	-12.3	-10.0	-7.0
Kazakhstan	-5.9	-3.1	-0.1	-4.0	-3.5	-0.5	-1.7
Kyrgyz Republic	-11.6	-4.7	-12.1	-12.1	4.5	-8.0	-8.0
Tajikistan	-3.8	2.1	-4.4	-2.3	4.3	-2.5	-2.5
Turkmenistan	-20.2	-10.4	5.5	1.3	0.5	2.0	0.5
Uzbekistan	0.3	2.5	-7.1	-5.8	-5.4	-4.5	-4.0
East Asia	2.7	2.4	1.1	1.5	2.7	2.6	2.0
Hong Kong, China	4.0	4.6	3.7	6.0	6.6	5.5	5.5
Mongolia	-6.3	-10.1	-16.8	-15.4	-4.4	-8.3	-10.7
People's Republic of China	1.7	1.5	0.2	0.7	1.9	1.9	1.3
Republic of Korea	6.5	4.6	4.5	3.6	4.6	4.0	3.8
Taipei, China	13.1	14.0	11.6	10.6	14.1	12.0	11.0
South Asia	-0.5	-2.0	-2.7	-1.3	0.5	-1.0	-1.0
Afghanistan	9.0	7.6	12.2	11.7	10.7	10.0	8.3
Bangladesh	1.9	-0.5	-3.5	-1.7	-1.5	0.7	0.8
Bhutan	-30.3	-23.9	-19.1	-20.5	-12.1	-7.7	-10.4
India	-0.6	-1.8	-2.1	-0.9	1.0	-1.1	-1.0
Maldives	-23.5	-21.6	-28.4	-26.6	-29.2	-23.0	-25.0
Nepal	5.4	-0.3	-7.1	-6.8	-0.9	-2.5	-3.8
Pakistan	-1.7	-4.1	-6.3	-4.8	-1.1	-1.0	-2.0
Sri Lanka	-2.1	-2.6	-3.2	-2.2	-1.3	-1.1	-1.7
Southeast Asia	3.3	3.1	1.4	2.3	3.4	3.0	3.4
Brunei Darussalam	12.9	16.4	6.9	6.6	4.0	8.5	10.5
Cambodia	-8.6	-8.1	-11.8	-15.0	-11.4	-15.6	-12.3
Indonesia	-1.8	-1.6	-2.9	-2.7	-0.4	-0.8	-1.3
Lao People's Dem. Rep.	-15.6	-15.1	-13.1	-12.1	-7.3	-7.8	-8.0
Malaysia	2.4	2.8	2.2	3.4	4.4	4.4	4.4
Myanmar	-4.3	-5.5	-4.7	0.4	-4.0	-4.4	...
Philippines	-0.4	-0.7	-2.6	-0.8	3.6	2.5	1.8
Singapore	17.6	17.3	15.4	14.3	17.6	17.0	17.0
Thailand	10.5	9.6	5.6	7.0	3.2	4.0	6.5
Timor-Leste	-33.0	-17.7	-12.3	7.9	-19.3	-26.5	-43.0
Viet Nam	2.9	2.9	2.4	4.6	4.6	2.0	2.5
The Pacific	17.2	15.5	15.1	15.1	10.3	10.7	10.2
Cook Islands	35.4	41.1	39.3	33.4	-6.0	-12.5	5.1
Federated States of Micronesia	7.2	10.3	20.4	24.8	21.6	15.0	10.2
Fiji	-3.5	-5.5	-7.2	-4.8	-17.8	-15.9	-13.5
Kiribati	20.4	14.5	13.4	7.5	3.9	2.8	7.5
Marshall Islands	16.1	7.5	6.5	9.4	13.8	8.2	5.6
Nauru	2.1	12.7	-4.5	10.4	4.6	...	...
Niue	25.2	21.0	22.7	...	...	...	...
Palau	-13.7	-19.0	-15.5	-26.9	-32.6	-36.0	-33.0
Papua New Guinea	25.0	23.5	22.9	22.0	18.8	20.1	18.7
Samoa	-4.5	-1.8	1.1	3.0	1.2	-6.4	-10.4
Solomon Islands	-3.5	-4.2	-3.1	-9.9	-1.7	-9.0	-11.0
Tonga	-7.6	-6.7	-6.3	-0.8	-3.8	-11.5	-9.4
Tuvalu	24.0	7.0	5.0	-6.9	-0.4	1.9	4.5
Vanuatu	-2.9	-6.1	10.2	12.3	-1.0	-2.5	1.8
Developing Asia	2.2	1.8	0.6	1.1	2.4	2.1	1.7
Developing Asia excluding the NIEs	1.1	0.9	-0.4	0.3	1.5	1.3	0.9

