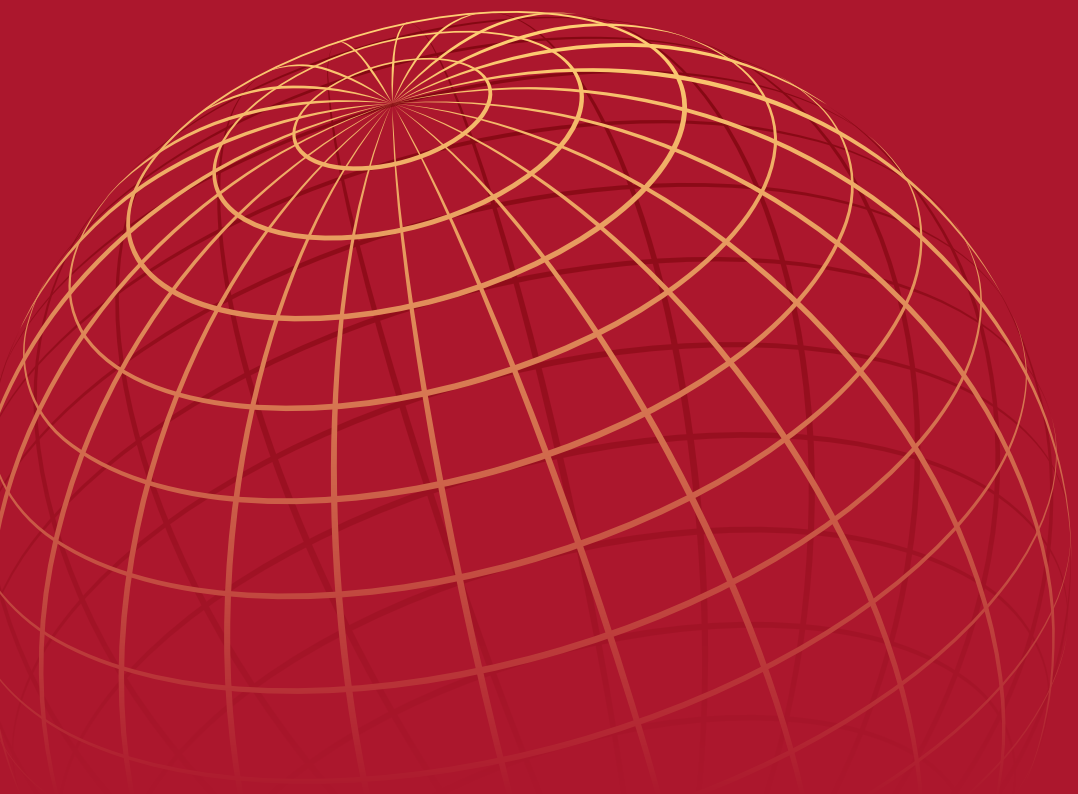
A World Bank Group Flagship Report

JUNE 2020

Global Economic Prospects



WORLD BANK GROUP

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Foreword

The COVID-19 pandemic and the economic shutdown in advanced economies and other parts of the globe have disrupted billions of lives and are jeopardizing decades of development progress.

This edition of the *Global Economic Prospects* assesses the impacts of the pandemic and analyzes possible courses and outcomes. It presents clear actions needed by the global community and national policymakers—to limit the harm, recover, and rebuild better and stronger than before.

The report describes a global economy suffering a devastating blow. Our baseline forecast envisions the deepest global recession since World War II. The report also includes an exhaustive analysis of the outlook for emerging market and developing economies, many of which are now fighting on two fronts—containing the domestic outbreak and its consequences while coping with the economic spillovers from the deep recessions in advanced economies.

Looking a layer deeper, the report investigates the depth and breadth of the economic and humanitarian storm. The COVID-19 recession is the first since 1870 to be triggered solely by a pandemic. The speed and depth with which it has struck suggests the possibility of a sluggish recovery that may require policymakers to consider additional interventions. For many emerging market and developing countries, however, effective financial support and mitigation measures are particularly hard to achieve because a substantial share of employment is in informal sectors.

Beyond the staggering economic impacts, the pandemic will also have severe and long-lasting socio-economic impacts that may well weaken long-term growth prospects—the plunge in investment because of elevated uncertainty, the erosion of human capital from the legions of unemployed, and the potential for ruptures of trade and supply linkages.

The World Bank Group is committed to helping alleviate financing breakdowns from the COVID-19 crisis in ways that work toward a more resilient recovery. Some examples include expanding and increasing the coverage of safety net programs, providing trade finance, and supporting the working capital needs of small and medium-sized enterprises. In the broad COVID-19 response for the poorest nations, World Bank Group resources are being scaled up dramatically and debt service payments by official bilateral creditors were suspended on May 1, with comparable treatment expected by commercial creditors.

Yet these steps toward financing and liquidity will not be enough. Even before the pandemic, development for people in the world's poorest countries was slow to raise their incomes, enhance living standards, or narrow inequality. The pandemic and economic shutdown in advanced economies and elsewhere are hitting the poor and vulnerable the hardest – through illnesses, job and income losses, food supply disruptions, school closures and lower remittance flows.

Thus, policy makers face unprecedented challenges from the health, macroeconomic and social effects of the pandemic. To limit the harm, it is important to secure core public services, maintain a private sector and get money directly to people. This will allow a quicker return to business creation and sustainable development after the pandemic has passed. During this mitigation period, countries should focus on targeted support to households and essential public and private sector services; and remain vigilant to counter potential financial disruptions.

During the recovery period, countries will need to calibrate the withdrawal of public support and should be attentive to broader development challenges. The *Global Economic Prospects* report discusses the importance of allowing an orderly allocation of new capital toward sectors that are productive in the new post-pandemic structures

that emerge. To succeed in this, countries will need reforms that allow capital and labor to adjust relatively fast—by speeding the resolution of disputes, reducing regulatory barriers, and reforming the costly subsidies, monopolies and protected state-owned enterprises that have slowed development.

To make future economies more resilient, many countries will need systems that can build and retain more human and physical capital during the recovery—using policies that reflect and encourage the post-pandemic need for new types of jobs, businesses and governance systems.

Emerging market and developing economies are devoting more public resources to critical health care and support for livelihoods during the shutdown, adding to the urgency of their allowing and attracting more private sector investment. This makes the financing and building of productive infrastructure one of the hardest-to-solve development challenges in the post-pandemic recovery.

The transparency of all government financial commitments, debt-like instruments and investments is a key step in creating an attractive investment climate and could make substantial progress this year. Faster advances in digital connectivity are also necessary and should get a vital boost from the pandemic, which heightened the value of teleworking capabilities, digital information, and broad connectivity. Digital financial services are playing a transformative role in allowing new entrants into the economy and making it easier for governments to provide rapidly expandable, needs-based cash transfers.

This edition of the *Global Economic Prospects* describes a grave near-term outlook. The speed and strength of the recovery will depend on the effectiveness of the support programs governments and the international community put in place now; and, critically, on what policymakers do to respond to the new environment. The World Bank Group is committed to seeking much better outcomes for people in emerging market and developing countries, especially the poor. During the crisis, we call on policymakers to act fast and forcefully: our interventions should be no less powerful than the crisis itself.

David Malpass
President
World Bank Group

Executive Summary

COVID-19 has triggered a global crisis like no other—a global health crisis that, in addition to an enormous human toll, is leading to the deepest global recession since the second world war. While the ultimate growth outcome is still uncertain, and an even worse scenario is possible if it takes longer to bring the health crisis under control, the pandemic will result in output contractions across the vast majority of emerging market and developing economies (EMDEs). Moreover, the pandemic is likely to exert lasting damage to fundamental determinants of long-term growth prospects, further eroding living standards for years to come. The immediate policy priorities are to alleviate the ongoing health and human costs and attenuate the near-term economic losses, while addressing challenges such as informality and weak social safety nets that have heightened the impact on vulnerable populations. Once the crisis abates, it will be necessary to reaffirm credible commitment to sustainable policies—including medium-term fiscal frameworks in energy-exporting EMDEs suffering from the large plunge in oil prices—and undertake the necessary reforms to buttress long-term growth prospects. For these actions, global coordination and cooperation will be critical.

Global Outlook: Pandemic, Recession: The Global Economy in Crisis. The COVID-19 pandemic has, with alarming speed, delivered a global economic shock of enormous magnitude, leading to steep recessions in many countries. The baseline forecast envisions a 5.2 percent contraction in global GDP in 2020—the deepest global recession in eight decades, despite unprecedented policy support. Per capita incomes in the vast majority of EMDEs are expected to shrink this year. The global recession would be deeper if bringing the pandemic under control took longer than expected, or if financial stress triggered cascading defaults. The pandemic highlights the urgent need for health and economic policy action—including global cooperation—to cushion its consequences, protect vulnerable populations, and improve countries' capacity to prevent and cope with similar events in the future. Since EMDEs are particularly vulnerable, it is critical to strengthen their public health care systems, to address the challenges posed by informality and limited safety nets, and, once the health crisis abates, to undertake reforms that enable strong and sustainable growth.

Regional Macroeconomic Implications of COVID-19. The rapid rise of COVID-19 cases, together with the wide range of measures to slow the spread of the virus, has slowed economic activity precipitously in many EMDEs. Economic disruptions are likely to be more severe and protracted in those countries with larger domestic outbreaks, greater exposure to international spillovers (particularly through exposure to global commodity and financial markets, global value chains, and tourism), and larger pre-existing challenges such as informality. Growth forecasts for all regions have been severely downgraded; Latin America and the Caribbean (LAC) and Europe and Central Asia (ECA) in particular have large downgrades partly because of the size of their domestic outbreaks and exposure to global spillovers, while South Asia's substantial downgrade is primarily the result of stringent lockdown measures. Many countries have avoided more adverse outcomes through sizable fiscal and monetary policy support measures. Despite these measures, per capita incomes in all EMDE regions are expected to contract in 2020, likely causing many millions to fall back into poverty.

This edition of *Global Economic Prospects* also includes analytical chapters on the short- and long-term growth impact of the pandemic, as well as on global implications of the recent plunge in oil prices.

Lasting Scars of the COVID-19 Pandemic. The COVID-19 pandemic has struck a devastating blow to an already-fragile global economy. Lockdowns and other restrictions needed to

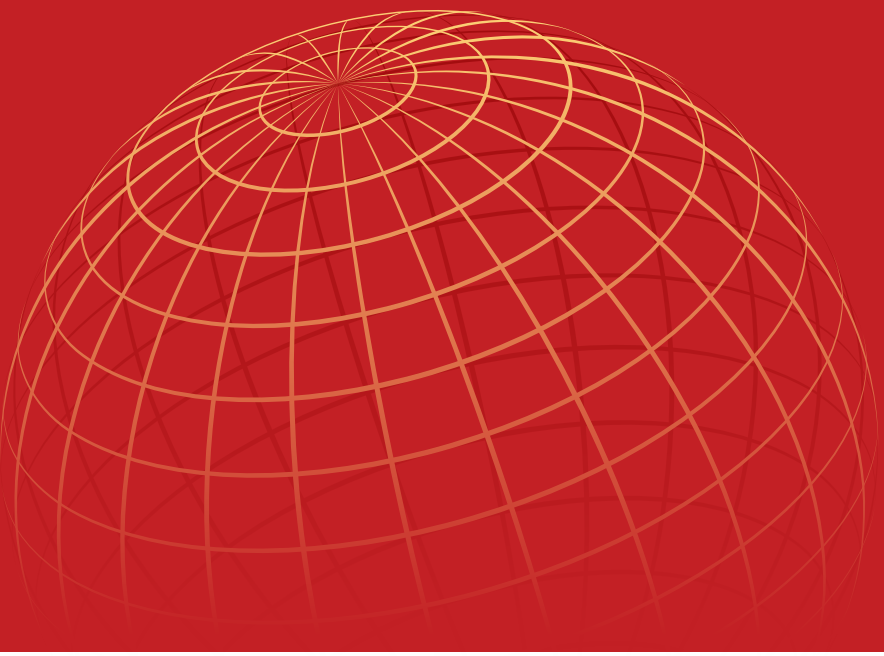
address the public health crisis, together with spontaneous reductions in economic activity by many consumers and producers, constitute an unprecedented combination of adverse shocks that is causing deep recessions in many advanced economies and EMDEs. Those EMDEs that have weak health systems; those that rely heavily on global trade, tourism, or remittances from abroad; and those that depend on commodity exports will be particularly hard-hit. Beyond its short-term impact, deep recessions triggered by the pandemic are likely to leave lasting scars through multiple channels, including lower investment; erosion of the human capital of the unemployed; and a retreat from global trade and supply linkages. These effects may well lower potential growth and labor productivity in the longer term. Immediate policy measures should support health care systems and moderate the short-term impact of the pandemic on activity and employment. In addition, a comprehensive reform drive is needed to reduce the adverse impact of the pandemic on long-term growth prospects by improving governance and business environments, and expanding investment in education and public health.

Adding Fuel to the Fire: Cheap Oil during the Pandemic. The outbreak of COVID-19 and the wide-ranging measures needed to slow its advance have precipitated an unprecedented collapse in oil demand, a surge in oil inventories, and, in March, the steepest one-month decline in oil prices on record. In the context of the current restrictions on a broad swath of economic activity, low oil prices are unlikely to do much to buffer the effects of the pandemic, but they may provide some initial support for a recovery once these restrictions begin to be lifted. Like other countries, energy-exporting EMDEs face an unprecedented public health crisis, but their fiscal positions were already strained even before the recent collapse in oil revenues. To help retain access to market-based financing for fiscal support programs, these EMDEs will need to make credible commitments to a sustainable medium-term fiscal position. For some of them, current low oil prices provide an opportunity to implement energy-pricing policies that yield efficiency and fiscal gains over the medium term.

Abbreviations

ADB	Asian Development Bank
AE	advanced economy
BIS	Bank for International Settlements
BVAR	Bayesian vector autoregression model
CA	Central Asia
CDC	Centers for Disease Control and Prevention
CE	Central Europe
CEPR	Center for Economic and Policy Research
CGE	computable general equilibrium
CFRTV	COVID-19 Financial Response Tracker Visualization
DALY	disability-adjusted life year
DGE/DSGE	dynamic stochastic general equilibrium
EAP	East Asia and Pacific
ECA	Europe and Central Asia
ECB	European Central Bank
EDB	Eurasian Development Bank
EE	Eastern Europe
EIA	U.S. Energy Information Administration
EMBI	Emerging Market Bond Index
EMDE	emerging market and developing economy
EM-DAT	Emergency Events Database
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCV	fragility, conflict, and violence
FDI	foreign direct investment
FSIN	Food Security Information Network
GCC	Gulf Cooperation Council
GDP	gross domestic product
GEP	Global Economic Prospects
GFC	global financial crisis
GNFS	goods and nonfactor services
GNI	gross national income
GVCs	global value chains
HIPC	heavily indebted poor countries
HIV	human immunodeficiency viruses
ICTD	The International Centre for Tax and Development
IDB	Inter-American Development Bank
IEA	International Energy Agency
ILO	International Labour Organization
IMF	International Monetary Fund
IP	industrial production
IRF	impulse response function
JMP	Joint Monitoring Programme
LAC	Latin America and the Caribbean
LIC	low-income country
LMIC	low- and middle-income countries

LNY	lunar new year
LPM	local projections model
MNA/MENA	Middle East and North Africa
MERS	Middle East respiratory syndrome
MIC	middle-income country
NBER	National Bureau of Economic Research
NO2	nitrogen dioxide
NPL	nonperforming loan
NTI	Nuclear Threat Initiative
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
OPEC+	OPEC and Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, Sudan, and South Sudan
PGSSC	Program in Global Surgery and Social Change at Harvard Medical School
PM2.5	particulate matter with diameter less than 2.5 micrometers
PMI	Purchasing Managers' Index
PPP	purchasing power parity
PRIO	Peace Research Institute Oslo
RHS	right-hand side (in figures)
SAR	South Asia Region
SARS	severe acute respiratory syndrome
SCC	South Caucasus
SDG	Sustainable Development Goal
SME	small and medium enterprise
SSA	Sub-Saharan Africa
SVAR	structural vector autoregression
TB	tuberculosis
TFP	total factor productivity
TiVA	trade in value added
TSA	Transportation Security Administration
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNU-WIDER	United Nations University World Institute for Development Economics Research
UNWTO	United Nations World Tourism Organization
VAR	vector autoregression
VAT	value-added tax
VIX	Chicago Board Options Exchange Volatility Index
WAEMU	West African Economic and Monetary Union
WBK	Western Balkans
WFP	World Food Program
WGI	World Governance Indicators
WHO	World Health Organization
WTO	World Trade Organization



CHAPTER 1

GLOBAL OUTLOOK

Pandemic, Recession: The Global Economy in Crisis

The COVID-19 pandemic has, with alarming speed, delivered a global economic shock of enormous magnitude, leading to steep recessions in many countries. The baseline forecast envisions a 5.2 percent contraction in global GDP in 2020—the deepest global recession in eight decades, despite unprecedented policy support. Per capita incomes in the vast majority of emerging market and developing economies (EMDEs) are expected to shrink this year, tipping many millions back into poverty. The global recession would be deeper if bringing the pandemic under control took longer than expected, or if financial stress triggered cascading defaults. The pandemic highlights the urgent need for health and economic policy action—including global cooperation—to cushion its consequences, protect vulnerable populations, and improve countries' capacity to prevent and cope with similar events in the future. Since EMDEs are particularly vulnerable, it is critical to strengthen their public health care systems, to address the challenges posed by informality and limited safety nets, and, once the health crisis abates, to undertake reforms that enable strong and sustainable growth.

Summary

The COVID-19 pandemic has spread with astonishing speed to every part of the world and infected millions (Figure 1.1.A). The health and human toll is already large and continues to grow, with hundreds of thousands of deaths and many more suffering from diminished prospects and disrupted livelihoods. The pandemic represents the largest economic shock the world economy has witnessed in decades, causing a collapse in global activity (Figures 1.1.B and 1.1.C). Various mitigation measures—such as lockdowns, closure of schools and non-essential business, and travel restrictions—have been imposed by most countries to limit the spread of COVID-19 and ease the strain on health care systems. The pandemic and associated mitigation measures have sharply curbed consumption and investment, as well as restricted labor supply and production. The cross-border spillovers have disrupted financial and commodity markets, global trade, supply chains, travel, and tourism.

Financial markets have been extremely volatile, reflecting exceptionally high uncertainty and the worsening outlook. Flight to safety led to a sharp tightening of global and EMDE financial conditions. Equity markets around the world plunged, spreads on riskier categories of debt widened considerably, and EMDEs experienced large capital outflows in much of March and April that bottomed out only recently. Commodity prices have declined sharply as a result of falling global demand, with oil particularly affected (Figure 1.1.D).

Many countries have provided large-scale macroeconomic support to alleviate the economic blow, which has contributed to a recent stabilization in financial markets. Central banks in advanced economies have cut policy rates and taken other far-reaching steps to provide liquidity and to maintain investor confidence. In many EMDEs, central banks have also eased monetary policy (Figure 1.1.E). The fiscal policy support that has been announced already far exceeds that enacted during the 2008-09 global financial crisis.

In all, the pandemic is expected to plunge a majority of countries into recession this year, with per capita output contracting in the largest fraction of countries since 1870 (Figure 1.1.F). Advanced economies are projected to shrink by 7 percent in 2020, as widespread social-distancing measures, a sharp tightening of financial conditions, and a collapse in external demand depress activity. Assuming that the outbreak remains under control and activity recovers later this year, China is projected to slow to 1 percent in 2020—by far the lowest growth it has registered in more than four decades.

Due to the negative spillovers from weakness in major economies, alongside the disruptions

Note: This chapter was prepared by Carlos Arteta, Justin-Damien Guénette, Patrick Kirby, and Collette Mari Wheeler, with contributions from Rudi Steinbach and additional inputs from John Baffes, Sergiy Kasyanenko, Peter Nagle, Franz Ulrich Ruch, and Ekaterine Vashakmadze. Research assistance was provided by Yushu Chen, Hrisyana Doytchinova, Fuda Jiang, Maria Hazel Macadangdang, Julia Renee Roseman Norfleet, Ipek Ceylan Oymak, Vasiliki Papagianni, Shijie Shi, Kaltrina Temaj, Jinxin Wu, and Juncheng Zhou.

TABLE 1.1 Real GDP[1]

(Percent change from previous year)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
World	**3.3**	**3.0**	**2.4**	**-5.2**	**4.2**	**-7.7**	**1.6**
Advanced economies	**2.5**	**2.1**	**1.6**	**-7.0**	**3.9**	**-8.4**	**2.4**
United States	2.4	2.9	2.3	-6.1	4.0	-7.9	2.3
Euro Area	2.5	1.9	1.2	-9.1	4.5	-10.1	3.2
Japan	2.2	0.3	0.7	-6.1	2.5	-6.8	1.9
Emerging market and developing economies	**4.5**	**4.3**	**3.5**	**-2.5**	**4.6**	**-6.6**	**0.3**
Commodity-exporting EMDEs	2.2	2.1	1.5	-4.8	3.1	-7.4	0.2
Other EMDEs	6.1	5.7	4.8	-1.1	5.5	-6.2	0.3
Other EMDEs excluding China	5.4	4.8	3.2	-3.6	3.6	-7.6	-0.8
East Asia and Pacific	6.5	6.3	5.9	0.5	6.6	-5.2	1.0
China	6.8	6.6	6.1	1.0	6.9	-4.9	1.1
Indonesia	5.1	5.2	5.0	0.0	4.8	-5.1	-0.4
Thailand	4.1	4.2	2.4	-5.0	4.1	-7.7	1.3
Europe and Central Asia	4.1	3.3	2.2	-4.7	3.6	-7.3	0.7
Russia	1.8	2.5	1.3	-6.0	2.7	-7.6	0.9
Turkey	7.5	2.8	0.9	-3.8	5.0	-6.8	1.0
Poland	4.9	5.3	4.1	-4.2	2.8	-7.8	-0.5
Latin America and the Caribbean	1.9	1.7	0.8	-7.2	2.8	-9.0	0.4
Brazil	1.3	1.3	1.1	-8.0	2.2	-10.0	-0.3
Mexico	2.1	2.2	-0.3	-7.5	3.0	-8.7	1.2
Argentina	2.7	-2.5	-2.2	-7.3	2.1	-6.0	0.7
Middle East and North Africa	1.1	0.9	-0.2	-4.2	2.3	-6.6	-0.4
Saudi Arabia	-0.7	2.4	0.3	-3.8	2.5	-5.7	0.3
Iran	3.8	-4.7	-8.2	-5.3	2.1	-5.3	1.1
Egypt[2]	4.2	5.3	5.6	3.0	2.1	-2.8	-3.9
South Asia	6.5	6.5	4.7	-2.7	2.8	-8.2	-3.1
India[3]	7.0	6.1	4.2	-3.2	3.1	-9.0	-3.0
Pakistan[2]	5.2	5.5	1.9	-2.6	-0.2	-5.0	-3.2
Bangladesh[2]	7.3	7.9	8.2	1.6	1.0	-5.6	-6.3
Sub-Saharan Africa	2.6	2.6	2.2	-2.8	3.1	-5.8	0.0
Nigeria	0.8	1.9	2.2	-3.2	1.7	-5.3	-0.4
South Africa	1.4	0.8	0.2	-7.1	2.9	-8.0	1.6
Angola	-0.1	-2.0	-0.9	-4.0	3.1	-5.5	0.7
Memorandum items:							
Real GDP[1]							
High-income countries	2.4	2.2	1.7	-6.8	3.8	-8.3	2.3
Developing countries	4.8	4.4	3.7	-2.4	4.7	-6.7	0.2
Low-income countries	5.4	5.8	5.0	1.0	4.6	-4.4	-0.9
BRICS	5.3	5.3	4.7	-1.7	5.3	-6.6	0.4
World (2010 PPP weights)[4]	3.9	3.6	2.9	-4.1	4.3	-7.3	1.0
World trade volume[5]	5.9	4.0	0.8	-13.4	5.3	-15.3	2.8
Commodity prices[6]							
Oil price	23.3	29.4	-10.2	-47.9	18.8	-42.5	16.9
Non-energy commodity price index	5.5	1.8	-4.2	-5.9	3.0	-6.0	1.3

Source: World Bank.

1. Headline aggregate growth rates are calculated using GDP weights at 2010 prices and market exchange rates.

2. GDP growth rates are on a fiscal year basis. Aggregates that include these countries are calculated using data compiled on a calendar year basis. Pakistan's growth rates are based on GDP at factor cost. The column labeled 2019 refers to FY2018/19.

3. The column labeled 2018 refers to FY2018/19.

4. World growth rates are calculated using purchasing power parity (PPP) weights, which attribute a greater share of global GDP to EMDEs than market exchange rates.

5. World trade volume of goods and non-factor services.

6. Oil price is the simple average of Brent, Dubai, and West Texas Intermediate prices. The non-energy index is the weighted average of 39 commodity prices (7 metals, 5 fertilizers, 27 agricultural commodities). For additional details, please see http://www.worldbank.org/commodities.

Note: PPP = purchasing power parity; e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information. Consequently, projections presented here may differ from those contained in other World Bank documents, even if basic assessments of countries' prospects do not differ at any given date. Country classifications and lists of emerging market and developing economies (EMDEs) are presented in Table 1.2. BRICS include: Brazil, Russia, India, China, and South Africa. Due to lack of reliable data of adequate quality, the World Bank is currently not publishing economic output, income, or growth data for Venezuela, and Venezuela is excluded from cross-country macroeconomic aggregates.

Click here to download data.

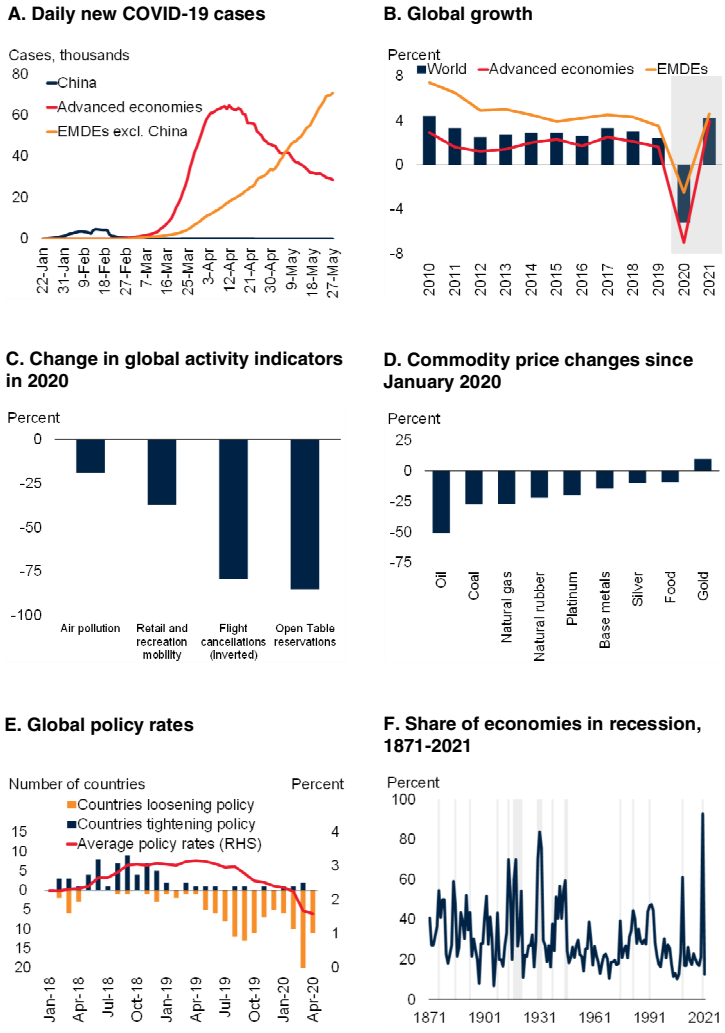
associated with their own domestic outbreaks, EMDE GDP is forecast to contract by 2.5 percent in 2020. This would be well below the previous trough in EMDE growth of 0.9 percent in 1982, and the lowest rate since at least 1960, the earliest year with available aggregate data. EMDEs with large domestic COVID-19 outbreaks and limited health care capacity; that are deeply integrated in global value chains; that are heavily dependent on foreign financing; and that rely extensively on international trade, commodity exports, and tourism will suffer disproportionately. Commodity-exporting EMDEs will be hard hit by adverse spillovers from sharply weaker growth in China, and by the collapse in global commodity demand, especially for oil. With more than 90 percent of EMDEs expected to experience contractions in per capita incomes this year, many millions are likely to fall back into poverty.

With advanced economies contracting, China experiencing record-low growth, and EMDE growth savaged by external and domestic headwinds, the global economy is expected to shrink by 5.2 percent this year in a baseline forecast. This would be the deepest global recession since World War II, and almost three times as steep as the 2009 global recession (Box 1.1). The forecast assumes that the pandemic recedes in such a way that domestic mitigation measures can be lifted by mid-year, adverse global spillovers ease during the second half of the year, and dislocations in financial markets are not long-lasting. Although a moderate recovery is envisioned in 2021, with global growth reaching 4.2 percent, output is not expected to return to its previously expected levels (Figure 1.2.A).

Since uncertainty around the outlook remains exceptionally high, alternative scenarios help illustrate the range of plausible global growth outcomes in the near term (Figure 1.2.B). In particular, the baseline forecast for 2020 could prove optimistic (Box 1.3). If COVID-19 outbreaks persist longer than expected, restrictions on movement and interactions may have to be maintained or reintroduced, prolonging the disruptions to domestic activity and further setting back confidence. Disruptions to activity would weaken businesses' ability to remain in operation

FIGURE 1.1 Global growth prospects

The COVID-19 pandemic has resulted in a collapse of global economic activity. EMDE financial conditions have tightened and commodity prices, especially oil prices, have plunged. Despite unprecedented macroeconomic policy support, the share of countries experiencing contractions in per capita GDP will reach its highest level since 1870.



Source: Air Quality Open Data Platform; Airportia; Bank for International Settlements; Bloomberg; European Central Bank; Google COVID-19 Community Mobility Reports; Johns Hopkins University; J.P. Morgan; OpenTable; University of Oxford; World Bank.

Note: EMDEs = emerging market and developing economies.

A. Figure shows 7-day moving averages. Last observation is May 27, 2020.

B. Shaded areas indicate forecasts. Data for 2019 are estimates. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates.

C. Air pollution is the change in NO2 emissions over January 1 to May 28 in 2019 and 2020. Retail and recreation mobility is the percent change for May 21, 2020 from baseline, which is the median value for the corresponding day of the week during the 5-week period January 3-February 6, 2020, based on data from Google. Flight cancelations shows the cancelations relative to total planned flights based on comparing currently operating flights in 2020 with flights that were operating 52 weeks ago in 2019 as of May 27, 2020. Open Table reservations shows the change in seated diners at restaurants on the OpenTable network on May 27 in 2019 and 2020. For more information on flight cancelations data, go to https://www.airportia.com/coronavirus/.

D. Figure shows the change in the monthly average of commodity prices between January 2020 and the last observation, which is May 2020. Price changes for "Base metals" and "Food" show World Bank Pink Sheet indexes. Oil price is unweighted average of Brent, WTI and Dubai prices.

E. Average policy rates are weighted using 2018 U.S. dollar GDP. Sample includes 13 advanced economies and the Euro Area and 21 EMDEs. Bars show the number of central banks lowering or raising their policy rate in a given month. Last observation included is April 2020.

F. Share of economies in recession, defined as an annual contraction in per capita GDP.

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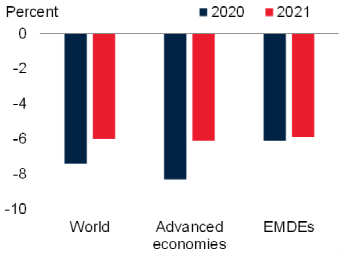
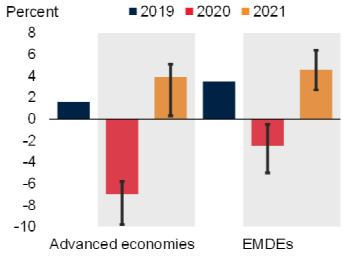
FIGURE 1.2 Global risks and policy challenges

The 2020 global recession is expected to be the deepest in eight decades, and the subsequent recovery will be insufficient to bring output to previously projected levels. Amid heightened uncertainty, worse outcomes could arise if the pandemic and economic disruptions persist or cascading defaults amid high debt lead to financial crises. A lack of space is constraining fiscal responses in many EMDEs. Building resilient health care systems is critical to prevent similar crises. With ongoing recessions exerting scarring effects on potential output, pursuing reforms that bolster long-term growth prospects will be essential.

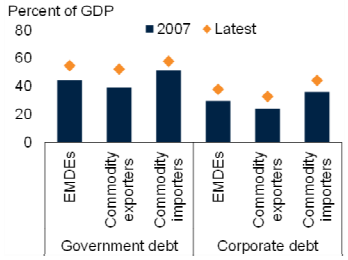
A. Level of output relative to January 2020 projections



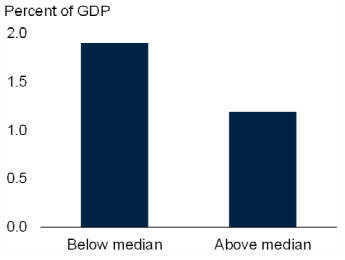
B. Growth in advanced economies and EMDEs



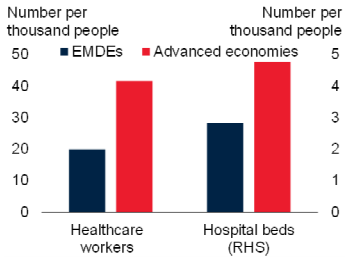
C. Government and non-financial corporate debt



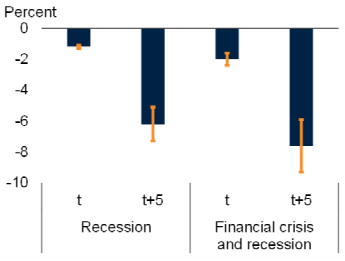
D. EMDE discretionary fiscal support measures in 2020, by debt levels



E. Health indicators in 2017



F. Cumulative EMDE potential output response after recessions



Source: Bank for International Settlements; Ha, Kose and Ohnsorge (2019); International Monetary Fund; Johns Hopkins University; Organisation for Economic Co-operation and Development; World Bank.

A. Figure shows the percent difference between the level of output in the January and June 2020 editions of *Global Economic Prospects*.

B. Shaded area indicates forecasts. Black lines indicate ranges based on the lower and upper bounds of growth in the scenarios described in Box 1.3.

C. Unweighted averages. Sample includes 88 commodity exporters and 65 commodity importers for government debt and 27 commodity exporters and 21 commodity importers for corporate debt. Latest available data is 2018 for government debt, and 2019Q4 for 16 economies and 2017 or 2018 for 31 economies for corporate debt.

D. Figure shows median values. Total measures either planned or under consideration as of May 29, 2020 as a share of 2019 nominal GDP. Above (below) median indicates countries with government debt-to-GDP ratios above (below) a median of 51 in 2018. Sample includes 48 EMDEs.

E. Unweighted averages. Sample includes 26 advanced economies and 11 EMDEs as data are available.

F. Data and methodology are detailed in Chapter 3 Box 3.1 and Annex 3.4. Charts show impulse responses for 75 EMDEs from a local projections model. Dependent variable is cumulative slowdown in potential output after a recession, financial crisis, or oil price plunge event. Year t is the year of the event. Bars show coefficient estimates; vertical lines show 90 percent confidence bands.

Click here to download data and charts.

and service their debt, while the increase in risk aversion could raise interest rates for higher-risk borrowers. With debt levels already at historic highs, this could lead to cascading defaults and financial crises across many economies (Figure 1.2.C). Under this downside scenario, global growth would shrink almost 8 percent in 2020. The recovery that follows would be markedly sluggish, hampered by severely impaired balance sheets, heightened financial market stress and widespread bankruptcies in EMDEs. In 2021, global growth would barely begin to recover, increasing to just over 1 percent.

In contrast, in an upside scenario, a sharp economic rebound would begin promptly if pandemic-control measures could be largely lifted in the near term, and fiscal and monetary policy responses succeed in supporting consumer and investor confidence, leading to a prompt normalization of financial conditions and the unleashing of pent-up demand. However, even with these positive developments, the near-term contraction in global activity of more than 3 percent in 2020 would still be much larger than during the global recession of 2009, and EMDE growth would also be negative. Once pandemic-control measures are fully lifted, global growth would rebound markedly in 2021, to above 5 percent.

Policymakers face formidable challenges as they seek to contain the devastating health, macroeconomic, and social effects of the pandemic. During the last global recession, in 2009, many EMDEs were able to implement large -scale fiscal and monetary responses. Today, however, many EMDEs are less prepared to weather a global downturn and must simultaneously grapple with a severe public health crisis with heavy human costs. Particularly vulnerable EMDEs include those that have weak health systems; those that rely heavily on global trade, tourism, and remittances; those that are prone to financial market disruptions; and those that depend on oil and other commodity exports. EMDEs where poverty and informality are widespread, including many low-income countries, are also vulnerable, since their poor have limited access to proper sanitation and

adequate social safety nets, and often suffer greater food insecurity (Box 1.2).

An arsenal of macroprudential support policies has been deployed in EMDEs to maintain financial sector resilience and promote lending during the crisis. These include relaxing capital and liquidity coverage requirements, allowing banks to draw down capital and liquidity buffers, and encouraging banks to offer temporary loan repayment holidays to distressed borrowers. Further, many countries have initiated debt moratoria and government guarantees on bank loans to strengthen bank balance sheets and support distressed borrowers. Policymakers would, however, need to carefully balance some of these actions against jeopardizing the future stability of the financial sector. Once economic activity begins to normalize, they will also need to prudently withdraw the large-scale policy stimulus provided during the crisis without endangering the recovery.

Meanwhile, many EMDEs have introduced fiscal measures to expand social safety nets and protect those most vulnerable, including wage support to preserve jobs, increased access to unemployment benefits, and targeted cash transfers to low-income households. In EMDEs with wider fiscal space, the policy response has been markedly greater than in those more constrained by higher debt levels (Figure 1.2.D). For many energy-exporting EMDEs, fiscal balances are deteriorating as oil prices have fallen below fiscal break-even prices. Elevated debt burdens in some low- and middle-income countries also underscore the need for temporary debt relief. In this context, global coordination and cooperation—of the measures needed to slow the spread of the pandemic, and of the economic actions needed to alleviate the economic damage, including international support—provide the greatest chance of achieving public health goals and enabling a robust global recovery.

In the near term, COVID-19 has underscored the need for governments to prioritize the timely and transparent dissemination of accurate information in order to stem the spread of the disease, and to build public trust. In the long term, the pandemic has laid bare the weaknesses of national health care and social safety nets in many countries. It has also exposed the severe consequences of widespread informality and financing constraints for small and medium enterprises (SMEs) in many EMDEs (Box 1.4). There is a critical need to invest in resilient health care systems that prioritize national health security, in order to prevent and mitigate similar crises (Figure 1.2.E).

It is also necessary to put in place social benefit systems that can provide an effective, flexible, and efficient safety net during disasters. Such systems can be augmented by measures to deliver income support and emergency financing to vulnerable groups such as the poor, urban slum dwellers, migrants, and informal firms. In particular, digital technologies can enhance the provision of cash transfers and other critical support measures, as well as facilitate the flow of remittances.

In many countries, deep recessions triggered by COVID-19 will likely weigh on potential output for years to come (Figure 1.2.F; Chapter 3). Governments can take steps to alleviate the adverse impact of the crisis on potential output by placing a renewed emphasis on reforms that can boost long-term growth prospects.

Major economies: Recent developments and outlook

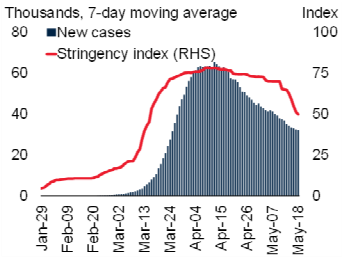
All major economies have experienced COVID-19 outbreaks, of varying intensity. Output in advanced economies is set to contract sharply in 2020, as domestic demand and supply, trade, and finance have all been severely disrupted. Assuming that the pandemic does not lead to lasting damage to financial systems, growth is expected to rebound in 2021, aided by unprecedented support from fiscal, monetary, and financial sector policies. In China, output appears to be recovering from the large drop at the start of the year, but the strength of the expected rebound is uncertain.

Advanced economies have faced a very substantial slump in activity as they grapple with the far-reaching consequences of the pandemic. As a result, advanced-economy output is now projected to slow dramatically, from an expansion of 1.6 percent in 2019 to a contraction of 7 percent in

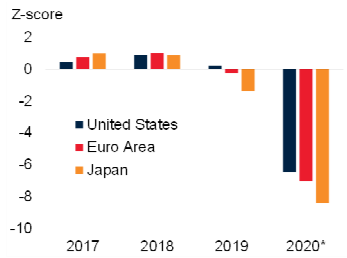
FIGURE 1.3 Advanced economies

As the number of confirmed COVID-19 cases soared in advanced economies, governments implemented far-reaching lockdowns and other restrictions to slow the spread of the virus and ease the burden placed on health care systems. Consumer confidence has plummeted, as these measures have dramatically reduced economic activity.

A. Daily new cases and stringency index



B. Consumer confidence in major advanced economies



Source: Haver Analytics; Johns Hopkins University; University of Oxford; World Bank.
A. Figure shows day-on-day cumulative confirmed cases and containment measures. The stringency index refers to the average sub-indices of nine mitigation measures: School closings, workplace closings, cancelation of public events and public transport, restriction on gatherings, stay-home requirements and restrictions to international and domestic travel and public information campaigns. The stringency index range is between 0 and 100, with 100 being the most stringent. Sample includes 32 advanced economies as data are available. Last observation is May 18, 2020.
B. Confidence data are normalized across countries using the mean and standard deviation from 2015 to 2019. Asterisk indicates that 2020 data are as of the most recent monthly observation, which is May 2020.
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2020—8.4 percentage points below January forecasts.

As the number of infections soared in advanced economies, governments implemented restrictions to slow the spread of the outbreak and ease the burden on health care systems (Figure 1.3.A). These represent a combination of demand and supply shocks to activity. On the demand side, these measures—coupled with elevated uncertainty and falling confidence—have caused declines in consumption and investment. In some countries, heightened risk aversion and a flight to safety have led to tighter credit conditions for normally eligible borrowers.

On the supply side, the shutdown of many businesses has disrupted supply chains, increased unemployment, and sharply reduced production. As a result, consumer confidence has plummeted (Figure 1.3.B). Policymakers have promptly provided an unprecedented degree of fiscal and monetary support to households, firms, and financial markets, but conditions in advanced economies remain at considerable risk. Despite steps toward gradually relaxing restrictions in some countries, activity remains very weak.

United States

The domestic COVID-19 outbreak and associated large-scale pandemic-control measures have massively disrupted activity. High-frequency service sector indicators point to an unprecedented collapse, especially for services and travel (Figures 1.4.A and 1.4.B). Compared to the global financial crisis, weekly unemployment claims have risen much faster, while industrial production and retail sales have fallen much more sharply (Figure 1.4.C). Meanwhile, the collapse in oil prices has depressed investment in the highly leveraged U.S. shale oil sector (Figure 1.4.D; Gevorkyan and Semmler 2016). The Federal Reserve has cut rates to near-zero, and announced far-reaching measures to stabilize the financial system. The latter include unlimited purchases of U.S. government debt and mortgage-backed obligations, as well as large-scale purchases of corporate bonds and of securities issued by lower levels of government. The U.S. government has also provided fiscal support approaching $3 trillion, including over $1 trillion in loans to firms and to state and local governments. Further measures, such as another round of direct transfers to households, are under consideration.

U.S. GDP is expected to contract by 6.1 percent in 2020—7.9 percentage points below previous forecasts, reflecting the severe consequences of the pandemic in the first half of the year, and an assumed gradual recovery in the second half. It is subsequently projected to rebound to 4 percent in 2021, as large-scale policy support gains traction, amid an assumed recovery in consumer and investor confidence.

Euro Area

Widespread virus outbreaks throughout the Euro Area have prompted governments to impose various mitigation measures such as nationwide lockdowns, extended school closures, and border restrictions (Figure 1.5.A). These have significantly disrupted domestic economic activity (Figure 1.5.B). Many Euro Area members are

heavily reliant on tourism, a sector virtually shut down by government policies, and particularly prone to slow recoveries (Figure 1.5.C; Mann 2020). In contrast to the United States, the rise in unemployment has been modest so far, in large part due to the widespread use of short-time work policies (Figure 1.5.D).

In response, the European Central Bank has offered low-interest loans to banks, significantly boosted asset purchases, and allayed fears of member-country defaults by lifting distributional restrictions on its bond-buying program. Member governments have rolled out significant fiscal support packages. For example, Germany provided stimulus worth 4.5 percent of GDP—about twice the support it provided in 2009—in addition to an envelope of over 20 percent of GDP in loan guarantees for the corporate sector. Italy, although constrained by existing elevated debt levels, announced fiscal stimulus in excess of 4 percent of GDP. Large member countries are also advancing a major recovery plan for the European Union, including grants for economies hardest hit by the crisis.

Euro Area output is expected to contract by 9.1 percent in 2020—10.1 percentage points below previous projections—with all major member countries experiencing recessions before a gradual recovery gets underway late in the year. Growth is forecast to rebound to 4.5 percent in 2021, reflecting fading pandemic-related drag, and the eventual effects of accommodative fiscal and monetary policy.

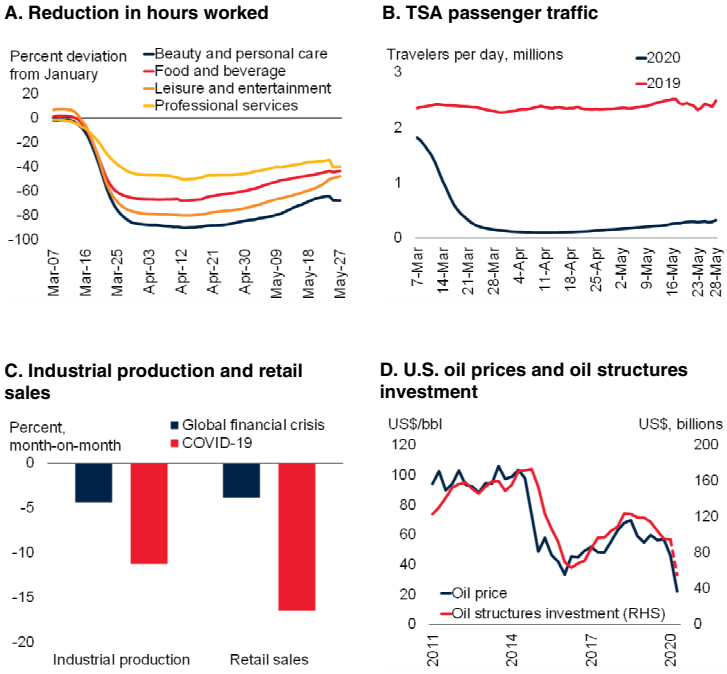
Japan

In Japan, preventive measures were able to slow the spread of the virus, but triggered a fall in economic activity, magnifying acute adverse spillovers via trade and financial channels. The postponement of the Tokyo 2020 summer Olympics has compounded the adverse economic effects of the pandemic. To help support growth, the Bank of Japan has ramped up its securities and corporate bond purchases, expanding the size of its balance sheet by over 10 percent of GDP since January. The government has also announced fiscal support packages cumulatively worth about 40 percent of GDP—in addition to repurposing funds from the December 2019 stimulus—to cushion the outbreak's domestic impact.

Output is projected to shrink by 6.1 percent in 2020, 6.8 percentage points below previous expectations. Weaker-than-expected outcomes earlier in the year, as well as the severe effects of the pandemic, contribute to the downgrading. Growth is expected to recover to 2.5 percent in 2021, aided by fiscal and monetary support.

FIGURE 1.4 United States

High-frequency indicators point to an unprecedented collapse in services and travel. Industrial production and retail sales have fallen much more sharply than during the global financial crisis. Meanwhile, the collapse in oil prices has substantially reduced investment in the highly leveraged U.S. shale oil sector.



Source: Bloomberg; Haver Analytics; Homebase; Federal Reserve Bank of St. Louis; Transportation Security Administration; World Bank.

A. Figure shows 7-day moving average. Sample covers 60,000 small businesses and 1 million hourly employees in the U.S. The data compare the hours worked for the observed day against the median hours worked for the same day of the week during the period January 4, 2020 to January 31, 2020 in order to compare the level of activity to pre-COVID-19 levels. Last observation is May 27, 2020. For more information on the data, go to https://joinhomebase.com/data/covid-19/.

B. TSA = Transportation Security Administration. Figure shows 7-day moving average. Last observation is May 28, 2020.

C. Figure shows April 2020 for COVID-19 and the largest one-month decline over the period 2007-09 for the global financial crisis, which is September 2008 and November 2008 for industrial production and retail sales, respectively.

D. Figure shows quarterly data. Oil price is the quarterly average of the West Texas Intermediate benchmark. Oil structures investment reflects the real private fixed investment in mining exploration, shafts, and wells structures. Last observation for investment is 2020Q1 with forecast for 2020Q2 based on a regression of oil structures investment on oil price. Last observation for oil price is 2020Q2, which is based on data through May 28, 2020.

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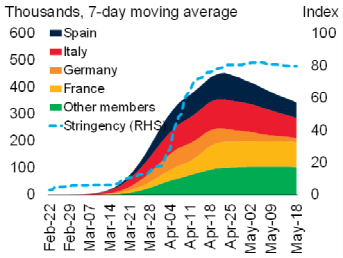
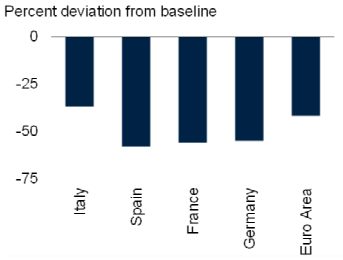
FIGURE 1.5 Euro Area

Widespread COVID-19 outbreaks throughout the Euro Area have prompted governments to impose nationwide lockdowns, extended school closures, and other restrictions, leading to severe disruptions in economic activity. Many Euro Area members are heavily reliant on tourism, a sector that has been acutely affected by travel restrictions and consumer risk aversion. The rise in Euro Area unemployment has been below that of the United States, in large part because of the widespread use of shorter work-time policies.

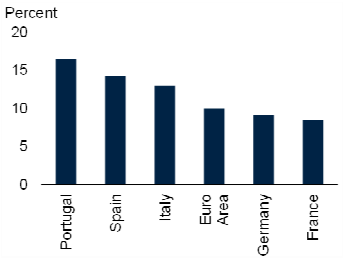
A. Cumulative confirmed COVID-19 cases and mitigation measures across Euro Area member countries



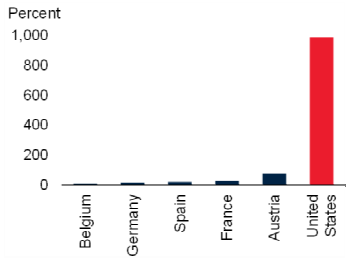
B. Google mobility trends for retail and recreation



C. Share of tourism in GDP in 2019



D. Change in continuing unemployment insurance claims



Source: Google COVID-19 Community Mobility Reports; Haver Analytics; Johns Hopkins University; University of Oxford; World Bank; World Travel and Tourism Council.

A. "Stringency" refers to daily number of measures implemented across advanced economies and include the following policy actions: School closings, workplace closings, cancelation of public events and public transport, restrictions to gatherings, and to international and domestic travel, and stay at home requirements. Last observation is May 18, 2020.

B. Data refer to May 21, 2020.

C. Data represents the sum of direct and indirect impacts of the travel and tourism sector estimated by the World Travel and Tourism Council. Euro Area is calculated using 2019 U.S. dollar GDP weights at 2010 prices and market exchange rates.

D. Figure shows percent change between the monthly average of 2019 and the last observation for 2020. Last observation is April 2020.