... = data not available.

Note: The newly industrialized economies (NIEs) are Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China.

Table A15 Exchange rates to the United States dollar (annual average)

	Currency	Symbol	2016	2017	2018	2019	2020
Central Asia							
Armenia	Dram	AMD	480.5	482.7	483.0	480.5	489.0
Azerbaijan	Azerbaijan new manat	AZN	1.6	1.7	1.7	1.7	1.7
Georgia	Lari	GEL	2.4	2.5	2.5	2.8	3.1
Kazakhstan	Tenge	T	342.1	326.0	344.7	382.7	413.0
Kyrgyz Republic	Som	Som	69.9	68.9	68.8	69.8	77.3
Tajikistan	Somoni	TJS	7.8	8.6	9.2	9.6	10.1
Turkmenistan	Turkmen manat	TMM	3.5	3.5	3.5	3.5	3.5
Uzbekistan	Sum	SUM	2,968.9	5,140.3	8,069.0	8,837.0	10,065.0
East Asia							
Hong Kong, China	Hong Kong dollar	HK\$	7.8	7.8	7.8	7.8	7.8
Mongolia	Togrog	MNT	2,144.8	2,439.3	2,472.6	2,663.7	2,813.4
People's Republic of China	Yuan	CNY	6.6	6.8	6.6	6.9	6.9
Republic of Korea	Won	W	1,163.3	1,122.3	1,100.6	1,165.4	1,180.3
Taipei, China	NT dollar	NT\$	32.3	30.4	30.1	30.9	29.4
South Asia							
Afghanistan	Afghani	AF	67.9	68.0	72.1	77.7	76.8
Bangladesh	Taka	Tk	78.3	79.1	82.1	84.0	84.8
Bhutan	Ngultrum	Nu	66.3	66.4	65.1	70.6	72.5
India	Indian rupee/s	Re/Rs	67.1	64.4	69.9	70.9	74.2
Maldives	Rufiyaa	Rf	15.4	15.4	15.4	15.4	15.4
Nepal	Nepalese rupee/s	NRe/NRs	106.4	106.2	104.4	112.9	116.3
Pakistan	Pakistan rupee/s	PRs/PRs	104.2	104.8	109.8	136.1	158.0
Sri Lanka	Sri Lanka rupee/s	SLRe/SLRs	145.6	152.0	162.5	178.8	185.5
Southeast Asia							
Brunei Darussalam	Brunei dollar	B\$	1.4	1.4	1.3	1.4	1.4
Cambodia	Riel	KR	4,030.0	4,048.0	4,065.0	4,070.0	4,077.4
Indonesia	Rupiah	Rp	13,308.3	13,380.8	14,236.9	14,147.7	14,582.2
Lao People's Dem. Rep.	Kip	KN	8,124.3	8,245.3	8,401.4	8,679.9	9,049.0
Malaysia	Ringgit	RM	4.1	4.3	4.0	4.1	4.2
Myanmar	Kyat	MK	1,259.2	1,355.7	1,381.9	1,525.8	1,429.1
Philippines	Peso	P	47.5	50.4	52.7	51.8	49.6
Singapore	Singapore dollar	S\$	1.4	1.4	1.3	1.4	1.4
Thailand	Baht	B	35.3	33.9	32.3	31.1	31.3
Timor-Leste	US dollar	US\$	1.0	1.0	1.0	1.0	1.0
Viet Nam	Dong	D	21,931.0	22,370.3	22,602.9	23,050.5	23,208.8
The Pacific							
Cook Islands	New Zealand dollar	NZ\$	1.5	1.4	1.4	1.5	1.6
Federated States of Micronesia	US dollar	US\$	1.0	1.0	1.0	1.0	1.0
Fiji	Fiji dollar	F\$	2.1	2.1	2.1	2.2	2.2
Kiribati	Australian dollar	A\$	1.3	1.3	1.3	1.4	1.5
Marshall Islands	US dollar	US\$	1.0	1.0	1.0	1.0	1.0
Nauru	Australian dollar	A\$	1.3	1.3	1.3	1.4	1.6
Niue	New Zealand dollar	NZ\$	1.4	1.4	1.4	...	...
Palau	US dollar	US\$	1.0	1.0	1.0	1.0	1.0
Papua New Guinea	Kina	K	3.1	3.2	3.3	3.4	3.5
Samoa	Tala	ST	2.6	2.5	2.6	2.6	2.7
Solomon Islands	Sol. Islands dollar	SI\$	7.9	7.9	8.0	8.2	8.2
Tonga	Pa'anga	T\$	2.2	2.2	2.3	2.5	2.3
Tuvalu	Australian dollar	A\$	1.3	1.3	1.3	1.4	1.4
Vanuatu	Vatu	Vt	108.5	107.8	110.2	114.7	116.1

... = data not available.

Table A16 Gross international reserves (\$ million)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	2,204	2,314	2,259	2,850	2,614
Azerbaijan	3,974	5,335	...	...	...
Georgia	2,800	3,100	3,300	3,500	3,900
Kazakhstan	29,713	30,997	30,927	28,958	35,638
Kyrgyz Republic	1,969	2,177	2,155	2,424	2,557
Tajikistan	745	1,272	1,211	1,385	...
Turkmenistan	...	...	...	...	...
Uzbekistan	26,428	27,700	27,081	29,172	34,900
East Asia					
Hong Kong, China	386,241	431,370	424,670	441,350	491,775
Mongolia	1,296	3,008	3,549	4,349	4,534
People's Republic of China	3,097,845	3,235,895	3,167,992	3,222,933	3,356,529
Republic of Korea	371,103	389,267	403,694	408,816	443,098
Taipei, China	434,204	451,500	461,784	478,126	529,911
South Asia					
Afghanistan	7,403	8,211	8,293	8,560	9,727
Bangladesh	30,168	33,407	32,916	32,717	36,037
Bhutan	1,119	1,104	1,111	1,065	1,344
India	369,955	424,545	412,871	477,807	585,324
Maldives	467	587	712	754	985
Nepal	9,736	10,494	10,084	9,500	11,646
Pakistan	18,143	16,145	9,765	7,285	12,132
Sri Lanka	6,019	7,959	6,919	7,642	5,665
Southeast Asia					
Brunei Darussalam	3,489	3,488	3,407	4,273	3,997
Cambodia	9,122	12,201	14,629	18,763	21,334
Indonesia	116,362	130,196	120,654	129,183	135,897
Lao People's Dem. Rep.	884	1,016	873	997	1,319
Malaysia	94,501	96,421	103,978	102,376	102,830
Myanmar	5,134	5,370	6,307	7,244	8,528
Philippines	80,692	81,570	79,193	87,840	110,117
Singapore	246,575	279,900	287,673	279,450	362,305
Thailand	171,853	194,929	206,318	217,632	247,579
Timor-Leste	16,125	17,344	16,467	18,118	19,647
Viet Nam	36,688	49,233	55,263	78,517	95,199
The Pacific					
Cook Islands	...	...	...	...	...
Federated States of Micronesia	...	...	...	...	...
Fiji	917	1,100	964	1,027	945
Kiribati	...	...	...	...	...
Marshall Islands	...	...	...	...	...
Nauru	...	...	...	...	...
Niue	...	...	...	...	...
Palau	...	...	...	...	...
Papua New Guinea	1,656	1,736	2,215	2,313	2,709
Samoa	111	122	163	193	182
Solomon Islands	530	575	627	576	647
Tonga	166	192	215	213	242
Tuvalu	70	73	81	85	83
Vanuatu	309	394	434	510	544