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China

Output contracted sharply in the first quarter, with private consumption and non-financial services being especially hard-hit by the pandemic and an extended period of restrictions to stem it. Exports plunged, more than imports, as a result of temporary factory closures. Activity has been normalizing gradually in the second quarter following the relaxation of lockdowns (Figures 1.6.A-1.6.C). However, companies continue to face funding shortages and depressed external demand (Figure 1.6.D). The authorities have implemented monetary and fiscal policies to cushion the economic impact of the outbreak. These have included the provision of significant liquidity injections, tax relief, emergency health and welfare spending worth approximately 2.8 percent of GDP, and the authorization of additional special central and local government bond issuances equivalent to about 2.6 percent of GDP (World Bank 2020a).

Reflecting the major disruptions caused by the pandemic, growth is projected to decelerate sharply, from 6.1 percent in 2019 to 1 percent in 2020. This is 4.9 percentage points below previous projections, and the lowest growth rate in more than four decades. Growth is expected to rebound in 2021, reaching 6.9 percent, partly reflecting a projected recovery in global demand.

Global trends

The spread of the pandemic has essentially halted international travel and disrupted global value chains, resulting in a sharp contraction in global trade. A flight to safety has triggered sharp falls in global equity markets, unprecedented capital outflows from EMDEs, rising credit-risk spreads, and depreciations for many EMDE currencies. Falling demand has led to a sharp decline in most commodity prices, with a particularly substantial plunge in oil prices.

Global trade

Recent indicators suggest that global trade is on track to fall more in 2020 than it did during the global financial crisis, partly owing to the disruptions the COVID-19 pandemic has caused to international travel and global value chains (Figures 1.7.A and 1.7.B). Trade is typically more volatile than output, and tends to fall particularly sharply in times of crisis (Figure 1.7.C; Freund 2009; Bussière et al. 2013; Bems, Johnson, and Yi 2010; Kose and Terrones 2015). Investment, which is more cyclical and more trade-intensive than other categories of expenditure, has declined worldwide as firms face financing problems and

delay expansion. Exporting firms tend to be particularly active in credit markets, and more adversely affected when the cost of credit increases (Ahn, Amiti, and Weinstein 2011; Chor and Manova 2012). Disruptions in credit markets played an important role in the contraction in global trade during the global financial crisis and the subsequent weakness of the rebound. This pattern is at risk of being repeated.

The fall in activity has been concentrated in services sectors that are typically stable (Figure 1.7.D). Travel restrictions and concerns about COVID-19 have led to a precipitous fall in tourism—a sector that in recent years has accounted for about 6.5 percent of global exports of goods and services—with sharp declines in economies with the most severe outbreaks (Figure 1.7.E).

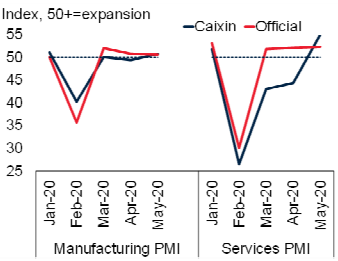
As the pandemic has spread, stringent border controls and production delays have weighed on trade. Measures to slow the outbreak have limited or delayed the supply of critical inputs, particularly in the automotive and electronics industries (Haren and Simchi-Levi 2020; Baldwin and Tomiura 2020). The collapse of air traffic has resulted in a steep rise in air freight costs, putting further strain on industries that rely on just-in-time delivery of foreign-sourced intermediate goods. Supplier delivery times have lengthened considerably and inventories have been depleted (Figure 1.7.F).

The sharp fall in activity in the first half of this year is expected to contribute to a contraction in global trade of about 13.4 percent in 2020. A gradual recovery is assumed to start during the second half of the year as controls are lifted, travel returns to more typical levels, and manufacturers rebuild inventories. This recovery is expected to be historically feeble, however, reflecting the exceptional character of the present crisis, as well as the length of time that it will take to restore confidence, to replace bankrupted firms, and to establish virus-safe working and entertainment environments. In particular, services do not benefit as much as manufacturing when inventories are restocked, and when purchases of durables pick up after a period of being deferred.

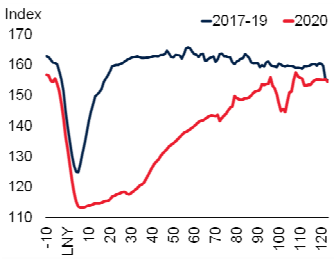
FIGURE 1.6 China

Economic activity collapsed in the first quarter as a result of the COVID-19 outbreak and related lockdowns and closures, although there is evidence of a bottoming out. PMIs have generally rebounded, and road congestion and traded area of commercial buildings in major cities are approaching their normal levels. However, industrial profits and government revenues have declined markedly.

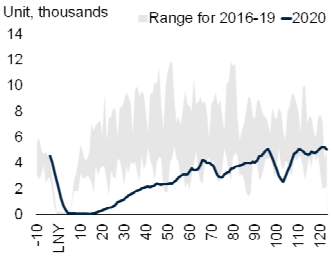
A. Purchasing Managers' Index



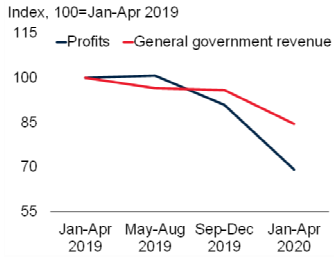
B. Congestion delay index, 100-city average



C. Commercial real estate sales in 30 large- and medium-sized cities



D. Industrial profits and revenue



Source: Baidu; China National Bureau of Statistics; Haver Analytics; Wind; World Bank.
Note: LNY = Lunar New Year.

A. Official and Caixin Purchasing Managers' Index (PMI). PMI readings above (below) 50 indicate expansion (contraction) in economic activity. Last observation is May 2020.

B. Baidu's traffic congestion data is derived from Baidu's real-time traffic information map application. The traffic congestion delay index evaluates the degree of urban congestion, specifically the ratio of the average actuarial travel time to free travel time of urban residents. The congestion index ranges from 1 to 4, where 1 indicates smoothness, 2 indicates slow movement, 3 indicates congestion, and 4 indicates severe congestion. Number on the x-axis indicate days before and after Chinese Lunar New Year. 7 day moving average. Last observation is May 27, 2020.

C. Commercial real estate refers to commercial residential buildings (excluding affordable housing), office buildings, and buildings for commercial businesses. Hangzhou, Nanchang, Wuhan, Harbin, Kunming, Yangzhou, Anqing, Nanning, Lanzhou, Jiangyin, and Foshan provide commercial buildings' sales data (including residential, office and commercial building sales data). Beijing, Shanghai, Guangzhou, Shenzhen, Nanjing, Qingdao, Suzhou, Xiamen, Dalian, Wuxi, Fuzhou, Dongguan, Huizhou, Baotou, Changchun, Yueyang, Shaoguan, Chengdu, Changsha, Shijiazhuang, Tianjin provide only partial sales data on commercial residential buildings. Numbers on the x-axis indicate days before and after Chinese Lunar New Year. Figure shows 7-day moving average. Last observation is May 27, 2020.

D. Figure shows seasonally adjusted profits for all industrial enterprises. Data for January and February are not published by the statistical source due to the Chinese New Year. Haver Analytics calculates figures for January and February by allocating the published February year-to-date figures to January and February using the number of working days as weights. Last observation is April 2020.

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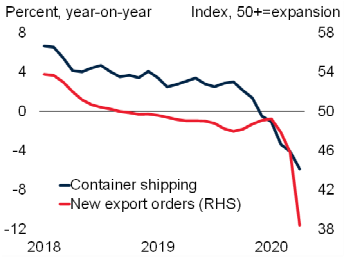
International air travel may take a very long time to re-attain the levels of recent years, as businesses and tourists make fundamental reassessments of the trade-off between foreign trips and infection risks, airlines reduce passenger loads to increase spacing, and governments maintain tighter border controls.

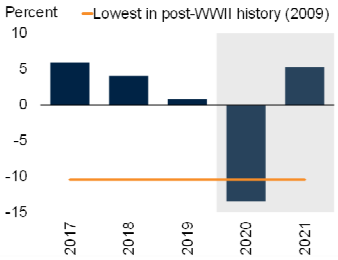
FIGURE 1.7 Global trade

Based on incoming indicators, global trade is on track to fall more in 2020 than it did during the global financial crisis. Trade growth tends to fall much more than activity during crises. The extent of the downturn is magnified by particularly severe disruptions to trade in services, such as tourism, and by global value chains struggling with delayed shipments.

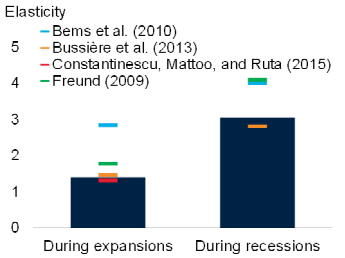
A. Container shipping and new export orders



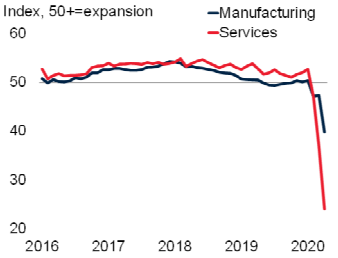
B. Trade growth



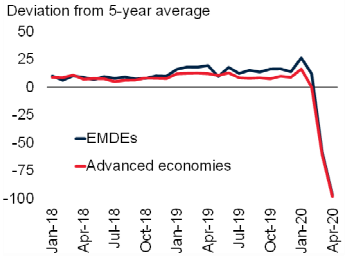
C. GDP elasticity of global trade



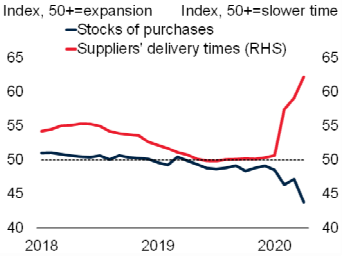
D. Global manufacturing and services PMI



E. Monthly tourist arrivals as a share of average since 2015



F. Subcomponents of the global manufacturing PMI



Source: Haver Analytics; Institute of Shipping Economics and Logistics; World Bank.
Note: PMI = Purchasing Managers' Index.
A.D. PMI readings above (below) 50 indicate expansion (contraction) in economic activity.
A. Figure shows 3-month moving averages. New export orders are for manufacturing and measured by PMI. Last observation is April 2020.
B. Shaded area indicates forecasts. Trade is the average of import and export volumes.
C. Bars show the coefficient of a simple regression of global trade on GDP from 2011-2019 "during expansions" and using 2009, 1991, 1982, and 1975 "during recessions". Recession is defined as defined as a contraction in real per capita GDP. These roughly correspond with more sophisticated estimates such as Bems, Johnson, and Yi (2010); Bussière et al. (2013); Constantinescu, Mattoo and Ruta (2015); and Freund (2009).
D. Manufacturing and services are measured by PMI. Last observation is April 2020.
E. Figure shows the deviation from the unweighted country average for each month since 2015. Sample includes 29 EMDEs and 22 advanced economies. Last observation is April 2020.
F. Figure shows the global stocks of purchases and the suppliers' delivery times PMI. For the stocks of purchases, PMI readings above (below) 50 indicate expansion (contraction) in economic activity; the suppliers' delivery times PMI readings above (below) 50 indicate slower (faster) deliveries. This is reversed from how this subcomponent is normally presented, to reflect that the slowdown in deliveries is a consequence of production disruptions rather than a sign that the economy is working near full capacity. Last observation is April 2020.
Click here to download data and charts.

Financial markets

Financial markets witnessed a historic flight to safety as the economic consequences of widespread measures to contain COVID-19 became apparent. Global equity valuations took an unprecedented plunge early in the year, while market volatility spiked to its highest level since 2008 (Figures 1.8.A and 1.8.B). EMDEs suffered from record capital outflows accompanied by a rise in sovereign borrowing spreads, which was especially severe for countries with high government debt (Figures 1.8.C and 1.8.D).

To contain financial stress, central banks injected liquidity into financial markets through a combination of direct credit provision to large investment-grade companies, expansion of the range of assets they accept as collateral, and large-scale asset purchases—including of corporate debt in some countries (Hördahl and Shim 2020). To alleviate the sharp rise in demand for U.S. dollars for currency hedging and dollar-denominated debt financing, the Federal Reserve provided access to its U.S. dollar liquidity swap arrangements to a larger group of countries, including Brazil, Mexico, and the Republic of Korea (Avdjiev, Eren, and McGuire 2020). These measures appear to have successfully averted a severe liquidity crisis that appeared possible earlier in the year. Capital outflows from EMDEs have stabilized, while equity market valuations have retraced a considerable share of their earlier losses.

Nonetheless, financial conditions remain fragile for many market participants. Disruptions in activity have interrupted cash flows and interfered with debt financing around the world. Spreads on high-yield debt have risen substantially amid widespread corporate bond downgrades, suggesting investors may have become more skeptical about the ability of riskier borrowers to finance their debt. Many EMDEs have also experienced significant pressures on their currencies, with depreciations broadly correlated with current account deficits (Figure 1.8.E). Foreign direct investment in many countries is expected to fall considerably (Figure 1.8.F). Remittances—the largest source of foreign exchange earnings for EMDEs in 2019—are also envisioned to contract sharply across most EMDE

BOX 1.1 How deep will the COVID-19 recession be?

"The short-term collapse in global output now underway already seems likely to rival or exceed that of any recession in the last 150 years." Kenneth Rogoff, Professor of Economics, Harvard University

"The scope and speed of this downturn are without modern precedent, significantly worse than any recession since World War II." Jerome Powell, Chair, The U.S. Federal Reserve System

Current projections suggest that the COVID-19 global recession will be the deepest since the end of World War II, with the largest fraction of economies experiencing declines in per capita output since 1870. Output of emerging market and developing economies (EMDEs) is expected to contract in 2020 for the first time in at least 60 years. The current global recession is also unique in that global growth forecasts have been revised down more steeply and rapidly than in any other recessions since at least 1990. The gradual nature of forecast downgrades in previous global recessions suggests that further downgrades may be in store as forecasters absorb new information about the evolution of the pandemic. As such, additional policy measures to support activity may be needed in the coming months.

The COVID-19 pandemic has led to a deep global recession. The pandemic, and the aggressive restrictions and voluntary restraints on human interaction adopted to contain it, have already led to massive downturns in advanced economies, and to increasing disruptions in EMDEs. Global growth forecasts have been downgraded at an unusually rapid pace over the past three months. The uncertain course of the pandemic, in the absence thus far of effective vaccines or treatments, has caused extraordinary economic uncertainty, including about the possible depth and duration of the global recession, and about how different countries will be affected.

Against this background, this box presents the first systematic comparison of the COVID-19 global recession with previous global recession episodes over the past 150 years. It addresses three questions:

- How does the depth of the COVID-19 recession compare with previous episodes?
- How does the current global recession differ from earlier episodes in different groups of economies?
- How does the evolution of growth forecasts during the current global recession differ from previous episodes?

Contributions. The box makes three contributions to earlier work on global recessions.[1] First, it puts the COVID-19 recession in historical context by analyzing the global recessions of the past 150 years. Second, it compares the performance of different groups of economies—advanced economies, EMDEs, low-income countries (LICs), and EMDE regions—during the current episode with their record in previous ones. Third, it compares the evolution of growth projections between the current and previous global recessions to shed light on the likely future trajectory of forecasts.

Methodology and database. The dates of global recessions are identified by two methods: a statistical method and a judgmental method.[2] The former method defines a global recession as a decline in annual global real GDP per capita. The latter method, similar to the one used for the United States by the Business Cycle Dating Committee of the National Bureau of Economic Research, considers whether there is strong evidence for a broad-based decline in key indicators of global economic activity in a given year. These two methods imply that a *global recession* is a contraction in global real GDP per capita accompanied by a broad decline in various other measures of global activity.[3]

Note: This box was prepared by M. Ayhan Kose and Naotaka Sugawara.

[1] Kose, Sugawara, and Terrones (2019) present a review of the relevant literature on global recessions, analyze how different shocks lead to global recessions, and examine the interactions between global and national cycles.

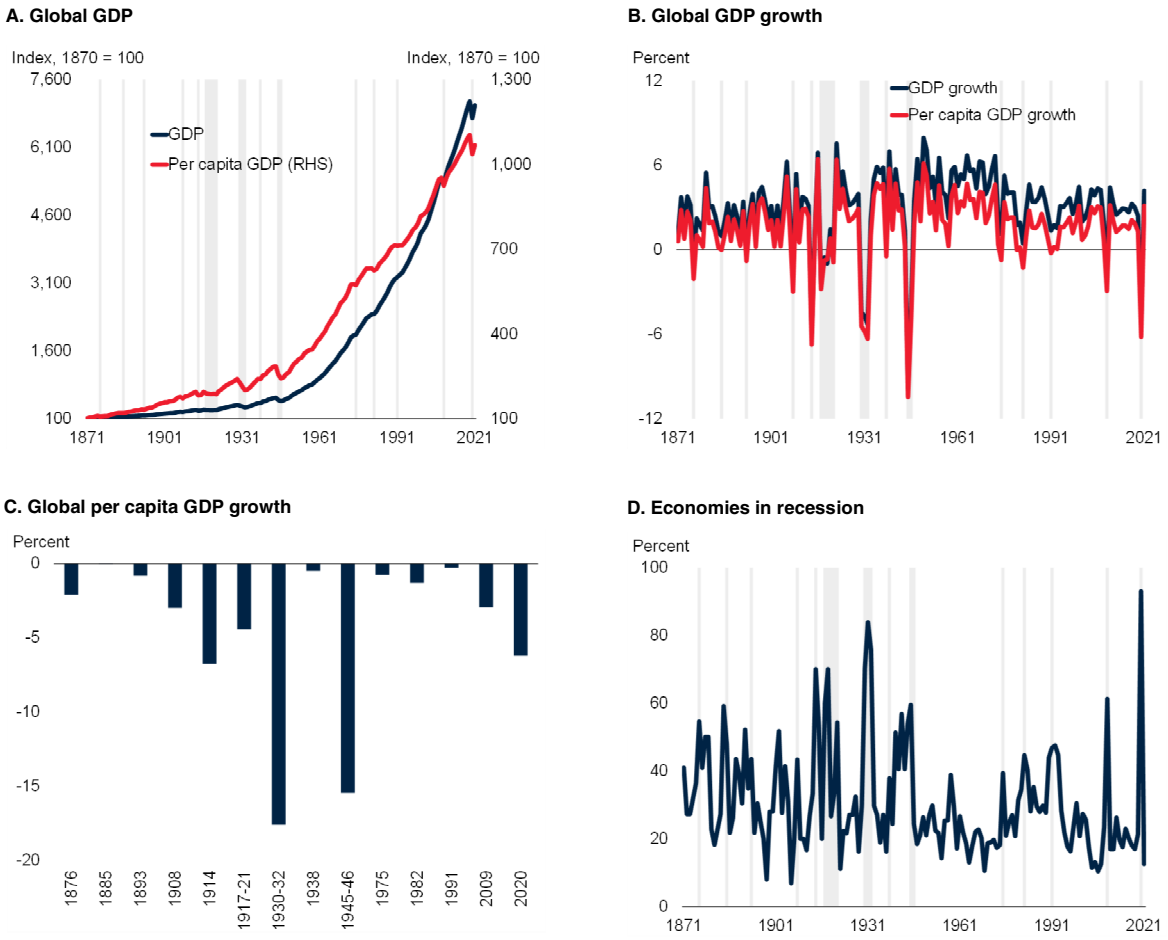
[2] Both methods follow the "classical" definition of a business cycle (Burns and Mitchell 1946), under which business cycle expansions are marked by increases in many measures of economic activity, and contractions by broad declines in activity. Both are widely used in the context of national business cycles, and often arrive at similar turning points (Claessens, Kose, and Terrones 2012).

[3] Some employ a definition of global recession that relies on a simple threshold (*Economist* 2001, 2008; *Financial Times* 2020). The findings here suggest that it is misleading to employ a simple growth threshold (such as below 2.5 percent annual growth in global GDP) to identify global recessions. For example, if one assumes that a global recession takes place whenever world real GDP growth is less than 2.5 percent, there are a total of 54 years under this definition qualifying as global recessions over the period 1870-2020. Over 1960-2020, this definition leads to 16 global recessions.

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

FIGURE 1.1.1 Global recessions: 1870-2021

Since 1870, the global economy has experienced 14 global recessions. Current projections imply that the COVID-19 global recession will be the fourth deepest in this period and the most severe since the end of World War II. It is expected to involve per capita output contractions in an unprecedently high share of countries.



Source: Bolt et al. (2018); Kose, Sugawara, and Terrones (2019, 2020); World Bank.
Note: Data for 2020-21 are forecasts. Shaded areas refer to global recessions.
C. For multi-year episodes, the cumulative contraction is shown. The per capita growth contraction in 1885 was less than -0.1 percent.
D. Figure shows the proportion of economies in recession, defined as an annual contraction in per capita GDP. Sample includes 183 economies, though the sample size varies significantly by year.
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Multiple data sources are employed to construct annual world GDP series for a large sample of economies over a long period. The series covers up to 183 economies—36 advanced economies and 147 EMDEs—over the period 1870-2021, though the sample size varies significantly by year.[4] While the 1870-1959 period is critical in providing a historically richer perspective on global recessions, the analysis for this "historical period" is based on only the statistical method (i.e., using per capita GDP) because of data limitations. The study of global recessions during the "modern period" since 1960 relies on both the statistical

[4] The historical dataset covers the periods 1870-1949 (Bolt et al. 2018) and 1950-59 (Kose, Sugawara, and Terrones 2020). The number of countries in the sample increases over time. GDP series for 2020-21 are forecasts. The database also includes quarterly series that covers 106 economies over 1960:1-2019:4.

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

and judgmental methods and involves a wider range of measures of economic activity, including international trade, retail sales, employment, and oil consumption.

A historical collapse in global output

Another global recession after a decade. Since 1870, the world economy has experienced 14 global recessions: in 1876, 1885, 1893, 1908, 1914, 1917-21, 1930-32, 1938, 1945-46, 1975, 1982, 1991, 2009, and 2020 (Figures 1.1.1.A and 1.1.1.B). In each of these episodes, there was a contraction in global real per capita GDP. The historical period, 1870-1959, saw nine global recessions—at least one in each decade. While there was no global recession during the 1950s and 1960s, the following five decades saw a global recession again in almost every decade.

Deepest recession since World War II. Current projections suggest that the COVID-19 recession will involve a 6.2 percent decline in global per capita GDP, making it the deepest global recession since 1945-46, and more than twice as deep as the recession associated with the global financial crisis (Figure 1.1.1.C). Among the 14 global recession episodes of the past 150 years, it would rank as the fourth deepest (after the 1914, 1930-32, and 1945-46 episodes). The current global recession is expected to register an outright contraction in global GDP (of 5.2 percent) as did eight other episodes.

Duration: One and done? The current global recession is projected to last only one year: in other words, the growth rate of global per capita GDP is projected to turn positive in 2021. This is mostly consistent with experience of prior global recessions: although recoveries took longer to begin in a few deeper recessions prior to 1960, global recessions since then have lasted only one year in terms of annual data. The quarterly data show more variation in the duration of global recessions but the average is still about one year: the durations of the four previous post-1960 global recessions ranged between two quarters (1991 episode) and five quarters (1975 and 1982 episodes) with an average of about four quarters. Many private forecasters expect the COVID-19 global recession to last only two quarters, with major advanced economies returning to growth in the third quarter of 2020 after recording sharp contractions in the first and second quarters of the year.

The first driven solely by a pandemic. The COVID-19 recession is unique as it is the only such episode, at least since 1870, to have been triggered solely by a pandemic and the actions taken to contain it. The prolonged global recession of 1917-21 was partly driven by the 1918-20 Spanish flu pandemic but it also stemmed from the conclusion and aftermath of World War I (Barro, Ursúa, and Weng 2020). In 2009, the Swine flu pandemic was not a contributory factor to the global recession triggered by the financial crisis.

Previous global recessions were driven by confluences of a wide range of factors, including financial crises (1876; the 1930-32 Great Depression; 1982; 1991; 2009), large changes in monetary and fiscal policies (1938; 1982), sharp movements in oil prices (1975; 1982), and wars (1914; 1917-21; 1945-46).[5] During the modern era, the 1975 global recession was mainly the result of a steep increase in oil prices in 1973-74. The 1982 episode was triggered by a combination of factors, including monetary policy responses, particularly by the U.S. Federal Reserve, to the sharp increase in inflation, and the repercussions of the monetary tightening, including the Latin American debt crisis. The 1991 global recession was associated with financial disruptions and exchange rate crises in the European Monetary System and collapses in activity linked to the initial stages of the transition from central planning in many Eastern European countries.

Highest synchronization ever. The fraction of economies experiencing annual declines in national per capita GDP tends to increase sharply during global recessions (Figure 1.1.1.D). Current forecasts suggest that in 2020, the highest share of economies will experience contractions in per capita GDP since 1870—more than 90 percent, even higher than the proportion of about 85 percent of countries in recession at the height of the Great Depression of 1930-32.

Deep recessions in major country groups and regions

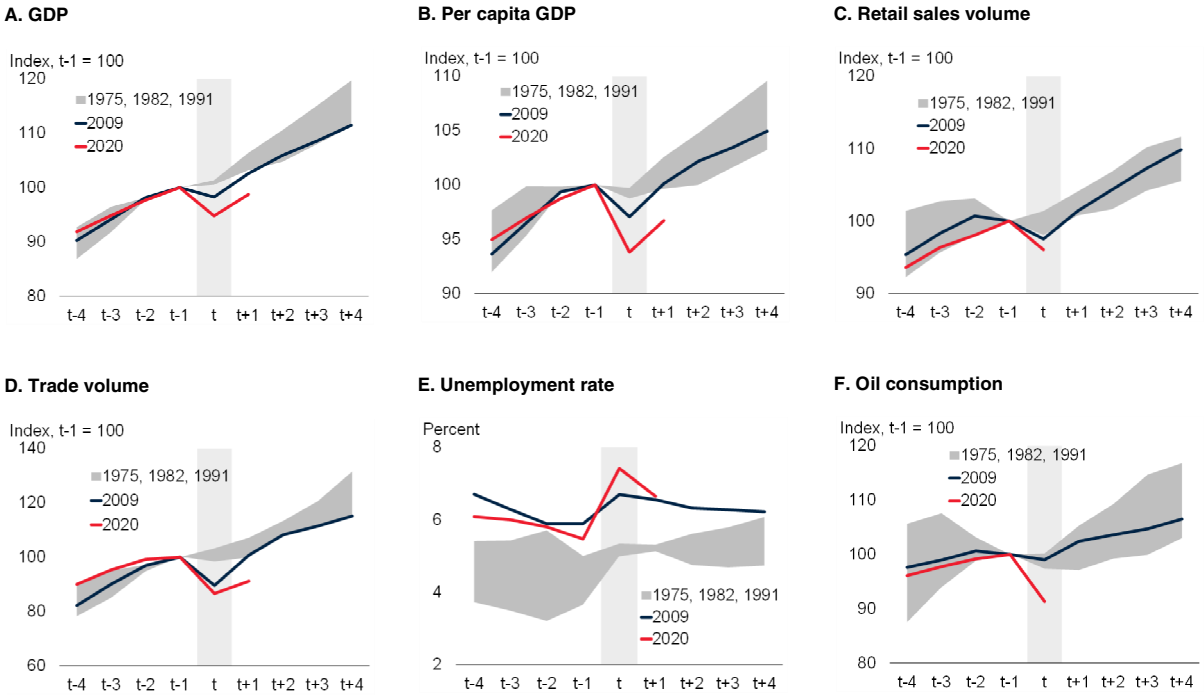
Its highly synchronized nature also means that the COVID-19 global recession will involve most advanced economies and EMDEs (Table 1.1.1). In 2020, both groups will experience the largest declines in their growth rates of the past sixty years. Advanced economies are expected to experience a 7 percent drop in output, while EMDEs will mark their first output contraction, by 2.5 percent, in at least the past sixty years. Per capita output growth in EMDEs will be 6.5 percentage points lower

[5] The events surrounding these episodes are discussed in detail by Allen (2009), Baffes et al. (2015), Eichengreen (2015), Fels (1951, 1952), Hamilton (2013), Knoop (2004), Kose et al. (2020), Kose and Terrones (2015), Reinhart and Rogoff (2009), Roose (1948), and Temin (1989). The sharp drop in global GDP recorded in 1946 reflects the readjustment to a peace-time economy after World War II (De Long 1996; Jones 1972).

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

FIGURE 1.1.2 Global activity during global recessions: 1960-2021

Current forecasts suggest that the COVID-19 recession will involve the sharpest deterioration in multiple measures of economic activity since 1960.



Source: Haver Analytics; International Energy Agency; International Monetary Fund; Kose, Sugawara, and Terrones (2019, 2020); Organisation for Economic Co-operation and Development; World Bank.
Note: Year "t" denotes the year of global recessions (shaded in light gray). The darker shaded area refers to the range of the three global recessions—1975, 1982, and 1991—with available data. GDP, per capita GDP, retail sales, trade, and oil consumption are index numbers equal to 100 one year before year "t" (i.e., t-1 = 100). Retail sales for 2020 are based on data for the first quarter and shown as a year-on-year percent change. It shows that retail sales declined by around 4 percent in 2020Q1. Unemployment rates for 2020-21 are based on forecasts by the International Monetary Fund in April 2020. Oil consumption for 2020 is taken from forecast data by the International Energy Agency in May 2020.
Click here to download data and charts.

than its long-term average during global expansions. These economies are expected to register a much weaker growth performance than in the global financial crisis partly because they entered the current episode with larger external and fiscal imbalances than they had a decade ago, so that they have less room for policy maneuver (Kose and Ohnsorge 2019).

LICs are projected to experience positive GDP growth this year, but at the lowest rate in the past 25 years. Since many of these economies are commodity exporters, in addition to the COVID-19 shock, they are being negatively affected by the sharp drop in prices of industrial commodities. The projected fall in their per capita income growth to -1.6 percent implies that they will see a substantial increase in poverty rates this year.

Although the magnitude will vary across EMDE regions, current projections indicate that all regions will experience sharp growth downturns, and five out of six are projected to fall into outright recession (Table 1.1.2). The majority of EMDE regions will experience the lowest growth in at least sixty years and all of them will see declines in per capita income. EMDE regions with a large number of commodity exporters will see especially deep contractions in 2020. For example, Latin America and the Caribbean is projected to suffer not only the largest growth decline of the six regions, but also its deepest recession of the past sixty years. The contraction in Sub-Saharan Africa is also expected to be the largest over the same period. The two other heavily commodity dependent regions, the Middle East and North Africa region and the Europe and Central Asia region, will also suffer deep recessions this year with

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

TABLE 1.1.1 Growth of GDP and per capita GDP in global recessions

	Global recession years						All years (1960-2020)	
	1975	1982	1991	2009	2020	Average	Non-recession	Full period
World								
GDP	1.1	0.4	1.3	-1.8	-5.2	-0.8	3.7	3.3
Per capita GDP	-0.8	-1.3	-0.3	-2.9	-6.2	-2.3	2.1	1.7
Advanced economies								
GDP	0.2	0.3	1.3	-3.4	-7.0	-1.7	3.3	2.8
Per capita GDP	-0.7	-0.3	0.6	-4.0	-7.3	-2.3	2.5	2.1
EMDEs								
GDP	4.2	0.9	1.5	1.8	-2.5	1.2	4.8	4.5
Per capita GDP	2.0	-1.2	-0.4	0.4	-3.6	-0.5	2.9	2.7
LICs								
GDP	0.0	1.0	-0.7	5.9	1.0	1.5	3.6	3.4
Per capita GDP	-2.4	-1.6	-3.6	3.0	-1.6	-1.2	0.9	0.7

Note: Percent changes in GDP and per capita GDP in respective groups are presented. "Non-recession" refers to all years excluding the five global recession years.

TABLE 1.1.2 Growth of GDP and per capita GDP in global recessions, by region

	Global recession years						All years (1960-2020)	
	1975	1982	1991	2009	2020	Average	Non-recession	Full period
East Asia and Pacific								
GDP	6.6	6.3	8.3	7.5	0.5	5.9	7.2	7.1
Per capita GDP	4.4	4.6	6.7	6.7	-0.1	4.5	5.6	5.5
Europe and Central Asia								
GDP	6.2	3.0	-5.8	-5.1	-4.7	-1.3	3.5	3.1
Per capita GDP	5.3	2.1	-6.2	-5.4	-5.0	-1.8	2.9	2.5
Latin America and the Caribbean								
GDP	3.8	-0.6	3.3	-1.8	-7.2	-0.5	3.8	3.5
Per capita GDP	1.4	-2.8	1.4	-2.9	-8.1	-2.2	1.9	1.6
Middle East and North Africa								
GDP	-1.3	-6.3	6.9	0.5	-4.2	-0.9	5.0	4.5
Per capita GDP	-3.9	-9.4	4.4	-1.6	-5.8	-3.3	2.5	2.0
South Asia								
GDP	7.5	3.8	2.3	4.8	-2.7	3.1	5.3	5.1
Per capita GDP	5.0	1.3	0.1	3.3	-3.8	1.2	3.2	3.1
Sub-Saharan Africa								
GDP	0.3	0.3	0.2	3.2	-2.8	0.2	3.7	3.4
Per capita GDP	-2.4	-2.6	-2.6	0.5	-5.3	-2.5	1.0	0.7

Note: Percent changes in GDP and per capita GDP in respective regions are presented. Only EMDEs are included. "Non-recession" refers to all years excluding the five global recession years.

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

per capita growth 7.9 percentage points lower than their historical average.

South Asia, a region composed entirely of commodity importers, will experience its first decline in GDP for more than forty years with per capita growth 7 percentage points below its long-term average. Although still suffering from a sharp decline in per capita GDP, output in East Asia and Pacific is expected to expand this year, as it did in previous global recessions. This outcome is mainly due to the expected recovery in China, which has already started relaxing its lockdown measures and shows early signs of a rebound in activity. However, the region will still end up with its weakest growth performance for more than 50 years because all other major regional economies will experience severe downturns this year.

Broad-based plunge in multiple sectors

The COVID-19 global recession is expected to be reflected in the sharpest contractions in six decades in many indicators of global activity (Figure 1.1.2). Most notably, while services-related activities were often relatively resilient during previous global recessions, high-frequency indicators suggest that the COVID-19 shock has led to a near sudden stop in a large swath of services, reflecting both regulated and voluntary reductions in human interactions that could threaten infection. Current forecasts suggest that, partly owing to an unprecedented weakening in services-related activities, global trade and oil consumption will see record drops this year, and the global rate of unemployment will climb to its highest level since at least 1965, when available data begin. In addition, industrial production and retail sales are likely to register record drops this year.

The current forecasts indicate that global economic recovery is expected to gain momentum next year, with a rebound in world output similar in gradient to those following prior global recessions, and global employment and oil consumption recovering strongly. However, this rebound would not be enough for output to return to its pre-recession trend level (Chapter 3). The delay in return to the trend level of global output is consistent with long-lasting hysteresis effects associated with deep recessions (Cerra, Fatás, and Saxena 2020; Ma, Rogers, and Zhou 2020).

Fastest and steepest growth downgrades

Since mid-March, the speed and size of downgrades in global growth forecasts have been remarkable. These downgrades have reflected record declines in high-frequency indicators of activity as many countries have implemented widespread mitigation measures to get ahead of the health crisis and as many people have undertaken voluntary "social distancing." To shed light on the likely future evolution of growth projections, the pattern of forecast downgrades this year is compared with those of previous global recessions. The analysis here employs forecasts published by Consensus Economics, a firm that surveys professional forecasters.[6]

The COVID-19 recession has seen by far the fastest and steepest downgrades in growth forecasts among all the global recessions for which the consensus forecast data are available—the recessions since 1990 (Figure 1.1.3.A). After staying above 2 percent in February, the 2020 global GDP growth forecast has been downgraded by around 6.6 percentage points since mid-March (Figure 1.1.3.B). As the health crisis has intensified, advanced economies have been subject to much larger forecast downgrades, with their 2020 growth forecasts being reduced in only thirteen weeks by around 8 percentage points (from early March to early June). EMDE growth forecasts for 2020 were also lowered, by about 6.1 percentage points, during the same period.

The speed and magnitude of the growth forecast downgrades for both advanced economies and EMDEs have been unprecedented, even compared to those that occurred around the 2009 global recession (Figures 1.1.3.C and 1.1.3.D). In particular, in the current global recession, GDP growth forecasts of three major economies (the United States, Euro Area, and China) were quickly revised downward by significantly more than in previous episodes. For example, the U.S. growth forecast has been downgraded by about 8.7 percentage points over the past three months while it was reduced by about 4 percentage points over 12 months during the 2009 episode. The COVID-19 recession has also seen a record increase in uncertainty surrounding global growth forecasts, measured by the dispersion of individual forecasts, since April as the health crisis deepened in advanced economies (Figure 1.1.3.E). The increase in forecast uncertainty reflects the record increase in worldwide uncertainty over the past

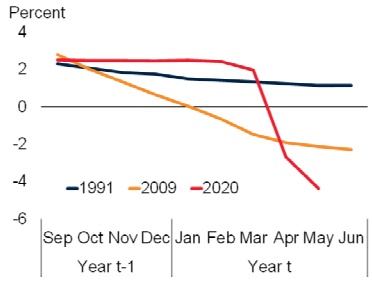
[6] As forecasts by Consensus Economics reflect perspectives of many forecasters using a wide range of methodologies, they tend to be more stable than projections made by a single entity. However, there are also a few shortcomings associated with their information content (Crowe 2010). The data sample covers high-frequency forecasts (daily, monthly) of up to 85 economies—33 advanced economies and 52 EMDEs—over the period 1990-2020.

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

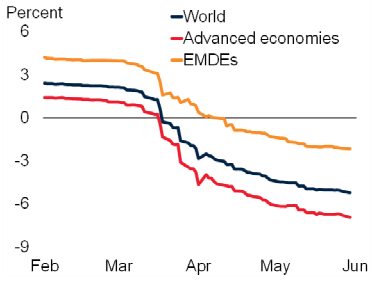
FIGURE 1.1.3 Evolution of forecasts during global recessions

The COVID-19 recession has seen the fastest and steepest downgrades in growth projections among all the global recessions for which data for consensus forecasts are available, that is, since 1990. In previous such episodes, growth forecasts were gradually downgraded over periods much longer than that which has thus far elapsed in the current recession. Uncertainty around global growth forecasts has increased sharply as the health crisis has intensified over the past three months.

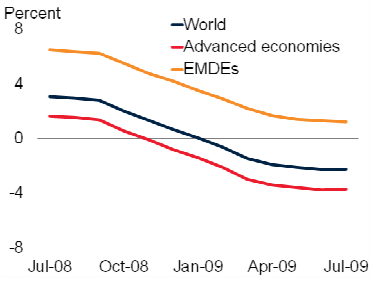
A. Consensus forecasts of global GDP growth



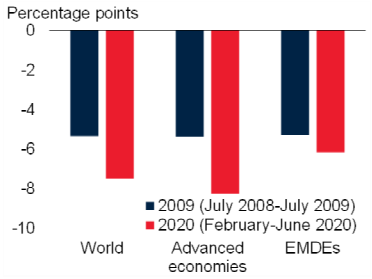
B. Consensus forecasts of GDP growth for 2020, February-June 2020



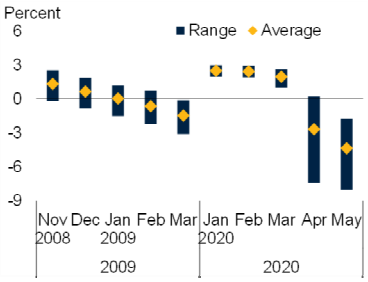
C. Consensus forecasts of GDP growth for 2009, July 2008-July 2009



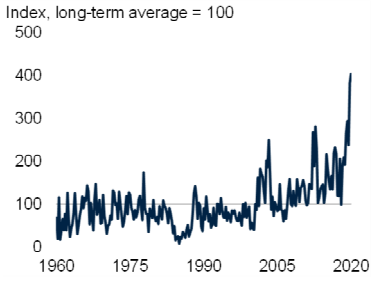
D. Changes in consensus forecasts of GDP growth



E. Dispersion of global GDP growth forecasts



F. Global uncertainty



Source: Ahir, Bloom, and Furceri (2018); Consensus Economics; World Bank.

A. Year "t" denotes the year of global recessions. Data for 1991 are for advanced economies only due to data availability.

B. Average GDP growth for 2020, based on 59 economies (including 32 advanced economies and 27 EMDEs) for which data for consensus forecasts are available, weighted by GDP in constant 2010 U.S. dollars for 2019. Growth is computed each business day as a moving average of the latest revised forecasts. Horizontal axis shows month and day. Last observation is June 1, 2020.

C. Average GDP growth for 2009 (based on 84 economies, including 33 advanced economies and 51 EMDEs), weighted by GDP in constant 2010 U.S. dollars for 2008. The July 2008-July 2009 period is selected because of the relative stability of forecasts prior to and after this period.

D. Changes in consensus growth forecasts for 2009 and 2020, in percentage points. For 2009, changes represent differences in forecasts between July 2008 and July 2009 (based on the monthly surveys). For 2020, changes represent differences in forecasts between February 18, 2020, and June 1, 2020. Growth is computed each business day as a moving average of the latest revised forecasts.

E. Consensus global growth forecasts for 2009 and 2020 in denoted months. Ranges show the minimum-maximum of growth forecasts.

F. The index is computed by counting the percent of word "uncertain" (or its variant) in the Economist Intelligence Unit country reports. Long-term average refers to average over 1960-2020. Last observation is 2020Q1.

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three months (Figure 1.1.3.F). If the future trajectory of forecasts follows the typical pattern and worldwide uncertainty remains elevated, there may well be further downgrades in global growth in coming months.

Global recessions: From bad to worse?

The experience of past global recessions suggests that it takes time for forecasters to process incoming data and fully recognize the magnitude of recessions, which are rare episodes.[7] In previous global recessions, an initial adverse development was often followed by a series of disruptions

[7] Forecasters tend to be slow in internalizing adverse developments in their projections and are often unable to correctly predict in advance the duration of national recessions (Ahir and Loungani 2014; An and Loungani 2020; Aromí 2019). In light of the heightened uncertainty about the growth outlook, it is useful to examine alternative scenarios that can illustrate the range of likely growth outcomes in the near term. However, these scenarios are often adjusted in response to the changes in the baseline forecasts.

BOX 1.1 How deep will the COVID-19 recession be? *(continued)*

that spread worldwide through trade, financial, and confidence linkages. A sharp decline in global growth was ultimately an outcome driven by all of these developments. Forecasters gradually downgraded their projections as they better grasped the likely growth consequences of new developments.

The 2009 global recession provides a very good example of the evolving nature of these episodes and its implications for the trajectory of forecasts. The initial trigger for the global financial crisis was problems in certain segments of the mortgage markets in the United States, but dislocations emanating from these markets soon engulfed the entire U.S. financial system. The high degree of interconnectedness between U.S. and other financial markets then caused the crisis to spread to other advanced economies and some EMDEs. As these events progressed, global growth forecasts were downgraded steadily between September 2008 and July 2009.

As in previous global recessions, the early consequences of the initial shock—the pandemic in this case—may be followed by further adverse developments. It may take longer than expected to suppress outbreaks of COVID-19 in different parts of the world (Box 3.3). Initial disruptions triggered by the pandemic could lead to financial crises in vulnerable EMDEs. Moreover, the uniqueness of the COVID-19 global recession brings another challenge: professional forecasters and economists have a more limited understanding of the growth implications of a global recession driven by a pandemic, because of their very limited experience with them, than of previous global recessions, which were triggered by more run-of-the-mill financial and policy shocks.

Conclusion

The COVID-19 recession is unique in many respects. It is the first recession to have been triggered solely by a pandemic during the past 150 years, and current forecasts suggest that it will be the most severe since the end of World War II. The recession this year is likely to be the deepest one in advanced economies since the end of World War II, and the first output contraction in EMDEs in at least the past six decades. Importantly, it is also expected to trigger per capita GDP contractions in the largest share of economies since 1870.

The current episode is also unique because it has been accompanied by the fastest and steepest global growth forecast downgrades in recorded history. In previous global recession episodes, growth projections were gradually downgraded over a longer period as forecasters processed incoming data and reassessed the implications. If the past is any guide, there may be further downgrades in store as forecasters better understand the growth repercussions of this exceptional global recession. Further policy measures to support activity, in addition to the large-scale initiatives already introduced, may be needed in the coming months.

regions as travel restrictions and widespread losses of service sector jobs discourage labor migration and weigh on incomes of migrant workers (World Bank 2020b). In a number of EMDEs, banking system profitability is being eroded by a rise in nonperforming loans.

Commodity markets

Most commodity prices declined in the first half of the year because of the sharp fall in global demand (World Bank 2020c; Figure 1.9.A). Brent crude oil prices fell almost 70 percent from late January to mid-April, before retracing some of these losses in recent weeks (Figure 1.9.B). The decline in oil prices since January has been larger than in the aftermath of the September 11, 2001 attacks or during previous global recessions (Figure 1.9.C). Controls to slow the spread of the pandemic have resulted in a sharp fall in travel and transport, which accounts for two-thirds of oil consumption. Oil demand is expected to fall by 8.6 percent in 2020. Such a decline would be unprecedented, surpassing the previous record fall of 4 percent in 1980 (Figure 1.9.D).

Global oil production is also starting to fall, although at a slower pace than demand. In April, OPEC and its partners agreed to new production cuts, starting with a reduction of 9.7mb/d in May and June, and gradually tapering thereafter. Production in non-OPEC+ countries is also starting to decline. The U.S. Energy Information Administration expects U.S. production to fall by

just under 2 mb/d from current levels to a low of 11mb/d in 2020Q4. Overall, oil prices are expected to average $32 per barrel in 2020 and $38 per barrel in 2021—$26 and $21 per barrel below January forecasts, respectively.

Demand for metals has also fallen. Prices are anticipated to decline 16 percent in 2020 before showing a modest increase in 2021. This forecast is predicated on a recovery of Chinese demand, which accounts for around 50 percent of the consumption of base metals.

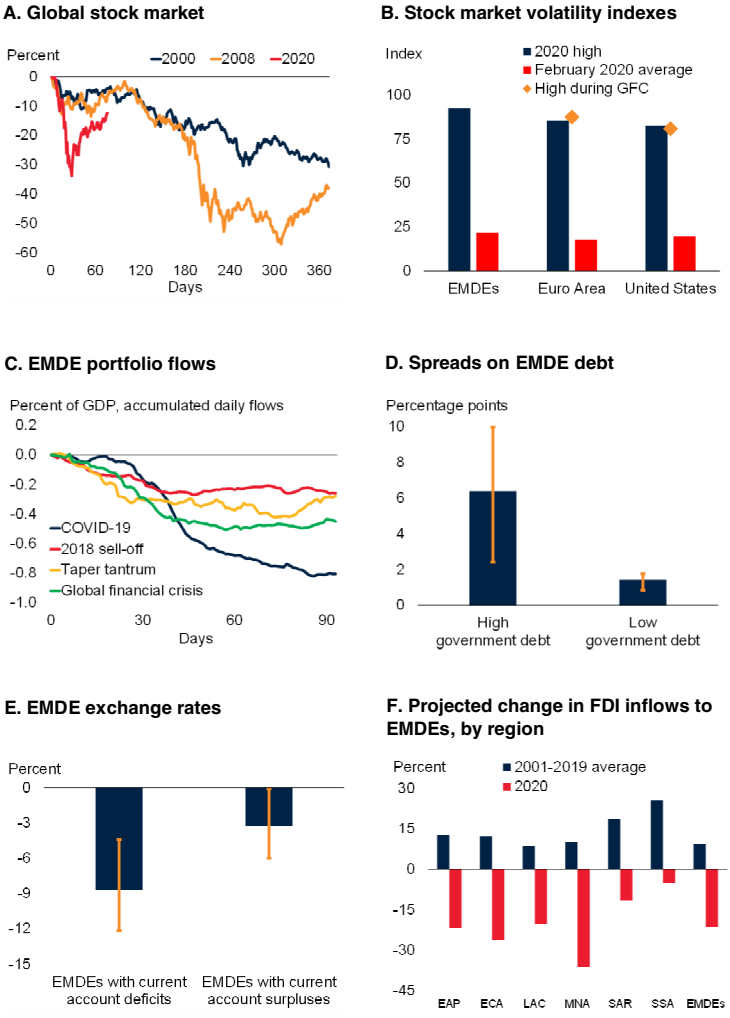
Agricultural prices, which weakened over the first half of the year, are expected to decline only marginally in 2020 as a whole, as they are less sensitive to economic activity than industrial commodities, particularly at higher-income levels (World Bank 2018a). Despite production levels and stocks for most staple foods being near all-time highs, there are growing concerns about food security. Food availability is being strained due to supply chain disruptions and restrictions on movement (FAO 2020a). Further, in EMDEs with a large number of poor, income losses from disruptions in economic activity could increase food insecurity. Some countries have announced temporary restrictive trade policies such as export bans, similar to those that contributed to spikes in international food prices in 2007-08 and 2010-11. While ample supplies mean that prices are likely to remain stable at the global level, localized price spikes could further erode food security.

Emerging market and developing economies

EMDEs are forecast to contract this year due to the COVID-19 pandemic. The impact is expected to be most severe for EMDEs with large domestic outbreaks and those that rely heavily on global trade, tourism, commodity exports, and external financing. Per capita incomes are projected to contract deeply as a result, causing the first net rise in global poverty in more than 20 years. Growth in EMDEs is projected to pick up in 2021, on the back of firming trade and investment as the effects of the pandemic wane. Prospects for subdued commodity prices, however, are expected to temper the recovery in commodity exporters.

FIGURE 1.8 Global finance

A massive flight to safety caused sharp declines in asset valuations and heightened financial market volatility around the world. Earlier in the year, capital flowed out of EMDEs at a pace far exceeding the worst days of the global financial crisis, resulting in higher spreads and weaker currencies, particularly for more vulnerable EMDEs. FDI inflows to EMDEs are expected to slow considerably.



Source: Bloomberg; Dealogic; Haver Analytics; Institute of International Finance; International Monetary Fund; J.P. Morgan; World Bank.

A. Stock market represented by the MSCI ACWI Index, which is a global market capitalization weighted index representing equity markets in 23 advanced economies and 26 EMDEs. Cumulative decline relative to peak. Last observation is May 28, 2020.

B. GFC = Global financial crisis. Figure shows the volatility index for each region. Data during the GFC are available for the Euro Area and the United States. Last observation is May 29, 2020.

C. The dates for the start of each episode are as follows: COVID-19, January 20, 2020; 2018 sell-off, May 2, 2018; Taper tantrum, May 21, 2013; Global financial crisis, September 7, 2008. Sample includes 10 EMDEs due to data availability. Data are calculated using nominal U.S. dollar GDP for the corresponding year of each episode. Last observation is May 28, 2020.

D. Average cumulative change in spreads on government bonds from January 1, 2020 to May 28, 2020. Sample includes 25 EMDEs. High government debt: EMDEs in the top 75 percentile by the level of general government debt in 2019; low government debt: EMDEs in bottom 25 percentile by the level of general government debt in 2019. Orange lines indicate interquartile ranges.

E. Average cumulative changes in exchange rates since January 1, 2020 based on 14 EMDEs with estimated current account deficits in 2019 and eight EMDEs with estimated current account surpluses in 2019. Vertical orange lines indicate the interquartile range. Last observation is May 28, 2020.

F. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa. Data for 2020 are estimates by the Institute for International Finance. Sample includes 56 EMDEs.

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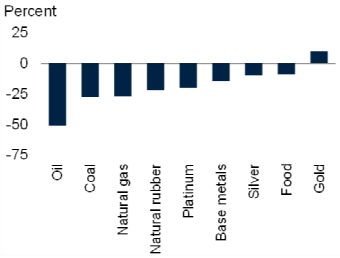
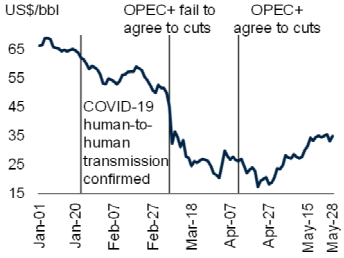
FIGURE 1.9 Commodity markets

Commodity prices fell sharply in the first half of 2020, owing to a collapse in demand resulting from the COVID-19 pandemic. The fall was greatest in oil prices, partly reflecting weaker demand for transport and travel. A renewed OPEC+ agreement in April proved insufficient to bolster prices, which have fallen more than in previous major events. The decline in demand expected for 2020 is unprecedented by historical standards.

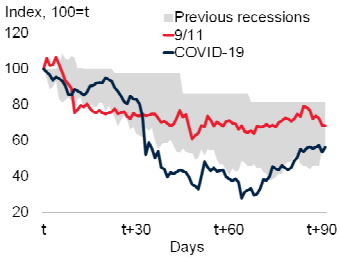
A. Commodity price changes since January 2020



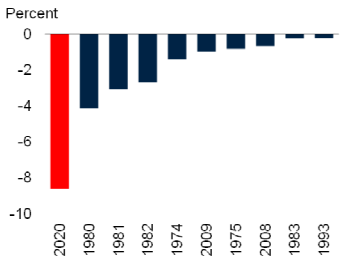
B. Brent crude oil price



C. Oil prices during past episodes of stress



D. Years with the largest declines in oil demand



Source: Bloomberg; BP Statistical Review; Energy Information Administration; International Energy Agency; Organization of Petroleum Exporting Countries; World Bank.

Note: January 22, 2020 is the date that the WHO first observed human-to-human COVID-19 transmission.

A. Figure shows the change in the monthly average of commodity prices between January 2020 and the last observation, which is May 2020. Price changes for "Base metals" and "Food" show World Bank Pink Sheet indexes. Oil price is unweighted average of Brent, WTI and Dubai prices.

B. Vertical lines denote January 22, 2020; March 9, 2020; April 13, 2020. Last observation is May 28, 2020.

C. Start dates for events are the first trading day before a major event occurred: September 10, 2001 for 9/11 and January 22, 2020 for COVID-19. If data are unavailable, the start date is the first day of available data prior to the event date. Shaded area indicates range over the four global recessions: 1974, 1981, 1990, and 2008. Last observation is May 28, 2020.

D. Figure shows the 10 largest declines in oil demand since 1965. Years on the x-axis indicate the year in which the decline occurred. Data for 2020 are IEA estimates.

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Recent developments

The pandemic, and the associated domestic disruptions and global spillovers, has dealt a significant blow to EMDEs. Many have adopted restrictions to stem the pandemic, including economy-wide lockdowns, international border and school closures, and restrictions on domestic travel (Figure 1.10.A). In many EMDEs, efforts to slow the spread of the virus have weighed heavily on private consumption, generated widespread unemployment, and led to a sharp decline in retail sales. Uncertainty over the spread of the virus and the lifting of restrictions have coincided with the erosion of business confidence and a decline in investment. Businesses have also had to contend with delivery delays in intermediate inputs, plunging demand, and limited access to financing. Domestic COVID-19 outbreaks are beginning to overwhelm health care systems in a rising number of EMDEs because of the small size of their health care systems and limited hospital capacity.

EMDEs have also faced unprecedented external headwinds from much weaker activity in major economies, sharp declines in commodity prices, disruptions to global supply chains and tourism, markedly lower remittances, and financial market turmoil. Manufacturing activity and new export orders have sharply contracted, particularly in EMDEs with a large presence of manufacturing or export-oriented firms (EAP, ECA; World Bank 2020a, 2020d). Increasing supply-chain disruptions are likely, as shipments are interrupted by temporary export bans or border restrictions.

Tourist arrivals collapsed in the first half of 2020 alongside widespread international border closures and travel restrictions. EMDEs that rely heavily on tourism faced large declines in services activity, particularly in hospitality, food, entertainment, and retail services. In EMDEs where remittances are an important source of income, private consumption has fallen sharply as migrant workers became idle or furloughed as a result of the downturn in business activity in host countries (Figure 1.10.B; World Bank 2020b).

Commodity exporters

The drastic reduction in demand and prices for oil and industrial metals is a major headwind for commodity exporters, as commodities accounted for more than 75 percent of exports in 2019 in the average member of this group. Extraction investment has fallen sharply, loss of revenues has forced some governments into procyclical fiscal tightening, and the deterioration in terms of trade has weighed on consumption, particularly in regions with large numbers of commodity exporters (LAC, MENA, SSA; World Bank 2020e, 2020f, 2020g).

In addition, commodity exporters are grappling with domestic outbreaks and the side effects of mitigation measures. The number of these measures was initially higher in commodity exporters than in commodity importers, in part reflecting greater fear about the consequences of domestic outbreaks in countries where the capacity of the public health system is low. As a share of GDP, government health care spending among commodity exporters is on average 30 percent lower than in commodity importers (Figure 1.10.C).

Activity indicators in EMDE commodity exporters have declined to multi-year lows. Whereas three-quarters of commodity-exporting EMDEs managed to avoid recession in 2009 despite collapsing commodity prices, more than two-thirds of them are expected to contract in 2020 (Figure 1.10.D). This is largely due to the wider global spread and the larger magnitude of the shock. In addition, it reflects the lingering weakness and eroded buffers from the 2014-16 commodity price collapse (Chapter 4).

Commodity exporters entered this year with weaker external and fiscal positions than before the global financial crisis, as subdued external demand and low commodity prices reduced current account balances, while persistent fiscal deficits contributed to rising debt levels. A number of commodity exporters have announced fiscal stimulus, while some have also partially reallocated spending to provide targeted support. Several central banks have provided monetary support, despite currency depreciations and substantial capital outflows.

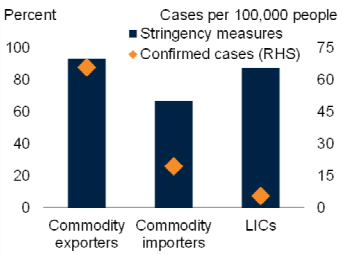
Commodity importers

Growth in most commodity importers has been curtailed by severe domestic virus outbreaks and restrictions to stem the pandemic, all of which have heavily weighed on consumption and investment (World Bank 2020f, 2020g, 2020h). Although commodity importers on average have more developed health care systems than commodity exporters, there is considerable variation across regions. In Central European economies, the number of hospital beds per person is similar to that in the Euro Area, while in

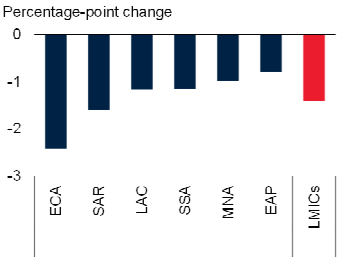
FIGURE 1.10 EMDE recent developments

Activity in EMDEs has markedly declined in response to the pandemic, with necessary measures such as lockdowns and other restrictions weighing heavily on both demand and supply. Private consumption will suffer acutely, including in economies dependent on remittance inflows. EMDEs with weak health systems are particularly vulnerable to the pandemic's impact. Nearly 80 percent of EMDEs are expected to suffer output contractions this year. Activity in LICs has also slowed sharply and financial conditions have tightened in some economies.

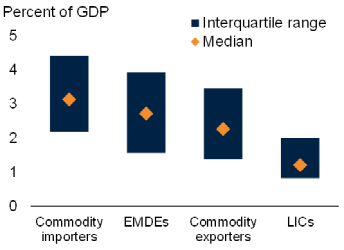
A. Stringency measures and COVID-19 cases in EMDEs and LICs



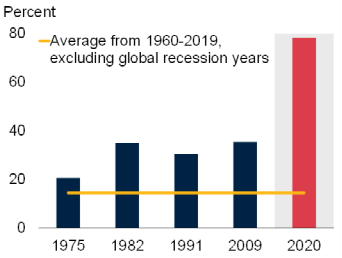
B. Change in remittance inflows in 2020, by EMDE region



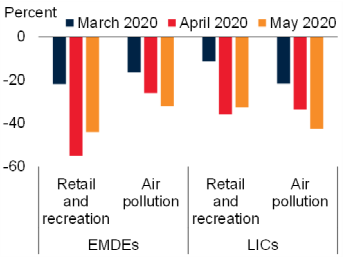
C. Health care spending in EMDEs and LICs in 2016



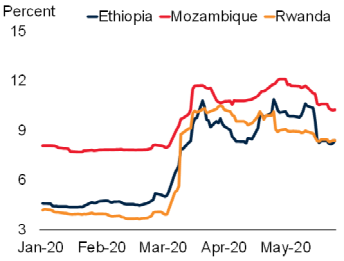
D. Share of economies experiencing annual contractions in activity



E. Change in activity indicators in EMDEs and LICs



F. LIC sovereign borrowing costs



Source: Air Quality Open Data Platform; Bloomberg; Google COVID-19 Community Mobility Reports; Haver Analytics; Johns Hopkins University; Kose, Sugawara, and Terrones (2020); Oxford University; World Bank; World Bank (2020b).

Note: EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, LICs = Low-income countries, LMICs= Low- and Middle-Income countries, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.

A. Sample includes 144 EMDEs, of which 91 are commodity exporters, 64 are commodity importers, and 33 are LICs. Last observation is May 28, 2020.

A.E. Aggregates calculated with U.S. dollar GDP weights at 2010 prices and market exchange rates.

B. Figure shows the simple average of the projected change between 2019 and 2020 remittances as a share of 2019 GDP. Sample includes 141 EMDEs.

C. Sample includes 150 EMDEs, with 58 and 82 commodity importers and exporters, and 25 LICs.

D. The horizontal axis indicates the year of each global recession. Sample includes 86 EMDE commodity exporters and 61 EMDE commodity importers. Shaded area indicates forecasts.

E. Data reflect monthly percent change relative to the baseline period of January 3, 2020 to February 6, 2020. "Retail and recreation" reflect data on visits and length of stay and are calculated by Google. "Air pollution" measured as particle matter (PM2.5) air pollution. Sample includes 93 EMDEs and 15 LICs for "Retail and recreation" and 53 EMDEs and 7 LICs for "Air pollution". The last observation is May 21, 2020 for "Retail and recreation" and May 29, 2020 for "Air pollution".

F. Data for Ethiopia, Mozambique, and Rwanda reflect yields on the 2024, 2031, and 2023 Eurobonds, respectively. Last observation is May 29, 2020.

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BOX 1.2 Recent developments and outlook for low-income countries (LICs)

The COVID-19 pandemic has exerted a particularly heavy humanitarian and economic toll on low-income countries (LICs), in light of their underlying vulnerabilities. While activity among this group is expected to firm next year, the outlook is subject to substantial downside risks. These include the possibility that mitigation and other control efforts to stem domestic outbreaks are unsuccessful or that measures to slow the spread—such as border closures—induce a food crisis.

Recent developments

The COVID-19 pandemic has spread rapidly and severely disrupted activity in low-income countries (LICs; Figure 1.2.1.A). The virus has infected tens of thousands and taken a heavy human toll, with weak health care capacity in LICs contributing to elevated mortality rates. The necessary measures implemented to slow the domestic spread of the virus have weighed heavily on activity in the first half of this year (Figures 1.2.1.B and 1.2.1.C). With the global economy ravaged by the pandemic, LICs face reduced external demand, falling commodity prices, a dramatic decrease in tourism activity, weakening foreign direct investment, sharply higher borrowing costs, as well as an expected fall in remittances—a key source of foreign funding and support for household incomes in many LICs (Figures 1.2.1.D - 1.2.1.F).

Several LICs have experienced severe domestic outbreaks (Afghanistan, Democratic Republic of Congo, Guinea); however, limited testing capacity is likely understating the intensity of the pandemic. Efforts to slow the spread through social distancing have been difficult, particularly in densely populated urban areas where large populations often live in informal settlements without access to proper sanitation.

More broadly, activity among industrial commodity-exporting LICs has slowed markedly during the first half of this year, reflecting the impact of growing domestic outbreaks, weakening demand in key trading partners, and sharply lower commodity prices (Chad, Mozambique, Tajikistan). Activity in many agricultural commodity exporters has also been severely affected, with its impact amplified in those with large tourism sectors or strong trade links with China, the Euro Area, and the United States (Madagascar, Nepal, Rwanda, Uganda).

Outlook

Economic growth. Growth among the LICs is expected to slow markedly to 1 percent in 2020—the slowest pace in at least 25 years—reflecting the pandemic's broad-based disruption to activity (Figure 1.2.2.A). Aggregate activity in LICs is expected to rebound in 2021, with growth rising to 4.6 percent as headwinds related to the pandemic fade. However, significant uncertainty surrounds the pace and timing of the projected recovery. It rests heavily on the assumption that the pandemic recedes in such a way that mitigation measures are gradually lifted from the middle of this year—and that activity in major trading partners rebounds.

In industrial commodity exporters, growth is expected to contract by 1.3 percent in 2020, as low commodity prices compound domestic disruptions. The projected pickup in 2021 is underpinned by the recovery in demand from key trading partners and firming commodity prices (Central African Republic, Chad, Democratic Republic of Congo, Guinea, Mozambique, Niger). In some countries, growth will be spurred further by investment in new production capacity (Chad, Mozambique, Niger). In Niger, however, lower oil prices risk delaying completion of the country's new oil production infrastructure. In Liberia, activity is forecast to recover from two years of stagnation thanks to the adoption of structural reforms and the achievement of greater price stability.

Growth among other LICs is expected to fall to 1.6 percent in 2020, from 5.2 percent last year, before recovering in 2021. In Ethiopia, growth is expected to fall to a 17-year low of 3.2 percent this year—from 9 percent in 2019. The projected rebound in 2021 is expected to be underpinned by the implementation of reforms, such as addressing foreign exchange shortages, to boost private investment. An assumed improvement in political stability and more stable business environments are projected to further support activity (Guinea-Bissau, Haiti). In others, the recovery from this year's coronavirus pandemic will be aided by increased private sector investment due to continued reforms to improve business environments (Benin, Nepal, Rwanda, Togo).

Prospects for per capita income convergence and poverty alleviation. Per capita GDP in LICs is expected to contract by 1.6 percent in 2020, likely causing a large share of the population to slip back into extreme poverty, while those already in extreme poverty could descend further into destitution (Figure 1.2.2.B). Amid widespread informality,

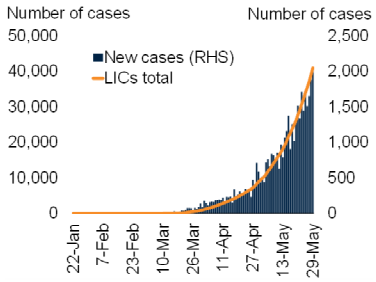
Note: This box was prepared by Rudi Steinbach. Research assistance was provided by Maria Hazel Macadangdang.

BOX 1.2 Recent developments and outlook for low-income countries (LICs) *(continued)*

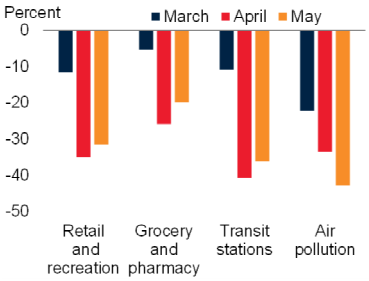
FIGURE 1.2.1 Recent developments in low-income countries

The COVID-19 pandemic has spread to almost all LICs, infecting thousands and exacting a heavy human toll. Activity has slowed sharply this year as countries work to slow the spread of the virus. As the global economy falls into recession, LICs face reduced external demand, sharply higher borrowing costs, and an expected fall in remittance inflows—a key source of foreign funding in LICs.

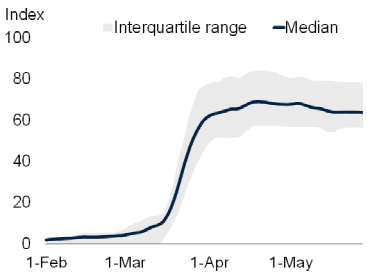
A. Coronavirus infections in LICs



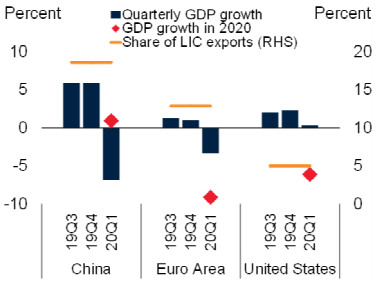
B. Activity in LICs as reflected by changes in community mobility and air pollution



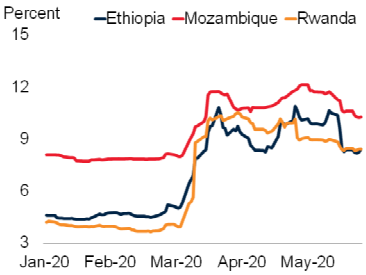
C. Stringency of containment measures in LICs



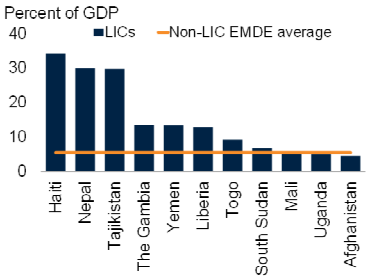
D. GDP growth in major LIC trading partners



E. LIC sovereign borrowing costs



F. Remittances in LICs in 2019



Source: Bloomberg; Google LLC; Direction of Trade Statistics (International Monetary Fund); Johns Hopkins University; Oxford COVID-19 Government Response Tracker (OxCGRT); World Bank.

Note: LICs = low-income countries.

A. Sample includes 29 countries. Last observation is May 29, 2020.

B. "Retail and recreation" reflect how visits and length of stay at places such as restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters have changed relative to the baseline period January 3 to February 6, 2020. "Grocery and pharmacy" reflect places such as grocery markets, food warehouses, farmers markets, specialty food shops, drug stores, and pharmacies. "Transit stations" reflect places such as public transport hubs such as subway, bus, and train stations. The data are calculated by Google based on aggregated and anonymized location history of a subset of its users. Data reflect monthly percent changes relative to the baseline. "Air pollution" reflects monthly percent changes in particle matter (PM2.5) air pollution relative to the baseline period January 3 to February 6, 2020. Sample for "Retail and recreation", "Grocery and pharmacy", and "Transit stations" includes 15 LICs. Sample for "Air pollution" includes 3 LICs.

C. Stringency index records the number and strictness of government policies. It is calculated by OxCGRT based on publicly available information on 13 indicators of government response, including policies such as school closures, travel bans, and fiscal and monetary measures. Sample includes 17 LICs. Last observation is May 28, 2020.

D. "Share of LIC exports" reflects goods exports.

E. Data for Ethiopia, Mozambique, and Rwanda reflect yields on the 2024, 2031, and 2023 Eurobonds, respectively. Last observation is May 29, 2020.

F. Remittances and ODA samples include 31 and 26 LICs, respectively.

Click here to download data and charts.

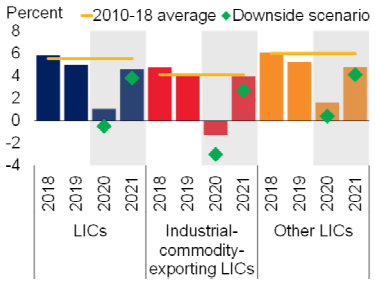
options to buffer temporary income losses are mostly limited. Among fragile LICs—where the incidence of extreme poverty is higher—the fall in incomes is projected to be steeper, with per capita GDP contracting by an estimated 4.6 percent this year (World Bank 2020i). The pandemic could leave long-lasting scars on the poor. Disruptions to education systems as a result of school closures have also brought school feeding programs to a halt in many LICs (WFP, forthcoming; Figure 1.2.2.C). For the most vulnerable populations, these disruptions are likely to exacerbate malnutrition and affect human capital development—exacting losses that may not be recoverable.

BOX 1.2 Recent developments and outlook for low-income countries (LICs) *(continued)*

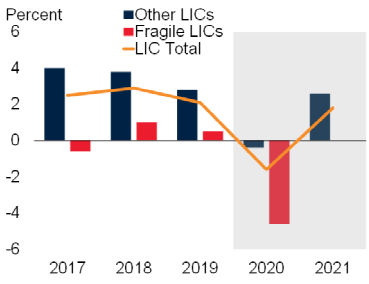
FIGURE 1.2.2 Outlook and risks

Growth this year is forecast to fall to the weakest pace in a generation, but pandemic mitigation measures are expected to support a rebound in 2021. A longer-lasting and more severe pandemic would trigger an even steeper collapse in activity. Per capita growth has decelerated sharply and contracted among fragile LICs, reversing progress in poverty reduction. Disruptions to school feeding programs are likely to exact human losses that may not be recoverable. Health sectors in LICs have limited capacity to respond to larger outbreaks. Food insecurity in several LICs could be exacerbated by an ongoing locust outbreak.

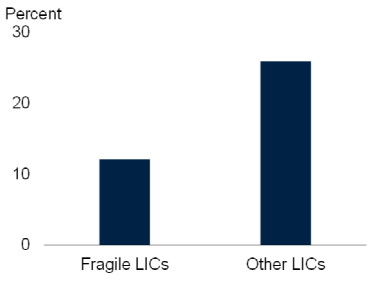
A. GDP growth



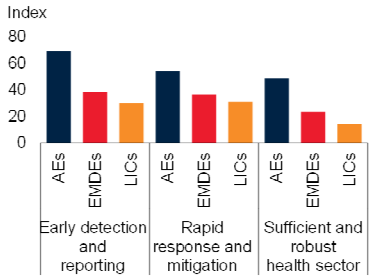
B. Growth per capita



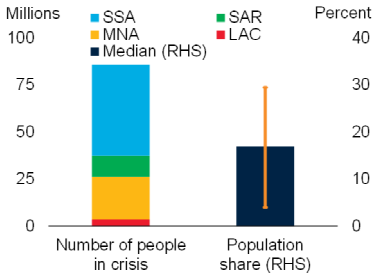
C. Children affected by disruptions to school feeding programs in LICs



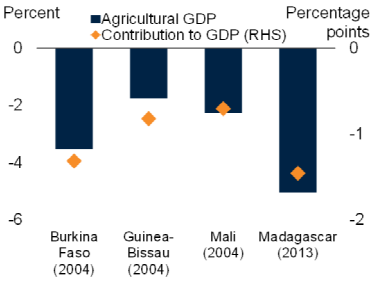
D. Health sector preparedness in LICs



E. Food insecurity in LICs



F. Agricultural GDP growth in years of locust outbreaks



Source: Johns Hopkins Center for Health Security and NTI, Global Health Security Index; World Bank; World Food Programme.
Note: Shaded area indicates forecasts. LICs = low-income countries. Fragile LICs are LICs affected by fragility, conflict, and violence.
A. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates. Other LICs include agricultural commodity exporters and commodity importers. Industrial- commodity exporting LICs include metal and oil exporters.
B. Aggregate per capita growth rates calculated by dividing the total GDP at 2010 prices and market exchange rates for each subgroup by its total population. Sample includes 27 LICs and 14 "Fragile LICs".
C. Calculated based on World Food Programme's implementation plan as of March 2020.
D. "Early detection and reporting" reflects countries' capacity for detecting and reporting epidemics of potential international concern; "Rapid response and mitigation" reflects their ability to respond to and mitigate the spread of an epidemic; and "Sufficient and robust health sector" reflects the capacity of health sectors to treat the sick and protect health workers. Data reflects 2019. Sample includes 31 LICs, 123 EMDEs, and 35 advanced economies. EMDEs exclude LICs.
E. "Number of people in crisis" reflects those classified as Integrated Food Security Phase Classification (IPC/CH) Phase 3, i.e., in acute food insecurity crisis or worse, in 2019. "Population share" reflects the sample median. Whiskers reflect the interquartile range. Sample includes 25 LICs.
F. Brackets reflect years of past locust outbreaks.
Click here to download data and charts.

Risks

Risks to the outlook are firmly to the downside. A major risk is that domestic outbreaks are not brought under control as currently assumed. Instead, they could intensify and affect larger shares of the population. The risk of propagation is high as LICs' ability to cope would be limited, with often weak administrative capacity and insufficient health care systems—government per capita spending on health care that is less than 5 percent of that in EMDEs (Figure 1.2.2.D; Dahab et al. 2020; Fugazzola et al. 2020; Sussman 2020). In addition to the dire human consequences of a larger-scale domestic outbreak, previous epidemics among LICs suggest economic activity could all but collapse (World Bank 2014).

With government debt rising sharply in recent years, most LICs have limited fiscal space to address the current pandemic (Calderón and Zeufack 2020; Kose et al. 2020; World Bank 2020g). Slowing domestic activity is bound

BOX 1.2 Recent developments and outlook for low-income countries (LICs) *(continued)*

TABLE 1.2.1 Low-income country forecasts[a]

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
Low Income Country, GDP[b]	**5.4**	**5.8**	**5.0**	**1.0**	**4.6**	**-4.4**	**-0.9**
Afghanistan	2.7	1.8	2.9	-5.5	1.0	-8.5	-2.5
Benin	5.8	6.7	6.9	3.2	6.0	-3.5	-0.7
Burkina Faso	6.3	6.8	5.7	2.0	5.8	-4.0	-0.2
Burundi	0.5	1.6	1.8	1.0	2.3	-1.0	0.2
Central African Republic[c]	4.5	3.7	3.1	0.8	3.5	-4.1	-1.4
Chad	-3.0	2.6	3.2	-0.2	4.7	-5.7	-0.1
Congo, Dem. Rep.	3.7	5.8	4.4	-2.2	3.5	-6.1	0.1
Eritrea[c]	-10.0	13.0	3.7	-0.7	5.7	-4.2	1.7
Ethiopia[d]	10.0	7.9	9.0	3.2	3.6	-3.1	-2.8
Gambia, The	4.8	6.6	6.0	2.5	6.5	-3.8	0.7
Guinea	10.3	6.2	5.6	2.1	7.9	-3.9	1.9
Guinea-Bissau	5.9	3.8	4.7	-1.6	3.1	-6.5	-1.9
Haiti[d]	1.2	1.5	-0.9	-3.5	1.0	-2.1	1.5
Liberia	2.5	1.2	-2.3	-2.6	4.0	-4.0	0.6
Madagascar	3.9	4.6	4.8	-1.2	4.0	-6.5	-0.4
Malawi	4.0	3.5	4.4	2.0	3.5	-2.8	-1.7
Mali	5.3	4.7	5.1	0.9	4.0	-4.1	-0.9
Mozambique	3.7	3.4	2.2	1.3	3.6	-2.4	-0.6
Nepal[d]	8.2	6.7	7.0	1.8	2.1	-4.6	-4.4
Niger	4.9	6.5	6.3	1.0	8.1	-5.0	2.5
Rwanda	6.1	8.6	9.4	2.0	6.9	-6.1	-1.1
Sierra Leone	3.8	3.5	5.1	-2.3	4.0	-7.2	-0.9
South Sudan[c,d]	-6.9	-3.5	3.2	-4.3	-23.6	-14.6	-29.0
Tajikistan	7.6	7.3	7.5	-2.0	3.7	-7.5	-1.3
Tanzania	6.8	5.4	5.8	2.5	5.5	-3.3	-0.6
Togo	4.4	4.9	5.3	1.0	4.0	-4.5	-1.5
Uganda[d]	3.9	6.2	6.5	3.3	3.7	-3.2	-2.2

Source: World Bank.

Note: World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

a. Democratic People's Republic of Korea, Somalia, Syria, and Yemen are not forecast due to data limitations.

b. Aggregate growth rate calculated using GDP weights at 2010 prices and market exchange rates.

c. Percentage point differences are relative to the World Bank's October 2019 forecast. The January 2020 *Global Economic Prospects* did not include forecasts for Central African Republic, Eritrea, and South Sudan.

d. GDP growth based on fiscal year data. For Nepal and South Sudan, the year 2019 refers to FY2018/19.

Click here to download data.

to dampen fiscal revenues, while spending has increased to buttress health care systems, improve testing infrastructure, enforce containment measures, and provide limited fiscal support for the economy (Steel and Phillips 2020). Few LIC governments, however, have the resources to provide income support for vulnerable businesses and households who are experiencing income losses. For many LICs, these additional fiscal pressures are putting debt sustainability at risk. Absent immediate external assistance, which may involve temporary debt relief from bilateral creditors, the pandemic may push some LICs toward sovereign default. To help alleviate these funding shortfalls, international financial institutions have made emergency support packages available to assist governments in their response to the pandemic. They have also called on both official and private bilateral creditors to suspend debt payments from these fiscally constrained LICs. In response, official creditors among the G20 and the Paris Club have temporarily suspended debt service payments for the poorest countries that request forbearance. This will allow several LICs to concentrate more of their resources on fighting the pandemic. However, given the scale of the pandemic, further external assistance from the international community may be needed.

BOX 1.2 Recent developments and outlook for low-income countries (LICs) *(continued)*

Even before the COVID-19 pandemic hit, almost one-fifth of the LIC population was already experiencing an acute food insecurity crisis (Figure 1.2.2.E; FSIN 2020). The pandemic has further increased food insecurity in many LICs, including through disruptions to imports and the effect of mitigation measures on supply chains and distribution networks (World Bank 2020g, 2020c). These disruptions may also lead to food price spikes that further erode incomes of the poor, with evidence that prices of certain staples have already risen (World Bank 2019a, 2020g, 2020j). Food insecurity could also be prolonged by the lack of access to critical inputs such as seeds and fertilizer, which could weigh on upcoming harvests.

The pandemic has also come on the heels of a locust infestation at the start of this year among several LICs in East Africa that damaged agricultural crops (Democratic Republic of Congo, Eritrea, Ethiopia, Somalia, South Sudan, Uganda, Tanzania). Although the locust infestation was largely confined to more arid areas and also did not coincide with the peak growing season in most countries, the outbreak has not yet been brought under control—partly due to pandemic-related supply chain disruptions delaying delivery of pesticides—and the next wave of locusts is expected to be larger and hatch in the midst of the May-June growing season. Past locust infestations such as the 2003-05 outbreak in North and West Africa have cost harvests equivalent to US$ 2.5 billion—roughly 0.5 percent of LIC aggregate GDP (Figure 1.2.2.F; Shu'aibu et al. 2013). Absent effective intervention, this locust infestation could further weigh on food security, and may have longer-term welfare implications in vulnerable populations (Conte, Piemontese and Tapsoba 2020; Devi 2020).

some other commodity importers it is below the EMDE median.

Commodity importers that are deeply integrated in global trade and value chains are particularly exposed to global developments. Manufacturing firms in ECA have experienced a sustained decline in exports to the Euro Area (Bulgaria, Hungary, Poland, Romania, Turkey). Mexico has been affected by falling exports to the United States, while much of the manufacturing industry in EAP has seen shipments to China decline.

Although the pandemic has contributed to steep declines in oil and other commodity prices, the benefit for commodity importers has been more than offset by the immensely negative impact of COVID-19 on external and domestic demand. Moreover, fiscal space is narrower than it was prior to the global financial crisis. Years of higher spending combined with lower domestic revenue mobilization have led to widening fiscal deficits. At the same time non-financial corporate debt has risen significantly. Despite the deterioration in fiscal positions, a number of commodity importers have announced stimulus packages (India, Pakistan, Poland, Thailand, Turkey). In addition, central banks in many commodity importers have enacted policy rate cuts.

Low-income countries

Growth in low-income countries (LICs) slowed sharply in the first half of 2020 (Box 1.2). The COVID-19 pandemic has spread to almost all LICs, and domestic mitigation measures have severely disrupted activity (Figure 1.10.E). Spillovers from recessions in major economies have added to the problem—particularly in those LICs with strong trade linkages to China and the Euro Area. In the average LIC, commodities account for two-thirds of goods exports, and the deterioration in world markets has weighed heavily on industrial commodity exporters (Chad, Democratic Republic of Congo, Ethiopia, Tajikistan). Reduced tourism amid global travel restrictions has also tempered growth in some countries (Ethiopia, Madagascar, Uganda).

Heightened investor risk aversion has tightened financial conditions for the few LICs that have borrowed from international capital markets, while contractions in major economies have reduced remittance flows—an important source of foreign funding in a number of LICs (World Bank 2020b, 2020d, 2020g; Figure 1.10.F). In addition, already-fragile fiscal positions among several LICs have deteriorated further as decelerating growth and reduced export earnings

have weighed on fiscal revenues, while efforts to buttress health systems and slow the spread of the virus have created new demands for government spending. Multilateral organizations have provided emergency funding packages to support LIC governments in their efforts to protect the lives and livelihoods of those most vulnerable; however, given the scale of the pandemic, further external assistance from the broader global development community may be needed.

Outlook

Growth outlook

Aggregate EMDE activity is expected to contract by 2.5 percent in 2020—6.6 percentage points below previous forecasts, and the worst rate since at least 1960, the earliest year when aggregate GDP data are available (Figure 1.11.A). The projected fall in activity is broad-based, with nearly 80 percent of EMDEs expected to register negative growth this year. All EMDE regions will be affected (Chapter 2; Special Focus). Forecast downgrades are larger and the recessions are deeper in EMDEs with the most severe COVID-19 outbreaks or those most susceptible to global spillovers, such as economies that are heavily dependent on tourism (Croatia, Maldives, Seychelles, Thailand), economies deeply embedded in global value chains (Bulgaria, Mexico, Poland), and major exporters of industrial commodities (Chile, Nigeria, Russian Federation, South Africa; Figure 1.11.B).

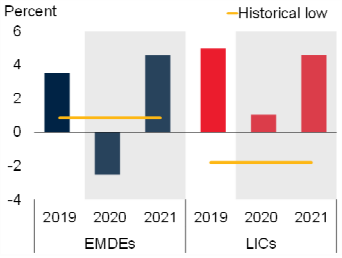
Growth in EMDEs is projected to rebound in 2021, to 4.6 percent, supported by the expected pickup in China and a recovery of trade flows and investment. Excluding China, EMDE growth is envisioned to recover at a more modest pace next year, reflecting headwinds for commodity exporters amid subdued commodity prices and a weak rebound in services. Economies dependent on tourism will be subject to an additional drag on growth (Figure 1.11.C).

Through its effect on investment, as well as the loss of human capital among idled and furloughed workers, COVID-19 is likely to dampen long-term growth prospects and productivity. In many cases, the pandemic is expected to exacerbate the

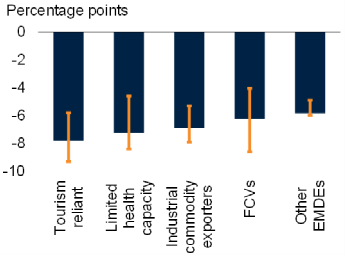
FIGURE 1.11 EMDE outlook

The drop in 2020 aggregate EMDE growth is expected to be the worst on record, with that of LICs also falling sharply. Severe economic contractions are expected in countries that are dependent on tourism, are deeply integrated in global value chains, or rely on industrial commodity exports. The pandemic will exacerbate the weakness in investment, and deep recessions will likely weigh on potential growth for years to come. Prolonged school closures could have lasting implications for poverty.

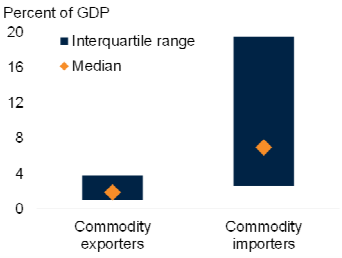
A. Growth in EMDEs



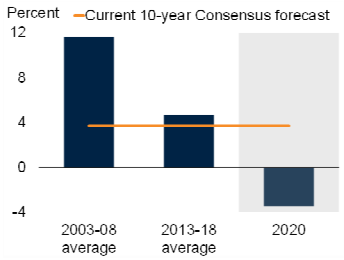
B. Average size of forecast downgrade in 2020, by EMDE group



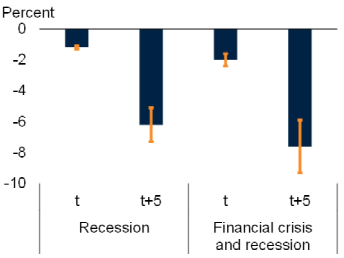
C. Inbound tourism from 2014-18, by EMDE group



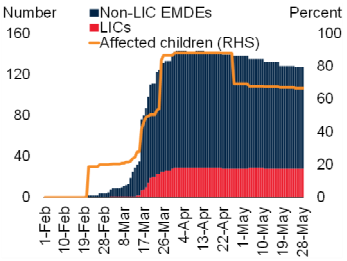
D. Actual and Consensus forecasts for investment growth in EMDEs



E. Cumulative EMDE potential output response after recessions



F. School closures



Source: Consensus Economics; Ha, Kose, and Ohnsorge (2019); Haver Analytics; UNESCO; World Bank; World Tourism Organization.

Note: LICs = Low-income countries, FCVs = fragile, conflict, and violence-affected economies.

A.D. Aggregates are calculated using U.S. dollar GDP weights at 2010 prices and market exchange rates. Shaded areas indicate forecasts.

A. Historical low is calculated over the period 1970-2018.

B. Figure shows the simple average of forecast downgrades expected in 2020. Orange vertical lines indicate the interquartile range. "Tourism reliant" indicates tourism as a share of GDP above the EMDE median value. "Limited health capacity" indicates health expenditure as percent of GDP below EMDE median. "Industrial commodity exporters" are defined in Table 1.2. "Other EMDEs" indicates EMDEs not included in other categories. Sample includes 144 EMDEs, of which 69 rely on tourism, 71 have limited health capacity, 49 are industrial commodity exporters, and 31 are FCVs.

C. Sample includes 146 EMDEs, of which 84 are commodity exporters and 62 are commodity importers.

D. Blue bars denote actual investment growth. Consensus forecasts aggregate calculated as a simple average of surveys based on data availability. Sample includes 48 economies.

E. Data and methodology are detailed in Chapter 3 Box 3.1 and Annex 3.4. Charts show impulse responses for 75 EMDEs from a local projections model. Dependent variable is cumulative slowdown in potential output after a recession, financial crisis, or oil price plunge event. Year t is the year of the event. Bars show coefficient estimates; vertical lines show 90 percent confidence bands.

F. Number of countries that have either recommended or required school closings as part of measures to contain the domestic spread of COVID-19. Last observation is May 28, 2020.

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BOX 1.3 Scenarios of possible global growth outcomes

Since near-term global growth projections are subject to an unusual degree of uncertainty, this box presents three scenarios to illustrate possible global growth trajectories for 2020-21. In addition to a scenario consistent with baseline forecasts, a downside scenario explores the possibility of a deeper and more protracted global recession, while an upside scenario illustrates a prompt recovery. Even in the upside scenario, the 2020 global recession would be about twice as deep as the 2009 global recession. While the pandemic will have the most severe impact on advanced economies, emerging markets and developing economies (EMDEs) will also be substantially affected, with the magnitude of the downturn and subsequent recovery varying across EMDE regions.

The range of plausible global growth outcomes remains exceptionally wide. The ultimate outcome will depend on the evolution of the pandemic, the extent and duration of measures to stem the pandemic, the size and effectiveness of policy responses, and the spillovers emanating from major economies. This box presents three alternative scenarios to help illustrate the possible growth outcomes.

The first scenario is consistent with the baseline forecast presented in Table 1.1. With risks to the baseline forecast tilted to the downside, a more adverse scenario is also examined. This *downside scenario* assumes that flareups of the virus require stringent control measures—such as lockdowns and school and business closures—to remain in place through the third quarter of 2020 in many countries and includes heightened financial stress in a number of EMDEs. In contrast, an *upside scenario* explores how rapid fiscal and monetary policy responses may succeed in supporting consumer and investor confidence, leading to a prompt normalization of domestic economic activity and financial conditions, and the unleashing of pent-up demand.

Methodology

Scenarios for global growth are developed by layering a set of adverse common shocks related to the COVID-19 outbreak onto the January 2020 *Global Economic Prospects* forecasts for major economies and other economic aggregates. Shocks include restrictions to slow the spread of the virus (measured as number of weeks), a sharp increase in global risk aversion proxied by an exogenous increase in the VIX, and a collapse in inbound tourism, which are cushioned in part by large-scale monetary and fiscal policy support. Moreover, each economy is expected to experience adverse spillovers from its major trading partners. The relative magnitude of each shock is scaled using a variety of quantitative tools, including a suite of global and regional vector autoregression models.[1]

Baseline scenario

Growth paths

The baseline scenario envisions that the global economy will fall into a deep global recession. Global output in 2020 would contract 5.2 percent (Figure 1.3.1). This drop would be roughly three times the rate of decline experienced during the 2009 global recession. Global trade would fall about 13 percent, in part due to the centrality of several of the economies with the largest outbreaks in global value chains (Baldwin and Tomiura 2020).

While advanced economies would be hardest hit, aggregate activity in EMDEs would also contract in 2020—for the first time in decades, in contrast to the continued expansion these economies delivered in 2009. All EMDE regions would be affected, albeit in varying degrees. The impact will be larger and the recessions deeper in EMDE regions with the most severe COVID-19 outbreaks and the most stringent restrictions to stem the pandemic, and those most susceptible to global spillovers, such as economies that are heavily dependent on tourism, economies deeply embedded in global value chains, and major exporters of industrial commodities. In particular, the largest contractions this year are foreseen to be experienced in LAC and ECA given their exposure to spillovers from major economies, followed by MNA and SSA partly reflecting the large fall in commodity prices.

A recovery would get underway in the second half of 2020 once lockdowns and other restrictions are gradually unwound; however, despite large-scale fiscal and monetary policy support, this recovery would be hesitant. Even as employment picks up, households would only slowly increase consumption—particularly when it requires social interaction—amid concerns of possible infection. Firms would hold back on increasing investment until they are confident about a vigorous rebound. International travel

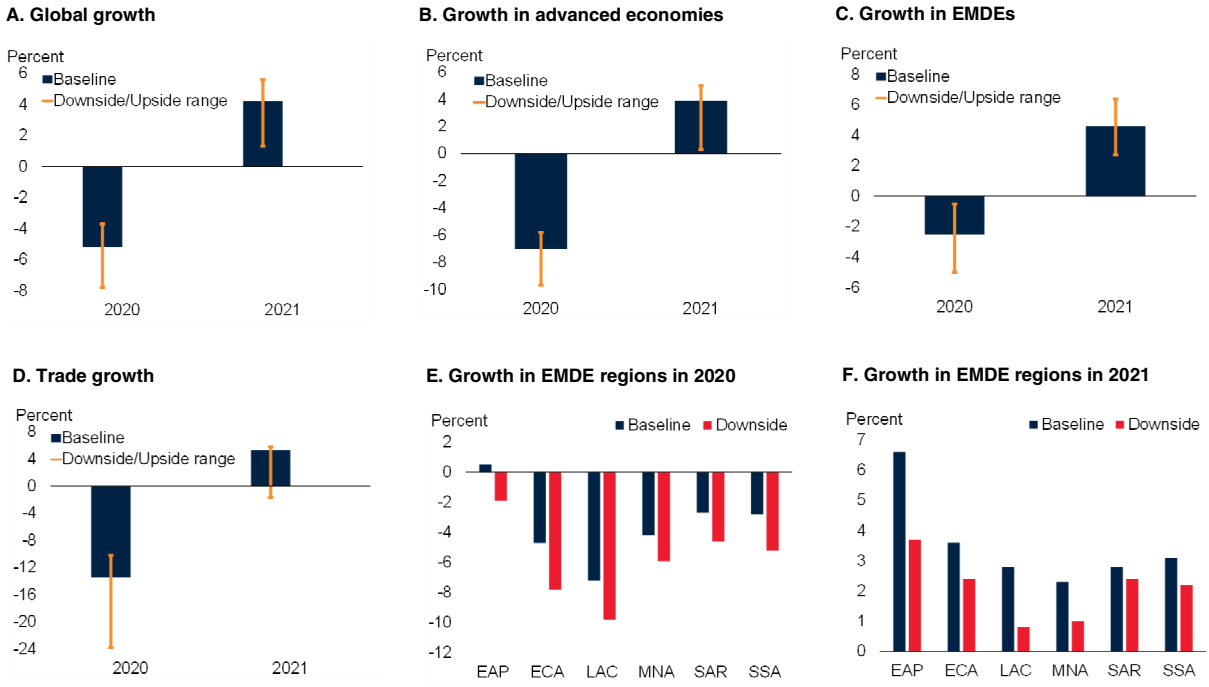
Note: This box was prepared by Carlos Arteta and Justin-Damien Guénette, with contributions from Hideaki Matsuoka, Franz Ulrich Ruch and Sergiy Kasyanenko.

[1] Vector autoregression models based on Huidrom et al. (2020) provide well-grounded rules of thumb for the impact of financial turmoil on output and the magnitude of global spillovers from major economies. In addition, national accounting exercises provide a regional quantification of the economic impact of domestic mitigation measures and other disruptions related to COVID-19. As discussed below, the growth impacts of fiscal and monetary policy actions are quantified using the Oxford Global Economic Model.

BOX 1.3 Scenarios of possible global growth outcomes (*continued*)

FIGURE 1.3.1 Possible global growth outcomes

The ultimate impact of COVID-19 on global, advanced economy, and emerging and developing economy (EMDE) growth, as well as on world trade, will depend primarily on the severity and duration of the necessary pandemic-control measures and related financial turmoil, as well as the ability of policymakers to buffer economic disruptions. All EMDE regions will be affected, albeit to varying degrees.



Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates.
Baseline scenario: three months of mitigation measures would be enough to stem the pandemic. A recovery would get underway once mitigation measures are lifted but would be hesitant.
Downside scenario: Three months of stringent lockdowns would prove insufficient and another three months of mitigation would be required before the pandemic can be brought under control.
Upside scenario: Mitigation measures would be lifted after three months, and all major economies would sputter back to life in the third quarter of 2020. Monetary and fiscal stimulus would remain in place and would be highly effective in supporting growth over the next 18 months.
Click here to download data and charts.

would resume only slowly, weighed down by remaining travel restrictions.

Despite lingering social-distancing practices, the lifting of control measures by the end of 2020 would set the stage for a rebound in global growth in 2021. That said, the envisioned global recovery next year is moderate, with the level of global output in 2021 still 5.9 percent below that of January forecasts. This reflects various headwinds that will weigh on activity over the medium term. First, the pandemic will likely cause notable shifts in consumption and work patterns that will dampen aggregate demand. Some social-distancing habits will persist, despite the eventual development and dissemination of a vaccine. Households will be reluctant to undertake many activities that require face-to-face interaction, such as tourism. Where possible, workers will make greater use of teleworking arrangements, reducing the discretionary consumption that arises from daily professional interactions.

Second, households and firms will strive to rebuild precautionary savings and strengthen balance sheets next year, following the precipitous declines in incomes experienced in 2020. Low-income households—which have the highest marginal propensity to consume—will be particularly cautious, as they grapple with lingering unemployment and precarious financial situations. Many

BOX 1.3 Scenarios of possible global growth outcomes (*continued*)

firms, facing sharply higher debt and persistent uncertainty, will opt to cut costs, delay expansion plans, and invest in labor-saving technologies. Moreover, the positive effects from fiscal support to households and firms is expected to fade, as existing stimulus measures are phased out.

Assumptions

The baseline scenario is predicated on several assumptions about the evolution of activity, financial and commodity markets, and policy responses.

Activity. Outbreaks in advanced economies continue to slow, allowing most countries to continue to lift lockdown measures through 2020Q2; however, some control measures remain in place during the third quarter in order to prevent flare-ups. Outbreaks in EMDEs and the stringency of related lockdown measures reach their peaks somewhat later. During the lockdown period, all economies experience a precipitous collapse in a substantial share of domestic private consumption that requires social interactions, as well as of business investment and employment.[2]

For example, even in EMDEs excluding China that are in the least open quartile by trade openness would see output losses of about 8 percent, on average, in 2020— about one-third less than the output losses of those in the most trade-open quartile. These impacts, however, do not yet take into account the extraordinary policy stimulus being implemented, nor any additional spillovers from turmoil in financial or commodity markets as well as country-specific factors.

This would put considerable strain on balance sheets of households and smaller firms that do not have access to capital markets (Islam and Maitra 2012). Moreover, activity is further hampered by a global collapse in tourism. In general, domestic disruptions in EMDEs are magnified by large spillovers from the sharp decline in activity in major economies.

Financial markets. Despite interventions by central banks, bouts of financial market stress persist; financial market volatility is expected to largely subside in the second half of 2020. Past increases in borrowing costs and financial market stress are assumed to weigh on activity throughout the remainder of 2020.

Commodity markets. Amid plunging global growth and financial market stress, oil prices are likely to further decline, on net, reaching a trough in the second quarter, before recovering as activity stabilizes. Non-energy commodity prices would also fall, with a particularly large decline in metals prices.

Policy responses. In most countries, stringent control measures and large-scale support to the health sector should help slow the pandemic but will also accentuate the pandemic's heavy toll on economic activity. Large fiscal support is provided to liquidity-constrained households and firms, but the effectiveness of policy measures is hampered in part by delays and elevated uncertainty.[3] This will help avoid lasting damage from the economic downturn even if it provides only limited immediate boost to output growth. Aggressive monetary and financial sector policy interventions, including conventional and unconventional monetary measures, are expected to alleviate financial market volatility, but not fully control it until outbreaks subside.

Downside scenario: More stringent lockdown measures

In this scenario, global output would shrink by almost 8 percent in 2020, as an additional three months of stringent lockdown measures are assumed to be required before the pandemic can be brought under control, increasing the severity of the impact on global growth. During these additional three months, measures that had previously begun to ease are quickly and aggressively re-introduced. Despite additional fiscal policy support, vulnerable firms would exit, vulnerable households would sharply curtail consumption, and travel would remain deeply depressed. Disruptions to global value chains would exacerbate the collapse in global trade, which is envisioned to contract by about a quarter. These disruptions would also magnify the size of cross-border spillovers and lead to widespread

[2] Simulations of a large-scale global macroeconometric model suggest that the impact of a coincidence of such domestic shocks around the world will be large (Oxford Economics 2019). Relative to the baseline, global output in 2020 would collapse by 12 percent, while that of EMDEs would fall by about 9 percent. In 2020, the impact of these domestic policy shocks would be considerably larger than spillovers from external shocks.

[3] Despite monetary policy at or near the zero-lower bound, fiscal stimulus may be less effective when some sectors are completely shut down (Guerrieri et al. 2020). Fiscal multipliers may be lower due to high debt levels across many advanced and EMDE economies (Huidrom et al. 2019). The effectiveness of fiscal policy may also be hampered by high levels of informality, which can complicate the delivery of supportive measures (Chapter 3). Widespread informality, coupled with low financial inclusion, can also reduce the effectiveness of monetary policy (Alberola-Ila and Urrutia 2019).

BOX 1.3 Scenarios of possible global growth outcomes (*continued*)

interruptions in production. Persistent and severe financial market turmoil would cause a notable spike in bankruptcies worldwide and trigger serious bouts of financial distress in many EMDEs. Simultaneously, a long period of low oil prices would lead to elevated financial stress in some vulnerable oil exporters.

The prolonged period of stringent lockdowns would weigh heavily on advanced economies, with output contracting by nearly 10 percent in 2020. Output in EMDEs would contract by almost 5 percent, with the largest declines in commodity-exporting EMDEs, including those located in the LAC and ECA regions. The recovery that follows would be markedly sluggish, hampered by severely impaired balance sheets, heightened financial market stress and widespread bankruptcies in EMDEs. In 2021, global growth would barely begin to recover, increasing to 1.3 percent, while growth in EMDEs would rise to a modest 2.7 percent.

Upside scenario: Prompt recovery

In this scenario, as in the baseline, pandemic-control measures would be largely lifted by the end of the second quarter in advanced economies, and somewhat later in EMDEs. All major economies would sputter back to life in the third quarter of 2020. During the lockdown period, most of the consumption that requires any social interaction would be suspended, and external tourism would collapse amid temporary border restrictions, as in the baseline case (OECD 2020). Nevertheless, and in contrast to baseline projections, a sharp economic rebound would promptly get underway as businesses re-open, trade and travel barriers are lifted, and confidence rebounds. Financial conditions would ease substantially, and capital would quickly flow back into EMDEs, resuming its pre-pandemic search for yield. Extraordinary monetary and fiscal stimulus would remain in place and, once activity resumes, would be highly effective in supporting growth over the next 18 months. That said, even in this upside scenario, global output would contract in 2020 by about 4 percent—more than twice the pace registered in the 2009 global recession—and EMDE growth would also be negative. Global trade would fall by almost 10 percent, also worse than 2009. Once mitigation measures are fully lifted, global growth would rebound markedly in 2021, above 5 percent.

weakness in private investment that has been a feature of the past decade (Figure 1.11.D; World Bank 2018a). In previous epidemics, investment declined by nearly 10 percent five years following the event, reflecting substantial risk aversion amid heightened economic uncertainty. In many EMDEs, deep recessions will weigh on potential output for a prolonged period (Figure 1.11.E; Chapter 3).