... = data not available.

Table A17 External debt outstanding (\$ million)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	4,806	5,495	5,536	5,785	6,053
Azerbaijan	6,913	9,398	...	...	...
Georgia	13,083	14,363	14,634	15,324	17,043
Kazakhstan	163,309	167,218	159,797	158,565	...
Kyrgyz Republic	6,830	6,998	6,828	7,008	7,234
Tajikistan	2,284	3,180	2,927	2,945	3,192
Turkmenistan	...	...	...	...	...
Uzbekistan	14,700	15,800	17,200	24,600	33,800
East Asia					
Hong Kong, China	1,356,411	1,576,560	1,696,008	1,667,263	1,783,421
Mongolia	24,625	27,493	28,715	30,702	32,162
People's Republic of China	1,415,801	1,757,958	1,982,800	2,057,300	...
Republic of Korea	382,162	412,028	441,173	466,979	542,448
Taipei, China	172,238	181,938	191,161	184,659	189,873
South Asia					
Afghanistan	1,201	1,258	1,212	1,147	1,457
Bangladesh	26,306	28,337	33,512	38,475	44,095
Bhutan	2,316	2,505	2,642	2,728	2,873
India	471,308	529,290	543,189	558,500	563,500
Maldives	857	1,202	1,403	1,536	1,976
Nepal	3,632	4,013	4,781	5,366	6,678
Pakistan	73,945	83,477	95,237	106,348	112,795
Sri Lanka	46,418	51,604	52,412	54,811	49,212
Southeast Asia					
Brunei Darussalam	...	...	...	...	...
Cambodia	5,860	6,669	7,022	7,596	8,673
Indonesia	320,006	352,469	375,430	403,563	417,527
Lao People's Dem. Rep.	14,134	15,766	16,732	17,073	18,353
Malaysia	203,848	217,927	223,035	231,013	238,838
Myanmar	9,100	9,600	11,000	15,506	27,600
Philippines	74,763	73,098	78,960	83,618	98,488
Singapore	1,397,885	1,447,359	1,541,608	1,560,539	1,603,028
Thailand	132,834	155,949	163,103	171,885	190,010
Timor-Leste	76	104	146	228	297
Viet Nam	...	...	...	...	...
The Pacific					
Cook Islands	77	56	61	62	55
Federated States of Micronesia	80	80	76	71	65
Fiji	603	663	698	674	788
Kiribati	42	43	39	37	35
Marshall Islands	83	78	73	70	65
Nauru	35	37	37	33	31
Niue	0	0	0	...	...
Palau	76	82	88	87	137
Papua New Guinea	1,754	2,001	3,026	4,228	5,374
Samoa	399	401	434	399	372
Solomon Islands	77	95	94	98	126
Tonga	176	179	188	172	182
Tuvalu	17	15	12	9	7
Vanuatu	246	313	350	375	378

... = data not available.