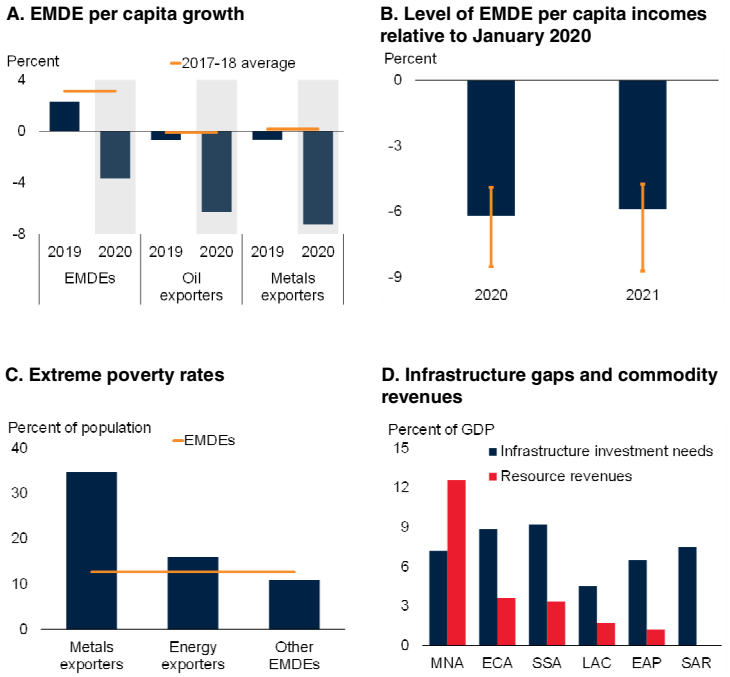
The pandemic has also disrupted schooling at all levels, with many EMDEs having fully or partially closed their education systems in an effort to contain its spread (UNESCO 2020). Extended school closures, along with disruptions to early childhood development programs, are expected to set back learning, raise dropout rates, and slow human capital development (Figure 1.11.F; Armitage and Nellumns 2020; Burgess and Sievertsen 2020; Wang et al. 2020; World Bank 2020k, 2020l). Growing food insecurity, including disruptions to school feeding programs, could also lower long-term productivity, as malnutrition early in life can permanently impair learning abilities.

The fallout from COVID-19 will be particularly severe in countries with widespread informality and limited safety nets (ILO 2020a). In the average EMDE, informal activity accounts for one-third of output and two-thirds of employment. In EMDEs with large informal sectors, workers and firms have limited options to buffer temporary income losses, while also being more vulnerable to adverse health impacts. Additionally, temporary workers in the formal economy suffer from gaps in social safety nets and social protection.

Growth in LICs is projected to fall to 1 percent in 2020—the lowest rate in more than 25 years. Among fragile LICs, activity will slow to a crawl, reflecting the pandemic's severe disruption to activity in countries least equipped to lessen its impact. The expected growth pickup in LICs in 2021 assumes that both domestic activity and external demand recover as the pandemic fades,

FIGURE 1.12 EMDE per capita income growth and poverty

Per capita incomes in EMDEs have fallen sharply amid the pandemic, markedly affecting living standards and tipping many millions back into poverty. Among oil and metals exporters, in which contractions in per capita incomes have been particularly steep, poverty rates tend to be higher. In some regions, lower commodity prices could constrain fiscal revenues needed for critical development spending.



Source: ICTD/UNU-WIDER; Rozenberg and Fay (2019); World Bank.
Note: EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.
A. Sample includes 144 EMDEs, of which 29 are oil exporters and 20 are metal exporters.
B. Bars show the percent difference between the level of per capita GDP in the January and June 2020 editions of *Global Economic Prospects*. Orange whiskers indicate the interquartile range. Sample includes 144 EMDEs.
C. Sample includes 127 EMDEs, of which 24 are oil exporters and 20 are metal exporters.
D. "Infrastructure investment needs" reflect the GDP-weighted average annual cost of investment in the preferred scenario between 2015–30. The preferred scenario minimizes overall costs and relies on what are considered "reasonable" assumptions (Rozenberg and Fay 2019). "Resource revenues" reflect simple averages of total natural resource revenues, including natural resource revenues reported as "tax revenue" or "non-tax revenue" in 2017. Natural resources are here defined as natural resources that include a significant component of economic rent, primarily from oil and mining activities. Sample includes 80 EMDEs.
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and that commodity prices firm from current levels as global demand recovers. Among exporters of industrial commodities, growth is projected to be spurred further by investment in new production capacity (Chad, Mozambique, Niger), while continued reforms to improve business environments will aid the recovery in some others (Benin, Ethiopia, Nepal, Rwanda, Togo).

Per capita income growth and poverty

Even before the pandemic, it was increasingly unlikely that the Sustainable Development Goal (SDG) of reducing global extreme poverty to 3 percent of the global population over the next decade would be achieved (World Bank 2018b). This goal is now even further out of reach. Household incomes are expected to be weighed down by sharp income losses from diminished employment opportunities and lost earnings due to illness, as well as reduced remittance receipts. As a result, per capita incomes among more than 90 percent of EMDEs are expected to contract in 2020, markedly affecting living standards and causing many millions to fall back into poverty (ILO 2020a; Lakner et al. 2020; World Bank 2020a; Figures 1.12.A and 1.12.B). The crisis is also likely to worsen inequality, as various factors render the poor more vulnerable to the effects of the pandemic, including their limited access to health care and lack of resources to cushion income losses (Furceri, Loungani, and Ostry 2020).

Per capita income losses are forecast to be steepest in ECA, LAC, MENA, and SSA. These four regions are home to many oil exporters, which will be severely affected by the precipitous fall in oil prices. Commodity exporters, particularly those in Sub-Saharan Africa, typically have sizable populations living in extreme poverty (Figure 1.12.C). Falling per capita incomes in Sub-Saharan Africa—home to 60 percent of the world's extreme poor—are likely to further concentrate global poverty in the region (Lakner et al. 2020; World Bank 2020i). In some countries, constrained fiscal revenues due to commodity prices remaining lower over the long term are likely to further weigh on needed development spending—particularly on health, education, and infrastructure—pushing even more SDGs out of reach (Figure 1.12.D).

Global outlook and risks

The pandemic is pushing the global economy into recession, with a projected contraction of 5.2 percent in 2020—the worst rate in post-war history. Any numerical forecast for the period ahead, however, is subject to unprecedented levels of uncertainty. Risks are firmly tilted to the downside and include a more protracted pandemic and hence a prolongation of

mitigation measures, financial crises, a further drop in commodity prices, and a slower recovery due to lasting impacts on consumers and firms and a retreat from global value chains. These factors could lead to a substantially greater loss of output in the near term.

Global outlook

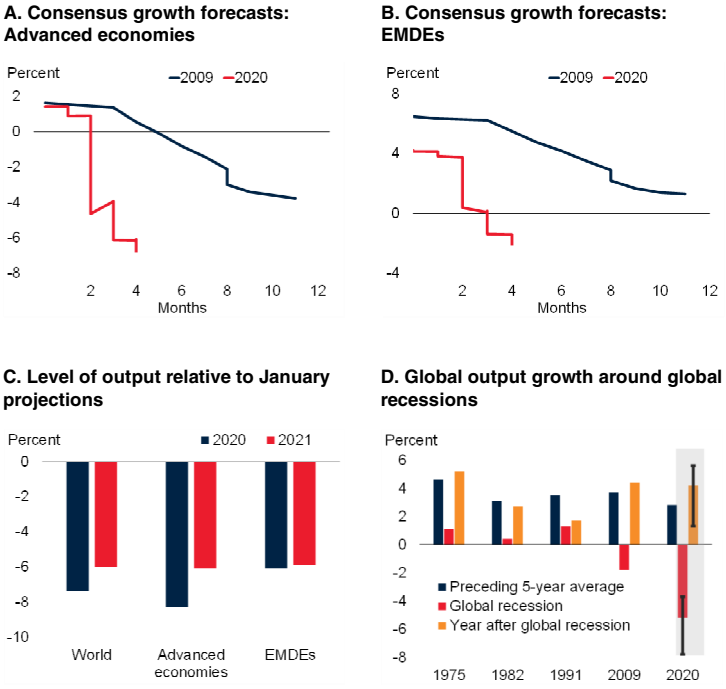
Lockdowns and other restrictions, while necessary to slow the spread of the virus, have been accompanied by a sharp reduction in economic activity (Baldwin and Weder di Mauro 2020; Boissay, Rees, and Rungcharoenkitkul 2020; Eichenbaum, Rebelo, and Trabandt 2020; Gourinchas 2020). Their gradual removal is expected to pave the way for a partial recovery in the second half of the year. On this assumption, the world economy is projected to contract by 5.2 percent in 2020. If this forecast materializes, the fall in global output would be more than double that of the 2009 global recession.

The severity and speed of the disruptions to the global economy have been reflected in the strikingly steep downgrades, for advanced economies and EMDEs, by all major forecasters (Figures 1.13.A and 1.13.B). Within one month, as widespread restrictions were implemented in large segments of the world economy, consensus forecasts for global growth in 2020 were downgraded by more than 5 percentage points—a magnitude of forecast downgrades that took nine months in the wake of the global financial crisis.

The projected depth of the 2020 global recession depends on the weighting methodology used to compute the rate of global growth. Advanced economies account for 60 percent of global activity using market exchange rate weights, as in these baseline projections, while they account for only 40 percent when using purchasing power parity (PPP) weights. Major advanced economies—in particular, the Euro Area—are expected to contract precipitously this year. In contrast, some large EMDEs—most notably China—are projected to continue to expand, albeit more slowly than previously anticipated. As a result, advanced economies are expected to shrink by 7 percent in 2020, while EMDEs are envisioned to contract by 2.5 percent.

FIGURE 1.13 Risks to the outlook

The global economy is experiencing one of the sharpest contractions on record. Forecasts for activity in both advanced economies and EMDEs were downgraded substantially and much more rapidly than in 2009. Even after recovering in 2021, activity is expected to remain far below previously projected levels. Substantial uncertainty surrounds possible growth outcomes, and there remains a heightened probability of even weaker outcomes if downside risks materialize.



Source: Consensus Economics; World Bank.

A.B. Market growth forecasts are based on estimates from Consensus Forecasts. Figure starts in July 2008 for the 2009 global financial crisis and February 2020 for the COVID-19 outbreak. Last observation is May 26, 2020.

C. Figure shows the percent difference between the level of output in the January and June 2020 editions of *Global Economic Prospects*.

D. A global recession is defined as a contraction in real per capita GDP. Output growth in respective years and period. Growth rates in 2020 and 2021 are the baseline forecasts (shaded in gray). Black lines indicate ranges based on the lower and upper bounds of growth in the scenarios described in Box 1.3.

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Since the contraction in advanced economies is much more pronounced than that of EMDEs, the use of PPP weights—which assign greater weight to EMDEs than market exchange rate-based weights—yields a less severe global recession. Global output is projected to shrink 4.1 percent in 2020 using PPP weights, consistent with the baseline contraction of 5.2 percent using market exchange rates. Advanced economies account for essentially all of the 1.1 percentage point difference between the two methods. Regardless of the weighting methodology, this year's contraction will be highly synchronized internationally, with

BOX 1.4 How does informality aggravate the impact of COVID-19?

COVID-19 will take an especially heavy humanitarian and economic toll on emerging markets and developing economies (EMDEs) with large informal sectors. Participants in the informal sector—workers and small enterprises—are often not registered with the government and hence have no access to government benefits. Informality is associated with underdevelopment in a wide range of areas, such as widespread poverty, lack of access to financial systems, deficient public health and medical resources, and weak social safety nets. These vulnerabilities have amplified the economic shock to livelihoods from COVID-19 and threatened to throw large numbers of people into extreme poverty. The impact is likely to be particularly severe on women, due to their outsized participation in sectors that are more affected by the pandemic. While the effects of the crisis continue, it is critical to implement effective delivery channels to quickly provide the support that informal workers and firms need to survive. Unconditional support programs would be advisable in many EMDEs. Given their limited resources, low-income countries will require increased international funding for the effective implementation of such programs.

Informal activity is widespread in emerging markets and developing economies (EMDEs; World Bank 2019a; Figure 1.4.1). Participants generally are not registered with the government and do not have access to social benefits, with their activity largely unmonitored by authorities. The informal sector is often associated with underdevelopment, labor-intensive industry, less educated and poorly paid workers, limited access to financial and medical service, and poor or non-existent coverage by social security. These features are likely to intensify the spread of COVID-19 among informal workers and worsen its adverse health and economic impacts. Confirmed COVID-19 cases have been rising rapidly in EMDEs with extensive informality since the end of March, despite a low level of testing.

Against this background, this box addresses the following questions.

- What is the role of the informal economy in EMDEs?
- How may widespread informality alter the impact of the pandemic?
- How do policies to mitigate the impact of pandemic need to be tailored in the presence of large informal economies?

Informality in EMDEs

Widespread informality in EMDEs. The informal sector, on average, accounts for about a third of official GDP and about 70 percent of total employment in EMDEs (World Bank 2019a; Figure 1.4.1). Informal enterprises account for 8 out of every 10 enterprises in the world (ILO 2020b). The size of the informal economy varies widely across regions and countries. The share of informal output is highest in Sub-Saharan Africa, Europe and Central Asia, and Latin America and the Caribbean, averaging around 40 percent of GDP in those regions between 2010 and 2016. The share of self-employment, another measure of informality, is highest in Sub-Saharan Africa, South Asia, and East Asia and the Pacific, ranging from 50 percent to 62 percent of total employment. Informality is particularly prominent in some EMDEs. For example, in 2016, the informal economy accounted for more than 60 percent of GDP in the Democratic Republic of Congo and Zimbabwe. The sector accounted for 90 percent of total employment in countries like Mali, Mozambique, and Côte d'Ivoire. In Kenya and India, about 8 out of 10 workers were self-employed.[1]

Characteristics of informal workers. Workers in the informal sector tend to be lower-skilled and lower-paid, with less access to finance or social safety nets than workers in the formal sector (Loayza 2018; Perry et al. 2007; World Bank 2019a). They often live and work in crowded conditions and conduct all transactions in cash—factors that enable the spread of disease (Chodorow-Reich et al. 2020; Surico and Galeotti 2020). Informal workers on average have incomes 19 percent lower than formal workers, and have limited savings (World Bank 2019a; Figure 1.4.2). In the one-third of EMDEs with the most pervasive informality, 40 percent of the population would be driven into poverty if they had to cover direct out-of-pocket payments for an unexpected health care emergency. In these economies, unemployment benefits are only available to a miniscule fraction of the population (on average, less than 2.5 percent).

Characteristics of informal firms. Informal firms tend to be labor-intensive and more prevalent in the services sector. These have been hard hit by measures to curtail

Note: This box was prepared by Shu Yu.

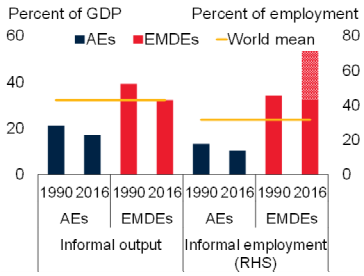
[1] Common employment measures of informality are *self-employment* and *informal employment*, relative to total employment. The *self-employed* work on their own account, or with one or a few partners, or in a cooperative. *Informal employment* comprises all workers of the informal sector and informal workers outside the informal sector (see World Bank 2019a for details).

BOX 1.4 How does informality aggravate the impact of COVID-19? (*continued*)

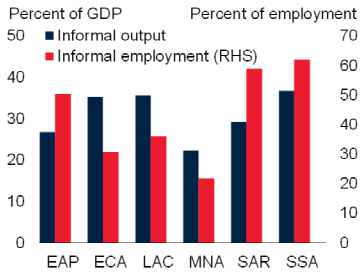
FIGURE 1.4.1 Informality in EMDEs

Informality is prominent in emerging markets and developing economies (EMDEs). In Sub-Saharan Africa, Europe and Central Asia, and Latin America and the Caribbean, the share of informal output averages about 40 percent of GDP. The share of self-employment, another gauge of informality, in Sub-Saharan Africa, South Asia, and East Asia and the Pacific, ranges from 50 to more than 60 percent of total employment. Confirmed COVID-19 cases have been growing rapidly in countries with above-median informality since the end of March, despite the lack of testing.

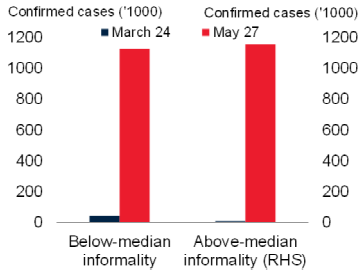
A. Informality in EMDEs



B. Informality across EMDE regions



C. COVID-19 cases and the extent of informality



Source: Elgin et al. (forthcoming); World Bank, World Development Indicators; Haver Analytics; International Labour Organization.
Notes: EAP=East Asia Pacific, ECA=Europe and Central Asia, MNA=Middle East and North Africa, SAR=South Asia, SSA=Sub-Saharan Africa.
A. Unweighted averages. Informal employment (in red) uses self-employment shares (with additional informal employment shares in shaded red) in the closest (latest) available year around 1990 and 2016. World averages between 1990 and 2016 are in yellow.
B. Mean of informal output (DGE-based estimates) and employment estimate (share of self-employment) in each region during 2010-16.
C. Bars show the total number of confirmed COVID-19 cases (in thousands) for EMDEs (excluding China) with above-median informality and EMDEs (excluding China) with below-median informality on March 24, 2020 and on May 27, 2020. Informality is measured by DGE-based informal output in percent of official GDP in 2016.
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social interactions (Benjamin and Mbaye 2012; Surico and Galeotti 2020). In EMDE service sectors, about 72 percent of firms are informal, compared with 33 percent in manufacturing sectors (see Amin, Ohnsorge, and Okou 2019 for sample coverage). Agricultural employment in EMDEs is roughly 90 percent informal. Epidemic-control measures have already disrupted access to markets and inputs and may also eventually threaten the food security of smallholder farmers (Cullen 2020; FAO 2020b; ILO 2018).

Broader development challenges. A larger informal economy is associated with weaker economic, fiscal, institutional, and developmental outcomes. GDP per capita in countries with above-median informality is about one-third to one-half that of countries below the median informality (World Bank 2019a). Health systems in EMDEs with more informality are relatively underdeveloped, and government capacity to mount an effective policy response to pandemics is limited.

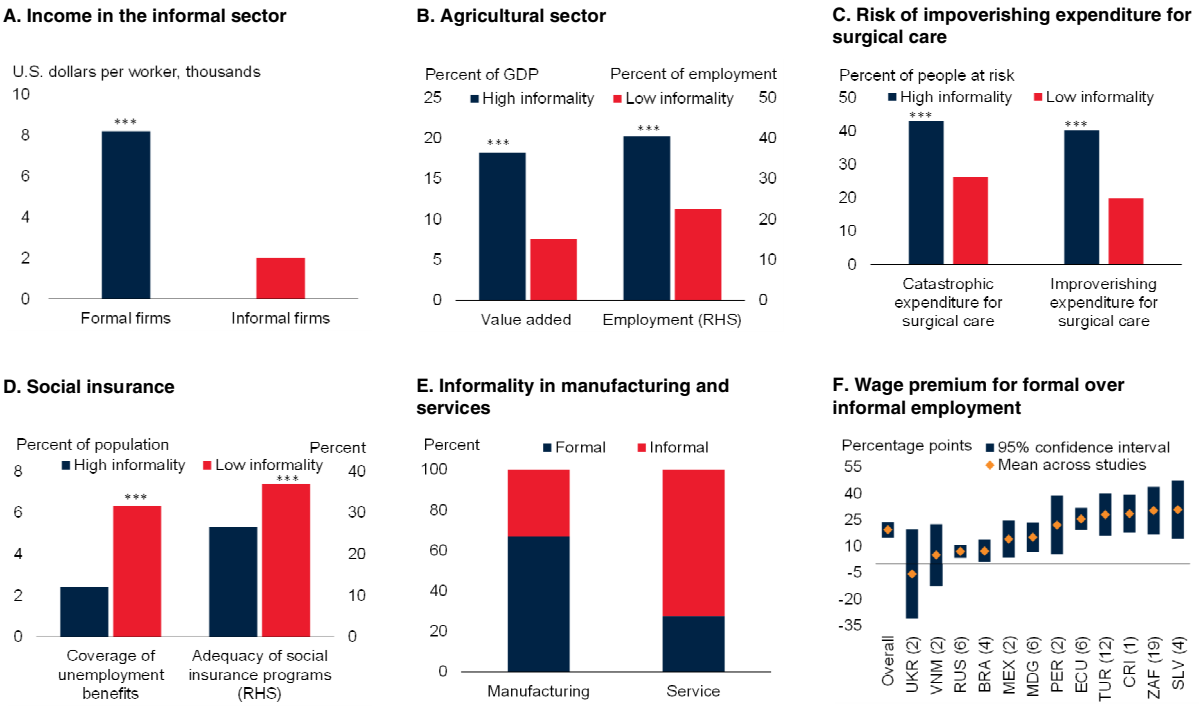
- ***Health and sanitation.*** Although the populations of EMDEs with the most pervasive informality tend to be younger, they also tend to be less healthy, live in less sanitary conditions, and only have access to weak public health and medical systems (Figure 1.4.3).[2] In the one third of EMDEs with the most pervasive informality, sanitation facilities are accessible to only 34 percent of the population, and clean drinking water is available to only 55 percent of the population, compared to 80 percent in the one third where informality is least pervasive. Hand-washing facilities are available for only 40 percent of the population in the former group. Access to medical care is also extremely limited, with only three-fifths the number of doctors and nurses per 1,000 people than the EMDEs with the least informality. In countries like Malawi and Kenya, thousands of people have access to only one or two ICU beds (Murthy, Leligdowicz, and Adhikari 2015).

[2] In the one third of EMDEs with the most pervasive informality, 5.3 percent of the population is aged 65 or above, compared with 6.2 percent in the one third of EMDEs with the least pervasive informality. In the one third of EMDEs with the most pervasive informality, the number of deaths per 1,000 people caused by communicable diseases and maternal, prenatal and nutrition conditions are about two times higher than in the one third of EMDEs with the least pervasive informality.

BOX 1.4 How does informality aggravate the impact of COVID-19? *(continued)*

FIGURE 1.4.2 Features of the informal sector

Informal workers are often employed in the agricultural or services sectors, poorly paid, with limited access to social benefits, and at risk of impoverishing health expenditures.



Source: Elgin et al. (forthcoming); Amin, Ohnsorge, and Okou (2019), World Bank, Enterprise Survey; World Development Indicators; World Bank (2019a); Global Surgery and Social Change (PGSSC) at Harvard Medical School.

A. Firm productivity is measured as sales per worker. "***" indicates the group differences between formal and informal firms are not zero at 10 percent significance level.

B-D. Bars are group means calculated for EMDEs with "high informality" (i.e., the highest one-third EMDEs by DGE-based informal output measure) and those with "low informality" (i.e., the highest one-third EMDEs by DGE-based informal output measure) over the period 2010-16. "***" indicates the group differences are not zero at 10 percent significance level.

D. Adequacy of social insurance programs are measured in percent of total welfare of beneficiary households.

E. Data coverage of the share of informal (formal) firms in the manufacturing (service) sector is the same in Amin, Ohnsorge, and Okou (2019).

F. The wage premium is obtained from 18 empirical studies on the wage gap between formal and informal workers. See World Bank (2019a) for details. UKR=Ukraine, VNM=Vietnam, RUS=Russia, BRA=Brazil, MEX=Mexico, MDG=Madagascar, PER=Peru, ECU=Ecuador, TUR=Turkey, CRI=Costa Rica, ZAF=South Africa, SLV=El Salvador. The number of studies or estimates for each country is shown in parenthesis; country means are calculated using a random-effects meta-analysis model.

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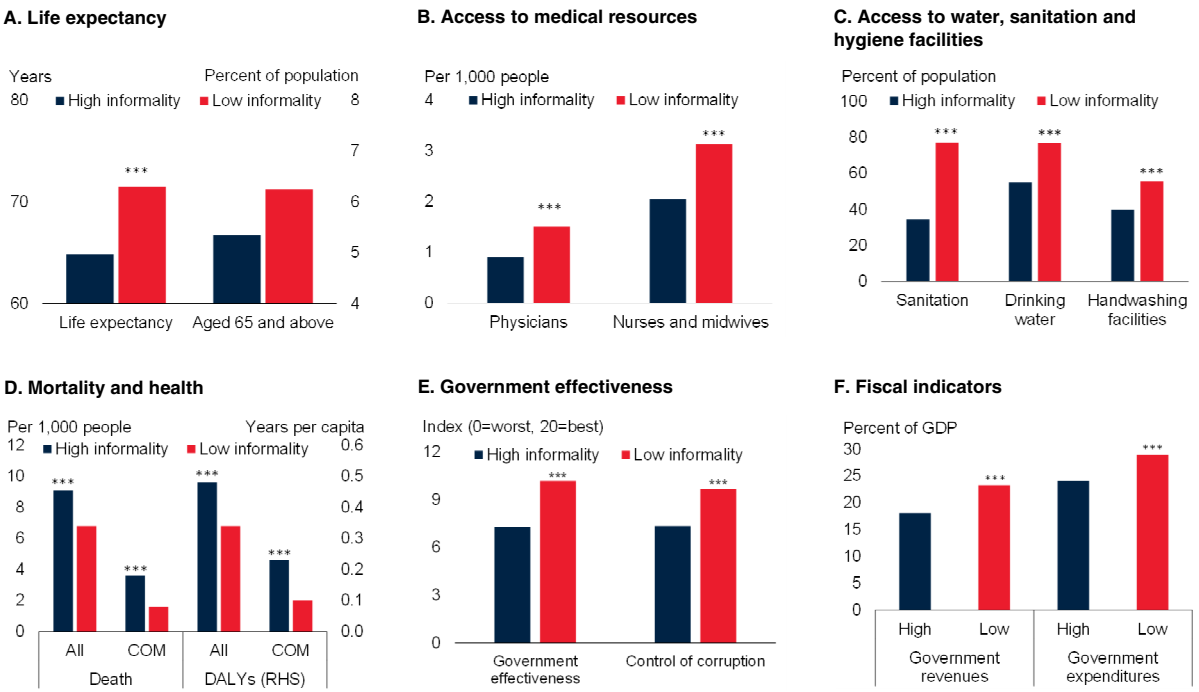
- ***Government policy effectiveness.*** Countries with pervasive informality are less likely to have the institutional and fiscal capacity to mount an effective response to the pandemic. Tax avoidance is prevalent in the informal sector, resulting in limited fiscal resources (Besley and Persson 2014). For example, government revenues and expenditures in the EMDEs with the most pervasive informality are 5-10 percentage points of GDP, on average, below those with the least pervasive informality (World Bank 2019a; Figure 1.4.3). In addition, governments are less effective, and corruption is more rampant, in countries with more pervasive informality (Loayza, Oviedo, and Servén 2006). Moreover, less than a quarter of informal firms use bank accounts and about one-half of small informal firms identified lack of access to finance as a major obstacle to their operations, which makes it difficult to use the financial system to channel support to the informal economy (Farazi 2014; Schneider, Buehn, and Montenegro 2010). The rising availability of digital payments—whether on mobile phones, cards, or online—provided an alternative financial channel for governments to reach the informal sector. However, it

BOX 1.4 How does informality aggravate the impact of COVID-19? *(continued)*

FIGURE 1.4.3 Development challenges

Pervasive informality is associated with short life expectancy, lack of access to medical resources, limited sanitation facilities, and other health-system shortfalls. Countries with high levels of informality have significantly lower government revenues and expenditures, have substantially less effective government, and exhibit greater corruption.



Source: Elgin et al. (forthcoming); World Bank, World Development Indicators, World Bank (2019a), World Governance Indicators; IMF Government Financial Statistics; The Program in Global Surgery and Social Change (PGSSC) at Harvard Medical School; WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene; WHO.

Note: Here "high informality" are the third of EMDEs with the highest informality by the share of DGE-based informal output while "low informality" are the third of EMDEs with the lowest informality by the share of DGE-based informal output.

A-C. Bars are group means calculated for EMDEs with "high informality" and those with "low informality" over the period 2010-16. "***" indicates the group differences are not zero at 10 percent significance level.

D. Bars are group means calculated for EMDEs with "high informality" and those with "low informality" over the period 2010-16 (2016 for DALY). Death rates are computed for all death causes and deaths caused by communicable diseases and maternal, prenatal and nutrition conditions. DALYS are the number of healthy life years per person lost to diseases ("All" or "COM" for communicable diseases and maternal, prenatal and nutrition conditions).

E. Bars show group means calculated for EMDEs with "high informality" and those with "low informality" over 2010-2016. Government effectiveness index is rescaled to range from 0 to 20, with a higher value indicating a more effective government. "***" indicates the group differences are not zero at 10 percent significance level.

F. The 2000-16 average fiscal indicators among the third of EMDEs with the highest ("high") and lowest ("low") informality by the share of DGE-based informal output averaged during 2000-16. Sample includes 70 non-energy-exporting EMDEs with populations above 3 million people. "***" indicates the group differences are not zero at 10 percent significance level.

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remains in doubt that whether sufficient cash-in and cash-out points are in place to allow people using digital payments to deposit and withdraw cash safely and reliably (World Bank 2017).[3] The lack of registration also makes it a challenge to provide effective support to informal workers and firm via official fiscal measures (such as tax deduction).

Impact of the COVID-19 outbreak

The impact of COVID-19 is likely to be worse in EMDEs with widespread informality, as it is expected to intensify the pandemic's adverse health and economic consequences while weakening the effect of policies.

[3] These cash-in and cash-out points are often in the form of a bank agent, a mobile money agent, or an automated teller machine (ATM; Klapper and Singer 2017).

BOX 1.4 How does informality aggravate the impact of COVID-19? *(continued)*

Health consequences. Health consequences of the pandemic are expected to be more adverse in EMDEs with more pervasive informality. In these countries, lack of an adequate public health system worsens the transmission of infectious disease. Access to clean water and handwashing facilities is often difficult or unfeasible. Living quarters and working environments are often overcrowded and insanitary. In Sub-Saharan Africa where informality is pervasive, 70 percent of city dwellers live in crowded slums (World Bank 2019b). Lack of medical facilities and a generally less healthy population are likely to worsen the severity of infections and to limit the ability to treat those infected (Dahab et al. 2020). The absence of social safety nets will mean that informal market participants will be unable to afford to stay at home, or to adhere to social-distancing requirements, which will undermine policy efforts to slow down the spread of COVID-19 (Loayza and Pennings 2020).

Economic consequences. Lockdowns hit informal market participants especially hard in the service sector, where informal firms and employment are particularly common (Panizza 2020). For instance, in South Asia, about one out of four households currently living in poverty is engaged in informal activities in the service and construction sectors, which have been significantly affected by closures and disruptions (World Bank 2020j). In addition, women are overrepresented in service sectors that are subject to high risks during the pandemic: 42 percent of women workers are working in sectors such as wholesale and retail trade, compared to 32 percent of men (ILO 2020c). Also, about 80 percent of informal firms rely on internal funds and financing from family and moneylenders for working capital, making them especially vulnerable to the disruption to cashflows caused by mitigation and other control measures (Farazi 2014). Informal workers too have limited financial resources to buffer temporary income losses during the containment period, making them more likely to be pushed into poverty.[4] The health crisis also causes immediate revenue losses for firms, forcing them to temporarily or permanently close their businesses. This could trigger an unprecedented surge in unemployment and a potential expansion of the informal economy (ILO 2020b).

Past pandemics, such as the Ebola epidemic in West Africa in 2014-15, provide a stark illustration of the vulnerability of smallholder farmers (World Bank 2015).[5] The agricultural sector has the highest level of informal employment—estimated at more than 90 percent (ILO 2018). Farmers producing for the urban market may experience massive income losses as they are unable to sell their produce during the lockdowns (ILO 2020d).[6] Small informal firms play a critical role in the food supply chain and are likely to run into operational distress and insolvency due to logistical breakdowns during containment periods (FAO 2020b; World Bank 2020g; ILO 2020b). Since they are among the poorest and most vulnerable groups of society, informal workers, especially farmers, may have reduced access to food in the event of sharp income losses.

In countries with wide-spread informality, governments may have neither the resources nor the administrative structures in place to effectively deliver well-targeted relief to those most in need (Muralidharan, Niehaus, and Sukhtankar 2016). In a number of EMDEs with widespread informality, existing social benefit systems, such as ration cards, are plagued by corruption that weakens their capacity to deliver support to the most vulnerable (Peisakhin and Pinto 2010; World Bank 2004).

Policy implications

Informality adds to the challenges of dealing with the pandemic. Fiscal resources need to be used to strengthen the public health system to prevent, contain, and treat the virus, and support the livelihoods of informal participants during the outbreak. As conventional measures—such as wage subsidies and tax relief—would hardly reach informal firms and workers, innovative emergency measures should be considered to deliver income support to informal

[4] It is estimated that in the absence of any alternative income sources, lost labor income during the containment period could result in an increase in relative poverty for informal workers and their families of more than 21 percentage points in upper-middle-income countries and 56 points in lower and low-income countries (ILO 2020c). This could lead to further increase in income inequality among workers (ILO 2020a).

[5] In 2014-2016, the Ebola outbreak was followed by an economic crisis in West Africa, triggered by massive health and social spending to cope with the outbreak and compounded by the almost simultaneous collapse in commodity prices (World Bank 2014; Cangul, Sdralevich, and Sian 2017).

[6] Farmers may be increasingly impacted by the health crisis, if the virus spreads further into rural areas (ILO 2020c). In the case of Senegal and India, the inability of informal (or self-employed) workers to earn a living and gain access to health care has led to migration from urban to rural areas, which may cause the virus to spread further.

BOX 1.4 How does informality aggravate the impact of COVID-19? *(continued)*

workers, and credit support to informal firms (World Bank 2020g).[7] When managing the trade-off between coverage and costs, policymakers need to strive for a maximum reach of informal participants during the crisis, prioritizing temporary and reversable measures to minimize the fiscal burden afterwards. In some situations, however, the crisis has exposed gaps in a patchwork of social security facilities that should be filled, perhaps in the context of a through reform.

- ***Expand existing social safety nets.*** The first line of response includes existing social protection and social assistance programs that could be quickly scaled up and expanded to provide immediate but temporary relief to families whose earnings have been adversely affected by the outbreak (World Bank 2020a, 2020e). Food aid, cash (or in-kind) transfers, rent or utility bill waivers, can be particularly effective in countries with pervasive informality, as they are easy to implement and have wide reach outside the formal sector (Özler 2020).[8]

- ***Utilize flexible platforms and technologies to reach informal workers.*** Cash transfer and other support programs could utilize various existing registries and platforms that have a wider coverage than banking or tax systems (Aker et al. 2016; Aron 2018). Such platforms should have sufficient coverages, provide possibilities to establish identities, and connect accounts with beneficiaries (World Bank 2020m). Examples include existing national social registries (e.g., Brazil), new online platforms (Thailand and Brazil), new mobile payment devices (Morocco), and databases in health (Morocco) and energy (El Salvador) sectors. Public transfers via mobile money have been shown to improve food security and assets as compared to manual cash transfers in the short-term (Aker et al. 2016; Haushofer and Shapiro 2016).[9] "Big data" analyses and geographic (or age-group, social group) targeting may help expand program coverage by identifying vulnerable groups that are not on any existing registry (Loayza and Pennings 2020; World Bank 2019a, 2020a, 2020m).

- ***Facilitate access to finance to informal firms.*** To support informal firms, access to finance should be provided to help firms stay in business, keep jobs, and maintain links to local and global value chains (World Bank 2020a, 2020n). Such support could be provided, potentially under government guarantees, by commercial banks, microfinance institutions, digital lending platforms, corporate supply chains, or other intermediaries. Easier access to credit, collateralization of existing properties, and online or mobile banking should help owners of informal firms to tap the available financial resources, especially with the help of digital technologies.[10]

- ***Consider untargeted and unconditional programs when needed.*** Targeted programs reduce the risk that payments end up with those who do not need it, especially in the absence of effective targeting and delivery systems (Gentilini 2020; Loayza and Pennings 2020). In EMDEs where informality is pervasive and most of the population is either poor or near-poor, simple untargeted transfers may be better. Attempts to exclude the relatively few who are not in need would likely slow relief down and reduce the desired coverage of informal workers (Özler 2020). In practice, support programs that made formalization a condition of assistance have reduced the number of intended beneficiaries and have not offered net benefits to many informal enterprises (Campos, Goldstein, and McKenzie 2018). During the emergency and the potentially weak recovery right afterwards, the need is to quickly reach as many informal workers and firms as possible. To this end, in many EMDEs, unconditional support programs would be advisable. Given their limited resources, low-income countries would require international funding for the effective implementation of such programs.

[7] See the policy section of Chapter 1 for details on the conventional measures. See ILO (2020b) for details on the importance of reducing the exposure of informal workers and their families to the virus and the risks of contagion and while ensuring their access to health care.

[8] Where conditional programs exist, waiving conditionality for a period could ensure wider coverage in the context of a health emergency (World Bank 2020a). See World Bank (2020m) for a summary of country examples.

[9] Cash-in and cash-out points—a bank agent, a mobile money agent, or an automated teller machine—should be provided to ensure the success of public transfers via digital platforms (World Bank 2017).

[10] Moving to digital wage payments can also contribute to women's economic empowerment, which merits special attention from policy makers when promoting formal business participation (Klapper 2017; Klapper, Miller, and Hess 2019).

sharp disruptions to real and financial activity in many economies and across many sectors.

Historically, global recessions have tended to be followed within a year by a global recovery—characterized by a broad-based rebound in activity—as was the case immediately after the global financial crisis. While a global recovery is envisioned in 2021, it is likely to be subdued. Output is not expected to return to its previously expected level (Figure 1.13.C). This reflects the fact that the pandemic will likely lead to a slow and incomplete return to activities that require face-to-face interaction, such as tourism, as some degree of social distancing continues.

Many firms, households, and governments are weathering the 2020 global recession by relying on savings and debt; as a result, a period of deleveraging is likely to follow as they rebuild precautionary savings and strengthen their balance sheets. At the same time, the large and sudden loss of income in 2020 has pushed many individuals into unemployment and companies into bankruptcy, destroying valuable economic relationships that will take time to rebuild. Lower spending and continued uncertainty will likely lead to persistent weakness in investment and the innovation embodied therein, with consequences for growth and productivity. Moreover, the financial turmoil and commodity price collapse engendered by the pandemic will likely have significant long-term effects on potential growth in many economies (Chapter 3).

Risks to the outlook

The global economy is experiencing one of the sharpest recessions on record and, given the unprecedented nature of the shock, forecasts are subject to a large degree of uncertainty. Downside risks could deepen the recession or delay the recovery. In the short run, the contraction would deepen if a protracted pandemic required an extension of control measures. Policy support might fail to soften the economic blow to households and firms to the degree assumed in the forecast. A prolonged disruption to economic activity could exacerbate financial stress, which could lead to widespread financial crises. Lower-for-longer commodity prices could trigger economic and financial distress among commodity producers. It is less likely but also possible that activity is stronger than expected if a combination of positive news on the flattening of the curve, new treatments and vaccine development, and aggressive and effective policy support set the stage for the beginning of a solid rebound in economic activity during the second half of 2020.

In light of the large uncertainties around the near-term outlook, Box 1.3 provides illustrative scenarios that describe how the baseline forecast—which envisions a 5.2 contraction in global activity this year—would be adjusted if various combinations of these risks to near-term activity were to materialize. In all, depending on the ultimate outcome, global output in 2020 might decline by about 4 percent under an upside scenario, but by more than 7 percent under a worst-case scenario (Figure 1.13.D). Even in the best-case scenario, the 2020 global recession will be about twice as deep as the global financial crisis.

There is also a possibility that activity will remain very weak beyond the near term, even after restrictions are lifted. The aftermath of the pandemic may cause lasting changes in consumer and business behavior, and high debt burdens could hold back investment. The crisis could catalyze a retreat from, and fragmentation of, global value chains. Social unrest could erupt. If these risks materialize, long-term growth prospects will be dampened, and goals for development and poverty reduction would be in severe jeopardy.

More protracted pandemic

Despite the best efforts of policymakers, a renewed surge in cases remains a real possibility, especially if there are delays in the development and rollout of test-and-trace measures and vaccines. Recent events and model-based analyses show the toll of uncontained pandemics on human and economic development (McKibbin and Fernando 2020; Verikios et al. 2011; Burns, van der Mensbrugghe, and Timmer 2006). A sharp rise in the number of patients requiring hospitalization amid a second wave of infections could overwhelm even the most robust health care systems in advanced economies, let alone those of EMDEs (Figure 1.14.A).

In these circumstances, the necessary extension of policies to slow the spread of the outbreak and save lives would likely precipitate a renewed collapse in private consumption. The ability of households to procure the funds needed to maintain consumption at a basic level would be further strained, given previous income losses and already low levels of savings (Figure 1.14.B). The ability of welfare systems to cushion income losses varies considerably by country, and is considerably lower in LICs (Figures 1.14.C and 1.14.D).

Meanwhile, domestic investment would grind to a halt amid extreme uncertainty, and development outcomes would worsen appreciably. Prolonged restrictions would severely limit the ability of fiscal or monetary policy to cushion the blow to activity. Firms would be hampered by a chronic lack of demand, by a growing shortage of inputs, and by the need to provide more space and virus safety precautions for employees. Fiscal stimulus may be less effective when some sectors are completely shut down (Guerrieri et al. 2020). In such a case, the result would be a deeper-than-expected global recession, with particularly pernicious effects in economies burdened with more elevated debt-to-GDP ratios.

Financial crises and debt burdens

Thus far, an extraordinary policy response has prevented the slowdown in activity from becoming a financial crisis. In many countries, fiscal measures have replaced a proportion of lost incomes and mitigated default risk, loan guarantees have helped keep businesses afloat, and liquidity provision by central banks have kept the financial system functional. However, should the impact of the pandemic continue to grow, financial crises may follow, resulting in a collapse in lending, a longer global recession, and a slower recovery.

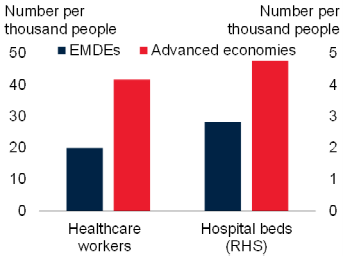
Rising levels of debt have made the global financial system more vulnerable to financial market stress. Since the global financial crisis, global debt has risen to 230 percent of GDP, with EMDE debt reaching a historic high of 170 percent of GDP by 2019 (Figure 1.15.A). In almost 40 percent of EMDEs, government debt is now at least 20 percentage points of GDP higher than it was in 2007 (Kose et al. 2020). In addition, more than a quarter of corporate debt in the average EMDE is denominated in foreign currency.

The need to service and roll over this sizable debt increases EMDEs' vulnerability to spikes in

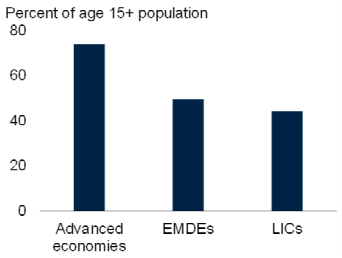
FIGURE 1.14 More protracted pandemic

A sharp rise in the number of patients requiring hospitalization amid a second wave of infections could quickly overwhelm many EMDE health care systems. Many households would struggle to access funds to smooth over a longer period of lost incomes. The ability of welfare systems to cushion such income losses varies considerably by country, and tends to be lower in commodity-exporting EMDEs and, particularly, LICs. This suggests that a protracted pandemic could severely worsen development outcomes.

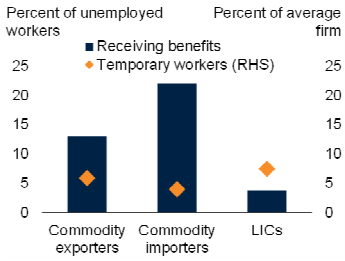
A. Health indicators in 2017



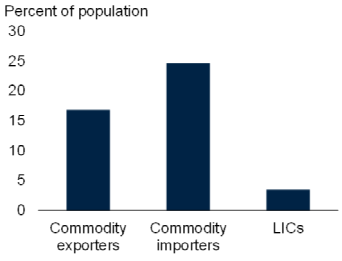
B. Percent of households able to procure emergency funds in 2017



C. Unemployment benefit coverage and share of temporary workers, by EMDE group



D. Coverage of social insurance programs among EMDEs



Source: Demirgüç-Kunt et al. (2018); Organisation for Economic Co-operation and Development; World Bank.

Note: LICs = Low-income countries.

A. Unweighted averages. Sample includes 26 advanced economies and 11 EMDEs—Chile, China, Colombia, Costa Rica, Hungary, India, Indonesia, Mexico, Poland, Russia, and Turkey—as data are available.

B. Figure measures financial resilience by region. Data are based on a household survey on whether or not individuals would be able to procure an amount equal to 1/20 of gross national income (GNI) per capita in local currency within the next month. Aggregates are calculated as simple averages.

C. Figure shows simple averages. Unemployment benefit coverage indicates share of unemployed workers receiving unemployment benefits as reported by the ILO for the most recent year available. Share of temporary workers based on most recent survey in the World Bank's Enterprise Surveys database. Sample includes 27 commodity exporters, 23 commodity importers, and 5 LICs.

D. Aggregates calculated using population weights for the latest available year of data for each country. Sample includes 106 EMDEs, of which 60 are commodity exporters, 46 are commodity importers, and 21 are LICs. Coverage of social insurance programs shows share of population participating in programs that provide old age contributory pensions (including survivors and disability) and social security and health insurance benefits (including occupational injury benefits, paid sick leave, maternity and other social insurance).

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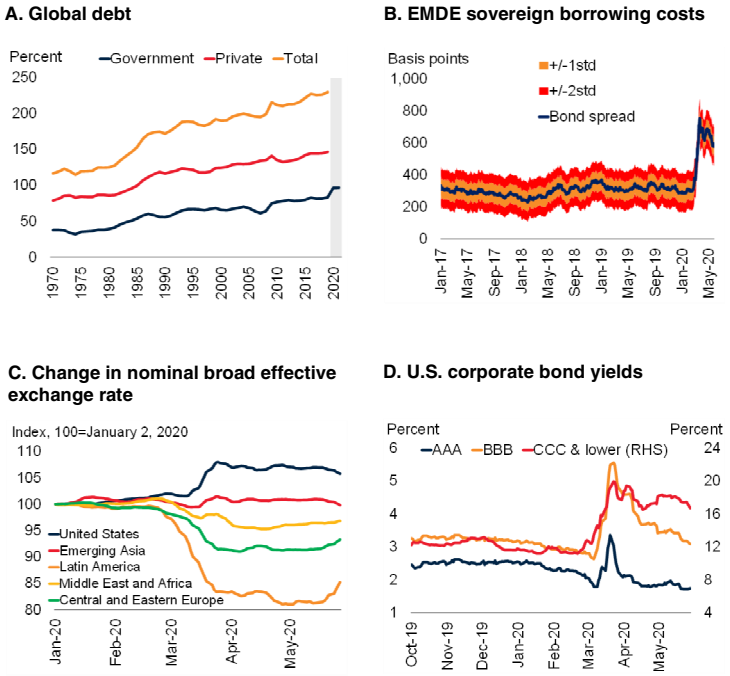
FIGURE 1.15 Financial crises and debt burdens

Prior to the COVID-19 outbreak, many countries had accumulated considerable amounts of public and private debt, much of it denominated in foreign currencies. The need to service and roll over this debt increases countries' vulnerability to spikes in borrowing costs, sharp currency movements, and financial stress. Highly leveraged companies in advanced economies are also vulnerable to rising borrowing costs.



Source: Federal Reserve Bank of St. Louis; Haver Analytics; International Monetary Fund; J.P. Morgan; Kose et al. (2017); World Bank.
A. Shaded area indicates forecasts. Aggregates are calculated using nominal U.S. dollar GDP weights. Sample includes 27 advanced economies and the Euro Area and 153 EMDEs.
B. Sample includes 50 EMDEs. Standard deviation calculated over period from January 2, 2015 to last observation, which is May 27, 2020.
C. Figure shows the 7-day moving average of the J.P. Morgan nominal broad effective exchange rate for each region. Last observation is May 28, 2020.
D. Last observation is May 28, 2020.
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borrowing costs and falls in domestic currency values, both of which have already taken place (Figures 1.15.B and 1.15.C). Large and prolonged flights to safety, or a series of ratings downgrades, could trigger cascading debt defaults and financial stress. Full-fledged financial crises would cause further declines in consumption and investment.

Financial systems in advanced economies also contain pockets of vulnerability. Yields on lower quality corporate borrowing have surged, reflecting a higher perceived risk of default, particularly on the rapidly growing share of debt issuances in the form of leveraged loans. These are loans to firms that are highly indebted, have high debt service costs relative to earnings, and are typically below investment grade (Figure 1.15.D; BIS 2019).

Even if the global financial system avoids a crisis, the debt accumulated in response to the pandemic may weigh on growth in the longer run. As global activity rebounds, interest rates are likely to rise. Higher debt service costs must be financed through higher taxes, additional borrowing, or by a reduction in other expenditures. In circumstances of scarce domestic savings, and limited access to foreign funds, additional borrowing may crowd out private investment. In addition, the loosening of macroprudential standards to support credit provision during the crisis may reduce balance sheet transparency and weaken market discipline in the longer term, potentially contributing to future financial instability.

Lasting effects on consumers and firms

The damage to economic activity from the pandemic could also extend well beyond the near term through a lasting negative effect on both consumers and producers (Chapter 3). Precipitous losses of income brought on by lockdowns, firm closures, and travel restrictions could erode the confidence of both workers and firms about prospects for future labor income and profits. A protracted erosion in confidence could cause households to cut back on spending and firms to curtail investment, weighing heavily on both aggregate demand and supply (Ilut and Schneider 2014; Bhandari, Borovicka, and Ho 2019).

For workers, recessions can cause a substantial and permanent loss in lifetime earnings (Oreopoulos, von Wachter, and Heisz 2012). Consumption would also be reduced if greater uncertainty and a higher perceived risk of unemployment permanently increase consumers' savings rate (Mody, Ohnsorge, and Sandri 2012). Chronically higher unemployment would dampen human capital accumulation, weighing appreciably on long-term growth.

For firms, greater uncertainty could discourage investment as well as new market entry and

permanently lower productivity (Aghion and Durlauf 2014). Subsidized or government-guaranteed credit provided in response to the pandemic may help unprofitable firms to persist, deterring newer entrants and suppressing aggregate productivity (Caballero, Hoshi, and Kashyap 2008).

Retreat from global value chains

The initial spread of the pandemic was fastest in three economies closely integrated in global value chains: China, the Euro Area, and the United States. Global value chains expanded rapidly until the global financial crisis, and decelerated—in some cases reversed—thereafter as business investment decelerated and the pace of trade reform slowed (Figure 1.16.A; World Bank 2020o). The spread of the pandemic has significantly disrupted the supply of key intermediate inputs and threatened the viability of many transportation companies (Figure 1.16.B). This threatens to lead to a more permanent retreat from global value chains if it bankrupts large numbers of participating companies or causes firms to consider reshoring production (Special Focus).

In addition, global value chains are at risk through financing stress. Export-oriented firms tend to be larger and more dependent on borrowing to finance operations (Bruno, Kim, and Shin 2018). An inability to service debt due to currently high borrowing costs and weak cash flow could cause firms to exit the market, leaving gaps in value chains that new entrants may not be able to fill in a timely manner.

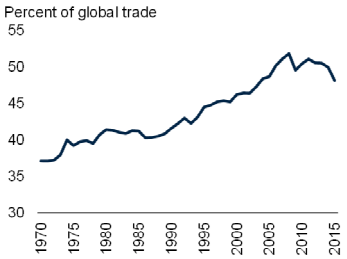
Global value chains could also come under pressure from renewed trade tensions. Before COVID-19, rising tariffs were already straining the networks of companies that undertake U.S.-China trade, only partly alleviated by the Phase One agreement. The centerpiece of this agreement is China's commitment to buy $200 billion in additional products from the United States (Figure 1.16.C). A renewed set of trade restrictions between the two countries, linked to either a shortfall in purchases or policy disagreements, could trigger a rise in uncertainty and a further fall in trade at a time when the global economy is already fragile.

Trade tensions between other countries have also been simmering. Tensions between the Euro Area and the United States have so far affected a small amount of trade, but a tit-for-tat escalation of tariffs could have effects on global trade on a similar scale to the disruptions from previous U.S.-China tensions (Figure 1.16.D). More broadly, many governments concerned about the shortages of essential products revealed by the crisis have imposed trade restrictions to protect domestic supplies of these items.

FIGURE 1.16 Retreat from global value chains

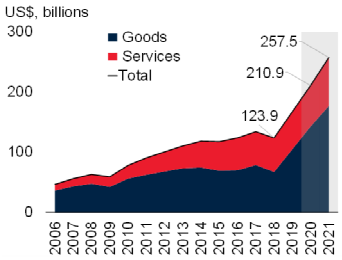
After decades of rapid expansion, the role of global value chains in global trade has stalled over the past decade. COVID-19 has strained them further. Tensions could arise regarding China's purchase commitments under the Phase One U.S.-China trade agreement. A ramping up of tariffs on U.S.-Euro Area trade would affect a sizable share of global trade.

A. Global value chains as a share of global trade

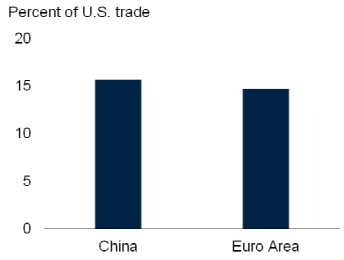


B. Change in container throughput volumes

C. China's purchase commitments



D. Bilateral U.S.-China trade and U.S.-Euro Area trade in 2018



Source: Bown (2020); Institute of Shipping Economics and Logistics; International Monetary Fund; United Nations Comtrade database; World Bank.
A. Data are from *World Development Report 2020*.
B. Last observation is April 2020.
C. Shaded area indicates purchase commitments in the Phase One trade agreement.
D. Trade is the average of import and export values.
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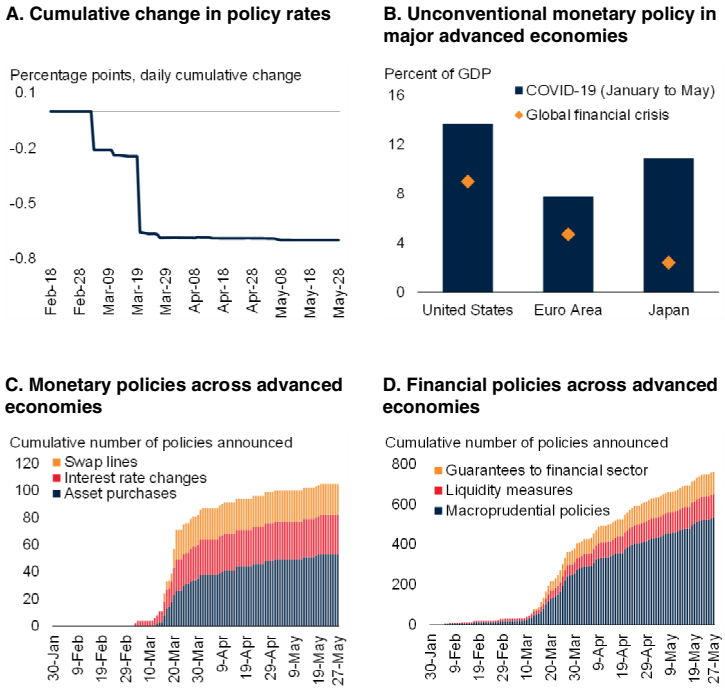
FIGURE 1.17 Monetary and financial policies in advanced economies

In the wake of the COVID-19 outbreak, advanced-economy central banks have moved quickly to cut interest rates. In addition, they have ramped up their use of unconventional instruments, to levels beyond those seen during the global financial crisis. Moreover, authorities have put in place currency swap lines to boost global liquidity and buffers against exchange rate volatility, as well as a slew of financial policies to support financial and banking systems.



Source: Bank for International Settlements; Bloomberg; European Central Bank; Haver Analytics; World Bank; Yale Program on Financial Stability.

A. Average changes in policy rates are weighted by 2018 GDP at 2010 prices and market exchange rates. Sample includes 19 advanced economies. Last observation is May 28, 2020.

B. "COVID-19" reflects recently increases in central bank balance sheets since January 2020 and are expressed as a share of 2019 nominal GDP. "Global financial crisis" asset purchases reflect the increase in central bank balance sheets between August 2008 and December 2009 as a share of 2008 nominal GDP. Last observation is May 2020.

C.D. Sample includes 27 advanced economies and the Euro Area. Last observation is May 27, 2020.

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The experience of pandemic-related disruptions and persistent trade policy uncertainty may cause some businesses to re-assess whether the gains from participation in global value chains are worth the risk of further disruptions. A retreat of export-oriented firms, which tend to be more productive than their domestically oriented counterparts, would have persistent adverse effects on economy-wide productivity (Barattieri, Cacciatore, and Ghironi 2019). A large-scale shrinking from global value chains has the potential to further reduce already-low growth and productivity, by slowing knowledge diffusion and the economies of scale that come with specialization.

Lower-for-longer commodity prices and other region-specific risks

The global economy remains vulnerable to a variety of regional risks, many of them stemming from the pandemic. A persistent period of low oil prices could weigh on activity in regions with a large number of oil exporters, particularly MENA. Current prices are below the fiscal break-even level for many producers. Some oil exporters may be able to maintain spending during a lengthy period of low prices, but many more would be forced into pro-cyclical austerity at the same time the domestic economy needs support. More generally, the combination of more persistent effects of the pandemic at the global level, widening domestic outbreaks, and lower commodity prices could result in severe economic damage in commodity-exporting EMDEs, leading to falling investment, declines in consumption and confidence, and procyclical fiscal tightening (Frankel 2011).

While a wide range of countries have suffered from domestic outbreaks, some regions are vulnerable to more severe outbreaks and macroeconomic effects. This risk is particularly acute for SSA, which lacks the necessary infrastructure, personnel, and government funding to contain a wider outbreak. Should economic costs escalate, simmering social unrest in some regions could worsen.

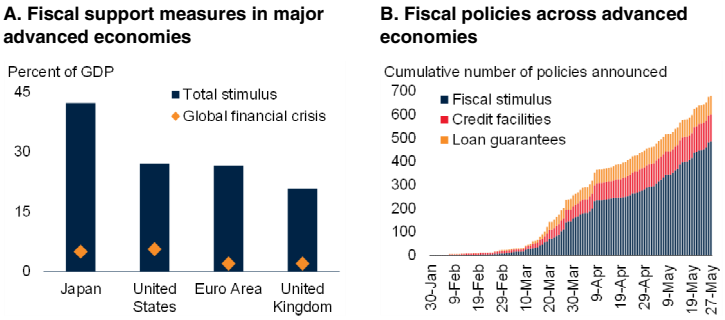
Social unrest could also be triggered by food shortages. The number of people facing acute food insecurity could double to more than 260 million in 2020, with serious consequences for health (WFP 2020a, 2020b). While global food stocks are elevated, the combination of falling household incomes and currency depreciation is contributing to food insecurity in many EMDE regions, particularly SSA. Disruptions to the supply of agricultural inputs such as chemicals, fertilizers, seeds or labor shortages could diminish next season's crop (World Bank 2020c). Natural disasters and climate events could also result in localized shortages, as exemplified by the plague of locusts currently threatening harvests in East Africa.

Upside risk: Swift recovery and unleashed pent-up demand

Although global growth will be sharply negative in 2020, it is possible that the lifting of the aggressive policy measures put in place in response to the pandemic sets the stage for the start of a robust recovery in economic activity at some point in the second half of 2020. A breakthrough in the development of vaccines against COVID-19 is also possible. The promise of an earlier-than-expected end to the pandemic could reinvigorate consumer and investor confidence, unleashing pent-up demand for a broad range of goods and services. This recovery would be boosted by lagged effects from the substantial fiscal and monetary policy support already in place. The resumption of activity could extend across EMDEs, as they benefit from a policy-fueled recovery in major economies, renewed capital inflows, and firming global commodity demand.

FIGURE 1.18 Fiscal policies in advanced economies

Many countries have introduced unprecedented and wide-ranging fiscal support programs to offset the impact of the pandemic. These are providing some relief to vulnerable households and firms, and cushioning the drop in domestic demand and employment.



Source: Bloomberg; International Monetary Fund; Morgan Stanley; Yale Program on Financial Stability; World Bank.
A. Total of measures either planned or under consideration as of May 28, 2020. Share of 2019 nominal GDP. Global financial crisis indicates fiscal measures implemented over the period 2008-09.
B. Sample includes 27 advanced economies and the Euro Area. Last observation is May 27, 2020.
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Policy challenges

Challenges in advanced economies

Authorities in advanced economies face the urgent challenge of containing COVID-19, finding the most effective treatments for this new disease, and developing a vaccine, as well as containing the economic fallout from the pandemic. Monetary authorities in advanced economies are using quantitative easing on an enormous scale and developing new tools to bolster demand and financial market functioning. Large-scale fiscal policy responses have been implemented to support activity and enhance social safety nets. As the world struggles through the health and economic impacts of the pandemic, international policy coordination is critical. In the longer run, advanced economies need to address gaps in epidemic preparedness and social safety nets laid bare by the outbreak. This is especially important in rapidly aging societies.

Monetary and financial policies

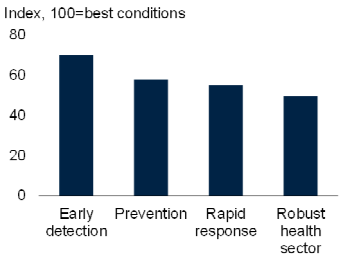
Advanced economy central banks moved quickly to ease monetary policy in the wake of the pandemic, bringing policy rates in most advanced economies close to or below zero (Figure 1.17.A). At the same time, monetary authorities have implemented extraordinary measures to ease tight credit markets. The Federal Reserve has pledged to purchase a wide array of obligations, including corporate and municipal debt. The ECB has lifted distributional restrictions on its bond-buying program (Figures 1.17.B and 1.17.C). The Bank of England has begun directly financing government expenditures. In the medium term, central banks may need to further enhance their toolkit to guard against the possibility of persistently weak growth and below-target inflation (Draghi and Yellen 2020).

Inflation in most advanced economies was already below target at the start of the year. Weaker demand and the fall in oil prices have added deflationary pressure, causing inflation expectations to decline (Conflitti and Cristadoro 2018). Recent analysis suggests that a pandemic significantly depresses the natural rate of interest (Jordà, Singh, and Taylor 2020). With nominal rates at their effective lower bound, a combination of lower inflation expectations and lower natural rates acts as a headwind to growth, further complicating the conduct of monetary policy (Obstfeld, Arezki, and Milesi-Ferretti 2016).

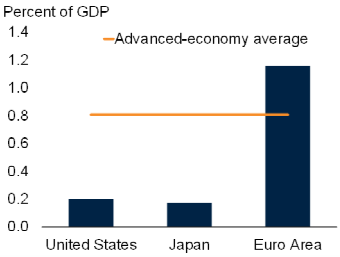
FIGURE 1.19 Structural policies in advanced economies

Bolstering the resilience and pandemic preparedness of health care systems is critical in rapidly aging economies. The introduction of flexible and well-targeted social safety nets, including enhanced unemployment benefits, could help support the recovery and cushion the impact of future severe downturns.

A. Health security in advanced economies



B. Public unemployment spending in 2015



Source: Global Health Index (2019); Organisation for Economic Co-operation and Development; World Bank.
A. All data are normalized through a scale from 0 to 100, where 100 represents the best health security conditions. Prevention refers to preventing the emergence of pathogens and a potential outbreak. Early detection measures the government's capacity to detect and report spread of epidemics. Rapid response indicates the ability of a government to mitigate the spread of an epidemic. The robustness of the health sector indicates the capacity of treating the sick and providing safety for health care workers. Sample includes 34 advanced economies.
B. Aggregates are calculated as simple averages.
Click here to download data and charts.

Financial systems are being tested by sharply falling valuations, heightened volatility, and rising risks of default due to lost incomes, especially in locked-down sectors. A number of countries have implemented macroprudential measures—among other financial policies—to provide the liquidity backstop necessary for domestic banks to offer broad loan forbearance to consumers and businesses (Figure 1.17.D). These policies include widespread easing of bank capital requirements, and encouraging banks to work with borrowers to avoid the need for increasing loan-loss provisions. Authorities have also resorted to prudential policies, including an easing of bank liquidity buffers below Basel III liquidity coverage ratios (Benediktsdottir, Feldberg, and Liang 2020).

While temporary regulatory easing may be appropriate to ameliorate the current crisis, policymakers could plan for the appropriate restoration of prudential norms once activity has normalized, lest a combination of sharply higher vulnerabilities and laxer regulation sow the seeds of future crises. In particular, prudential authorities need to step up surveillance and stress testing to better assess risks facing the banking sector, while increasing attention to crisis management policies to swiftly resolve rising bankruptcies. Moreover, payment systems need to be bolstered to ensure the rapid disbursement of relief payments and to ensure a smooth flow of transactions environments of limited physical interactions.

Fiscal policy

Many countries have proposed or implemented large fiscal support packages, covering a wide range of measures aimed at replacing lost household incomes and firm revenues. These include easing or delaying payment obligations for taxes, utilities, rents, or debt service (Figures 1.18.A and 1.18.B; CFRTV 2020). In an environment of exceptionally accommodative monetary policy, fiscal policy has a key role in preventing the pandemic from having a protracted adverse effect on activity (Miyamoto, Nguyen, and Sergeyev 2018).

The temporary support measures for households, and grants and loan guarantees to firms should help mitigate a sharp retrenchment in consumer spending, preserve employment and job-specific human capital, and prevent widespread bankruptcies in key sectors. The expansion of government assistance, in its multiple forms, need to be directed to those with the most pressing needs. To this end, governments need to ensure that its fiscal support reaches those that do not have regular income even in normal times, such as the self-employed, temporary workers, and those in the "gig" economy.

Beyond the short run, deficit-financed increases in government spending can further support activity by averting a decline in the natural rate of interest—thereby increasing the effectiveness of monetary policy—and simultaneously alleviating a shortage of safe financial assets (Goy and van den End 2020). Moreover, countries with borrowing capacity may benefit from additional public investment, which can boost productivity growth and offset some of the output losses from the current recession.

In the Euro Area, the pressing need of fiscally-

constrained sovereigns has renewed calls for an area-wide fiscal response, including the possibility of fiscal burden sharing (Alesina and Giavazzi 2020; Wyplosz 2020). Once the effects of the pandemic have passed and a solid recovery is underway, it will be important for advanced economies to establish credible medium-term plans to ensure the rebuilding of fiscal space for future needs.

Structural policies

The pandemic underscores the critical need to bolster the resilience of health care systems. This is especially important in rapidly aging societies, as older populations face the greatest pandemic-related health risks. In the near term, health policy efforts need to be devoted to mitigating and treating COVID-19, including by supporting the development of a vaccine, providing much needed support to front-line health workers, and building public trust via timely evidence-based messaging.

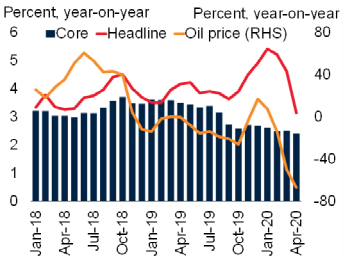
Once the immediate crisis has passed, governments need to strive to meet their collective International Health Regulations obligations "to prevent, protect against, control and provide a public- health response to the international spread of disease" (WHO 2016; GPMB 2019). Gaps in epidemic preparedness—in particular disease prevention, detection, and surveillance—need to be addressed and health care systems need to be stress-tested routinely, to ensure that there is the necessary capacity to take successful action (Figure 1.19.A). For example, several advanced economies—even those ranked highly in their ability to detect and respond to the outbreak—struggled to develop and disseminate testing kits. More broadly, governments need to strengthen clinical and general health care. In the longer run, efforts will be needed to create and maintain a resilient pandemic preparedness system that continuously invests in global surveillance functions, as well as research and development for pandemic vaccines (Johns Hopkins Center for Health Security 2019).

Given the delays associated with the implementation of discretionary fiscal policy and the increasingly constrained role of monetary policy, social safety nets, including enhanced unemployment benefits, need to be designed to be

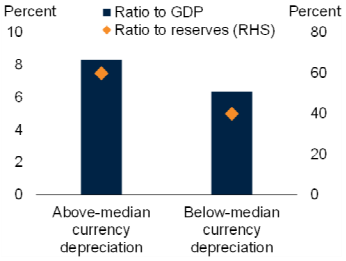
FIGURE 1.20 EMDE monetary and financial policy

The fall in oil prices and collapse in activity have helped lower EMDE inflation, on average. However, some countries have experienced substantial currency weakness. EMDE central banks have introduced unprecedented monetary policy measures to support activity and market liquidity, including unconventional policies such as asset purchases. EMDEs with asset purchase programs have seen sharper declines in government bond yields. An arsenal of macroprudential policies has also been deployed to provide immediate relief to distressed borrowers.

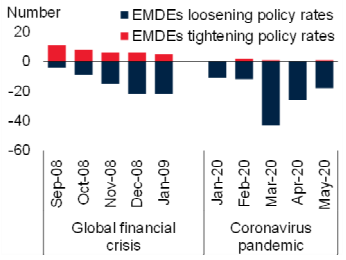
A. EMDE inflation and oil prices



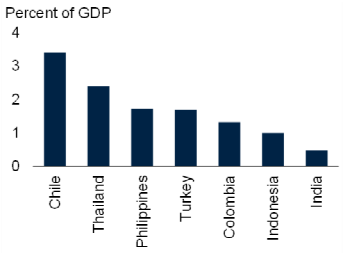
B. External financing needs in 2020, by year-to-date currency depreciation



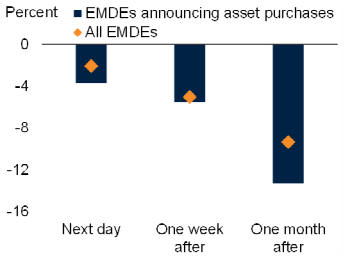
C. Monetary policy in EMDEs



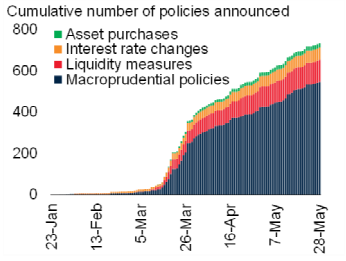
D. Central bank asset purchases in EMDEs



E. Government bond yields following asset purchase program announcements



F. Macroprudential and other monetary policies in EMDEs



Source: Haver Analytics; Institute of International Finance; International Monetary Fund; World Bank; Yale Program on Financial Stability.

Note: EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, and SSA = Sub-Saharan Africa.

A. Aggregates calculated using 2019 real U.S. dollar GDP weights. "Headline" and "Core" samples include 15 and 11 EMDEs. Last observation is April 2020.

B. Figure shows median values. External financing needs are calculated as the sum of the current account balance and external debt amortization due in 2020 relative to either GDP or foreign reserves. EMDEs that are "Above median" reflect those who have depreciated against the U.S. dollar by more than the median EMDE. Sample includes 26 EMDEs. Last observation is May 28, 2020.

C. Sample includes 72 EMDEs. Last observation is May 2020.

D. Announced central bank asset purchases, expressed relative to nominal local-currency GDP in 2019. Other EMDEs have also announced similar programs; however, their size is dependent on market conditions (Hungary, Poland, Romania, South Africa). Last observation is May 29, 2020.

E. Bars show the median percent change in 10-year government bond yields for EMDEs that have announced asset purchase programs, one day, one week, and one month after the announcement. Diamonds show the change in the median EMDE yield on corresponding dates. Sample includes 24 EMDEs of which 10 announced asset purchases. Last observation is May 29, 2020.

F. Sample includes 26 EMDEs. Last observation is May 28, 2020.

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flexible, efficiently administered, and well-targeted (Figure 1.19.B). Government-funded policies to encourage firms to retain labor in economic downturns, including by supporting and subsidizing shorter working hours, can play an important role in limiting the human cost of the downturn and accelerating the subsequent recovery (Herzog-Stein, Horn, and Stein 2013; Contessi and Li 2013).

Challenges in emerging market and developing economies

EMDEs face the immediate challenge of providing support to front-line health workers, broadening access to medical services to detect and treat COVID-19, and prioritizing the timely and transparent dissemination of accurate information. Central banks are confronted with the challenge of implementing measures to support the flow of credit and preserve the functioning of financial markets during the crisis, while guarding against the potential buildup of systemic risks in the financial sector. Many EMDEs have limited fiscal space to address the crisis, highlighting the role of international assistance. Spending will need to be reprioritized to the most urgent needs to preserve lives and protect the most vulnerable. In the longer run, the pandemic highlights the urgency of investing in resilient health care systems, addressing the challenges posed by widespread informality, and pursuing growth-enhancing structural reforms. COVID-19 is a global crisis that calls for global solutions focused on protecting the most vulnerable populations.

Policy challenges in China

China's sharp economic slowdown and the ensuing policy response have exacerbated the country's challenge of buttressing economic activity without compounding financial stability risks. However, if short-term cyclical risks intensify, available policy space could be re-deployed to stabilize the economy, while reinforcing the economy's shift toward consumption, services, and private sector growth.

Global economic and trade flow disruptions could complicate the implementation of the U.S.-China Phase One deal. Failure by China to meet its purchasing commitments of U.S. goods and services (US$200 billion above its 2017 levels over the next two years) could lead to renewed trade tensions, unless a comprehensive and durable trade agreement is reached.

In the longer term, a holistic "one health" approach to policies that enhance domestic health security, food safety, and epidemic preparedness and transparency is needed to build resilience and restore confidence (World Bank 2019c; El Zowalaty and Järhult 2020; World Bank 2020a). Those policies could be complemented by productivity-enhancing reforms that encourage investment in human capital, reduce regulatory burdens, and address market distortions given the role of state-owned enterprises in the economy. Reforming the rigid and inefficient "hukou" household registration system could be prioritized (Song 2014; World Bank and DRC 2014).

EMDE monetary and financial policies

Policymakers in many EMDEs have responded swiftly to the pandemic with a variety of monetary and financial policies, including both traditional and novel measures, as supporting the flow of credit and preserving the functioning of financial markets are critical in alleviating its immediate economic impact. The fall in oil prices, along with weak demand in the majority of countries, has dampened a pickup in EMDE inflation that commenced in late-2019 and has helped central banks focus on supporting activity (Figure 1.20.A). In a few economies, however, disruptions to food supply chains or labor shortages are pushing food prices up (Colombia, Ecuador, Philippines, Vietnam). In addition, significant currency weakness following substantial capital outflows could constrain the scope for further conventional monetary policy easing to support growth in some economies, particularly those with large external financing needs and limited foreign reserve buffers (Figure 1.20.B; Hofmann, Shim, and Shin 2020).

In the face of severe economic disruptions and generally contained inflation pressures, EMDE central banks have embarked on monetary policy easing at an unprecedented scale (Figure 1.20.C; Brandao-Marques et al. 2020). A number of

central banks sharply lowered their policy rates, and some have complemented this easing with unconventional monetary policies such as asset purchase programs—a first for most EMDEs (Chile, Colombia, Hungary, India, Indonesia, Philippines, Poland, Romania, Thailand, Turkey, South Africa; Figure 1.20.D). These purchases—which are mostly of government bonds but also private sector securities—helped stabilize yields of longer-dated securities which had been rising sharply amid liquidity strains in many countries, despite policy rates being lowered (Chile, Colombia, South Africa, Turkey; Figure 1.20.E; Arslan, Drehmann, and Hofmann 2020; Hartley and Rebucci 2020; Hördahl and Shim 2020).

To help accommodate slowing economic activity, EMDE central banks with sufficient monetary policy room could ease their stances further, while reaffirming long-term inflation objectives. The effectiveness of conventional monetary policy easing may, however, be reduced while lockdowns are still in place. Monetary policy easing could also be less effective in economies with large informal sectors and low financial inclusion (Alberola-Ila and Urrutia 2019; Box 1.4). In economies where the solvency of private sector enterprises and households are at risk due to their cash flows being disrupted, or banks' appetite to lend wane, central banks could complement conventional monetary policy easing with additional liquidity provision to enable banks to continue extending credit to these entities (Didier et al. 2020).

Central banks in EMDEs may face challenges arising from their asset purchase programs, which are a new addition to the monetary policy toolkit for most EMDEs. These policies could potentially be ineffective in the absence of credible policy frameworks and transparent communication. Moreover, if investors fear that the central bank's independence is threatened and the institution is being used to fund large fiscal deficits, these policies may result in unsustainable increases in inflation, risk premia and government bond yields, and contribute to capital outflows, exchange rate depreciation, and financial instability. Given these risks, asset purchase programs in EMDEs may remain a tool reserved for extreme shocks, such as the current global recession. To alleviate these risks over the medium to long term, central banks could communicate their intentions to primarily rely on conventional policy tools once the economy recovers and activity normalizes.

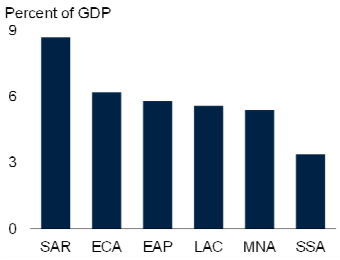
A variety of macroprudential policies have been employed in a targeted fashion to help ease funding stresses and support credit provision (Figure 1.20.F). In many EMDEs, banking sectors entered the current crisis better capitalized than before the global financial crisis, allowing regulators to relax capital requirements including countercyclical and conservation buffers, as well as capital surcharges that were imposed on systemically important financial institutions (Fang et al. 2020). In a number of economies, regulatory forbearance has been used to ease liquidity coverage and funding requirements, and to relax loan-loss provisioning standards. To help preserve banks' capital, dividend payments and executive bonuses have been prohibited in a few countries. To help provide immediate relief to distressed borrowers, interest rate caps have been imposed in some countries, while commercial banks in others have been encouraged to offer temporary loan repayment holidays to firms and households. Some countries have also prohibited the reclassification of distressed borrowers for the duration of the pandemic.

Regulators' adjustments of macroprudential policies may help prevent an adverse feedback loop where persistently weak activity as a result of the pandemic causes a rise in bankruptcies and non-performing loans that erode bank asset quality, leading to increasingly constrained bank lending that further weighs on growth and hinders the projected recovery. However, policymakers would need to carefully balance these actions—particularly those that relate to extended regulatory forbearance and deviate from minimum prudential standards—against the potential buildup of greater systemic risks in the financial sector (Drehmann et al. 2020; Garcia Mora 2020). Committing to time-bound and transparent policy actions that are based on rigorous risk assessments could help mitigate some of these risks. In the event that prolonged strains threaten to collapse financial sectors, governments may need to recapitalize troubled institutions,

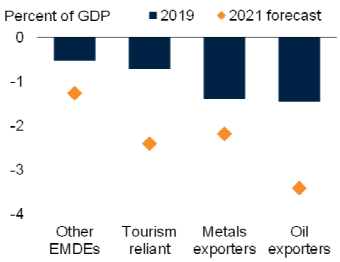
FIGURE 1.21 EMDE fiscal policy

Many EMDEs have implemented substantial fiscal measures to help stem the pandemic's impact on activity and increase public support to the most vulnerable, despite entering the crisis with limited fiscal space. In EMDEs with narrow buffers, policymakers can reprioritize spending to manage fiscal sustainability concerns and to boost spending efficiency. Energy exporters will have to confront narrowing budgetary space as oil prices remain below break-even prices. The recent plunge in oil prices could provide EMDEs with the opportunity to reduce or eliminate energy subsidies, to discourage wasteful energy consumption, and to reallocate spending to programs that better target the poor.

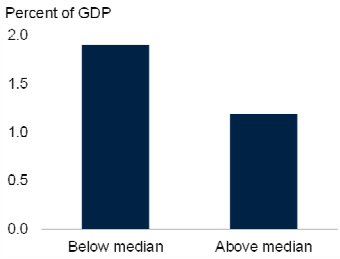
A. Size of economic support measures in 2020, by EMDE region



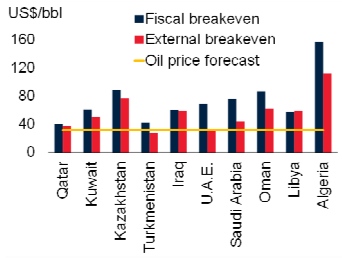
B. Primary fiscal balance in 2019 versus 2021, by EMDE group



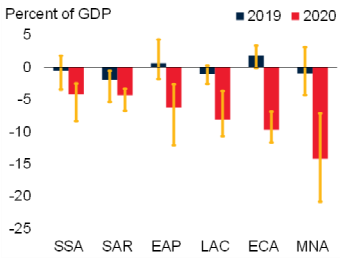
C. Discretionary fiscal support measures in 2020, by debt levels



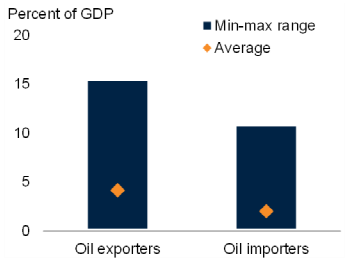
D. Fiscal and external break-even prices in 2020



E. Fiscal sustainability gaps



F. Energy subsidies in 2018



Source: Air Quality Open Data Platform; International Energy Agency; International Monetary Fund; Kose et al. (2017); World Bank.

Note: EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.

A.C. Total measures either planned or under consideration as of May 29, 2020.

A. Aggregates are calculated using 2019 nominal U.S. dollar GDP. Sample includes 29 EMDEs.

B. Figure shows median values for each EMDE group. "Other EMDEs" indicates EMDEs not included in other categories. "Tourism reliant" indicates tourism as a share of GDP above the EMDE median value. "Oil exporters" and "metal exporters" are defined in Table 1.2. Sample includes 79 EMDEs.

C. Figure shows median values. Above (below) median indicates countries with government debt-to-GDP ratios above (below) a median of 51 in 2018. Sample includes 48 EMDEs.

D. Break-even prices refer to the oil price at which either the fiscal or current account balance is zero.

E. Fiscal sustainability gaps are measured as the difference between the overall balance and the debt-stabilizing overall balance under current condition. A negative (positive) bar indicates government debt is on a rising (falling) trajectory. Yellow whiskers indicate the interquartile range. Data for 2020 are World Bank staff estimates based on the April 2020 *Fiscal Monitor*.

F. Sample includes 37 EMDEs, of which 23 are oil exporters and 14 are oil importers.

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while committing to divest ownership over the medium term once stability has been restored (Al Tuwaijri et al. 2020). In general, once economic activity begins to normalize, EMDE policymakers would need to carefully withdraw the large-scale policy stimulus provided during the crisis without endangering the recovery.

EMDE fiscal policy

Many EMDEs have announced fiscal policy support to confront the immediate health crisis and preserve lives, as well as to limit the magnitude of the economic contraction and hasten the eventual recovery. At least three-fourths of EMDEs have increased their funding of health care systems to expand testing and hospital capacity. Fiscal support has targeted the expansion of social protection coverage, including wage subsidies to protect jobs, cash transfers to households, and increased access to unemployment benefits (Figure 1.21.A). Measures have also been implemented to ensure continued access to critical public service delivery to vulnerable groups, including low-income households and the elderly (Argentina, Indonesia, Pakistan, Russia, the Philippines). Fiscal space, however, is constrained in some of the worst-affected EMDEs, limiting the scope of fiscal support and highlighting the need for improving the allocation and efficiency of spending (Figure 1.21.B).

To support firms, policymakers have provided access to credit, loan guarantees, and vouchers or cash for critical employers and affected sectors such as tourism. Temporary revenue-side measures to ease the financial burden on households and firms have complemented these efforts and include tax filing and payment deferrals, income and VAT tax cuts, and social contribution reductions. Announced government support packages have averaged 5.4 percent of GDP in EMDEs, and are at least 10 percent of GDP in some cases (India, Malaysia, Poland, Qatar, South Africa, Thailand).

While most EMDEs have managed to implement discretionary fiscal support packages, countries with more policy space have generally provided greater support. Packages in countries with wider space are almost twice the average of those in

countries with narrower space (Figure 1.21.C; Balajee, Tomar, and Udupa 2020). This latter group includes many industrial commodity exporters, reflecting the loss of revenue due to the collapse in commodity prices. Expenditures have been prioritized and reallocated toward income support and health spending to conserve space (Algeria, Brazil, Ghana, Nigeria, Saudi Arabia).

EMDEs with available fiscal space and affordable financing conditions could consider additional stimulus if the effects of the pandemic persist. This could be accompanied by measures to help credibly restore medium-term fiscal sustainability, including those that strengthen fiscal frameworks, increase domestic revenue mobilization and spending efficiency, and raise fiscal and debt transparency (IMF 2020a; Koh and Yu 2019; Munoz and Olaberria 2019; Tandberg and Allen 2020). The timing and sequencing of additional stimulus measures should also be carefully executed to optimize limited government resources—liquidity injections, for instance, are best implemented before critical firms or industries default, but policies aimed at bolstering demand may be more effective after lockdowns are lifted (Blanchard 2020; Izvorski et al. 2020).

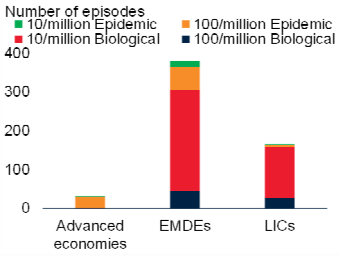
Government debt, however, has reached a record high of 51 percent of GDP in EMDEs and the fiscal surpluses achieved prior to the global financial crisis have turned into deficits; as a result, many EMDEs have limited room to ease their fiscal stances (Kose et al. 2020; Ruch 2019). Oil-exporting EMDEs face the added challenge of a collapse in revenue from oil extraction, with oil prices now well below their average fiscal break-even points (Figure 1.21.D; Arezki and Nguyen 2020). Deficits in these economies were already rising prior to the pandemic and will likely further deteriorate, placing debt on a more unsustainable path (Figure 1.21.E; World Bank 2020p).

Pressures on EMDE public balance sheets could be magnified by tighter external financing conditions and rising debt service costs. Caution is especially warranted where public and private balance sheets are intertwined, especially if adverse financing conditions trigger the realization of contingent liabilities (Bova et al. 2016; Feyen and Zuccardi 2019). Narrower fiscal space and tighter

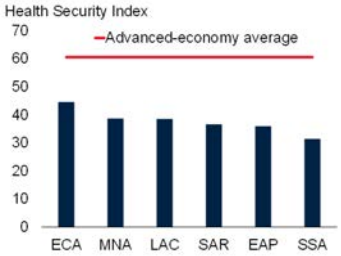
FIGURE 1.22 EMDE structural policies

A rising frequency of biological disasters in EMDEs, including epidemics, highlights the critical need for resilient health care systems, and for improved emergency preparedness. Extensive informality across EMDEs is associated with worse economic and fiscal outcomes, deficient health and sanitation systems, and weaker social safety nets. SMEs across EMDEs face significant financing constraints, including limited access to credit. COVID-19 will likely dampen long-term growth, as exemplified by previous severe epidemics.

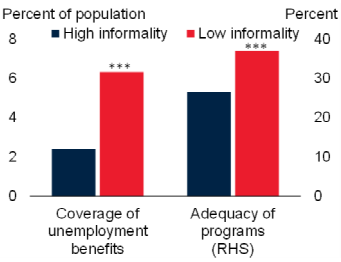
A. Frequency of biological disasters in EMDEs, 1960-2018



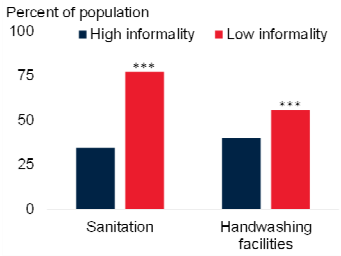
B. EMDE health security, by region



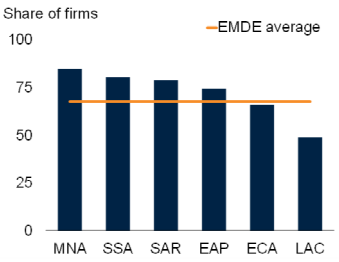
C. Social insurance



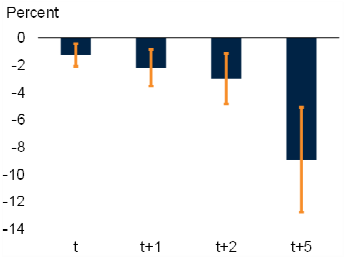
D. Access to sanitation



E. Firms without access to credit



F. Effect of epidemics on output



Source: Bosio, Djankov, and Jolevski (2020); Elgin et al. (forthcoming); EM-DAT; Global Health Index (2019); World Bank; WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene.

B.E. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.

A. Biological and epidemic episodes follow EMDAT definitions. The sample includes 35 advanced economies and 135 EMDEs, of which 27 are LICs.

B. Figure reports overall average for each EMDE region compared to the advanced economy average. Maximum value of index is 100.

C. Adequacy of social insurance programs is measured in percent of total welfare of beneficiary households.

C.D. Bars are group means calculated for EMDEs with high (low) informality—i.e., the highest (lowest) one-third of EMDEs by DGE-based informal output measures—over the period 2010-16. *** indicates the group differences are not zero at 10 percent significance level. Refer to Box 1.4 for details.

E. Aggregates calculated using U.S. dollar GDP weights at 2010 prices and market exchange rates.

F. Bars show the estimated impacts of the 4 most severe epidemics on output levels relative to non-affected EMDEs. Orange lines display the range of estimates with 90 percentile significance. Sample includes 30 advanced economies and 86 EMDEs. Refer to Box 3.2 in Chapter 3 for more details.

Click here to download data and charts.

financing conditions highlight the need for temporary debt relief and international assistance to help EMDEs confront the immediate health crisis head on, protect jobs and workers, and to avoid procyclical fiscal policy, which could otherwise exacerbate the downturn (Loayza and Pennings 2020; Hevia and Neumeyer 2020).

In light of limited fiscal space, EMDEs may want to preemptively identify priority expenditures that need to be safeguarded if financing shrinks, such as education and health measures, as well as lower-priority, poorly targeted, or inefficiently spent expenditures that yield lower growth dividends and that can be delayed or suspended (IMF 2018; Herrera Aguilera and Ouedraogo 2020). While lockdowns persist, governments should focus on mitigating the damage from interruptions in household and corporate incomes (Blanchard 2020). A supplemental budget can also be considered, especially if increased access to public services, including food banks, and expanded social safety nets are needed to protect the most vulnerable.

Steps can be taken to bolster EMDE fiscal space and flatten the debt curve once the immediate crisis subsides. EMDEs that temporarily cut taxes or suspended fiscal rules should provide clear exit strategies to preserve the credibility of medium-term fiscal frameworks (Gbohoui and Medas 2020). These steps can be complemented by better prioritizing public expenditures and enhancing the review of public investment projects. The recent downturn in oil prices also provides a window of opportunity to put in place mechanisms that permanently eliminate costly and poorly targeted energy subsidies, particularly in EMDE oil exporters where these subsidies, on average, accounted for 4.2 percent of GDP in 2018 (Figure 1.21.F; Coady et al. 2017; Guénette 2020; IEA 2015; Stocker et al. 2018; Chapter 4). Reductions in energy subsidies could provide longer-run efficiency dividends by freeing resources to boost investment in green energy and technology.

EMDE structural policies

The pandemic, coupled with the rising frequency of biological and other natural disasters, highlights the critical need to invest in health care capacity to prevent and to better cope with future health and economic crises (Figure 1.22A; World Bank 2020g). It also highlights the formidable challenges of weaker health systems, widespread informality, and small and medium enterprise (SME) financing constraints in EMDEs. The deep contractions caused by the pandemic, and their adverse consequences for potential output, underscores the need for a renewed emphasis on structural reform to set the stage for sustained economic growth. So too does the increased frequency of extreme weather events, which are a growing threat to food supplies, housing, and infrastructure, especially in already-deprived communities.

Pandemic preparedness of health systems

Since 2003, there have been several serious epidemics—including of SARS, Ebola, avian flu, and now COVID-19. These experiences underscore the importance for EMDEs to provide broad-based access to medical services to identify and treat acute symptoms during health emergencies. As part of comprehensive measures to alleviate the stress on health systems, front-line health workers need to be supported with protective equipment and strengthened hazardous-waste management. At the same time, governments need to seek to prioritize the timely and transparent dissemination of accurate information on infections in order to build public trust. Emergency health policies must be adapted to the unique challenges of many EMDEs, including weaker health systems, crowded housing conditions, and limited access to water and sanitation.

After taking stock of the current pandemic, enhancing health security in EMDEs will first require the development of national epidemic preparedness strategies which highlight existing gaps (Figure 1.22.B; Johns Hopkins Center for Health Security 2019). Funding can be allocated in national budgets to implement these strategies and address any gaps. In general, funding for epidemic preparedness tends to be allocated in waves during crises rather than smoothly and efficiently over time; therefore, it is vital that countries routinely stress-test their health systems to monitor progress and demonstrate the system's viability in a crisis (Yamey et al. 2017).

More broadly, authorities need to take steps to strengthen clinical and general health care, invest in access to clean water and sanitation, and tighten food safety standards. In particular, boosting investment in the foundational capacity for national health systems—by developing a robust public health workforce—is critical for enhancing long-term preparedness and the quality of national health outcomes (Johns Hopkins Center for Health Security 2019). Maintaining effective public health safety nets—including unrestricted access to emergency medical care—will also be essential to removing barriers to testing and treatment. A lesson from the current crisis is that investments in public health infrastructure must be continuously sustained, even during quiet times, when it may appear that the system has redundant capacity. In an epidemic, such redundancy pays ample dividends.

Informality and SME financing constraints

Informality is widespread across EMDEs, with the informal sector, on average, accounting for about a third of official GDP and about 70 percent of total employment in EMDEs (World Bank 2019a). Extensive informality is associated with weaker economic and fiscal outcomes, reduced efficacy of monetary policy, deficient health and sanitation systems, and weaker social safety nets (Figures 1.22.C and 1.22.D; Box 1.4; Alberola-Ila and Urrutia 2019). This leaves countries with widespread informality severely constrained in their ability to address the health, economic and social challenges of COVID-19. A general lack of adequate medical infrastructure may worsen the severity of infection outcomes (Dahab et al. 2020). At the same time, economic pressures associated with poverty—which is expected to rise sharply as a result of the pandemic—may undermine efforts to slow the spread of the virus (Lakner et al. 2020; Loayza and Pennings 2020). The impact is likely to be particularly severe on women, since they have an outsized participation in informal activities.

The sudden stop of activity caused by lockdowns and other mitigation measures would have dire consequences for many firms in EMDEs. Forced closures could quickly lead to the widespread collapse of informal firms, as they are highly dependent on internal funds and moneylenders for working capital (Farazi 2014). More broadly, SMEs across EMDEs face significant financing constraints as higher information asymmetries caused by their lack of established track records and publicly available information discourage bank lending (Figure 1.22.E; Abraham and Schmukler 2017).

In light of this, policy support is needed to increase the availability of finance for urgent capital needs. Governments could temporarily incentivize lenders—including commercial and domestic development banks and digital platforms—to redirect credit to SMEs through risk-sharing measures such as public credit guarantees. In doing so, policies could be put in place to increase funds available for financial sector institutions without access to central bank liquidity facilities. In addition, governments could consider temporary equity injections to prevent highly productive firms from exiting the market. Authorities could implement well-regulated credit information sharing mechanisms to minimize information asymmetries. Well-enforced collateral laws enhance the use of movable assets as collateral, and thereby reduce risks to lenders. For the duration of the crisis at least, government might consider public credit guarantees as a means to redirect credit to SMEs, with sunset clauses.

Given the substantial challenge posed by widespread informality and SME financing constraints, pandemic-control measures will need to be complemented with measures that support the income of the most vulnerable firms and households, including those households that have been pushed into poverty by the crisis. Authorities also need to preserve access to essential health and nutrition services. Similarly, maintaining access to education is critical for avoiding irreversible losses in long-term human capital. In countries lacking adequate income redistribution systems, policies such as untargeted cash transfers, public works programs and food aid may minimize delays in providing assistance. The delivery of cash transfer and other support policies can be enhanced with the use of digital technologies, including mobile payment platforms (Box 1.4; Pazarbasioglu et al. 2020). Prompt financial support from the

international community can play a key role in financing these efforts in countries without the necessary fiscal capacity.

Setting the stage for a robust recovery

Beyond the unprecedented near-term damage, COVID-19 will likely dampen long-term growth, as exemplified by previous severe epidemics (Figure 1.22.F; Chapter 3). The long-run loss in output growth would be compounded if the current recession triggers financial crises. For these reasons, once the immediate health emergency abates, setting the stage for a robust recovery will require policies that deal with the lingering effects of the pandemic.

The immediate need is to implement a comprehensive set of policies to alleviate solvency strains, and, where necessary, prevent bankruptcies of firms that will be viable in the longer run without infringing on the integrity of private ownership. Where possible, support can be employed to invest in digital infrastructure to ensure uninterrupted provision of critical services to a broad set of households, including those in the informal sector, while facilitating wider adoption of these technologies.

In the medium term, a renewed emphasis on structural reforms and inclusive and environmentally sustainable post-disaster investments, as well as the development of sound fiscal policy frameworks, institutions, and business environments, can help establish a robust and resilient recovery (Hallegatte, Rentschler and Walsh 2018). Structural reforms need to be carefully calibrated to unique country circumstances, as productivity gains will heavily depend—among other factors—on their timing, mix and sustainability. Such reforms include policies to promote investment in physical and human capital, including green infrastructure; reallocation toward more productive sectors; and greater rates of technology adoption (World Bank 2020p). Reforms to reduce excessive regulations and litigiousness could also be pursued. In the case of oil exporters, persistently lower world oil prices reinforce the need for economic diversification, subject to market forces. This would increase long-term growth and enhance resilience to external shocks (Chapter 4). Lastly, policymakers can develop new insurance frameworks that enhance the quality and transparency of risk sharing during systemic economic disruptions.

Global coordination and cooperation

The pandemic underscores the crucial value of global coordination and cooperation in public health as well as in economic policy. Cooperation across governments, and between governments, non-governmental organizations, and the private sector is necessary to help build domestic capacity to detect and respond to health crises, as well as develop and disseminate global public goods such as vaccines. Global coordination is vital for transferring health supplies and expertise where they are most needed in the near term, and to develop a coordinated exit strategy from restrictions on the free movement of people in the medium term. Moreover, the unprecedented common economic shock adds to the growing evidence of the gains from coordinating monetary and fiscal actions across countries (Bodenstein, Corsetti, and Guerrieri 2020; Triggs 2018). In late March, the G7 pledged to "do whatever is necessary to restore confidence and economic growth and to protect jobs, businesses, and the resilience of the financial system" (U.S. Department of the Treasury 2020).

Many fiscally constrained EMDEs will benefit from the coordinated support of G20 countries and multilateral organizations. International financial institutions can adopt a two-phase approach to their policy response. In the first phase, rapid policy support can be deployed to help provide the fiscal resources necessary to protect the most vulnerable, keeping firms and jobs in place. For example, bilateral creditors might suspend debt payments from low-income countries that request forbearance. In the second phase, policy should focus on ensuring a strong and sustainable economic recovery, seizing the opportunity to increase investment in infrastructure, human capital, and growth-enhancing institutions—each of which has an important public health dimension.

Recently, many countries have responded to increasing domestic demand for food and medical

equipment with export restrictions. At the macroeconomic level, these policies, if applied over long periods, are likely to increase price volatility and dampen growth (Barattieri, Cacciatore and Ghironi 2019; Laborde, Lakatos, and Martin 2019). Authorities need to avoid the temptation of damaging isolationist or tit-for-tat protectionist policies. Critically, governments need to avoid restricting exports of necessary food and medical products. In view of closely integrated trade in intermediate inputs, such measures can obstruct supply chains for essential items. Facilitating the flow of remittances is also important. Good outcomes are more likely when countries work together to support increased production, and cooperate to ensure that resources flow to where they are most needed. More broadly, upholding a stable rules-based international trading system will be critical to launching a strong and durable global economic recovery (IMF 2020b).

TABLE 1.2 Emerging market and developing economies[1]

Commodity exporters[2]		Commodity importers[3]	
Albania*	Lao PDR	Afghanistan	Pakistan
Algeria*	Liberia	Antigua and Barbuda	Palau
Angola*	Madagascar	Bahamas, The	Panama
Argentina	Malawi	Bangladesh	Philippines
Armenia	Malaysia*	Barbados	Poland
Azerbaijan*	Mali	Belarus	Romania
Bahrain*	Mauritania	Bhutan	Samoa
Belize	Mongolia	Bosnia and Herzegovina	Serbia
Benin	Morocco	Bulgaria	Seychelles
Bolivia*	Mozambique	Cabo Verde	Solomon Islands
Botswana	Myanmar*	Cambodia	Sri Lanka
Brazil	Namibia	China	St. Kitts and Nevis
Burkina Faso	Nicaragua	Comoros	St. Lucia
Burundi	Niger	Croatia	St. Vincent and the Grenadines
Cameroon*	Nigeria*	Djibouti	Thailand
Chad*	Oman*	Dominica	Tonga
Chile	Papua New Guinea	Dominican Republic	Tunisia
Colombia*	Paraguay	Egypt	Turkey
Congo, Dem. Rep.	Peru	El Salvador	Tuvalu
Congo, Rep.*	Qatar*	Eritrea	Vanuatu
Costa Rica	Russia*	Eswatini	Vietnam
Côte d'Ivoire	Rwanda	Fiji	
Ecuador*	Saudi Arabia*	Georgia	
Equatorial Guinea*	Senegal	Grenada	
Ethiopia	Sierra Leone	Haiti	
Gabon*	South Africa	Hungary	
Gambia, The	Sudan*	India	
Ghana*	Suriname	Jamaica	
Guatemala	Tajikistan	Jordan	
Guinea	Tanzania	Kiribati	
Guinea-Bissau	Timor-Leste*	Lebanon	
Guyana	Togo	Lesotho	
Honduras	Turkmenistan*	Maldives	
Indonesia*	Uganda	Marshall Islands	
Iran*	Ukraine	Mauritius	
Iraq*	United Arab Emirates*	Mexico	
Kazakhstan*	Uruguay	Micronesia, Fed. Sts.	
Kenya	Uzbekistan	Moldova, Rep.	
Kosovo	West Bank and Gaza	Montenegro	
Kuwait*	Zambia	Nepal	
Kyrgyz Republic	Zimbabwe	North Macedonia	

* Energy exporters.

1. Emerging market and developing economies (EMDEs) include all those that are not classified as advanced economies and for which a forecast is published for this report. Dependent territories are excluded. Advanced economies include Australia; Austria; Belgium; Canada; Cyprus; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hong Kong SAR, China; Iceland; Ireland; Israel; Italy; Japan; the Republic of Korea; Latvia; Lithuania; Luxembourg; Malta; Netherlands; New Zealand; Norway; Portugal; Singapore; the Slovak Republic; Slovenia; Spain; Sweden; Switzerland; the United Kingdom; and the United States.

2. An economy is defined as commodity exporter when, on average in 2012-14, either (i) total commodities exports accounted for 30 percent or more of total goods exports or (ii) exports of any single commodity accounted for 20 percent or more of total goods exports. Economies for which these thresholds were met as a result of re-exports were excluded. When data were not available, judgment was used. This taxonomy results in the classification of some well-diversified economies as importers, even if they are exporters of certain commodities (e.g., Mexico).