Table A18 Debt service ratio (% of exports of goods and services)

	2016	2017	2018	2019	2020
Central Asia					
Armenia	4.6	5.1	6.2	6.2	10.5
Azerbaijan	...	...	...	...	...
Georgia	20.7	18.8	19.3	18.8	19.8
Kazakhstan	75.4	69.0	53.3	...	...
Kyrgyz Republic	32.1	35.1	32.8	36.6	38.8
Tajikistan	17.3	13.0	16.8	13.9	15.9
Turkmenistan	...	...	...	...	...
Uzbekistan	12.8	15.3	15.6	15.7	23.3
East Asia					
Hong Kong, China	...	...	...	...	...
Mongolia	42.5	48.6	50.1	40.8	44.5
People's Republic of China	6.1	5.5	5.5	6.7	...
Republic of Korea	9.3	8.2	8.8	9.8	10.9
Taipei, China	2.1	2.0	2.3	4.8	1.9
South Asia					
Afghanistan	...	...	...	...	...
Bangladesh	2.8	3.0	3.5	3.4	4.4
Bhutan	14.5	24.8	23.4	34.9	30.9
India	8.3	7.5	6.4	6.5	9.0
Maldives	2.5	2.6	2.9	2.7	5.6
Nepal	9.9	10.8	8.3	8.2	10.9
Pakistan	19.4	29.6	24.5	38.3	37.4
Sri Lanka	25.6	23.9	28.9	29.7	...
Southeast Asia					
Brunei Darussalam	...	...	...	...	...
Cambodia	1.3	1.3	1.4	1.5	1.8
Indonesia	35.3	25.5	25.1	26.9	27.9
Lao People's Dem. Rep.	21.6	22.7	21.8	24.6	34.1
Malaysia	14.7	6.8	5.6	7.1	7.6
Myanmar	4.7	4.5	5.2	4.2	5.4
Philippines	7.0	6.2	6.6	6.7	6.3
Singapore	...	...	...	...	...
Thailand	5.9	5.8	6.2	6.9	8.9
Timor-Leste	0.6	3.0	3.9	8.6	27.0
Viet Nam	...	...	...	...	...
The Pacific					
Cook Islands	4.6	4.4	5.6	4.5	59.3
Federated States of Micronesia	7.0	6.1	5.2	5.5	6.7
Fiji	13.5	1.8	1.7	1.9	...
Kiribati	5.0	5.0	3.6	6.8	8.0
Marshall Islands	9.4	9.5	8.0	8.5	9.9
Nauru	3.0	0.0	5.2	24.1	...
Niue	0.0	0.0	0.0	...	...
Palau	5.9	5.2	6.0	7.9	16.0
Papua New Guinea	0.3	0.8	0.8	1.2	1.8
Samoa	8.5	8.1	9.7	8.4	11.2
Solomon Islands	1.4	1.0	0.7	0.6	6.4
Tonga	6.3	6.3	6.4	9.1	8.0
Tuvalu	12.0	11.6	12.4	...	...
Vanuatu	7.6	5.6	9.4	4.7	20.9

... = data not available.

Asian Development Outlook 2021

Financing a Green and Inclusive Recovery

Recovery from the pandemic crisis has strengthened in developing Asia. Manufacturing and trade have rebounded, remittances have been resilient, and policy support remains strong. Growth in 2021 will be strongest in East and South Asia, driven by the People's Republic of China and India, and more moderate in Central and Southeast Asia and the Pacific. The main risks to the outlook would be new virus outbreaks or delays in procuring and administering vaccines. Long-term consequences of the pandemic could stem from prolonged unemployment and disrupted education.

Asia needs to mobilize huge sums of capital to achieve green, resilient, and inclusive recovery. Public funding alone cannot do the job, but recent rapid expansion in green and social finance can help, its popularity with private investors reflecting heightened awareness among the general public of sustainable development and its benefits. Solid evidence associates green and social finance with positive impacts globally and in Asia. Recently, financial gain has joined altruistic motives for investment, which bodes well for future expansion. Policies implemented through regulatory and fiscal measures can further accelerate the development of green and social finance.

About the Asian Development Bank

ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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