3. Commodity importers are all EMDEs that are not classified as commodity exporters.

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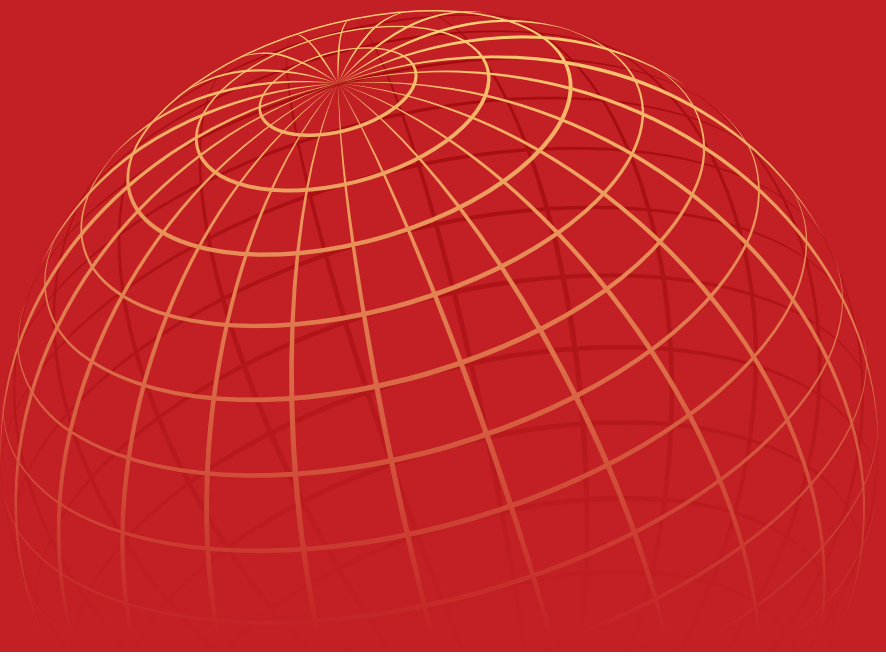


CHAPTER 2

REGIONAL OUTLOOKS

EAST ASIA and PACIFIC

The COVID-19 pandemic has taken a severe human and economic toll on East Asia and Pacific (EAP). Regional growth is projected to slow sharply in 2020, to 0.5 percent—the lowest rate since 1967—reflecting impact of pandemic-related lockdowns, tighter financing conditions, and a deep contraction in exports. Sizable policy support will prevent a more severe deceleration. Although subject to significant uncertainty, regional growth is expected to rebound to 6.6 percent in 2021 as the pandemic subsides, global import demand recovers, and capital flows to the region normalize. However, the balance of risks to the outlook is firmly tilted to the downside. Key risks include a longer-than-expected duration of the pandemic, a prolonged period of heightened financial stress, and a sharper- and longer-than-expected contraction in global trade compounded by re-escalating trade tensions.

Recent developments

COVID-19 has inflicted a high human toll worldwide and triggered a severe regional and global economic downturn (Figure 2.1.1). It has affected the regional economy through both domestic and external channels. The necessary but economically costly lockdowns, which were first imposed in China, have become widespread and have led to a sharp contraction of economic activity and an abrupt tightening of global financing conditions. Regional commodity exporters were also hit by a sharp decline in commodity prices (Indonesia, Malaysia, Mongolia, Lao People's Democratic Republic, Papua New Guinea, Solomon Islands, Timor-Leste).

In China, where highly restrictive measures led to an almost complete halt in activity in some sectors and regions in February, output is estimated to have contracted by 34 percent q/q, saar in the first quarter—the first contraction since 1976 (Figure 2.1.2). Industrial profits fell sharply by 37 percent y/y in 2020Q1, fiscal revenues of the consolidated public finance and government fund budgets declined by 14 percent y/y. Activity started to recover in early March as the domestic lockdown was relaxed. As of April, industrial production has returned to growth and vehicles sales posted the first increase since June 2018. However, companies are facing funding shortages and plummeting external demand. The recovery in services sector is lagging reflecting the lingering impacts of the outbreak.

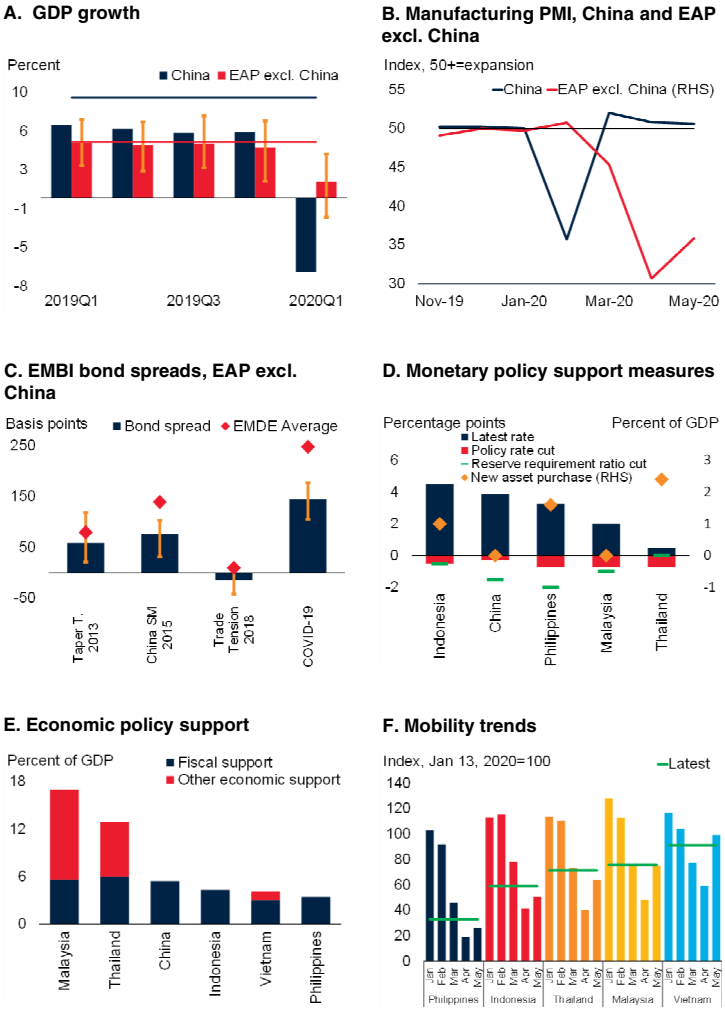
In the rest of the region, economic conditions deteriorated in March and remained stressed until mid-2020Q2 reflecting national lockdowns and negative spillovers from the rest of the world. An abrupt tightening of global financing conditions in early March triggered sudden capital outflows from the region; a spike in regional interest rate spreads; and a sharp adjustment of local currencies and asset prices (World Bank 2020b). The increase in borrowing costs in EAP has been generally less pronounced than in other emerging market and developing regions reflecting robust monetary, prudential, and fiscal policy frameworks in major regional economies (Special Focus).

Factory closures and the disruption of the production of intermediate inputs have had a negative impact on supply chains in Cambodia, Malaysia, Myanmar, and Thailand. Domestic restrictions and external spillovers have resulted in a dramatic plunge in consumption, investment,

Note: This section was prepared by Ekaterine Vashakmadze. Research assistance was provided by Juncheng Zhou.

FIGURE 2.1.1 EAP: Recent developments

In China—the initial epicenter of COVID-19—GDP contracted in 2020Q1. In the rest of the region, economic conditions deteriorated in March reflecting lockdowns and external spillovers. The region has suffered sharp spikes in interest rate spreads and large capital outflows. All major regional economies have implemented sizable macroeconomic policy support measures to mitigate the impact of the outbreak. Activity in the region excluding China bottomed out in mid-2020 as domestic lockdowns eased.



Source: Apple Maps; Haver Analytics; International Monetary Fund.

A. Quarter-on-quarter annualized change of real GDP in 2015 prices. EAP excl. China includes Indonesia, Malaysia, Philippine, Thailand, and Vietnam. Blue and red horizontal lines indicate average GDP growth in China and in the region excl. China in 2000-19. Orange lines denote minimum-maximum range of the sample.

B. Reading below 50 indicate contraction in economic activity. Horizontal line indicates expansionary threshold. EAP excl. China is a weighted average of Indonesia, Malaysia, Myanmar, Thailand, Philippines, and Vietnam. Last observation is May 2020.

C. Taper T. refers to taper tantrum episode from 5/23/2013 to 1/24/2014. China SM refers to stock market crash episode from 6/12/2015 to 2/12/2016. Trade Tension refer to a period of heightened tension between China and the U.S. from 3/22/2018 to 10/30/2019. COVID-19 covers a period from 2/3/2020 to 05/15/2020. EAP excl. China sample includes Indonesia, Malaysia, Philippine, and Vietnam. Orange lines denote minimum-maximum range of the sample. Red diamonds denote EMDE averages. EMDE average is based on J.P. Morgan Emerging Market Bond Index (EMBI).

D. Red bars denote cumulative policy rate cuts since the outbreak. Green lines denote cumulative cuts in reserve requirement ratio. Orange diamonds denote recently announced central bank asset purchases expressed relative to respective 2019 nominal GDPs. Last observation is June 02, 2020.

E. Blue bars denote estimated direct fiscal support packages announced by fiscal authorities between late-January 2020 and late-May. Red bars denote other economic support packages announced by fiscal authorities since the outbreaks. Both are expressed as share of nominal GDP in 2019. Last observation is June 02, 2020.

F. A relative volume of direction requests compared to a baseline volume on January 13th, 2020. Last observation is May 31, 2020.

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production, and trade flows, leading to the sharpest fall in activity since the Asian financial crisis for most countries.

The outbreak appears to have largely subsided in China, Malaysia, and Vietnam but has not yet peaked in some regional economies (Indonesia, the Philippines). China and Vietnam have relaxed the national lockdowns but kept selective restrictions in place, to prevent a second wave of outbreaks. Malaysia has begun gradual easing of the lockdown by allowing more economic sectors to operate.

All major regional economies have implemented large macroeconomic policy support to mitigate the economic impact of the outbreak. In China, the PBOC has provided substantial liquidity support, cut policy rates, and lowered reserve requirements to stem market sell-offs and support businesses. Other regional economies have also cut monetary policy rates, provided liquidity and credit facilities, and embarked on various asset purchase programs (Indonesia, Malaysia, the Philippines, Thailand).

Key fiscal policy measures in China included emergency health spending, tax breaks, direct transfers to vulnerable households, and deferrals and special local government bond issuances to boost investment, totaling 5.4 percent of GDP. Malaysia and Thailand have both implemented extraordinary economic support packages equivalent to around 17 and 13 percent of GDP respectively, which included direct fiscal stimulus packages around 6 percent of GDP in both countries focused on public welfare and health care provision, loan guarantees, and other business support initiatives. Indonesia and the Philippines have announced sizable fiscal stimulus packages ranging around 3-5 percent of GDP.

Outlook

Regional GDP growth in 2020 is projected to fall to 0.5 percent—down from 5.9 percent in 2019, 5.2 percentage points below previous forecasts, and the lowest rate since 1967 (Figure 2.1.3; Table 2.1.1). Regional growth is expected to gradually recover during the second half of 2020

and return to around trend by late 2021. Growth in China is projected to slow to 1 percent in 2020—4.9 percentage point below January forecast and the lowest rate since 1976—reflecting the significant disruptions caused by COVID-19, and then rebound above its trend pace, to 6.9 percent in 2021, as lockdowns are lifted around the world.

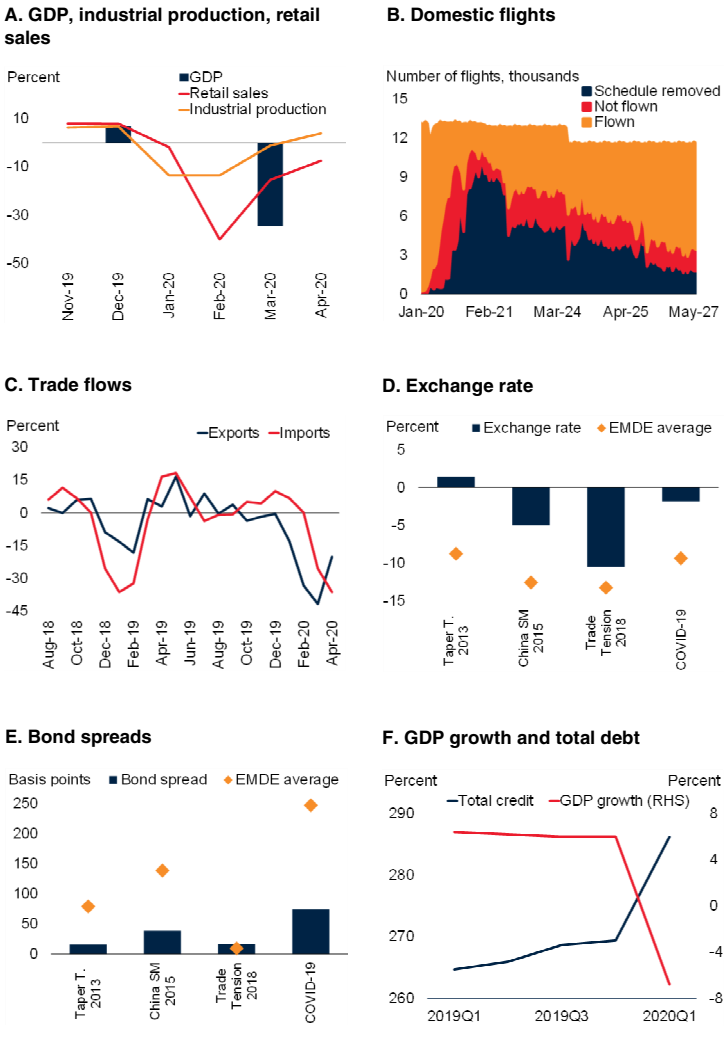
Growth in EAP excluding China is projected to contract by 1.2 percent in 2020—the first contraction since the 1998 Asian financial crisis—and then rebound to 5.4 percent in 2021 as the effects of the virus dissipate. Among the major economies, the largest downward revisions for 2020 are in Malaysia, the Philippines, and Thailand (7.6, 8.0, and 7.7 percentage point below January forecast respectively; Table 2.1.2). This reflects the significant impact of domestic lockdown measures, as well as the impact from reduced tourism, disruption of trade and manufacturing sector, the spillovers from financial markets, and lower commodity prices in Malaysia (World Bank 2016, World Bank 2020c).

Growth forecast downgrades are also sizable in some smaller export and tourism driven economies and in Pacific Islands with the limited policy space to mitigate the impact of the outbreak (Cambodia, Fiji, Lao PDR, Palau, Samoa, Solomon Islands, Timor-Leste, Tonga, and Vanuatu). The downgrades reflect high exposure of these countries to the rest of the world through tourism (Fiji, Palau, Samoa, Vanuatu) and remittances (Samoa and Tonga), but also commodity exports (Fiji, Lao PDR, Solomon Islands), as well as their limited policy space, and the devastating impact of the cyclone Harold in April 2020 (Fiji, Solomon Islands, Tonga, and Vanuatu).

Although all countries in the region have experienced a sharp reduction in visitors as a result of travel restrictions and risk aversion, the Pacific Islands—especially Fiji, Palau, Samoa, and Vanuatu—are particularly dependent on tourism and likely to see a massive decline in national income following the pandemic. These countries are also among the most vulnerable given the limited policy space and instruments as well as

FIGURE 2.1.2 Recent developments, China

Following a collapse in 2020Q1, China's output has bottomed out. Various indicators, including domestic flights, have rebounded, but the outlook remains uncertain amid contracting global activity. Exports contracted in 2020Q1, because of factory closures in China followed by a plunge in global demand. Bond spreads have widened but less than in other emerging market and developing economies (EMDEs). The exchange rate has remained broadly stable in contrast to that in other EMDEs. Total debt is estimated to have increased by about 17 percentage points in 2020Q1 reflecting fiscal and monetary policy support amid economic contraction.



Source: Cirium; Haver Analytics; International Monetary Fund; National Bureau of Statistics of China.
A. Quarter-on-quarter annualized change of real GDP in 2015 prices. Year-on-year change of total real industrial value added (2005=100) and seasonally adjusted nominal retail sales. Last observation is 2020Q1 for GDP, April 2020 for industrial production and retail sales.
B. Data is based on Cirium coronavirus aviation impact dataset. Last observation is May 28, 2020.
C. Values of export and import goods. 3-month moving average. Last observation is April 2020.
D.E. Taper T. refers to taper tantrum episode from 5/23/2013 to 1/24/2014. China SM refers to stock market crash episode from 6/12/2015 to 2/12/2016. Trade Tension refers to a period of heightened tensions between China and the US from 3/22/2018 to 10/30/2019. COVID-19 covers a period from 2/3/2020 to 05/15/2020.
D. Orange diamonds denote the EMDE average exchange rate calculated based on J.P. Morgan Emerging Market Currency Index.
E. Orange diamonds denote the EMDE average bond spreads. EMDE average bond spread is based on J.P. Morgan Emerging Market Bond Index (EMBI).
F. Total debt is defined as a sum of domestic and external debt. Includes household, non-financial corporate, and public sector debt expressed as share of four-month average quarterly seasonally adjusted GDP. A spike in total credit to GDP in 2020Q1 also reflects sharp contraction of GDP in 2020Q1. External debt for 202Q1 is an estimate. Last observation is 2020Q1.
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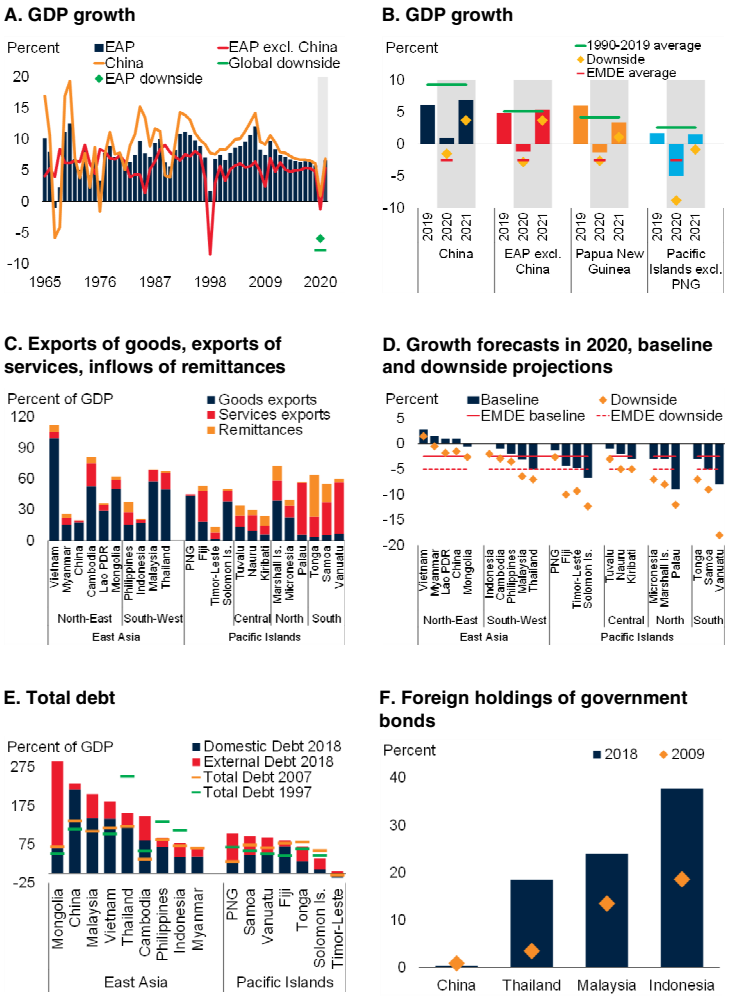
FIGURE 2.1.3 EAP: Outlook and risks

Regional growth is projected to slow to 0.5 percent in 2020—the lowest rates since 1967. Growth in China this year is projected to slow to the lowest rate since 1976, and performance in the rest of the region is forecast to be the worst since the East Asian financial crisis of 1998. The deterioration in regional activity has been broad-based reflecting both domestic and external channels. the Pacific Islands are particularly dependent on tourism and likely to see a massive decline in national income following the pandemic. Regional economies are vulnerable to tighter global financing conditions and financial shocks in different ways, including through elevated domestic debt, external debt, sizable fiscal deficits, or heavy reliance on volatile capital flows.



Source: International Monetary Fund; Institute of International Finance; World Bank.

A. Aggregate growth rates are calculated using GDP weights at 2010 prices and market exchange rates. Data in shaded areas are forecasts. EAP downside shows simple average of regional forecast. Global average shows weighted average forecast.

B. EAP excl. China = Cambodia, Indonesia, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Thailand, and Vietnam. Pacific Island excl. PNG includes Fiji, Kiribati, Marshall Islands, Micronesia, Palau, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu. 1990-2019 average for EAP excl. China excludes Myanmar and 1990-2019 for Pacific Island excl. PNG excludes Marshall Islands, Micronesia, Palau, Timor-Leste, and Tuvalu. Aggregate growth rates are calculated using GDP weights at 2010 prices and market exchange rates. Data in shaded areas are forecasts.

C. Remittances received represent the largest part of primary and secondary income. Tourism and transportation represent the largest part of services exports. Data on personal remittances come from the IMF's Balance of Payment Statistics database. Missing data filled by World Bank staff estimates.

D. Forecasts, including those for the Pacific Island economies, are not strictly comparable because of the difference in accounting financial year periods. EMDE averages show weighted average forecast.

E. Total debt is defined as a sum of domestic and external debt. Includes government, corporate and household debt. Last observation is 2018.

F. Blue bars denote foreign holdings of government bonds in local currency. Last observation is 2018.

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comparatively underdeveloped health infrastructure.

The pandemic will likely further slow potential growth in the region by weakening investment and the supply chains that have been an important conduit for productivity gains over the past decade (World Bank 2020a, 2020d). The negative impact is expected to be broad-based and will add to the long-term slowdown from deteriorating demographic trends and falling growth in total factor productivity (Chapter 3).

The regional outlook is predicated on major countries in the region avoiding a second wave of outbreaks. The outlook assumes that a severe contraction in 2020Q1 in China and in 2020Q2 in the rest of the region will be followed by a gradual and sustained recovery. The outlook is also predicated on the assumption that sizable fiscal and monetary policy support measures implemented by major economies are successful in averting a prolonged recession and financial crises. By the second half of 2020, these are assumed to result in a recovery in global import demand, a normalization of global financial conditions, a resumption of capital inflows to the region, and no major re-escalation in trade tensions between China and the United States.

The regional outlook is subject to significant uncertainty. The full duration and spread of the pandemic is still unknown, as is the effectiveness of the policies implemented in response. The erosion of consumer and business confidence may be longer-lasting. In addition, the spillover impacts of the outbreak through global trade, financial markets, confidence, and other second round effects continue to evolve. The containment measures in major economies may last longer than three months assumed under the baseline scenario. The recovery process in many tourism, export-oriented, remittances- and commodity-dependent EAP economies will be impeded by the slowdown in their main trading patterns, source countries, and low commodity prices. The regional outlook will also significantly deteriorate if global trade tensions re-escalate.

Risks

The balance of risks to the outlook is firmly tilted to the downside. The main risks include the possibility that the pandemic lasts longer and has more severe effects than assumed (Chapter 1). A second wave of the outbreaks in countries with subsiding active cases remains a real possibility. A sharp rise in the number of COVID-19 patients requiring hospitalization could renew pressure on the most robust health care systems in the region (China, Malaysia, and Thailand) and overwhelm health care systems in more vulnerable countries (Lao PDR and the Pacific Islands). Moreover, it remains to be seen whether the policy accommodation being provided will be sufficient to prevent a more severe deterioration in confidence, investment, and trade.

In addition, despite prompt and massive liquidity provision, policy rate cuts to their effective lower bound, and unconventional monetary policies by central banks, global financial market stress may persist for several months and cause further capital outflows from EAP. Tighter financing conditions would weigh heavily on investment and consumption and further reduce regional growth. Eventually, this could exacerbate existing balance sheet weaknesses in highly leveraged banking, corporate, and household sectors, leading to defaults and financial crises (World Bank 2020b).

In some dimensions, major EAP economies appear to be better equipped to cope with this crisis than in the past (Kose and Ohnsorge 2019). They have a strong track record of growth, greater exchange rate flexibility, and more robust monetary, prudential, and fiscal policy frameworks. However, vulnerabilities among some EAP countries could amplify the impact of repeated sudden stops in capital flows or a rise in borrowing costs (Kose, Nagle, Ohnsorge, and Sugawara 2019). These include elevated debt (China, Lao PDR, Malaysia, Mongolia, Vietnam); sizable fiscal deficits (Lao PDR, Vietnam); and heavy reliance on volatile capital flows (Cambodia, Indonesia); considerable foreign holdings of domestic debt (Indonesia, Malaysia, Thailand) (Park and Shin 2015; Kim, Le, Ohnsorge, and Seshadri 2014).

A further risk is that the repeated disruptions to global trade and the supply of intermediate goods causes a retreat from global and regional value chains (Special Focus). Such a retreat could be further encouraged by tensions surrounding the Phase One agreement between China and the United States. Tensions may also arise from disagreements over the origins of, and policy responses to, the pandemic and may spill over into restrictive trade relations (World Bank 2020e).

Should these risks materialize, the regional economy could contract by 1.9 percent in 2020, and growth will remain below trend in 2021 (Chapter 1). On the upside, a gradual normalization of global trade relations remains a possibility, notwithstanding new challenges, and pandemic containment and economic policy support measures in major regional economies could be more effective than expected, leading to a sustained recovery of regional growth.

TABLE 2.1.1 East Asia and Pacific forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
EMDE EAP, GDP[1]	**6.5**	**6.3**	**5.9**	**0.5**	**6.6**	**-5.2**	**1.0**
GDP per capita (U.S. dollars)	5.8	5.6	5.2	-0.1	6.0	-5.2	1.0
(Average including countries with full national accounts and balance of payments data only)[2]							
EMDE EAP, GDP[2]	6.5	6.3	5.9	0.5	6.6	-5.2	1.0
PPP GDP	6.4	6.3	5.8	0.4	6.5	-5.3	0.9
Private consumption	6.1	8.4	6.5	0.8	8.8	-6.1	2.2
Public consumption	8.9	8.8	7.8	11.2	7.4	3.6	-0.1
Fixed investment	4.7	5.1	4.3	-0.2	4.1	-4.8	-0.6
Exports, GNFS[3]	9.4	4.9	1.9	-10.3	4.2	-11.6	2.2
Imports, GNFS[3]	8.3	8.4	0.3	-5.7	5.2	-7.7	2.7
Net exports, contribution to growth	0.4	-0.9	0.5	-1.3	-0.3	-1.1	-0.2
Memo items: GDP							
East Asia excluding China	5.4	5.3	4.8	-1.2	5.4	-6.1	0.4
China	6.8	6.6	6.1	1.0	6.9	-4.9	1.1
Indonesia	5.1	5.2	5.0	0.0	4.8	-5.1	-0.4
Thailand	4.1	4.2	2.4	-5.0	4.1	-7.7	1.3

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economies. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates. Excludes Democratic People's Republic of Korea and dependent territories.

2. Subregion aggregate excludes Democratic People's Republic of Korea, dependent territories, Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Myanmar, Nauru, Palau, Papua New Guinea, Samoa, Timor-Leste, Tonga, and Tuvalu, for which data limitations prevent the forecasting of GDP components.

3. Exports and imports of goods and non-factor services (GNFS).

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TABLE 2.1.2 East Asia and Pacific country forecasts[1]

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
Cambodia	7.0	7.5	7.1	-1.0	6.0	-7.8	-0.8
China	6.8	6.6	6.1	1.0	6.9	-4.9	1.1
Fiji	5.4	3.5	1.0	-4.3	1.9	-6.0	-1.0
Indonesia	5.1	5.2	5.0	0.0	4.8	-5.1	-0.4
Lao PDR	6.9	6.3	4.7	1.0	4.6	-4.8	-1.1
Malaysia	5.7	4.7	4.3	-3.1	6.9	-7.6	2.4
Mongolia	5.3	6.9	4.8	-0.5	4.9	-6.0	-0.3
Myanmar	6.2	6.8	6.3	1.5	6.0	-5.2	-0.8
Papua New Guinea	3.5	-0.8	6.0	-1.3	3.4	-4.2	0.5
Philippines	6.9	6.3	6.0	-1.9	6.2	-8.0	0.0
Solomon Islands	3.7	3.9	2.7	-6.7	-0.3	-9.5	-3.1
Thailand	4.1	4.2	2.4	-5.0	4.1	-7.7	1.3
Timor-Leste	-3.8	-0.8	3.4	-4.8	3.8	-9.4	-1.1
Vietnam	6.8	7.1	7.0	2.8	6.8	-3.7	0.3

Source: World Bank.

Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates.

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EUROPE and CENTRAL ASIA

Activity in Europe and Central Asia (ECA) is projected to contract by 4.7 percent in 2020, a recession nearly as deep as the one the region experienced during the global financial crisis. The COVID-19 pandemic and the social distancing measures to stem it are weighing heavily on domestic demand across the region. These effects are compounded by the collapse of commodity prices, tourism, remittances, and exports, as well as supply chain disruptions and financial market turmoil. Growth is forecast to rebound in 2021, to 3.6 percent, as global commodity prices gradually recover, trade strengthens, and domestic demand improves. However, the risks to this outlook are strongly to the downside, including a resurgence of COVID-19 infections, a more prolonged than expected period of adverse financing conditions and investment sentiment, and an unexpectedly strong amplification of the economic downturn through a sharper drop in remittances. A severe drought that is affecting large swaths of the region could also worsen the outlook.

Recent developments

The severe impact of the COVID-19 pandemic has been felt across the Europe and Central Asia (ECA) region through the collapse in global commodity prices, disruption to global and regional supply chains, and the effect of heightened global risk aversion on financial markets. Since March, many countries have closed schools and international borders, issued stay-at-home orders, and restricted travel from heavily hit areas, all of which are weighing on domestic activity (Figure 2.2.1.A). The widening of domestic outbreaks has steepened the decline in domestic demand, exacerbated supply disruptions, and halted activity (Figure 2.2.1.B; World Bank 2020f).

Financial markets have been roiled by the pandemic, with economies in ECA suffering from substantial flight-to-safety outflows and a rise in bond spreads. Large capital outflows have reignited currency depreciation and triggered reserve losses (Figure 2.2.1.C). Weaker currencies have contributed to higher borrowing costs, particularly in economies with high levels of foreign-currency-denominated debt or where nonresident investors account for a sizable share of the local bond market. Current account pressures have been exacerbated by the collapse in exports amid supply-chain disruptions and falling external demand, despite the sizable fall in imports. Faltering domestic demand has reflected a downturn in services activity and investment, as the pandemic and associated lockdowns curb consumption and dampen investor sentiment.

Roughly two thirds of the region's central banks have responded to deteriorating growth prospects this year by providing further monetary support. Monetary authorities in several countries have intervened in foreign exchange markets to stabilize their currencies and mitigate volatility (Kazakhstan), and in some cases using sovereign wealth funds to do so (Azerbaijan, Russian Federation). However, recent currency depreciation could put further upward pressure on inflation and affect the scope for additional policy rate cuts, especially for countries with inflation near or above target ranges (Figure 2.2.1.D).

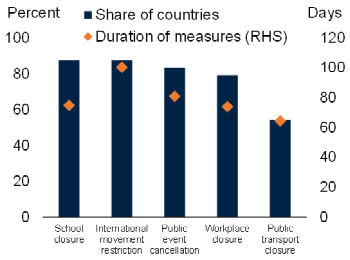
Although fiscal space is limited in many countries, policymakers have used existing buffers or reprioritized spending to bolster health care systems; strengthen safety nets; support the private sector; and counter financial market disruptions.

Note: This section was prepared by Collette Mari Wheeler. Research assistance was provided by Vasiliki Papagianni.

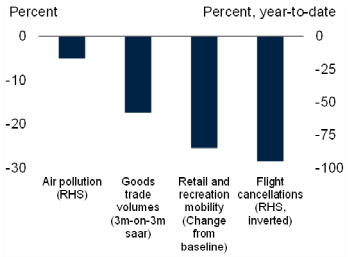
FIGURE 2.2.1 ECA: Recent developments

Europe and Central Asia (ECA) has been hard hit by the COVID-19 pandemic, with a severe decline in activity indicators and a material deterioration in financing conditions. Sharp depreciations in the region's largest economies could limit the scope for further policy rate cuts, although low energy prices are helping to offset these pressures in commodity importers. Numerous economies have deployed economic stimulus packages to confront the immediate health crisis and to limit the negative impact on growth.

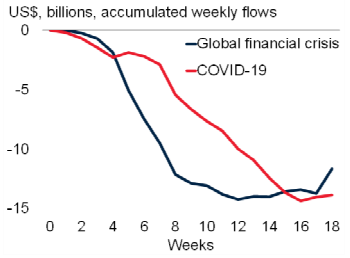
A. Stringency measures in ECA, 2020



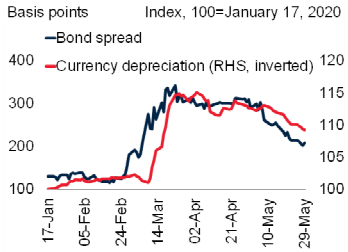
B. Change in ECA indicators, 2020



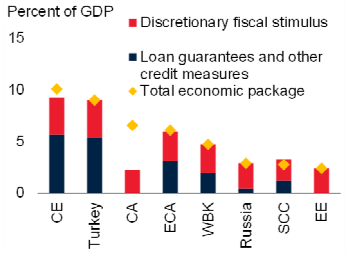
C. ECA portfolio outflows in 2020



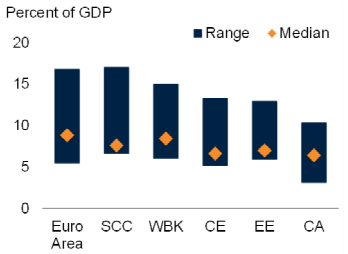
D. ECA bond spreads and currency depreciation in 2020



E. Announced stimulus measures in 2020



F. Health expenditure as a share of GDP, 2017



Source: Air Quality Open Data Platform; Airportia; CPB Netherlands Bureau for Economic Policy Analysis; Google COVID-19 Community Mobility Reports; Haver Analytics; Institute of International Finance; International Monetary Fund; J.P. Morgan; Oxford University; World Bank.

Note: ECA = Europe and Central Asia, CA = Central Asia, CE = Central Europe, EE = Eastern Europe, SCC = South Caucasus, WBK = Western Balkans.

A. Last observation is May 29, 2020.

B. "Goods trade volumes" is the 3-month moving average (seasonally adjusted at an annualized rate) for goods trade volumes, where trade is measured using the average of export and import volumes; the last observation is March 2020. "Air pollution" is the change in NO2 emissions over January 1 to May 28 in 2019 and 2020. "Flight cancelations" shows the cancelations relative to total planned flights based on comparing currently operating flights in 2020 with flights that were operating 52 weeks ago in 2019 as of May 29, 2020. "Retail and recreation mobility" is the percent change for May 21, 2020 from baseline, which is the median value for the corresponding day of the week during the 5 -week period January 3-February 6, 2020, based on data from Google.

C. The dates for the start of each episode are as follows: COVID-19, January 24, 2020; Global financial crisis, September 5, 2008. Sample for portfolio flows includes Hungary, Poland, Turkey, and Ukraine due to data availability. Last observation is May 29, 2020.

D. Bond spreads are from the J.P. Morgan Emerging Market Bond Index (EMBI). Sample includes up to 9 ECA economies, due to data availability. Last observation is May 29, 2020.

E. Announced measures are as a share of 2019 nominal GDP and are derived from the IMF Policy Responses to COVID-19 and are subject to change. Data are as of May 28, 2020.

F. Sample includes 18 ECA economies.

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Fiscal support packages have been announced in nearly all of the economies in ECA, and a number of countries have requested aid from official sources (Figure 2.2.1.E). Although funding has also been allocated to boost the capacity and responsiveness of the health care system, some countries entered the crisis ill-prepared to cope with widespread infections given the limited capacity of health care systems and health care spending (Figure 2.2.1.F).

Outlook

Regional economies are expected to contract by 4.7 percent in 2020, with recessions in nearly all ECA economies (Figure 2.2.2.A; Tables 2.2.1 and 2.2.2). The outlook assumes that restrictive measures to slow the spread of the virus are gradually lifted by the start of the second half of 2020. Growth in ECA is projected to recover to 3.6 percent in 2021, as the economic effects of the pandemic gradually wane and the recovery in trade and investment gathers momentum.

The impact on growth, however, remains highly uncertain and could be more severe if the pandemic or the associated collapse in activity worsens. National lockdowns, if extended, could have a substantial impact on activity (Demirgüç-Kunt, Lokshin, and Torre 2020). Additionally, growth in ECA is vulnerable to global spillovers due to its openness to trade and financial flows, including remittances, but the magnitude and source of spillovers vary across countries within the region. Likely to be hardest hit are economies with strong trade linkages to the Euro Area or Russia, including global value chains (GVCs); those heavily dependent on tourism; and those highly reliant on energy and metals exports (Figure 2.2.2.B).

Tourism activity has been severely affected by sweeping measures to stem the spread of COVID-19, with much of the summer holiday season likely to be lost despite the lifting of restrictions, as travelers remain risk averse and consumers have less disposable income amid widespread job losses. Initial estimates place the global decline in international tourist arrivals between 60 and 80 percent in 2020—much higher than the global

decline of 4 percent seen in 2009—while nearly all countries have imposed travel restrictions (UNWTO 2020). Tourist arrivals have collapsed in ECA, but the impacts may be felt most strongly in countries such as Albania, Croatia, Georgia, Montenegro, and Turkey, where tourism accounts for a sizable share of GDP (Figure 2.2.2.C). Some of these countries may experience a smaller rebound in 2021 relative to the rest of the region, as tourism is generally prone to slow recoveries (Mann 2020).

For energy exporters in the region—including Azerbaijan, Kazakhstan, and Russia, which together account for over 40 percent of the region's GDP—continued low oil prices expected for 2020, combined with the agreed OPEC+ production cuts, are expected to weigh on growth. Fiscal positions in these economies will come under strain with oil prices now far below fiscal break-even prices (Chapter 1; Chapter 4; Special Focus). The effect may be compounded for other ECA countries that export both energy and other commodities such as iron ore (Russia), as well as those that import oil but export refined oil products (Belarus, Bulgaria). However, for countries such as the Kyrgyz Republic and Uzbekistan, an increase in gold prices may help offset price declines for other metals.

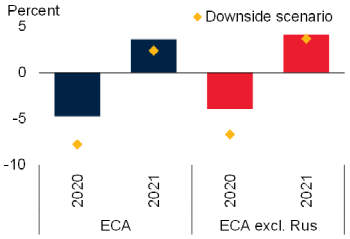
Economic activity in Russia is expected to contract by 6 percent in 2020, reflecting a sharp rise in domestic cases of COVID-19, as well as OPEC+ production cuts and the collapse in oil prices (World Bank 2020g). The government has announced support measures to households and firms in order to buoy consumption and protect jobs, most of which are expected to be funded by reallocations within the existing budget framework. The shortfall in government revenues from low oil prices is expected to be partly compensated by transfers from the National Wealth Fund, which was roughly 9 percent of GDP at the start of 2020.

Turkey's economy is expected to shrink by 3.8 percent in 2020, reflecting a continued fall in investment as confidence plummets to record lows, shrinking exports amid weak external demand, and the disruption to activity due to restrictive measures (World Bank 2020h). In

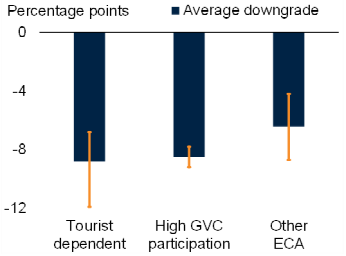
FIGURE 2.2.2 ECA: Outlook and risks

Regional growth is expected to sharply contract in 2020, to -4.7 percent, amid the pandemic and its associated disruptions to services activity and supply chains. The impact is expected to be most severe in economies that depend heavily on tourism and commodity exports, capital inflows, and in those deeply integrated in global value chains. The risk of a full-fledged financial crisis could dent foreign direct investment and remittance inflows, the latter of which will be dampened by rising unemployment in host economies such as the Euro Area. The downturn in ECA is likely to have an especially severe impact on informal and temporary workers.

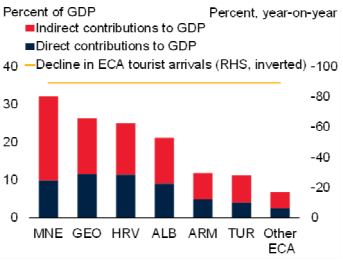
A. GDP growth in ECA, 2020-21



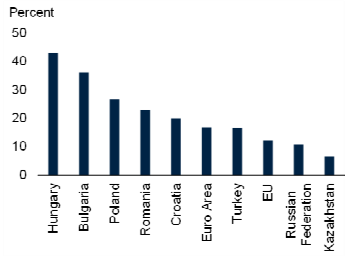
B. Average size of forecast downgrade in ECA, 2020



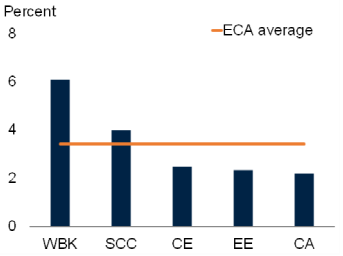
C. Share of tourism in GDP in 2019 and tourist arrivals in 2020



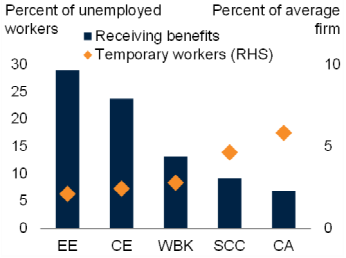
D. Global value chain participation



E. Net foreign direct investment inflows in ECA, 2018



F. Social protection coverage and share of temporary workers, by ECA subregion



Source: Haver Analytics; International Labour Organization; Organisation for Economic Co-operation and Development; World Bank; World Travel and Tourism Council.

Note: EU=European Union, CA = Central Asia, CE = Central Europe, EE = Eastern Europe, SCC = South Caucasus, WBK = Western Balkans, ALB=Albania, ARM= Armenia, GEO=Georgia, HRV=Croatia, MNE=Montenegro, and TUR=Turkey.

A. Aggregate growth rates are calculated using 2010 constant U.S. dollar GDP weights. Yellow diamonds correspond to the downside scenario.

B. Figure shows the simple average of forecast downgrades expected in 2020. Orange vertical lines indicate the minimum-maximum range. Sample includes 24 ECA EMDEs, of which 6 rely on tourism and 4 have high global value chain (GVC) participation. "Tourist dependent" indicates tourism exports as percent of GDP in the top quartile. "High GVC participation" indicates above European Union average due to data availability.

C. GDP generated by industries that deal directly with tourists; refer to the World Travel and Tourism Council for further detail. Last observation for tourist arrivals data is April 2020, or March 2020 where unavailable, and includes 10 ECA economies.

D. Data show the foreign value-added share of exports, which is the value added of inputs that were imported in order to produce intermediate or final goods/services to be exported.

F. Figure shows simple averages. Social protection coverage measures the share of unemployed workers receiving unemployment benefits as measured by the ILO for the most recent year available. Share of temporary workers based on most recent survey as measured in the World Bank's Enterprise Surveys database. Sample includes 23 economies.

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response, an economic support package equivalent to roughly 9 percent of GDP was announced in March, including support to low-income households and pensioners and tax breaks and financial support for firms. The economy is expected to return to growth in 2021, on the back of gradual improvement in domestic demand.

Central Europe is forecast to contract in 2020, by 5 percent, as large domestic outbreaks weigh on private consumption and investment. Widespread disruptions to global value chains (GVCs) are expected to limit access to capital and intermediate goods (Special Focus). The impact from GVC disruptions is expected to be larger for Central Europe than for the rest of ECA, given that manufacturing accounts for nearly a fifth of gross value added, and 20 to 40 percent of the value added of exports are derived from foreign content (Figure 2.2.2.D).

In the Western Balkans, activity is expected to shrink by 3.2 percent in 2020, but to rebound by 4.6 percent in 2021, assuming that consumer and business confidence are restored as the impact of COVID-19 fades, and that political instability remains in check (World Bank 2020i). Rising fiscal liabilities in the subregion have reduced space for fiscal support and weakened the business climate. Additionally, the recent earthquake in Albania took a heavy toll on human life and physical infrastructure, and, along with the COVID-19 outbreak, is expected to weigh on tourism. The budget will be further stretched to counter the damaging economic effects of the COVID-19 outbreak, with a recently announced support package that includes an increase in unemployment benefits and transfers.

Growth in the South Caucasus is projected to decelerate to -3.1 percent this year as the subregion faces growth headwinds from the COVID-19 pandemic and, subsequently, low commodity prices. Activity is projected to pick up to 3 percent in 2021, as the impact of shocks related to the COVID-19 pandemic dissipates and tourism recovers alongside improving consumer and business confidence in Armenia and Georgia. Activity is expected to firm in Azerbaijan in 2021 as oil prices stabilize, but the overall recovery will be muted by lingering structural rigidities.

The outlook for Eastern Europe has substantially weakened as a result of the COVID-19 pandemic, with GDP expected to contract by 3.6 percent (World Bank 2020j). Activity in Ukraine is projected to shrink in 2020, by 3.5 percent, but the depth of the contraction will depend on the duration of the health crisis, progress on major pending reforms, and the ability to mobilize adequate financing to meet sizable repayment needs (World Bank 2019a).

In Central Asia, growth is forecast to sharply slow in 2020, to -1.7 percent, as the subregion grapples with negative spillovers from the Euro Area and China through trade, commodity, and remittance channels. Activity in Kazakhstan will likely be dampened by the waning effect of earlier fiscal stimulus, as well as weak or contracting output in key trading partners (China, Russia; World Bank 2019b).

Risks

Risks to the outlook are strongly to the downside. An intensification of the spread of infections across ECA economies would worsen the outlook, while associated restrictive measures could weigh on private consumption and investment more than expected. An even harsher recession in the Euro Area, perhaps from a worsening of the pandemic or more prolonged restrictive measures, could amplify the negative spillovers in economies with tightly linked trade ties to these economies, including through global value chains, as well as through commodity, financial, and remittance channels. The pandemic also poses medium-term risks, particularly if global value chain linkages are lost or if extended school closures have a significant impact on learning, dropout rates, and human capital development (Chapter 3; Shmis et al. 2020; World Bank 2020k). Regional weather patterns, including the drought that is affecting economies in Eastern Europe and the Western Balkans, also pose a downside risk to the forecasts.

A further tightening in global financing conditions could increase debt-servicing costs substantially, a particular risk in countries with already-high debt levels or large external financing needs (Albania; Croatia; Montenegro). Significantly

tighter financing conditions may also generate pressure on corporate balance sheets, raising rollover risks and triggering widespread defaults and the realization of contingent liabilities (World Bank 2020f, 2020i). A prolonged downturn in the region could affect domestic financial sectors by increasing nonperforming loans and weakening earnings and profitability. This will likely constrain banks' ability to lend and support real activity, and increase the risk of financial instability (Anginer, Demirgüç-Kunt, and Mare 2020). The impact would be more severe for small and medium-sized enterprises, which already face limited access to credit in many countries.

A prolonged deterioration in global investment sentiment could have material implications for ECA (Chapter 1; World Bank 2016). Depending on the duration of the pandemic, foreign direct investment (FDI) flows could fall substantially in 2020, which would most affect the Western Balkans and South Caucasus (Figure 2.2.2.E; UNCTAD 2020; World Bank 2020i). Investment prospects, which were already weakening at the start of the year, will likely erode further in response to the slowdown in capital expenditures. The most vulnerable economies are likely to be those suffering from large domestic outbreaks or supply chain disruptions, as well as those with a

TABLE 2.2.1 Europe and Central Asia forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
EMDE ECA, GDP[1]	**4.1**	**3.3**	**2.2**	**-4.7**	**3.6**	**-7.3**	**0.7**
GDP per capita (U.S. dollars)	3.6	2.9	1.8	-5.0	3.4	-7.3	0.7
EMDE ECA, GDP excl. Turkey	3.1	3.5	2.7	-5.0	3.2	-7.5	0.6
(Average including countries with full national accounts and balance of payments data only)[2]							
EMDE ECA, GDP[2]	4.2	3.3	2.1	-4.9	3.7	-7.4	0.9
PPP GDP	4.1	3.3	2.2	-4.8	3.7	-7.4	0.8
Private consumption	5.2	3.1	1.9	-3.7	2.9	-6.3	0.4
Public consumption	3.4	2.9	3.0	5.2	2.0	3.5	0.2
Fixed investment	6.7	2.3	0.5	-8.5	6.7	-12.9	2.5
Exports, GNFS[3]	7.5	5.8	2.4	-11.8	4.0	-14.1	0.6
Imports, GNFS[3]	11.6	3.3	2.0	-10.7	4.7	-14.8	-0.2
Net exports, contribution to growth	-0.8	1.0	0.3	-0.9	0.0	-0.4	0.3
Memo items: GDP							
Commodity exporters[4]	2.2	2.9	2.0	-5.1	2.9	-7.2	0.6
Commodity importers[5]	6.1	3.8	2.5	-4.3	4.3	-7.4	0.8
Central Europe[6]	5.1	4.8	4.1	-5.0	3.8	-8.4	0.7
Western Balkans[7]	2.7	4.0	3.5	-3.2	4.6	-6.8	0.8
Eastern Europe[8]	2.6	3.3	2.6	-3.6	2.4	-6.5	-0.7
South Caucasus[9]	2.1	2.7	3.6	-3.1	3.0	-6.2	-0.1
Central Asia[10]	4.6	4.7	5.1	-1.7	3.7	-6.1	-0.9
Russia	1.8	2.5	1.3	-6.0	2.7	-7.6	0.9
Turkey	7.5	2.8	0.9	-3.8	5.0	-6.8	1.0
Poland	4.9	5.3	4.1	-4.2	2.8	-7.8	-0.5

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economies. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates.
2. Aggregates presented here exclude Azerbaijan, Bosnia and Herzegovina, Kazakhstan, Kosovo, Montenegro, Serbia, Tajikistan, and Turkmenistan, for which data limitations prevent the forecasting of GDP components.
3. Exports and imports of goods and non-factor services (GNFS).
4. Includes Albania, Armenia, Azerbaijan, Kazakhstan, the Kyrgyz Republic, Kosovo, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.
5. Includes Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Moldova, Montenegro, North Macedonia, Poland, Romania, Serbia, and Turkey.
6. Includes Bulgaria, Croatia, Hungary, Poland, and Romania.
7. Includes Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia.
8. Includes Belarus, Moldova, and Ukraine.
9. Includes Armenia, Azerbaijan, and Georgia.
10. Includes Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.

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heavy presence of travel and transport industries and capital-intensive sectors, such as energy and high-value manufacturing industries. Many multinational enterprises have issued profit warnings. This is expected to dampen reinvested earnings—an important source of FDI for ECA economies. The impact could also weigh on the labor market, particularly in Central Europe where foreign-owned firms can account for a quarter of jobs in the private sector (OECD 2017).

A sharper fall in remittances could amplify the regional economic downturn. Remittance inflows to ECA are likely to decline steeply in 2020, as measures to slow the spread of the virus generate job losses in host countries and leave migrant and temporary workers idled or furloughed (Figure 2.2.2.F; World Bank 2020l; Jolevski and Muzi 2020). At nearly 10 percent of GDP, remittances to ECA represent an important source of income, particularly in Central Asia and Eastern Europe, where they can be as high as 30 percent of GDP. Remittances are likely to come under further pressure due to increased difficulty in accessing money transfer facilities, as several operators in this sector have been temporarily shut down during the pandemic.

TABLE 2.2.2 Europe and Central Asia country forecasts[1]

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections 2020f	2021f
Albania	3.8	4.1	2.2	-5.0	8.8	-8.4	5.2
Armenia	7.5	5.2	7.6	-2.8	4.9	-7.9	-0.3
Azerbaijan	0.2	1.5	2.2	-2.6	2.2	-4.9	0.1
Belarus	2.5	3.1	1.2	-4.0	1.0	-4.9	0.5
Bosnia and Herzegovina[2]	3.2	3.7	2.6	-3.2	3.4	-6.6	-0.5
Bulgaria	3.5	3.1	3.4	-6.2	4.3	-9.2	1.2
Croatia	3.1	2.7	2.9	-9.3	5.4	-11.9	3.0
Georgia	4.8	4.8	5.1	-4.8	4.0	-9.1	-0.5
Hungary	4.3	5.1	4.9	-5.0	4.5	-8.0	1.9
Kazakhstan	4.1	4.1	4.5	-3.0	2.5	-6.7	-1.4
Kosovo	4.2	3.8	4.2	-4.5	5.2	-8.7	1.1
Kyrgyz Republic	4.7	3.8	4.5	-4.0	5.6	-8.0	1.6
Moldova	4.7	4.3	3.6	-3.1	4.0	-6.7	0.2
Montenegro	4.7	5.1	3.6	-5.6	4.8	-8.7	2.0
North Macedonia	1.1	2.7	3.6	-2.1	3.9	-5.3	0.6
Poland	4.9	5.3	4.1	-4.2	2.8	-7.8	-0.5
Romania	7.1	4.4	4.1	-5.7	5.4	-9.1	2.3
Russia	1.8	2.5	1.3	-6.0	2.7	-7.6	0.9
Serbia	2.0	4.4	4.2	-2.5	4.0	-6.4	0.0
Tajikistan	7.6	7.3	7.5	-2.0	3.7	-7.5	-1.3
Turkey	7.5	2.8	0.9	-3.8	5.0	-6.8	1.0
Turkmenistan	6.5	6.2	6.3	0.0	4.0	-5.2	-1.5
Ukraine	2.5	3.3	3.2	-3.5	3.0	-7.2	-1.2
Uzbekistan	4.5	5.4	5.6	1.5	6.6	-4.2	0.6

Source: World Bank.

Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates, unless indicated otherwise.

2. GDP growth rate at constant prices is based on production approach.

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LATIN AMERICA and THE CARIBBEAN

COVID-19 has sharply worsened economic conditions in Latin America and the Caribbean (LAC). The regional economy is projected to contract by 7.2 percent in 2020, a much steeper decline than during the global financial crisis, reflecting the impact of the measures necessary to slow the spread of the pandemic, significant deterioration in financing conditions and commodity prices, and spillovers from a global recession. As mitigation measures are scaled back and financing, commodity price, and external demand conditions become more supportive, regional growth is projected to recover to 2.8 percent in 2021. However, the near-term outlook is subject to significant downside risks. These include a resurgence of last year's wave of social unrest, increasingly adverse market reactions to rising public debt, weaker-than-expected commodity prices, and persistent pandemic-related uncertainty slowing the recovery of the services sector.

Recent developments

Economic conditions in Latin America and the Caribbean (LAC) have worsened dramatically as the effects of the COVID-19 pandemic ripple through the region. LAC initially accounted for a small share of global COVID-19 cases, but outbreaks in the region have recently spread rapidly (Figure 2.3.1.A). Moreover, cases may be significantly underreported in some countries. The authorities across the region have implemented a range of mitigation measures to slow the spread. Nearly all countries have closed schools and partially or completely shut their borders. Numerous countries have imposed nationwide mandatory business closures and large-scale mobility restrictions for multiple weeks. Emissions data and sentiment indicators suggest that the economic impacts of these measures have been sudden and severe (Figures 2.3.1.B, 2.3.1.C).

The sharp fall in global commodity prices is a headwind for much of the region, and particularly for oil and gas producers given the plunge in global energy prices. The abrupt slowdown in the U.S. and China disrupted supply chains for Mexico and Brazil and caused a sharp drop in exports from commodity-producing economies such as Chile and Peru. The severe contraction in the United States in the second quarter has affected Central America through trade and remittance channels. Tourism, on which numerous Caribbean countries and Mexico rely heavily, plummeted in the first half of the year.

Amid intensified global risk aversion, LAC has experienced a sudden reversal of capital flows more severe than during the global financial crisis (Figure 2.3.1.D). In many countries, equity market valuations have plunged and currencies have depreciated sharply. Risk premia in sovereign bond markets have risen across the region, with investors differentiating according to credit risk (Figure 2.3.1.E).

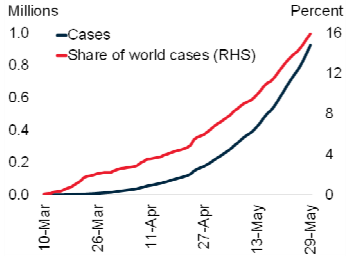
A range of policy measures have been implemented to counter deteriorating economic and financing conditions. The monetary policy response has been multipronged, including liquidity provision; temporary loosening of reserve requirements for banks; policy interest rate cuts; establishment of temporary swap lines with the U.S. Federal Reserve to provide U.S. dollar liquidity (Brazil and Mexico); and foreign exchange market intervention. Chile and Colombia have launched asset purchasing programs modeled

Note: This section was prepared by Dana Vorisek. Research assistance was provided by Heqing Zhao.

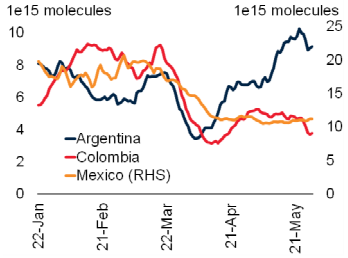
FIGURE 2.3.1 LAC: Recent developments

As the COVID-19 pandemic began to impact Latin America and the Caribbean (LAC), stringent, multipronged mitigation policies were implemented. Emissions and sentiment data suggest that the economic impacts of the pandemic have been sudden and severe. Financial conditions in the region have tightened substantially amid flight-to-safety sentiment among investors. Policymakers have responded to the abrupt shift in the economic environment with a range of monetary and fiscal support.

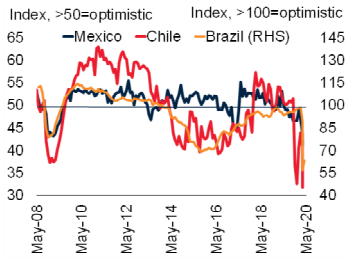
A. COVID-19 cases in LAC



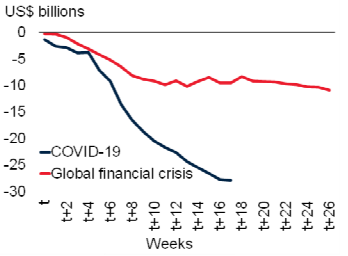
B. Nitrogen dioxide emissions



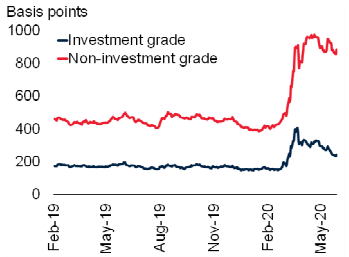
C. Business confidence



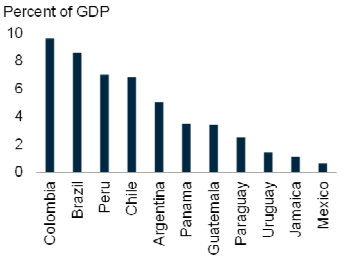
D. Cumulative portfolio outflows from LAC



E. LAC sovereign bond spreads



F. Announced fiscal support measures



Source: Air Quality Open Data Platform; Haver Analytics; Institute of International Finance; International Monetary Fund; Johns Hopkins University Coronavirus Resource Center; national sources; Standard and Poor's; World Bank.

A. Lines show 14-day moving averages. Last observation is May 29, 2020.

B. Data reflects conditions in Buenos Aires, Bogotá, and Mexico City. Last observation is May 29, 2020.

C. For Mexico, business confidence pertains to the manufacturing sector. Last observation is May 2020 for Brazil and April 2020 for Mexico and Chile.

D. LAC capital flows are proxied by the sum of equity flows for Brazil and debt flows for Mexico. COVID-19 line shows cumulative capital outflows beginning the week of January 24, 2020 and ending the week of May 22, 2020; global financial crisis line shows outflows beginning the week of September 5, 2008.

E. Lines show medians of the two country groups. Sample includes 7 investment-grade economies and 10 non-investment-grade economies. Last observation is May 29, 2020.

F. Measures are the total amount announced, including discretionary spending, loan guarantees, and other credit measures. Data are as of May 29, 2020 and are subject to change.

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on quantitative easing in advanced economies, the first in the region.

Fiscal stimulus plans have been announced in numerous countries (e.g., Chile, Colombia, Costa Rica, Panama, Peru, Uruguay, and across the Caribbean), including some where public finances are already strained (Argentina, Brazil, El Salvador; Figure 2.3.1.F). These packages include social assistance measures, support for small businesses, and additional health sector spending. In some countries, tax deadlines have been delayed and loan and utility payments temporarily suspended.

Outlook

The multiple domestic and external shocks stemming from the pandemic will have a severe impact on regional growth in 2020. Activity is projected to contract by 7.2 percent, much more steeply than during the global financial crisis or the 1980s Latin American debt crisis (Figure 2.3.2.A; Tables 2.3.1.A and 2.3.1.B). The outlook is exceptionally uncertain, however, and highly dependent on the magnitude and duration of the pandemic.

The baseline forecast assumes that domestic mitigation measures will be relaxed by the beginning of the second half of the year, ushering in a recovery in activity, and that commodity prices will firm as global demand stabilizes. A normalization of domestic and global conditions is envisaged to allow growth to recover to a moderate 2.8 percent in 2021. The baseline outlook is for a contraction in 2020 in all except one economy in the region, a notably worse outcome than for the broader group of EMDEs (Figure 2.3.2.B).

Regional domestic demand is projected to slow dramatically in 2020, despite increased government spending, as shuttered businesses result in lower wages and private consumption. Fixed investment will be particularly hard hit by tighter financing conditions and deep uncertainty about the trajectory of the COVID-19 pandemic. Exports will be sharply curtailed with the global economy in recession.

In Brazil, the economy is projected to contract by 8.0 percent in 2020, owing to mitigation measures, plunging investment, and soft global commodity prices. An expected recovery to 2.2 percent growth in 2021 is based on the assumption of a steady fading of the factors that weighed on activity in 2020, as well as a restarting of the tax and business environment reform agenda that had been put on hold in order to prioritize the COVID-19 response.

Mexico's economy will be hit hard from multiple angles in 2020, including slumping exports, significantly tighter financing conditions, a sharp drop in oil prices, a halt in tourism, and mobility restrictions imposed to slow the spread of the pandemic. The fiscal support announced thus far has been limited. The economy is expected to contract by 7.5 percent in 2020 but to rebound to 3 percent in 2021, supported by a recovery in private consumption and a normalization of exports—but still weighed down by modest fixed investment, which has been a drag on growth in recent years.

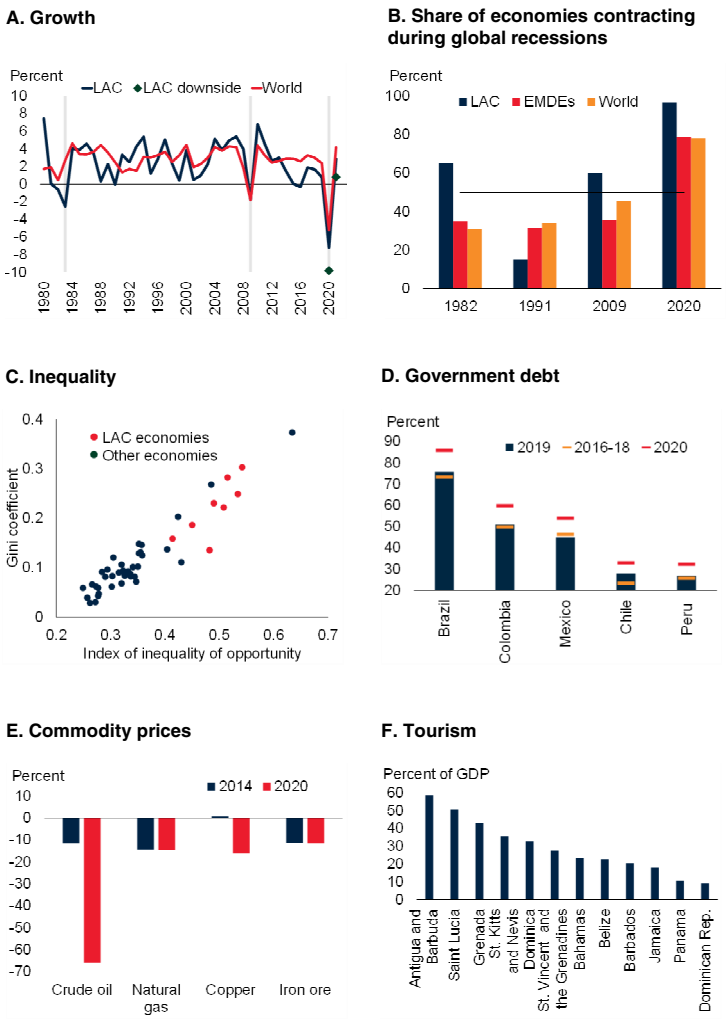
In Argentina, stringent COVID-19 mitigation measures, together with lower export demand and the impacts of uncertainty related to ongoing debt negotiations, will contribute to a projected GDP contraction of 7.3 percent in 2020. A recovery to 2.1 percent growth in 2021 hinges on a bounce-back in domestic demand (consumption and investment), which would result from the restoration of confidence following the successful completion of debt negotiations.

Colombia, together with Ecuador and Bolivia, are highly exposed to the plunge in oil and gas prices (Chapter 4). However, Colombia, with more robust economic momentum in the leadup to the pandemic and much more policy space, is projected to contract by 4.9 percent in 2020, while Ecuador's economy is envisaged to contract by 7.4 percent and Bolivia's by 5.9 percent.

In Chile and Peru, weak export demand in the context of a global recession, falling copper prices, and domestic measures to contain the spread of COVID-19 (particularly stringent in Peru) will result in deeply negative growth in both countries—of 4.3 and 12.0 percent, respectively—

FIGURE 2.3.2 LAC: Outlook and risks

Activity in Latin America and the Caribbean (LAC) is expected to contract in 2020 by far more than it did during either the global financial crisis or the 1980s Latin American debt crisis. Downside risks to the outlook are substantial and include a resurgence of social unrest, adverse market reactions to a rise in already high debt levels, a recovery in commodity prices less robust than expected, and medium-term adverse impacts of the COVID-19 pandemic on services sectors through prolonged uncertainty and changes in consumer behavior.



Source: Equalchances.org; World Bank; World Tourism Organization.

A. Grey bars coincide with the year of strongest contraction during the Latin American debt crisis and the global financial crisis, respectively. Last observation is 2021.

B. Horizontal line shows 50 percent.

C. Inequality of opportunity is the Gini coefficient of the distribution of predicted equivalized household disposable income based on parental education, parental occupation, and origin. All observations are for latest available year. Sample contains 46 economies.

D. 2016-18 observations are a simple average.

E. Crude oil prices are the average of Brent, Dubai, and WTI. Natural gas prices are for U.S. natural gas. 2014 bars show change from June to September 2014. 2020 bars show change from January to April 2020.

F. Bars show 2014-18 average.

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despite plans for significant fiscal stimulus. In the short term, growth in Chile is also expected to be adversely impacted by high uncertainty related to the constitutional reform process that began after social unrest in 2019.

Central America's economy is projected to shrink by 3.6 percent in 2020, constrained by stringent COVID-19 mitigation measures in most countries during the first half of the year, together with a sharp fall in remittances, a halt in tourism, and lower agricultural prices relative to 2019.

Growth in the Caribbean is projected to experience a 1.8 percent contraction in 2020, or a 3.1 percent contraction if excluding Guyana, where the offshore oil sector is being developed rapidly, albeit somewhat more slowly than previously envisaged. Falling tourism activity and remittance inflows will be a severe drag on growth in a large swath of economies in the subregion.

Risks

Risks to the growth outlook for LAC are firmly to the downside, many of them stemming from the COVID-19 pandemic. A continued acceleration of COVID-19 cases in the second half of the year would further stress domestic health systems, with the risk of high fatality rates in countries with low capacity to manage a large outbreak. It is also possible that outbreaks in large regional economies will generate intra-regional economic spillovers in addition to those from advanced economies—for Central America through trade and remittance channels with Mexico; for Argentina and Paraguay through trade channels with Brazil; and for Brazil, Bolivia, Paraguay, and Uruguay through trade and remittance channels with Argentina. Moreover, a renewed wave of COVID-19 outbreaks in major global economies could prolong the negative global spillovers the region has experienced in recent months.

Although social assistance measures are expected to partially soften the economic impacts of the pandemic, widespread informality in the region will limit their reach (World Bank 2019c). Moreover, the poorest members of society have little capacity to manage negative income shocks and are particularly vulnerable to growing food security risks. The region's recent progress on reducing poverty and inequality could be lost (Cord, Genoni, and Rodríguez-Castelán 2015). Although income inequality has fallen in LAC, it remains very high relative to the rest of the world, as does inequality of opportunity (Figure 2.3.2.C). The income shocks related to COVID-19, or reactions to the authorities' management of the pandemic, could reignite the wave of social unrest that LAC experienced last year and weigh on confidence and economic conditions.

Fiscal balances will deteriorate in 2020 through a combination of lower government revenue from commodities and taxes, greater spending needs, and higher borrowing costs, pushing debt levels higher (Figure 2.3.2.D). This is occurring at a particularly precarious time for Argentina, which is seeking to restructure its foreign-currency-denominated government debt, and for Ecuador, which was already struggling to make interest payments on its debt before the pandemic began. Rising government debt levels heighten vulnerability to financial sector stress and could result in debt servicing challenges as interest rates rise in the context of recovering activity. Many economies in the region entered the pandemic with worse fiscal indicators than they had prior to the global financial crisis (Chapter 1; World Bank 2020m).

Corporate debt in the region is broadly at more manageable levels than government debt (notwithstanding pockets of significant vulnerabilities, such as Pemex in Mexico), and banking sectors are broadly sound. However, this situation could deteriorate in the near term if financing conditions remain tight and a protracted period of pandemic-related business interruptions weakens cashflows materially and leaves companies unable to service their debt. Small and medium enterprises, which represent the vast majority of companies in the region, already faced worse financing conditions than large companies prior to the pandemic (OECD 2020).

In the baseline outlook, oil prices are expected to recover in 2021 as the shock of pandemic to the global economy fades. However, the path of oil

prices is also contingent on policy decisions by OPEC+ countries. Unexpected policy developments could postpone a recovery in oil prices, with growth implications for some countries (Figure 2.3.2.E).

Downside risks also emanate from long-lasting pandemic impacts, such as the possibility that consumer demand does not recover fully after the pandemic fades (Chapter 3; Smith et al. 2014). Demand for tourism, personal services, and entertainment, for instance, may be slow to recover if pandemic-related fears or concerns of a second wave of the outbreak persist, with particularly elevated risks for countries where these sectors represent a large share of the economy (Figure 2.3.2.F). Prolonged school closures during the pandemic could have adverse effects on human capital accumulation and potential growth (Chapter 3; Wang et al. 2020).

Finally, LAC faces persistent risks related to natural disasters and weather-related events, including the upcoming hurricane season in the Caribbean. A major natural disaster on the heels of the COVID-19 pandemic would be economically devastating for some countries in the region.

TABLE 2.3.1 Latin America and the Caribbean forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
EMDE LAC, GDP[1]	**1.9**	**1.7**	**0.8**	**-7.2**	**2.8**	**-9.0**	**0.4**
GDP per capita (U.S. dollars)	0.7	0.6	-0.3	-8.1	1.9	-8.9	0.4
(Average including countries with full national accounts and balance of payments data only)[2]							
EMDE LAC, GDP[2]	1.9	1.7	0.8	-7.2	2.8	-9.0	0.4
PPP GDP	2.0	1.7	0.8	-7.1	2.9	-8.9	0.4
Private consumption	2.7	2.0	1.1	-8.3	2.9	-10.4	0.2
Public consumption	0.7	1.3	-0.1	1.8	0.1	0.9	-0.9
Fixed investment	-0.2	2.2	-1.0	-11.1	4.7	-13.7	0.7
Exports, GNFS[3]	3.8	4.2	0.6	-12.5	6.4	-15.3	3.3
Imports, GNFS[3]	6.3	5.1	-0.9	-13.2	5.9	-16.5	2.1
Net exports, contribution to growth	-0.5	-0.2	0.3	0.2	0.1	0.3	0.3
Memo items: GDP							
South America[4]	1.6	1.3	1.0	-7.4	2.7	-9.3	0.1
Central America[5]	4.0	2.7	2.4	-3.6	3.6	-6.6	0.3
Caribbean[6]	3.2	5.0	3.6	-1.8	3.3	-7.4	-0.6
Brazil	1.3	1.3	1.1	-8.0	2.2	-10.0	-0.3
Mexico	2.1	2.2	-0.3	-7.5	3.0	-8.7	1.2
Argentina	2.7	-2.5	-2.2	-7.3	2.1	-6.0	0.7

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economies. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time. Due to the lack of reliable data of adequate quality, the World Bank is currently not publishing economic output, income, or growth data for Venezuela, and Venezuela is excluded from cross-country macroeconomic aggregates.

2. Aggregate includes all countries in Table 2.3.2 except Dominica, Grenada, Guyana, Haiti, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Suriname.

3. Exports and imports of goods and non-factor services (GNFS).

4. Includes Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Uruguay.

5. Includes Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.

6. Includes Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, and Suriname.

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TABLE 2.3.2 Latin America and the Caribbean country forecasts[1]

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
Argentina	2.7	-2.5	-2.2	-7.3	2.1	-6.0	0.7
Belize	1.9	2.1	0.3	-13.5	6.7	-15.6	4.9
Bolivia	4.2	4.2	2.7	-5.9	2.2	-8.9	-1.0
Brazil	1.3	1.3	1.1	-8.0	2.2	-10.0	-0.3
Chile	1.2	3.9	1.1	-4.3	3.1	-6.8	0.1
Colombia	1.4	2.5	3.3	-4.9	3.6	-8.5	-0.3
Costa Rica	3.9	2.7	2.1	-3.3	3.0	-5.8	0.0
Dominica[2]	-9.5	0.5	9.6	-4.0	4.0	-8.9	-0.1
Dominican Republic	4.7	7.0	5.1	-0.8	2.5	-5.8	-2.5
Ecuador	2.4	1.3	0.1	-7.4	4.1	-7.6	3.3
El Salvador	2.3	2.4	2.4	-5.4	3.8	-7.9	1.3
Grenada	4.4	4.2	3.1	-9.6	6.5	-12.5	3.6
Guatemala	3.0	3.1	3.6	-3.0	4.1	-6.0	0.9
Guyana	2.1	4.1	4.7	51.1	8.1	-35.6	-2.4
Haiti[3]	1.2	1.5	-0.9	-3.5	1.0	-2.1	1.5
Honduras	4.8	3.7	2.7	-5.8	3.7	-9.3	0.2
Jamaica	1.0	1.9	0.7	-6.2	2.7	-7.3	1.5
Mexico	2.1	2.2	-0.3	-7.5	3.0	-8.7	1.2
Nicaragua	4.6	-4.0	-3.9	-6.3	0.7	-5.8	0.1
Panama	5.6	3.7	3.0	-2.0	4.2	-6.2	-0.4
Paraguay	5.0	3.4	0.0	-2.8	4.2	-5.9	0.3
Peru	2.5	4.0	2.2	-12.0	7.0	-15.2	3.5
St. Lucia	2.2	1.4	1.4	-8.8	8.3	-12.0	5.3
St. Vincent and the Grenadines	1.0	2.0	0.4	-5.5	4.0	-7.8	1.7
Suriname	1.8	2.6	2.3	-5.0	3.0	-7.5	0.9
Uruguay	2.6	1.6	0.2	-3.7	4.6	-6.2	1.1

Source: World Bank.

Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates.
2. Percentage point differences are relative to the World Bank's October 2019 forecast. The January 2020 Global Economic Prospects did not include a forecast for Dominica.
3. GDP is based on fiscal year, which runs from October to September of next year.

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MIDDLE EAST and NORTH AFRICA

Economic activity the Middle East and North Africa is expected to contract by more than 4 percent in 2020, as consumption, exports, and services activity such as tourism are severely disrupted by the COVID-19 pandemic, and in oil exporters, export and fiscal revenues sharply fall with the plunge in oil prices. Fiscal and monetary policy support in response to the pandemic has been swift in large regional economies. Regional growth is expected to resume in 2021 as the impact of the pandemic subsides and investment improves. Risks to the outlook are heavily tilted to the downside and include much more widespread regional COVID-19 outbreaks, prolonged weakness in oil prices and global activity, and intensification of regional conflicts.

Recent developments

Economic conditions in the Middle East and North Africa (MENA) have worsened substantially as a result of the COVID-19 pandemic (Figure 2.4.1.A).[1] The outbreak has been the largest and had an earlier onset in the Islamic Republic of Iran, but other countries are also experiencing rapid increases in infections. The pandemic and the measures taken to stem the pandemic have steeply weakened activity, while increased investor risk aversion has tightened financial conditions. The sharp fall in global oil and export demand is curtailing exports in the region's oil exporters, with adverse spillovers to non-oil sectors (Figure 2.4.1.B). In addition, the region continues to suffer from challenges related to longstanding security strains and refugees, as well as large structural impediments to growth.

Widespread policy measures were implemented to help limit the spread of infection—these include large public events cancellations, air travel restrictions, and schools and government offices closures. Recent relaxations to mitigation measures have been gradual. Large economic stimulus packages have been announced in several major regional economies, including those in the Gulf Cooperation Council (GCC). These packages have included measures on health spending, social assistance, and small business support. Egypt's central bank has cut policy rates by 300 basis points in response to COVID-19 concerns, while central banks with pegs to the U.S. dollar (e.g., GCC) cut rates in tandem with emergency cuts by the U.S. Federal Reserve.

Activity among oil-exporting economies has decelerated across the board. Non-oil activity sharply slowed in large oil exporters (e.g., Saudi Arabia, United Arab Emirates) after the pandemic hit the region (Figure 2.4.1.C). The collapse in global demand due to the pandemic resulted in a steep fall in oil prices (Chapter 4). In an attempt to mitigate this, a new OPEC+ production cut agreement was renegotiated after a temporary collapse in March (Figure 2.4.1.D). Investment is also hindered by high uncertainty associated with pandemic-related disruptions.

Among oil importers, activity is decelerating in both large and small economies for reasons related and unrelated to COVID-19. Tourism prospects in these economies faded as domestic and international pandemic restrictions hold back arrivals and hotel occupancy. Exports have fallen

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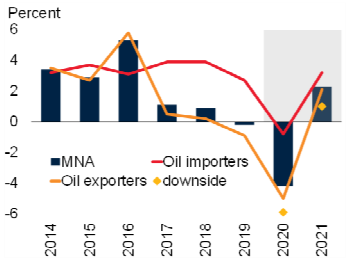
Note: This section was prepared by Lei Sandy Ye. Research assistance was provided by Heqing Zhao.

[1] The World Bank's Middle East and North Africa aggregate includes 16 economies. Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates comprise the Gulf Cooperation Council (GCC); all are oil exporters. Other oil exporters in the region are Algeria, Iran, and Iraq. Oil importers in the region are Djibouti, Egypt, Jordan, Lebanon, Morocco, Tunisia, and West Bank and Gaza. Libya, the Syrian Arab Republic, and Yemen are excluded from regional growth aggregates due to data limitations.

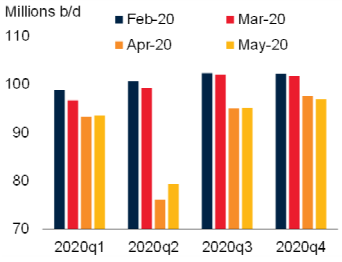
FIGURE 2.4.1 MENA: Recent developments

Regional output is expected to contract by more than 4 percent in 2020 in the face of the COVID-19 pandemic and the plunge in oil prices associated with collapsing global demand. Non-oil activity is decelerating in large GCC economies as pandemic concerns amplify. A new OPEC+ production cut agreement was negotiated to continue recently after earlier uncertainty. Egypt, the largest oil importer, has further cut policy rates in response to COVID-19 concerns amid moderating inflation. The spillovers of the recent global financial turbulence have also reached MENA.

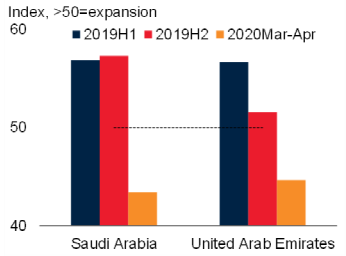
A. Growth



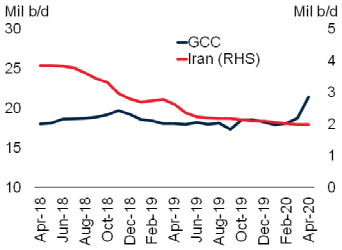
B. Global oil demand expectations



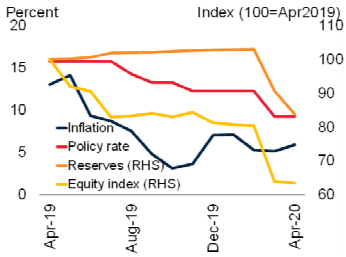
C. Composite PMI



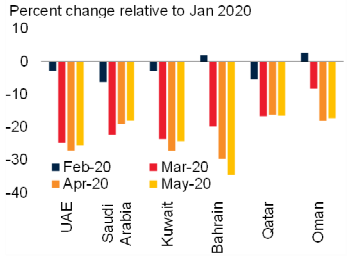
D. Oil production



E. Egypt



F. GCC equity markets



Sources: International Energy Agency, Haver Analytics, World Bank.

A. Weighted average growth rate of real GDP. "downside" refers to downside regional growth scenario in 2020 and 2021.

B. Denotes IEA forecasts for global oil demand. X-axis denotes the forecasted quarter. Legend denotes month-year in which forecast is published.

C. H1 and H2 denote monthly period averages of the first and second half of 2019.

D. Crude oil production. GCC includes 6 economies.

E. Policy rate refers to overnight deposit rate. Inflation refers to year-on-year consumer price inflation. Reserves denote gross official reserves. Equity index denotes the EGY 100 index. Reserves are based on quarterly data.

F. MSCI emerging market share price indexes.

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sharply amid anemic external demand, including from the Euro Area (a major export partner). Domestic policy uncertainty is further weighing heavily on investment activity among smaller oil importers.

Inflation has continued to moderate in MENA. In Egypt, inflation has generally declined over the past year, partly owing to the stability of the exchange rate. In the GCC, inflation has averaged less than 1 percent and it has also been broadly contained in smaller non-GCC economies. Iran's inflation has been falling on a year-by-year basis, although it still remains elevated at about 20 percent. Moderating inflation has allowed monetary policy space for large economies like Egypt to aggressively cut policy rates in response to the pandemic (Figure 2.4.1.E).

The financial sector in MENA has been shaken in recent months by the broad-based erosion of investor sentiment toward EMDEs under the pandemic, leading to sharp falls in equity market indexes and capital outflows in large economies (Figure 2.4.1.F). In response to COVID-19, authorities have introduced financial stability and corporate sector support measures, including zero-interest collateralized banking sector loans in the UAE and measures to support lending to small and medium-sized enterprises in Saudi Arabia.

Outlook

As a consequence of the pandemic and oil market developments, GDP in the region is forecast to contract sharply by 4.2 percent in 2020, although there is substantial uncertainty around this projection (Table 2.4.1). The forecasts have been further downward revised from those in January and April and reflect continued deterioration of the outlook in the global economy recently (Arezki et al. 2020; Chapter 1). Oil exporters suffer from the plunge in oil prices and ongoing domestic outbreaks of the pandemic (Figure 2.4.2.A). Oil importers suffer spillovers from weakness in advanced economies and major EMDEs, pandemic-related disruptions, and falling tourism. Moderating inflation in much of the region has provided room for monetary authorities in some economies to loosen policy rates to

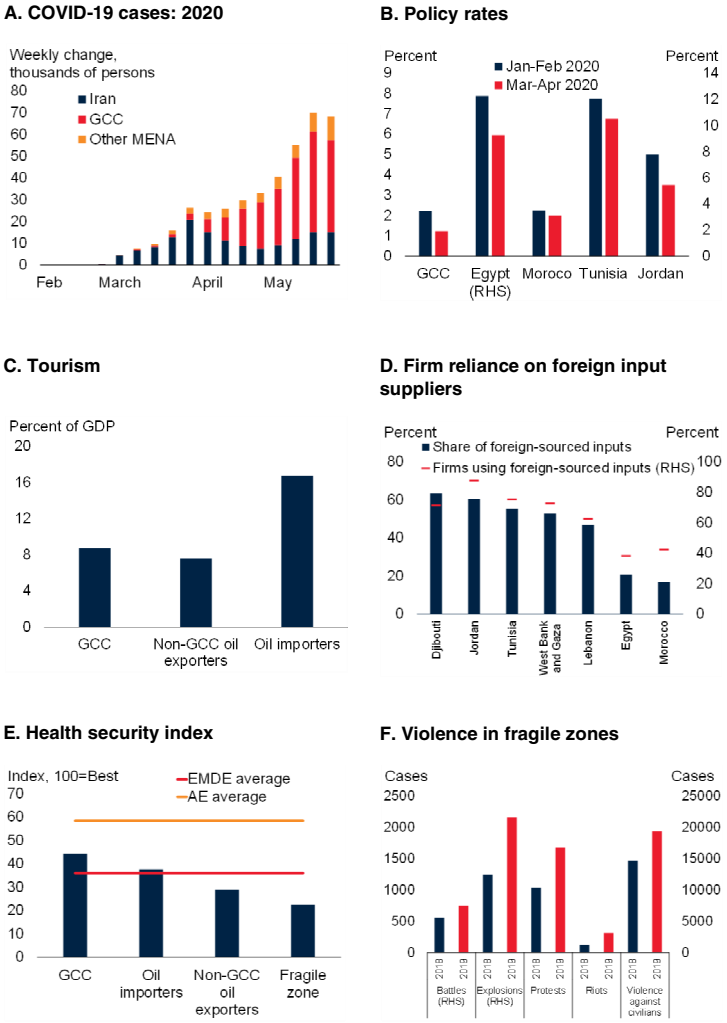
mitigate the impact of the pandemic on the real economy (Figure 2.4.2.B). The baseline outlook for the region rests upon the assumptions that the pandemic subsides somewhat later in the year, and that geopolitical tensions do not escalate further.

Among oil exporters, output in 2020 is expected to continue to contract from the previous year, as low oil prices also reduce non-oil activity via income effects. Iran's GDP—which had already fallen in each of the previous two years—is expected to shrink again in 2020, by 5.3 percent, partly reflecting the effects of the large-scale COVID-19 outbreak on domestic consumption and the services sectors (e.g., tourism) (Table 2.4.2). In many oil exporters, growth will be significantly constrained by renewed policy cuts in oil production. In Saudi Arabia and other GCC economies, low oil prices, elevated uncertainty associated with potential further spikes of COVID -19, and household level impacts of initial fiscal adjustments (e.g., VAT increase, payroll restraint) are expected to weigh heavily on non-oil activity. The economies of Algeria and Iraq continue to grapple with the consequences of low oil prices and structural vulnerabilities. Growth in oil exporters is expected to rebound in 2021, as the pandemic subsides and investment recovers, including large infrastructure investment in the GCC. Longer-term diversification programs, the recent relaxation of foreign investment restrictions, and improved regulatory environments should also support the rebound, including a recovery from adverse global spillovers and low confidence.

Among oil importers, output is expected to contract by 0.8 percent in 2020, reflecting a broad-based deceleration (and in many cases contraction) in both large and small economies. Tourism, which had previously been improving and supported by government promotion initiatives, is expected to suffer substantially. Oil importers are reliant on tourism revenues, and arrivals from the Euro Area and other key source areas are expected to fall (Figure 2.4.2.C). Investment and exports are expected to contract amid weak global and domestic confidence and high policy uncertainty. Generally supportive activity in Egypt before late FY2020 (ending in

FIGURE 2.4.2 MENA: Outlook and risks

The outlook in large MENA economies is weighed heavily by the pandemic, although moderate inflation in parts of the region allows some space for additional monetary easing. Oil importers are reliant on tourism activity and are vulnerable to further decline in tourist arrivals and global disruptions. The capacity for an effective response by health systems varies widely, making some large economies unprepared for an intensification of infection rates. Conflict-related risks in fragile economies have not subsided.



Sources: The Armed Conflict Location and Event Data Project, Global Health Security Index, Haver Analytics, World Bank, World Travel and Tourism Council.

A. Based on weekly data. Latest observation is week 4 of May 2020.

B. GCC denotes unweighted average rates of 6 GCC economies. Period averages.

C. Unweighted averages. Based on 2019 data.

D. Based on latest available year of data for each non-GCC economy. Data are based on survey responses for firms in the World Bank Enterprise Surveys. "Share of foreign-sourced inputs" denotes firms' average share of inputs from foreign sources.

E. Based on 2019 edition of Global Health Security Index (best=100). The index assesses countries' health capability and security in six categories: prevention, detection, response, health system, compliance, and risk. Unweighted averages. "Fragile zone" include Iraq, Syria, Libya, and Yemen. "AE" denotes advanced economies

F. "Fragile zone" includes Iraq, Libya, Syria, and Yemen. Y-axis denotes total number of incidents of conflicts of each type that are reported in the dataset.

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June) has been disrupted by the pandemic, while other smaller oil importers grapple with additional shocks to growth (e.g., balance of payments in Lebanon). Firms in smaller oil importers are also expected to suffer from anemic demand and global disruptions, given some reliance on foreign-sourced inputs (Figure 2.4.2.D). Weak financial system balance sheets and high public debt have further compounded the financial stability, growth, and humanitarian challenges faced by the smaller oil importers. Lower oil prices could provide some relief to oil importers' current accounts, but high volatility in oil prices is weighing on investment and confidence, limiting their benefits.

Medium-term growth prospects for the MENA region are contingent upon no amplification of regional conflicts or their spillovers. Continued structural programs in many economies (e.g., Egypt's private sector development, GCC's diversification programs; Youssef et al. 2019) are expected to encourage growth-enhancing structural reforms (e.g., stronger fiscal management framework, water access), and reforms in the financial sector are expected to continue to strengthen the investment climate in the region. But success is contingent upon a sustained commitment to reforms, including by newly formed governments (Mansour et al. 2020).

Risks

Risks to the outlook are heavily tilted to the downside. Thus far, Iran has experienced the largest number of reported COVID-19 cases in the region. Similar outbreaks in other economies could impose broad-based damage to their manufacturing and services sectors. Moreover, widespread infections could exact a humanitarian toll, especially among the fragile economies (e.g., Syria) where forced displacement and insecurity leave populations already highly vulnerable. Many non-GCC economies also are ill-equipped to respond owing to weak fiscal positions and inadequate health systems, leaving them in danger of negative feedbacks between economic activity and health outcomes (Figure 2.4.2.E). Moreover, the adverse impacts of the simultaneous public health and oil shocks are likely to be amplified by structural impediments (e.g., low diversification) and weigh on job creation and long-term growth prospects in the region (Arezki et al. 2020; Baduel, Geginat, Pierre 2019; Jaller, Sophia, Martin 2020). These shocks also increase the difficulty of implementing long-term growth strategies in the region, including those that foster energy sustainability (World Bank 2019d).

Negative spillovers from major trading partners are already significant and could intensify. The Euro Area is an important export destination for economies in the Maghreb region, and China is an important source of trade and investment for some large oil exporters. Larger-than-expected growth spillovers from outside the region could further set back MENA growth prospects via even lower oil demand, weaker foreign direct investment, and weaker intraregional remittance flows (for which oil importers are reliant on the GCC).

The recent sharp decline in oil prices and the continued high uncertainty about their future path also pose an important risk to MENA's short-term outlook. If this uncertainty lingers, business and consumer confidence would be dampened further, undermining efforts by oil importers to reform their energy subsidies and enact fiscal adjustment programs. Persistently low oil prices would also further erode MENA's already weak fiscal space and heavily constrain investment activity in the region, as oil prices and public investment often comove closely in MENA (Albino-War, et al. 2014).

In addition to the effects of the pandemic, conflict-related risks in MENA remain high (Figure 2.4.2.F). Conflicts in Syria and Libya have been complicated by military actions of external parties. The impact of conflict on Libya's oil production could further contribute to volatility in global oil markets. Yemen's peace prospects are heavily clouded by the instability of negotiated agreements among various parties. U.S.-Iran tensions have not eased appreciably even as both countries attempt to cope with the effects of the pandemic.

The pace of reform, especially in smaller oil importers, has been impeded by political challenges recently, including delays in the formation of governments. COVID-19 has further clouded the prospects of reforms, as it adds pressure to shift to non-reform policy priorities in the face of nearer-term pressures. If reform initiatives are not integrated as part of COVID-19 policy responses, further delays could hinder medium and long-term growth prospects in the region via lower rate of job creation and private sector development (Chapter 3).

TABLE 2.4.1 Middle East and North Africa forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
EMDE MENA, GDP[1]	**1.1**	**0.9**	**-0.2**	**-4.2**	**2.3**	**-6.6**	**-0.4**
GDP per capita (U.S. dollars)	-0.8	-0.9	-1.9	-5.8	0.8	-6.6	-0.3
(Average including countries with full national accounts and balance of payments data only)[2]							
EMDE MENA, GDP[2]	1.4	0.9	-0.6	-3.8	2.3	-6.1	-0.4
PPP GDP	1.7	1.0	-0.7	-3.5	2.4	-5.9	-0.5
Private consumption	2.7	0.6	0.5	-1.8	1.6	-3.7	-0.6
Public consumption	5.0	3.6	-0.5	0.0	1.7	-2.1	-0.6
Fixed investment	2.1	1.2	3.0	-2.0	4.1	-7.2	-1.6
Exports, GNFS[3]	5.9	2.5	-5.4	-6.9	3.1	-9.9	-0.5
Imports, GNFS[3]	9.1	-2.1	-3.3	-3.5	2.5	-6.9	-1.5
Net exports, contribution to growth	-0.5	2.2	-1.6	-2.1	0.5	-2.4	0.1
Memo items: GDP							
Oil exporters[4]	0.5	0.2	-0.9	-5.0	2.1	-7.0	-0.2
GCC countries[5]	-0.4	2.0	0.6	-4.1	2.2	-6.3	-0.4
Saudi Arabia	-0.7	2.4	0.3	-3.8	2.5	-5.7	0.3
Iran	3.8	-4.7	-8.2	-5.3	2.1	-5.3	1.1
Oil importers[6]	3.9	3.9	2.7	-0.8	3.2	-5.2	-1.4
Egypt[7]	4.2	5.3	5.6	3.0	2.1	-2.8	-3.9

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economies. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates. Excludes Libya, Syria, and Yemen due to data limitations.
2. Aggregate includes all countries in notes 4 and 6 except Djibouti, Iraq, Qatar, and West Bank and Gaza, for which data limitations prevent the forecasting of GDP components.
3. Exports and imports of goods and non-factor services (GNFS).
4. Oil exporters include Algeria, Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.
5. The Gulf Cooperation Council (GCC) includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.
6. Oil importers include Djibouti, Egypt, Jordan, Lebanon, Morocco, Tunisia, and West Bank and Gaza.
7. Data for Egypt corresponds to the fiscal year. The fiscal year runs from July 1 to June 30 in Egypt; the column labeled 2018 reflects the fiscal year ended June 30, 2018.

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TABLE 2.4.2 Middle East and North Africa economy forecasts[1]

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
Algeria	1.3	1.4	0.8	-6.4	1.9	-8.3	-0.3
Bahrain	4.3	1.8	1.8	-4.5	2.3	-6.6	-0.1
Djibouti	5.4	8.4	7.5	1.3	9.2	-6.2	1.2
Egypt[2]	4.2	5.3	5.6	3.0	2.1	-2.8	-3.9
Iran	3.8	-4.7	-8.2	-5.3	2.1	-5.3	1.1
Iraq	-2.5	-0.6	4.4	-9.7	1.9	-14.8	-0.8
Jordan	2.1	1.9	2.0	-3.5	2.0	-5.7	-0.4
Kuwait	-4.7	1.2	0.4	-5.4	1.1	-7.6	-0.9
Lebanon	0.9	-1.9	-5.6	-10.9	-6.3	-11.2	-6.7
Morocco	4.2	3.0	2.3	-4.0	3.4	-7.5	-0.2
Oman	0.3	1.8	0.5	-4.0	2.0	-7.7	-2.3
Qatar	1.6	1.5	-0.3	-3.5	3.6	-5.0	0.4
Saudi Arabia	-0.7	2.4	0.3	-3.8	2.5	-5.7	0.3
Tunisia	1.9	2.7	1.0	-4.0	4.2	-6.2	1.6
United Arab Emirates	0.5	1.7	1.7	-4.5	1.4	-7.1	-1.6
West Bank and Gaza	1.4	1.2	0.9	-7.6	5.1	-10.1	2.5

Source: World Bank.

Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of economies' prospects do not significantly differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates. Excludes Libya, Syria, and Yemen due to data limitations.

2. Data for Egypt corresponds to the fiscal year. The fiscal year runs from July 1 to June 30 in Egypt; the column labeled 2018 reflects the fiscal year ended June 30, 2018.

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SOUTH ASIA

The COVID-19 pandemic has sharply weakened consumption and manufacturing activity, and has damaged the tourism and other services industries across the South Asia region. The deterioration in domestic conditions, together with spillovers from a global economic contraction, are expected to result in an output contraction of 2.7 percent in 2020. Growth in 2021 is projected to rebound to around 3 percent after the effects of the pandemic fade and global headwinds taper. Downside risks to the outlook predominate and could materialize as a stronger surge of COVID-19 within the region, an intensification of financial market stress, a deeper pullback in remittance inflows, or a stronger-than-expected global economic contraction.

Recent developments

Although the South Asia (SAR) region has thus far witnessed a smaller number of reported COVID-19 cases than most other regions, previously supportive factors, such as solid tourism activity, have largely faded, and domestic pandemic mitigation measures are weighing heavily on short-term economic activity. Sharply deteriorating economic conditions in advanced economies and major emerging market and developing economies (EMDEs) have severely impacted export and other industries in SAR, while nationwide lockdowns have curtailed consumption. The pandemic reached SAR later than some other regions, but the incidence of cases has been rising rapidly.

Industrial and services activity has plummeted in the region after global demand collapsed. This is reflected in sharp decelerations in the purchasing managers' indexes and new export orders in India, the largest regional economy (Figure 2.5.1.A). Trade activity has sharply fallen across the region. Sales and production in a number of key sectors in regional economies (e.g., autos in Pakistan, garment in Bangladesh) have been hit especially hard amid anemic demand. Business confidence in both manufacturing and services sectors have concomitantly fallen in economies like Pakistan (Figure 2.5.1.B). Key trading corridors in the region also witnessed disruptions.

Private consumption has been severely hindered as large-scale lockdowns were instituted in several economies, including Bangladesh, India, Nepal, and Pakistan. Some recent relaxations to these measures have been cautious, given continued rise in COVID-19 cases. Non-essential business closures stalled retail sales. In rural areas, food and other essential activity deliveries also faced major impediments. Closure of small and medium sized enterprises, a key engine of regional private sector activity, induced substantial loss in employment and private investment.

Tourism activity was on a path to recovery but became severely damaged by the pandemic. This includes sharp declines in tourist arrivals in economies like Bhutan, Nepal, Sri Lanka and especially Maldives, where tourism directly and indirectly accounts for more than two-thirds of GDP. This includes a decline in arrivals from China, a key market, since early in the year. International travel bans and other restrictions adopted by regional economies (e.g., airport closure for arrivals in Sri Lanka) have further contributed to the weakness in tourism.

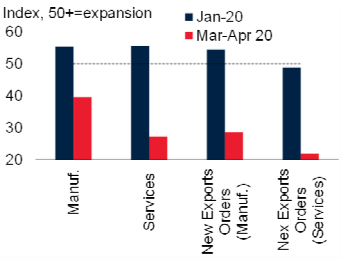
In response to the pandemic, fiscal and other stimulus actions have been announced in virtually

Note: This section was prepared by Lei Sandy Ye. Research assistance was provided by Heqing Zhao.

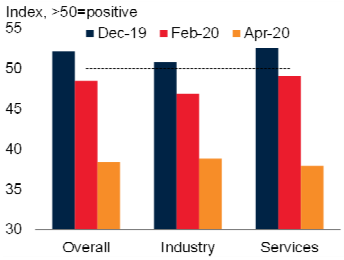
FIGURE 2.5.1 SAR: Recent developments

The COVID-19 outbreak has significantly reduced industrial and services activities and confidence in the region. The pandemic has also rattled its financial markets, including some exchange rate depreciation. Inflation in the region is now contained by subdued activity and low oil prices, allowing room for monetary stimulus to help resuscitate activity and private sector credit.

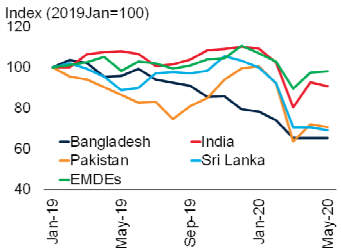
A. India: Purchasing managers' indexes



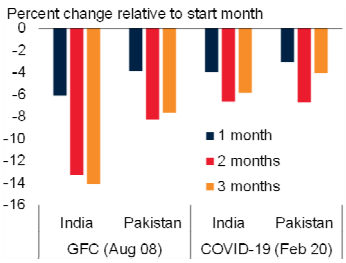
B. Pakistan: business confidence surveys



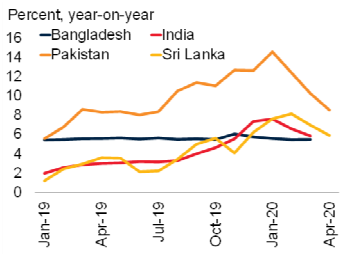
C. Equity indices: SAR



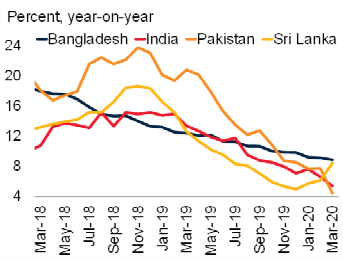
D. Exchange rates



E. Inflation



F. Private sector credit growth



Source: Haver Analytics, JPMorgan, World Bank.
A. IHS Markit Diffusion PMI indexes. New export orders are a subcomponent under the manufacturing and services PMI indexes.
B. State Bank of Pakistan business confidence indexes.
C. MSCI local currency share price indexes. "EMDE" denotes MSCI Emerging Market Index.
D. Parentheses indicate start month of event. "GFC" denotes global financial crisis. Bilateral USD average monthly exchange rate. Columns denote percent depreciation relative to start month.
E. CPI inflation (year-on-year monthly rate).
F. Monthly year-on-year growth of private sector credit.. Data for India refers to credit to the commercial sector, for Bangladesh refers to deposit money banks and central bank's claim to the private sector, for Pakistan refers to claims on public nonfinancial corporations and other sectors, and for Sri Lanka refers to credit to corporations and private sector.
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all major regional economies. These stimulus packages have included health spending increases, direct transfers, social assistance, employment protection, support for migrants and rural area workers, credit support for small and medium-sized enterprises, and food security measures.

Financial markets in SAR have been rattled earlier in the year by the global market turmoil associated with the pandemic. Equity indexes tumbled and capital flows in large economies have reversed amid high investor risk aversion, with some stabilization recently (Figure 2.5.1.C). Due to balance of payment pressures, the exchange rates of large economies have also deteriorated somewhat (Figure 2.5.1.D). High financial market uncertainty has contributed to delays in capital spending in large corporate conglomerates.

Upward pressure on inflation late last year is now offset by the effects of lower oil prices and markedly more subdued activity. As a result, inflation is beginning to ease in the region (Figure 2.5.1.E). Central banks in virtually all SAR countries have taken measures to stimulate economic activity as the impacts of COVID-19 become increasingly pronounced, lowering policy interest rates and providing additional liquidity to the financial system in attempt to support already-weak private sector credit growth (Figure 2.5.1.F).

Outlook

Growth in the region is projected to register a contraction of -2.7 percent in 2020 and is marked by high uncertainty (Table 2.5.1). Across the region, pandemic mitigation measures will severely hinder consumption and services activity, while high uncertainty about the pandemic will constrain private investment. The sheer depth of global contractionary activity in the current environment will also weigh substantially on SAR activity, despite relatively more modest trade linkages with advanced economies than other EMDE regions (Special Focus). Despite the relatively low number of reported cases per capita, COVID-19 infections are still rising in several economies in the region (Figure 2.5.2.A). As a result, the outlook is highly uncertain and subject to large downside risks (Figure 2.5.2.B, Chapter 1).

In India, growth is estimated to have slowed to 4.2 percent in FY 2019/20 (the year ending in March-2020) and output is projected to contract by 3.2 percent in FY2020/21, when the impact of COVID-19 will largely materialize. Stringent measures to restrict the spread of the virus, which heavily curtail activity, will contribute to the contraction. Spillovers from contracting global growth and balance sheet stress in the financial sector will also adversely impact activity, despite some support from fiscal stimulus and continued monetary policy easing (Figure 2.5.2.C).

Pakistan and Afghanistan are both projected to experience contractions in 2020. Mitigation measures imposed in these countries are expected to weigh heavily on private consumption, contributing to output contractions of -2.6 percent (FY2019/20) and -5.5 percent, respectively. Key labor-intensive export sectors like textiles are expected to contract sharply and subsequently recover slowly.

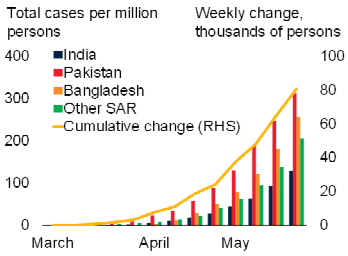
Bangladesh and Nepal are projected to experience substantial decelerations in FY2019/20. In Bangladesh, growth is expected to slow to 1.6 percent, as the recovery in industrial production is reversed by COVID-19-related disruptions such as mitigation measures and global exports plunge, and as remittances fall. In Nepal, growth is projected to decline to 1.8 percent due to largely the same factors, in addition to a drop in tourism (more than one-third of which are from China and India). Both economies are also vulnerable to supply chain disruptions, both domestic and those stemming from imports of intermediate goods, as well as travel-related disruptions to international contractors in sectors like construction.

A sharp decline in tourism is also expected to weigh on activity in Bhutan and Sri Lanka, and even more so in the Maldives. In Sri Lanka, the combination of falling tourism, manufacturing activity and services associated with the pandemic is envisaged to cause output to contract by 3.2 percent, despite the earlier recovery from the April 2019 terrorist attacks. The Maldives is expected to experience a deep contraction in 2020, of 13 percent, owing to their heavy reliance on tourism, especially from China and Western Europe.

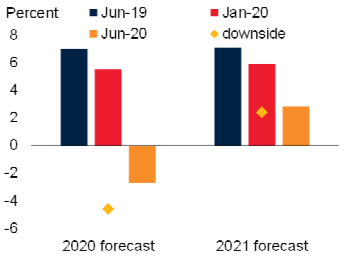
FIGURE 2.5.2 SAR: Outlook and risks

Growth in SAR is projected to contract as a result of the COVID-19 pandemic, damaging consumption, tourism, and other services activities. Despite aggressive monetary policy, inadequate health systems and weak infrastructure mean that a large-scale domestic outbreak of COVID-19 could have humanitarian consequences. High debt could further compound global financial market stress and may hinder monetary policy effectiveness. While low oil prices may provide some support, they will weaken remittance flows, especially from the Gulf Cooperation Council.

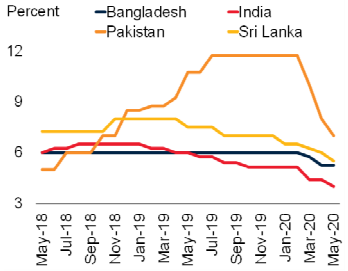
A. COVID-19 cases: 2020



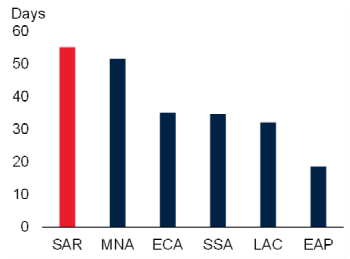
B. Growth outlook



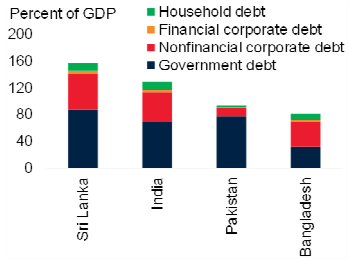
C. Policy rates



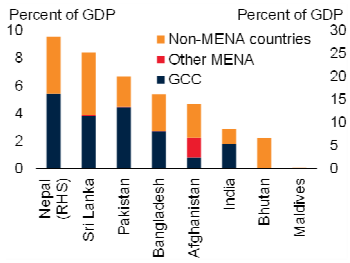
D. Average days for firms to obtain electricity connection



E. Debt profile



F. Remittance inflows, by source region



Source: Institute for International Finance, Haver Analytics, Johns Hopkins University, World Bank.
A. Denotes confirmed cases of COVID-19. RHS denotes weekly change in regional total cases. Based on weekly data. Last observation is week 4 of May.
B. Legend dates denote the relevant editions of the GEP. Diamonds denote 2020 and 2021 regional growth downside scenarios.
C. Refers to repo rate for Bangladesh, India, and Pakistan, and standing deposit facility rate for Sri Lanka.
D. Days for firms to obtain electricity connection upon application, based on latest available years of World Bank Enterprise Surveys data.
E. Based on 2019Q3 or Q4 data. Data come from Institute for International Finance.
F. Denotes share of remittances inflows from MENA and non-MENA countries. Based on 2018 bilateral remittance data. GCC="Gulf Cooperation Council" and includes Bahrain, Oman, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates; and are all part of the MENA region.
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The sharp decline in oil prices in 2020 could provide some support to the region, given sizable oil imports in India and Pakistan, and help cushion fiscal and current account balances. This positive effect may be offset by falling remittance inflows from oil-exporting economies, however, as economies that host migrants from SAR struggle with the twin challenges of the pandemic and the oil price collapse. These flows are expected to decline by about one-fifth in the SAR region this year (World Bank 2020l).

Growth in 2021 is projected to recover to 2.8 percent as pandemic mitigation measures are rolled back and services and manufacturing activity resume. An expected tapering of global headwinds is expected to further support recovery of activity in the region. Lingering legacies from the pandemic, such as slow revival of confidence and tourism activity, will still weigh on the pace of this recovery, however.

Risks

Risks to the outlook are heavily titled to the downside. The most acute of these risks are associated with the COVID-19 pandemic. Although reported COVID-19 outbreaks in SAR have started later and remain smaller in per capita terms compared to most other regions, they are expanding at a faster pace. Coupled with widespread mobility restrictions, this could result in humanitarian consequences, given the region's high population, large informal sectors, high inequality, and underdeveloped health systems (Special Focus). Besides the potential for substantial loss of lives, there is a risk that the pandemic will trigger a long-lasting rise in poverty, especially among the low-income countries in the region. This could occur through food shortages, for example, if supply disruptions raised food prices to unaffordable levels. Estimates for selected areas in the region suggest that those that face food insecurity could be a significant share of population in vulnerable economies (UN 2020). Inadequate infrastructure, such as existing major constraints to electricity access, can magnify the negative impacts of lockdowns via low productivity and poor service delivery (Figure 2.5.2.D).

A continuation of recent disruptions in global financial markets could further add pressure to vulnerable balance sheets of the banking and non-banking financial sectors in several large economies in the region (e.g., India). These vulnerabilities include elevated non-performing loan levels in many regional economies. Public banks in the SAR region have a large market presence, which may help provide countercyclical support during times of stress, but are also subject to inefficiencies associated with agency problems and information asymmetry (World Bank 2020n; Hossain, Jain, and Mitra 2013).

High levels of debt among systemically important firms in some economies risk saddling governments with contingent liabilities should balance sheets deteriorate to the point that government bailouts are needed, with adverse implications for future public debt sustainability. Government debt refinancing needs can be vulnerable to deeper reversal of global capital flows and higher global financial market uncertainty. A further pullback in capital flows would likely reduce investment activity and private sector credit growth. Corporate balance sheet weakness in regional economies could also hinder capital investment. High debt and deficits, as well as inadequate fiscal management regimes across the region, also limit the scope and effectiveness of fiscal stimulus (Goretti et al. 2019; Figure 2.5.2.E). In some instances, financial sector support due to COVID-19 could raise financial sector risks by stressing the capacity of commercial banks to support private-sector credit.

Spillovers from major trading partners could be more severe than expected. Despite the limited integration of SAR into global value chains relative to regions such as East Asia and Pacific or Europe and Central Asia, the region is still somewhat reliant on countries abroad for intermediate inputs in some sectors (e.g., Bangladesh's pharmaceutical and textile sector; India's auto sector). Economies like Nepal are also vulnerable to sharper-than-expected deceleration in India, an important intra-regional trade partner (Masha and Ding 2012, World Bank 2016). Permanent loss in gross value-added supply chain linkages after the fading of the pandemic could damage medium-term

growth prospects of SAR via lower productivity (Chapter 3).

Further volatility in oil prices and even more severe contracting activity in economies in the Middle East and North Africa (MENA) could further curtail remittance flows from South Asian expatriate workers (many of whom work in the Gulf economies) to their home countries. Many regional economies are heavily dependent on these types of remittance flows, a large portion of which is from MENA, especially in the Gulf Co-operation Council. Although these flows are often countercyclical, that's unlikely to be the case in the current environment given the highly synchronized nature of the global shock (World Bank 2020b; Figure 2.5.2F).

TABLE 2.5.1 South Asia forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
EMDE South Asia, GDP[1,2]	**6.5**	**6.5**	**4.7**	**-2.7**	**2.8**	**-8.2**	**-3.1**
GDP per capita (U.S. dollars)	5.2	5.2	3.5	-3.8	1.7	-8.1	-3.0
(Average including countries with full national accounts and balance of payments data only)[3]							
EMDE South Asia, GDP[3]	6.5	6.5	4.7	-2.7	2.8	-8.2	-3.1
PPP GDP	6.5	6.5	4.7	-2.8	2.8	-8.3	-3.1
Private consumption	6.4	7.2	4.5	-2.6	3.3	-8.4	-3.0
Public consumption	12.1	8.7	10.8	8.4	6.3	0.6	-1.3
Fixed investment	5.8	11.2	-0.1	-8.2	1.2	-14.6	-5.3
Exports, GNFS[4]	4.8	10.2	0.3	-12.5	4.1	-17.7	-1.8
Imports, GNFS[4]	14.1	13.2	-5.8	-13.6	2.6	-18.4	-3.5
Net exports, contribution to growth	-2.6	-1.6	1.8	1.1	0.1	1.4	0.6
Memo items: GDP[2]	**16/17**	**17/18**	**18/19e**	**19/20f**	**20/21f**	**19/20f**	**20/21f**
South Asia excluding India	5.8	6.0	5.1	2.1	-0.7	-2.7	-5.4
India	8.3	7.0	6.1	4.2	-3.2	-0.8	-9.0
Pakistan (factor cost)	5.2	5.5	1.9	-2.6	-0.2	-5.0	-3.2
Bangladesh	7.3	7.9	8.2	1.6	1.0	-5.6	-6.3

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economies. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates.

2. National income and product account data refer to fiscal years (FY) for the South Asian countries, while aggregates are presented in calendar year (CY) terms. (e.g., aggregate under 20/21 refers to CY 2020). The fiscal year runs from July 1 through June 30 in Bangladesh, Bhutan, and Pakistan, from July 16 through July 15 in Nepal, and April 1 through March 31 in India.

3. Subregion aggregate excludes Afghanistan, Bhutan, and Maldives, for which data limitations prevent the forecasting of GDP components.

4. Exports and imports of goods and non-factor services (GNFS).

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TABLE 2.5.2 South Asia country forecasts

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
Calendar year basis [1]							
Afghanistan	2.7	1.8	2.9	-5.5	1.0	-8.5	-2.5
Maldives	6.8	6.9	5.2	-13.0	8.5	-18.5	2.9
Sri Lanka	3.6	3.3	2.3	-3.2	0.0	-6.5	-3.7
Fiscal year basis[1]	**16/17**	**17/18**	**18/19e**	**19/20f**	**20/21f**	**19/20f**	**20/21f**
Bangladesh	7.3	7.9	8.2	1.6	1.0	-5.6	-6.3
Bhutan	6.3	3.8	3.9	1.5	1.8	-4.1	-5.8
India	8.3	7.0	6.1	4.2	-3.2	-0.8	-9.0
Nepal	8.2	6.7	7.0	1.8	2.1	-4.6	-4.4
Pakistan (factor cost)	5.2	5.5	1.9	-2.6	-0.2	-5.0	-3.2

Source: World Bank.
Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.
1. Historical data is reported on a market price basis. National income and product account data refer to fiscal years (FY) for the South Asian countries with the exception of Afghanistan, Maldives, and Sri Lanka, which report in calendar year. The fiscal year runs from July 1 through June 30 in Bangladesh, Bhutan, and Pakistan, from July 16 through July 15 in Nepal, and April 1 through March 31 in India.
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SUB-SAHARAN AFRICA

Sub-Saharan Africa has been ravaged by the COVID-19 pandemic this year, likely leading to the sharpest contraction in activity on record. In addition to its heavy toll on health and safety, efforts to contain the spread of the virus—such as travel restrictions, border closures, and national lockdowns—have disrupted the functioning of domestic economies. In addition, sharply lower growth in major trading partners, as well as a collapse in commodity prices, have weighed heavily on exports. Although growth is projected to recover in 2021, the region is especially vulnerable to a larger and longer lasting downturn given the weakness of its health care systems, constrained fiscal policy space, and its limited capacity to effectively implement social distancing measures. It is also at risk of debt distress given high levels of debt and sharply higher borrowing costs.

Recent developments

Activity in Sub-Saharan Africa (SSA) collapsed in the first half of this year. The COVID-19 pandemic has spread rapidly across the region, taking a heavy human and economic toll with over 2,500 reported fatalities among more than 100,000 confirmed infections, while causing an unprecedented disruption to region-wide economic activity (Figure 2.6.1.A). Social-distancing measures implemented in most countries to limit the spread of the pandemic and ease pressures on often-fragile health systems have brought activity close to a halt in many sectors (Figure 2.6.1.B). Moreover, the region has suffered as a result of the impact of the pandemic on key trading partners, the disruption to global travel and supply chains, and the collapse in global commodity prices—particularly those of oil and industrial metals (Figure 2.6.1.C). The effect of these shocks has been exacerbated by heightened investor risk-aversion, which has spurred unprecedented capital outflows from the region, dislocating currency depreciations, steep stock market falls, and sharply-higher sovereign borrowing costs (Figures 2.6.1.D and E). Countries that have been most affected are those with weak health systems, large tourism sectors, balance sheet vulnerabilities to financing shocks, or that are dependent on commodity exports.

In Nigeria, and South Africa—the two largest economies in the region—activity has fallen precipitously during the first half of this year. The other economies in the region have also suffered markedly during the first half of 2020. In addition to domestic disruptions, several industrial commodity exporters have had to cope with weaker external demand and lower prices for oil and metals (Angola, Democratic Republic of Congo, Ghana; Chapter 4). Many agricultural commodity exporters have suffered from a collapse in export demand as well as disruptions to supply chains (Côte d'Ivoire, Ethiopia, Kenya). The precipitous fall in global travel as a result of the pandemic has had a particularly severe impact on countries with significant exposure to global travel and tourism (Cabo Verde, Ethiopia, Mauritius, Seychelles).

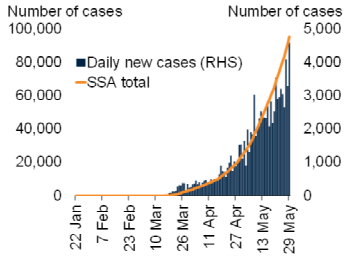
Inflation in the region is expected to edge up this year, on average, reflecting sharp currency depreciations and disruptions to supply chains. Despite this, several central banks have eased their monetary stances in response to the COVID-19-related slowdown in activity (Democratic Republic of Congo, Ghana, Kenya, Mauritius, South Africa), while others have lowered reserve requirements to free up liquidity (Botswana, Mozambique), implemented asset purchase

Note: This section was prepared by Rudi Steinbach. Research assistance was provided by Maria Hazel Macadangdang.

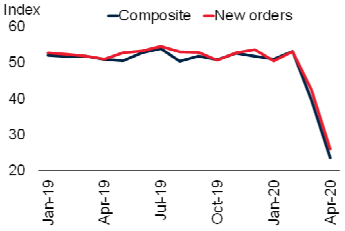
FIGURE 2.6.1. SSA: Recent developments

COVID-19 has spread throughout Sub-Saharan Africa and pushed regional activity into contraction due to necessary but disruptive domestic containment measures and weakening external demand. Industrial commodity exporters have also faced deteriorating terms of trade as most commodity prices declined sharply. Heightened risk aversion has led to sharp rises in sovereign borrowing costs and large currency depreciations. A variety of monetary and macroprudential policies have been implemented to help support activity.

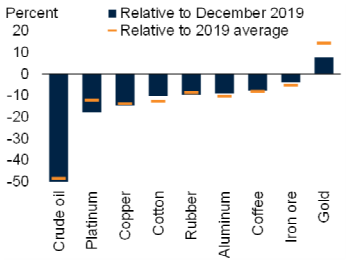
A. COVID-19 infections in SSA



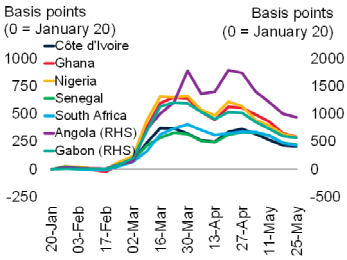
B. Median purchasing managers indexes for SSA countries



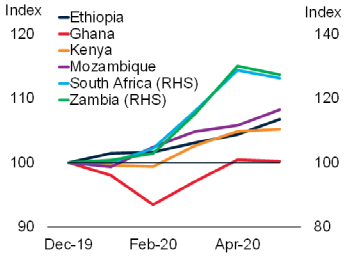
C. Commodity prices



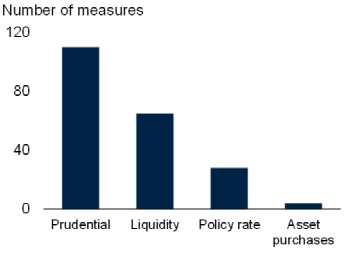
D. Change in sovereign borrowing costs in 2020



E. Exchange rates versus the U.S. dollar



F. Monetary and macroprudential policy measures in SSA during the COVID-19 pandemic



Source: Haver Analytics; Johns Hopkins University; J.P. Morgan; World Bank.
Note: "Industrial-commodity exporters" represents oil and metal exporting countries. "Other SSA" includes agricultural commodity exporting and commodity importing countries.
A. Last observation is May 29, 2020.
B. Medians. Sample includes Ghana, Kenya, Mozambique, Nigeria, South Africa, Uganda, and Zambia. Last observation in April 2020.
C. Bars represent the percentage change in the April 2020 monthly price relative to December 2019. Dashes represent the percentage change in the April 2020 monthly price relative to 2019 average.
D. Change in EMBI sovereign spreads since January 20, 2020. Weekly averages. Last observation is May 25, 2020. Index (0 = January 20, 2020).
E. Change in USD exchange rates since December 2019. Monthly averages. Last observation is May 2020. Index (100 = December 2019).
F. Prudential includes prudential measures and measures to support borrowers. Last observation is May 27, 2020.
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programs (Rwanda, South Africa), or deployed a variety of macroprudential measures to enable financial institutions to support distressed borrowers (Ghana, Madagascar, Nigeria, South Africa; Figure 2.6.1.F).

Most countries have also announced fiscal measures to support activity and buttress health sector responses to the pandemic. However, given binding fiscal policy constraints, these measures have often involved reprioritization of existing budgets. To help alleviate funding shortfalls, international financial institutions have called on bilateral creditors to temporarily suspend debt payments from fiscally constrained low-income countries. They have also made emergency support packages available to assist governments; however, given the scale of the pandemic, further external assistance from the broader global development community appears necessary.

Outlook

As a result of these severe economic strains, activity in the region is expected to contract by 2.8 percent this year—the sharpest contraction on record and 5.8 percentage points weaker than previous forecasts (Figure 2.6.2.A). The fall in per capita GDP is bound to be even deeper, likely causing millions in the region to fall back into extreme poverty (Lakner et al. 2020; Figure 2.6.2.B).

Growth in the region is expected to rebound to 3.1 percent in 2021; however, the outlook is subject to substantial uncertainty. The projected pick-up assumes that the pandemic will have faded by the second half of 2020, that domestic outbreaks in the region follow a similar path, and that growth in major trading partners will rebound. Commodity prices are also expected to recover but remain below 2019 levels. However, the pandemic's progression is particularly hard to predict in Sub-Saharan Africa, as the region faces significant hurdles in containing the virus. These include weak and underfunded health care systems—government per capita spending on health care is about 2 percent of that in advanced economies—and lack of access to basic sanitation

(Walker et al. 2020; Figure 2.6.2.C). The region also has large populations with underlying health conditions that elevate their risk of developing complications in case of infection, only partly offset by a relatively young population (Figures 2.6.2.D and E).

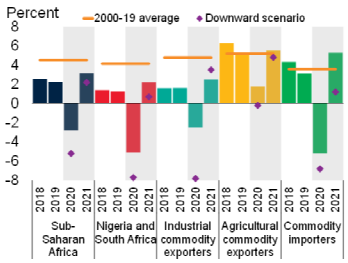
Pandemic-control measures such as social distancing and self-isolation are made more challenging to implement by the fact that the majority of workers in most countries are in the informal economy and depend on daily incomes that are insufficient to stockpile food and other essential items (World Bank 2019c, Special Focus 1). For many, living conditions are also not suited to these measures, as more than two-thirds of urban populations live in crowded slums, and necessities like water are often accessed at communal points (World Bank 2020o). Without external assistance, constrained fiscal space across most of the region also limits governments' ability to respond to the outbreak. The challenges of containing outbreaks and providing fiscal support could both deepen this year's contraction and significantly delay the expected recovery.

Against this background, activity in Nigeria—the region's largest economy and most populous country—is expected to shrink by 3.2 percent in 2020. Amid the unprecedented collapse in oil prices, this year's contraction in activity is set to be the most severe in four decades. The economy depends heavily on oil revenues, which represent over 80 percent of exports, about one-third of banking-sector credit, and one-half of general government revenues. Faced with a twin shock, the country's slump in activity has been compounded by measures to slow the domestic spread of the virus—including closing of national and state borders, schools, and the temporary shutdown of markets. The oil sector is projected to contract by 10.6 percent, while non-oil output falls by 2.1 percent. The recovery in Nigeria is forecast to be moderate. Lower oil prices are expected to dent investor confidence, while the assumed fiscal adjustment to lower oil revenues and tighter borrowing conditions is expected to constrain public investment.

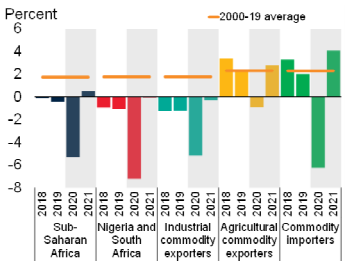
FIGURE 2.6.2 SSA: Outlook and risks

Activity is forecast to contract sharply this year as a result of COVID-19. A longer lasting and more severe pandemic would trigger an even deeper recession in the region. Falling per capita incomes will reverse some of the progress in poverty reduction. Governments' ability to contain the virus is limited by weak and underfunded health care systems. Large populations with existing underlying health conditions are at greater risk of developing complications in the event of infection, although the region's generally young population helps alleviate some of this risk. Rising fiscal burdens are expected to cause significant debt sustainability concerns.

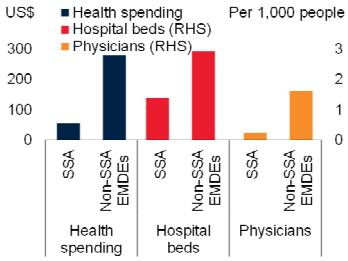
A. GDP growth



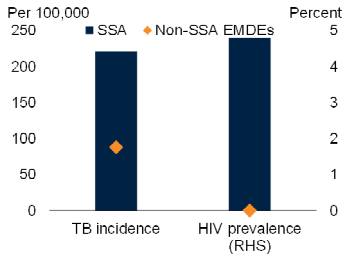
B. Growth per capita



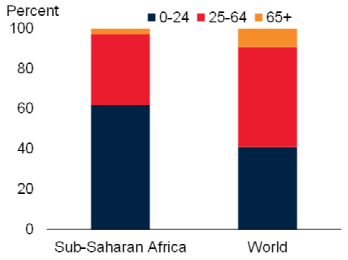
C. Health care indicators in SSA



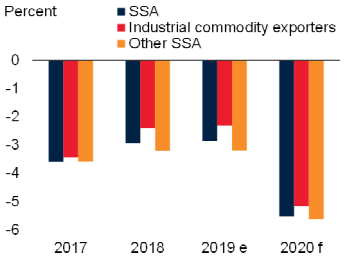
D. Tuberculosis incidence and HIV prevalence



E. Population distribution



F. Fiscal balances



Source: International Monetary Fund (World Economic Outlook); United Nations; World Bank (World Development Indicators)

A.-B. "Industrial-commodity exporters" represents oil and metal exporting countries. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates. "Industrial-commodity exporters" excludes Nigeria and South Africa.

C. Sample includes 48 countries for SSA and 126 for non-SSA EMDEs.

D. TB = Tuberculosis; HIV = Human immunodeficiency viruses. Unweighted averages. "TB incidence" expressed per 100,000 of the population; "HIV prevalence" expressed as percent of the total population. "TB incidence" sample reflects 106 non-SSA EMDEs and 48 SSA economies. "HIV prevalence" sample reflects 70 non-SSA EMDEs and 46 SSA economies.

F. Simple averages of country groups.

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In South Africa, activity is expected to contract by 7.1 percent this year—the deepest contraction in a century and 8 percent weaker than previously forecast—as stringent but necessary domestic containment measures, including an extended national lockdown, have severely disrupted activity. Growth is expected to rebound in 2021, helped in part by the government's announced 10 percent-of-GDP fiscal stimulus package to soften the impact of the pandemic and help set the stage for a robust recovery. The recovery could gain further traction if planned structural reforms are implemented, including plans to improve public investment management and to encourage greater private-sector participation in infrastructure development. However, prospects for faster growth over the medium term are likely to be constrained by needed fiscal tightening and will continue to be dampened by persistent power-supply disruptions and the need for extensive maintenance and repair work on the national grid.

Elsewhere in the region, growth prospects have also been eroded. Among commodity importers, activity is forecast to contract particularly sharply this year—despite the oil price collapse improving their terms of trade—as international travel restrictions weigh heavily on large tourism sectors in several of these economies (Cabo Verde, Mauritius, Seychelles). Activity in industrial commodity exporters is also expected to contract notably in 2020, as domestic disruptions from the pandemic are compounded by low prices and demand for oil and metals (Angola, Democratic Republic of Congo, Gabon, Ghana, Namibia, Republic of Congo, Sudan). With commodity prices projected to remain depressed, the recovery in these economies is expected to be sluggish. In Senegal, oil and gas production was projected to come on stream in 2022; however, these capacity-enhancing investments have been delayed to at least 2023 amid pandemic-related disruptions.

Among agricultural commodity exporters, growth is projected to all but collapse this year, falling by roughly two-thirds, on average, from 2019 growth rates. Although exports of agricultural goods have suffered from the collapse in global demand, these economies are somewhat more insulated from the effects of sharply lower industrial commodity prices and demand. Of those countries in the highest quartile of growth in 2020, more than 80 percent are agricultural commodity exporters. With the impact of the pandemic assumed to have faded by next year, the recovery in agricultural commodity exporters is expected to be underpinned by investment in infrastructure, greater export diversification, and continued implementation of reforms to improve business environments (Benin, Côte d'Ivoire, Ethiopia, Rwanda, Senegal, Togo). However, an expected fall in foreign direct investment amid the global recession, as well as tighter financial conditions, could delay the delivery of infrastructure projects in these economies.

The financing of current account deficits has become more difficult this year, as heightened risk aversion has caused significant capital outflows and tighter financial conditions. This is particularly challenging for countries dependent on portfolio inflows (Nigeria, South Africa), or official development assistance (Central African Republic, Malawi). Several countries also depend on remittance inflows, which are expected to slow markedly (Ghana, Kenya, Lesotho, Nigeria, Uganda). If these conditions were to continue for a prolonged period, the lack of access to external financing could weigh heavily on foreign reserves, while those without adequate buffers could face balance of payment stress.

Fiscal deficits in the region are projected to deteriorate sharply this year—doubling on average to roughly 5 percent of GDP (Figure 2.6.2.F). Larger deficits reflect increased public spending to help limit the transmission and economic consequences of the virus, sharp falls in revenue as mitigation and other control measures have dampened activity, higher interest payments, and in some instances, the impact of weaker exports on government revenues (Angola, Cabo Verde, Republic of Congo, Seychelles).

Risks

Risks are firmly to the downside. Given the underlying vulnerability of the region, a longer lasting and more severe pandemic would trigger an even deeper recession in the region and have

devastating effects on the health and well-being of the region's population. It would also have long lasting effects on development and growth, as has been the case during previous epidemics (Chapter 1; World Bank 2014; World Bank 2020o). Even if the current pandemic is successfully contained, a second wave of infections could erupt within the region, especially if the easing of current measures to mitigate the spread of the virus is not guided by the evolution of the pandemic.

COVID-19 is also expected to markedly increase the vulnerability of the region to debt distress. Government debt had already risen to 60 percent of GDP, on average, in 2019—almost double the level in 2013. The composition of debt had also become riskier, with a greater share owed to non-concessional lenders at a higher cost (Calderón and Zeufack 2020). These strains will be compounded by the increased borrowing required to fund larger deficits. In addition, borrowing costs across the region have risen sharply given heightened risk aversion, placing further pressure on fiscal capacity. Significantly larger, and more expensive, government debt burdens than last year mean that the risk of sovereign debt defaults has increased, and may rise further if the projected recovery in activity were to disappoint.

Severely constrained government resources, as well as restrictions due to social-distancing measures, could lead to a loss of critical public services during the pandemic and further weigh on activity. These include provision of water, electricity, and normal health care services. Evidence suggests that during the 2014-16 Ebola crisis in West-Africa, mortality rates unrelated to the Ebola disease increased (Menéndez et al. 2015).

There are also growing concerns that the COVID-19 pandemic may cause a food security crisis in the region. Before the pandemic, 72 million people across 35 countries in Sub-Saharan Africa were already in food crisis, with many millions on the verge of falling into acute food insecurity (WFP 2020). Border closures and other trade-restrictive policies, such as export bans for domestic stockpiling, are disrupting trading in food and agricultural products (World Bank 2020o). Shortages could also induce food price spikes that may further exacerbate poverty (World Bank 2019c).

The region's large and growing number of displaced populations—mostly due to conflict, violence, and insurgencies—could curtail efforts to mitigate the spread of COVID-19 (Burkina Faso, Cameroon, Central African Republic, Chad, Ethiopia, Mali, Nigeria, Somalia; Dahab et al. 2020; Refugees International 2020). The virus is likely to spread rapidly among displaced people, as they mostly live in densely populated camps or informal settlements, where access to basic sanitation and health care is limited.

There is also a risk that violence and social unrest may erupt as a result of the pandemic, weighing further on mitigation efforts and activity. Critical peacekeeping missions in many countries may lose momentum if governments are forced to refocus their efforts toward the pandemic and its associated mitigation measures, which could create room for insurgencies to gain greater footholds in vulnerable areas. Moreover, rising unemployment, falling incomes, and potential shortages of essential items such as food could likely lead to social unrest and instability in several countries that may continue to weigh on activity even after the pandemic has faded.

TABLE 2.6.1 Sub-Saharan Africa forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections 2020f	2021f
EMDE SSA, GDP[1]	**2.6**	**2.6**	**2.2**	**-2.8**	**3.1**	**-5.8**	**0.0**
GDP per capita (U.S. dollars)	-0.1	-0.1	-0.4	-5.3	0.5	-5.6	0.0
(Average including countries with full national accounts and balance of payments data only)[2]							
EMDE SSA, GDP[2,3]	2.6	2.5	2.2	-2.8	3.1	-5.7	0.0
PPP GDP	2.8	2.7	2.5	-2.4	3.2	-5.5	-0.1
Private consumption	2.7	3.3	1.3	-1.7	2.7	-4.3	-0.1
Public consumption	0.7	4.5	2.5	3.6	1.9	1.2	-0.6
Fixed investment	7.9	8.7	3.3	-5.0	4.1	-8.1	0.0
Exports, GNFS[4]	6.2	2.7	3.3	-10.7	4.2	-12.2	1.6
Imports, GNFS[4]	1.4	8.4	3.1	-7.2	3.5	-9.7	0.4
Net exports, contribution to growth	1.4	-1.6	0.1	-1.1	0.2	-0.8	0.3
Memo items: GDP							
SSA excluding Nigeria, South Africa, and Angola	4.8	4.4	3.7	-0.3	4.1	-4.9	-0.6
Oil exporters[5]	1.4	1.3	1.7	-3.0	1.7	-5.3	-0.6
CFA countries[6]	3.5	4.0	4.1	-0.1	4.1	-5.2	-1.1
CEMAC	0.1	1.4	1.7	-2.7	1.2	-6.0	-2.2
WAEMU	6.5	6.3	6.1	1.9	6.3	-4.5	-0.2
SSA[3]	1.0	1.0	1.0	-5.0	2.3	-6.5	0.5
Nigeria	0.8	1.9	2.2	-3.2	1.7	-5.3	-0.4
South Africa	1.4	0.8	0.2	-7.1	2.9	-8.0	1.6
Angola	-0.1	-2.0	-0.9	-4.0	3.1	-5.5	0.7

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economies. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates. Aggregate excludes Somalia.
2. Subregion aggregate excludes Central African Republic, Eritrea, Guinea, São Tomé and Príncipe, Somalia, and South Sudan, for which data limitations prevent the forecasting of GDP components.
3. Subregion growth rates may differ from the most recent edition of Africa's Pulse (https://www.worldbank.org/en/region/afr/publication/africas-pulse) due to data revisions and the inclusion of the Central African Republic and São Tomé and Príncipe in the subregion aggregate of that publication.
4. Exports and imports of goods and non-factor services (GNFS).
5. Includes Angola, Cameroon, Chad, Republic of Congo, Equatorial Guinea, Gabon, Ghana, Nigeria, South Sudan and Sudan.
6. Includes Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Guinea-Bissau, Mali, Niger, Senegal, and Togo.

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TABLE 2.6.2 Sub-Saharan Africa country forecasts[1]

(Real GDP growth at market prices in percent, unless indicated otherwise)

	2017	2018	2019e	2020f	2021f	Percentage point differences from January 2020 projections: 2020f	2021f
Angola	-0.1	-2.0	-0.9	-4.0	3.1	-5.5	0.7
Benin	5.8	6.7	6.9	3.2	6.0	-3.5	-0.7
Botswana	2.9	4.5	3.5	-9.1	4.2	-13.2	0.0
Burkina Faso	6.3	6.8	5.7	2.0	5.8	-4.0	-0.2
Burundi	0.5	1.6	1.8	1.0	2.3	-1.0	0.2
Central African Republic[2]	4.5	3.7	3.1	0.8	3.5	-4.1	-1.4
Cabo Verde	3.7	5.1	5.5	-5.5	5.0	-10.5	0.0
Cameroon	3.5	4.1	3.9	-0.2	3.4	-4.4	-0.9
Chad	-3.0	2.6	3.2	-0.2	4.7	-5.7	-0.1
Comoros	3.8	3.4	1.9	-1.4	3.2	-6.2	-0.5
Congo, Dem. Rep.	3.7	5.8	4.4	-2.2	3.5	-6.1	0.1
Congo, Rep.	-1.8	1.6	-0.9	-6.2	-1.1	-10.8	-3.0
Côte d'Ivoire	7.4	6.8	6.9	2.7	8.7	-4.3	1.6
Equatorial Guinea	-4.7	-6.1	-6.2	-8.4	-1.6	-6.1	-2.6
Eritrea[2]	-10.0	13.0	3.7	-0.7	5.7	-4.2	1.7
Eswatini	2.0	2.4	1.3	-2.8	2.7	-5.4	0.2
Ethiopia[3]	10.0	7.9	9.0	3.2	3.6	-3.1	-2.8
Gabon	0.5	0.8	3.3	-3.2	-2.6	-6.2	-5.8
Gambia, The	4.8	6.6	6.0	2.5	6.5	-3.8	0.7
Ghana	8.1	6.3	6.5	1.5	3.4	-5.3	-1.8
Guinea	10.3	6.2	5.6	2.1	7.9	-3.9	1.9
Guinea-Bissau	5.9	3.8	4.7	-1.6	3.1	-6.5	-1.9
Kenya	4.8	6.3	5.4	1.5	5.2	-4.5	-0.6
Lesotho	-0.4	1.5	1.4	-5.1	5.5	-5.8	3.4
Liberia	2.5	1.2	-2.3	-2.6	4.0	-4.0	0.6
Madagascar	3.9	4.6	4.8	-1.2	4.0	-6.5	-0.4
Malawi	4.0	3.5	4.4	2.0	3.5	-2.8	-1.7
Mali	5.3	4.7	5.1	0.9	4.0	-4.1	-0.9
Mauritania	3.0	3.6	6.3	-2.0	4.2	-7.7	-1.6
Mauritius	3.8	3.7	3.6	-6.8	6.4	-10.7	2.4
Mozambique	3.7	3.4	2.2	1.3	3.6	-2.4	-0.6
Namibia	-0.3	0.7	-1.1	-4.8	3.0	-5.7	1.3
Niger	4.9	6.5	6.3	1.0	8.1	-5.0	2.5
Nigeria	0.8	1.9	2.2	-3.2	1.7	-5.3	-0.4
Rwanda	6.1	8.6	9.4	2.0	6.9	-6.1	-1.1
São Tomé and Príncipe[2]	3.9	2.7	2.4	-9.5	6.1	-12.5	2.6
Senegal	7.4	6.4	5.3	1.3	4.0	-5.5	-3.0
Seychelles	4.3	4.1	3.8	-11.1	6.3	-14.4	3.0
Sierra Leone	3.8	3.5	5.1	-2.3	4.0	-7.2	-0.9
South Africa	1.4	0.8	0.2	-7.1	2.9	-8.0	1.6
Sudan	4.3	-2.3	-2.6	-4.0	0.5	-2.6	1.1
South Sudan[2,3]	-6.9	-3.5	3.2	-4.3	-23.6	-14.6	-29.0
Tanzania	6.8	5.4	5.8	2.5	5.5	-3.3	-0.6
Togo	4.4	4.9	5.3	1.0	4.0	-4.5	-1.5
Uganda[3]	3.9	6.2	6.5	3.3	3.7	-3.2	-2.2
Zambia	3.4	4.0	1.7	-0.8	2.4	-3.4	-0.2
Zimbabwe	4.7	3.5	-8.1	-10.0	2.9	-12.7	0.4

Source: World Bank.

Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

1. GDP and expenditure components are measured in 2010 prices and market exchange rates.

2. Percentage point differences are relative to the World Bank's October 2019 forecast. The January 2020 Global Economic Prospects did not include forecasts for Central African Republic, Eritrea, São Tomé and Príncipe, and South Sudan.

3. Fiscal-year based numbers. For South Sudan, the year 2019 refers to FY2018/19.

Click here to download data.

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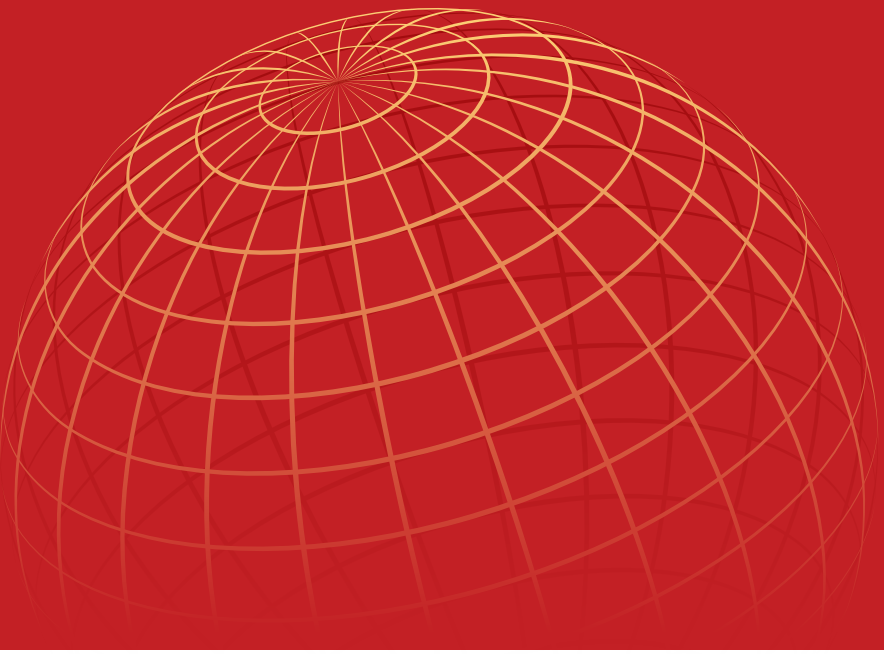


SPECIAL FOCUS

Regional Macroeconomic Implications of COVID-19

The rapid rise of COVID-19 cases, together with the wide range of measures to slow the spread of the virus, has slowed economic activity precipitously in many emerging market and developing economies (EMDEs). Economic disruptions are likely to be more severe and protracted in those countries with larger domestic outbreaks, greater exposure to international spillovers (particularly through exposure to global commodity and financial markets, global value chains, and tourism), and larger pre-existing challenges such as informality. Growth forecasts for all regions have been severely downgraded; Latin America and the Caribbean (LAC) and Europe and Central Asia (ECA) in particular have large downgrades partly because of the size of their domestic outbreaks and exposure to global spillovers, while South Asia's substantial downgrade is primarily the result of stringent lockdown measures. Many countries have avoided more adverse outcomes through sizable fiscal and monetary policy support measures. Despite these measures, per capita incomes in all EMDE regions are expected to contract in 2020, likely causing many millions to fall back into poverty.

Introduction

With the epicenter of the COVID-19 pandemic moving from EAP to advanced economies—particularly in Europe and the United States—outbreaks among most EMDEs initially lagged those in these major economies. However, since mid-March, the number of confirmed infections in all EMDE regions has been rising sharply.[1] To mitigate the spread, more than 100 EMDEs have closed schools, many have banned public gatherings, imposed national or regional lockdowns, and banned international travel.

While these measures are necessary, they have severely disrupted economic activity among EMDEs. The magnitude of disruption varies, however, according to the scale of the domestic outbreak, the vulnerability of the economy to spillovers from global weakness, and the severity of pre-existing issues such as debt and informality. In response, EMDE central banks and governments have implemented a wide range of policy measures to limit the economic and financial fallout.

In this context, this special focus addresses the following questions:

- How has the pandemic evolved across EMDE regions?
- How have regional vulnerabilities affected regional economic developments?
- What policy measures have regions adopted?
- What impact will the pandemic have on regional growth, per capita incomes and poverty?
- What are the key risks to regional growth outlooks?

Recent reports from international institutions have provided an initial assessment of the impact of the pandemic on regional prospects (ADB 2020; EDB 2020; IDB 2020; IMF 2020; World Bank 2020a, 2020b, 2020d, 2020e, 2020f). These publications converge on several common points: the pandemic will have a large impact through multiple channels, no region will be unaffected, growth forecasts are highly uncertain, and support from policymakers is essential. This special focus builds on the existing regional analysis with the following specific contributions. First, it provides an up-to-date, concise, and cross-regional update of the latest developments. Second, it discusses how important vulnerabilities—such as exposure to commodity and financial markets, global value chains and tourism, as well as informality—differ by region. Third, it summarizes the health, monetary and fiscal policy responses in each region. Finally, it assesses how the combination of incoming information, pre-existing data, and policy responses combine into a forecast for regional growth, with important implications for the poverty outlook.

Note: This Special Focus was prepared by Patrick Kirby and Rudi Steinbach. The box on the impact of COVID-19 on global value chains was prepared by Patrick Kirby and Maryla Maliszewska, and includes simulation results prepared by Maryla Maliszewska, Aaditya Mattoo, and Dominique van der Mensbrugghe. Research assistance was provided by Yushu Chen, Hrisyana Doytchinova, Fuda Jiang, Maria Hazel Macadangdang, Julia Renee Roseman Norfleet, Ceylan Oymak, Vasiliki Papagianni, Maria Filipa Seara E. Pereira, and Kaltrina Temaj.

[1] The World Bank groups EMDEs into six geographical regions. They are East Asia Pacific (EAP), Europe and Central Asia (ECA), Latin America and the Caribbean (LAC), Middle East and North Africa (MENA), South Asia (SAR), and Sub-Saharan Africa (SSA).

The pandemic and health policy responses

Spread of the pandemic. As of early June, there have been over 6 million confirmed COVID-19 cases globally, of which almost one-half are in EMDEs (Figure 2.1.1.A). The rising number of infections in EMDEs represents a third global wave of COVID-19 outbreaks, following an initial wave in China and neighboring countries that has largely subsided and a second wave in advanced economies that is slowing. The scale of the EMDE wave is likely being substantially understated, as testing capacity is limited in EMDEs—when available, tests are often restricted to include only patients with existing symptoms or those who have been in contact with a known case (Figure SF.1.B and SF.1.C). About 100,000 deaths in EMDEs have been attributed to COVID-19 but this too may be an under-estimate given generally weaker health care capacity and difficulties in tracing deaths outside of hospitals. Excess mortality statistics suggest such under-estimation could be large.

Cases first mounted in East Asia Pacific (EAP) and the Middle East and North Africa (MENA) (especially the Islamic Republic of Iran) but have since then spread rapidly in other regions, with Sub-Saharan Africa (SSA) lagging. At this point, the largest regional outbreak is in LAC, followed closely by ECA.

- **EAP.** In EAP, there are currently about 140,000 confirmed COVID-19 cases as the virus has spread rapidly within some of the region's large economies. In addition to the 84,000 cases in China, notable outbreaks are occurring in Indonesia, the Philippines, and Malaysia, with a combined 55,000 cases. Close to 7,500 people in the region are reported to have died from the virus. Most economies in the region contracted in the first quarter—including China, where output fell 35 percent (q/q saar) in 2020Q1, the first drop since 1976. While China's purchasing manager indexes (PMIs) partially rebounded at the start of the second quarter, those in other countries reached unprecedented lows in April; manufacturing PMIs in Indonesia, Malaysia, and the Philippines fell to 27.4, 31.2, and 31.6, respectively.
- **ECA.** Europe and Central Asia (ECA) has the second largest outbreak, after Latin America and the Caribbean (LAC), with 770,000 cases, of which about one-half are in Russia and a further one-fifth in Turkey. The virus has been confirmed as the cause of 15,000 deaths in the region, but excess mortality statistics suggest the true human toll could be much higher. PMIs in the region fell sharply in April as the pandemic spread: The manufacturing indexes for Poland, Russia, and Turkey fell to 31.9, 31.3, and 33.4, respectively.
- **LAC.** The region initially accounted for a small share of COVID-19 cases in EMDEs but has recently become the new epicenter as outbreaks in the region have spread rapidly. Of the region's roughly 1 million infections, one-half are in Brazil. Large outbreaks are also occurring in Peru, Chile, Mexico, and Ecuador. More than 50,000 deaths have been officially reported as a result of the virus. Activity in Mexico fell 6.2 percent in 2020Q1 (q/q saar), while the composite PMI for Brazil fell to 26.5 in April.
- **MENA.** In MENA, the virus was first recorded in the United Arab Emirates in late January, but began spreading rapidly in Iran after the first cases were identified there mid-February. The region currently has about 450,000 confirmed cases, of which around one-third are in Iran. Sizable outbreaks have also occurred in Saudi Arabia (87,000), Qatar (58,000), and the United Arab Emirates (35,000). Over 11,000 people in the region are reported to have lost their lives due to the virus. Non-oil activity has decelerated sharply in large regional economies.
- **SAR.** The pandemic reached SAR later than some other regions, but the incidence of cases is rising rapidly. The number of confirmed COVID-19 cases has risen to around 350,000, with more than 8,000 people having died as a result. While limited testing capacity may understate the true scale of the regional

outbreak, the majority of infections in the region are in India (200,000), Pakistan (70,000), and Bangladesh (50,000). Nationwide lockdowns in these three largest regional economies sharply curtailed activity in the services sector and manufacturing production.

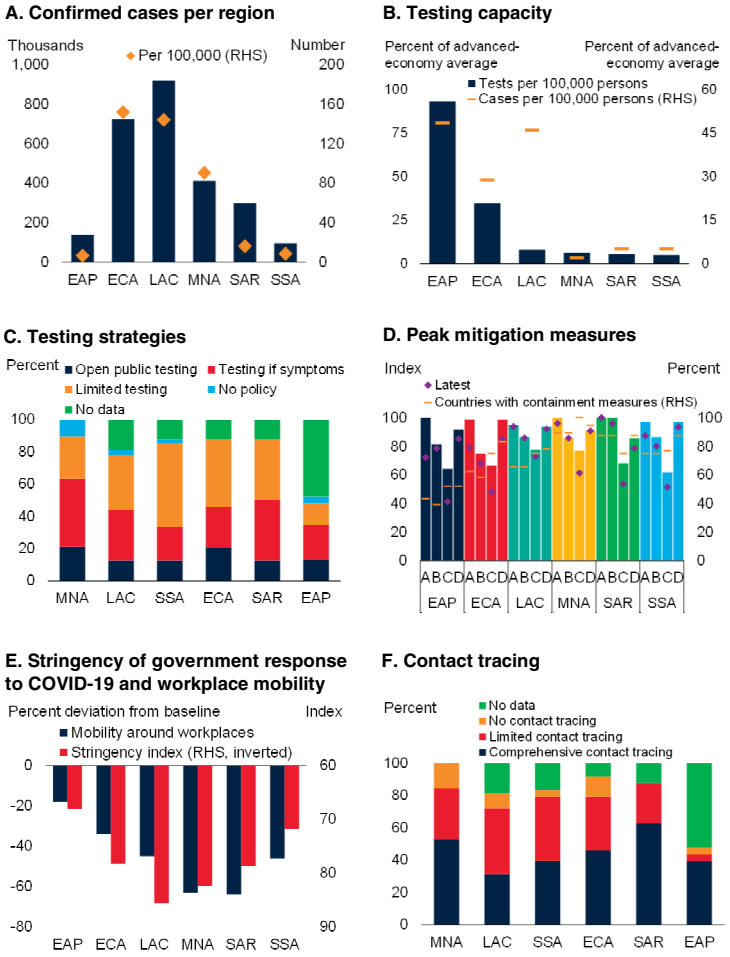
- **SSA.** In SSA, confirmed COVID-19 cases have also lagged those in other regions—partly reflecting limited testing capacity—but they are gathering significant pace. There currently have been more than 100,000 cases of the virus in the region, with sizable outbreaks in South Africa (34,000), Nigeria (10,500), Ghana (8,000), and Cameroon (6,500). However, challenges due to limited testing capacity are particularly acute in SSA, even more so in rural areas, likely understating the true number of infections. In Nigeria and South Africa—the two largest economies in the region—activity has fallen precipitously during the first half of this year, with the composite PMIs falling to 25.5 and 23.7 in April, respectively.

Mitigation measures. To help mitigate the spread of the virus, most EMDEs have implemented necessary but severely disruptive measures (Figure SF.1.D). These have included school closures in more than 100 countries, restrictions on non-essential business activities, prohibitions of public gatherings, suspension of public transport, restrictions on movement, border closures, and travel bans. Traffic data show that regions with more stringent containment measures have less activity around workplaces (Figure SF.1.E).

Many EMDEs face challenges in implementing some of these measures. In regions such as SAR and SSA, where the majority of workers are in the informal economy and depend on daily incomes that are insufficient to stockpile food and other essential items, social-distancing and self-isolation are difficult to implement (World Bank 2019a). In many countries, living conditions are also not suited to these measures, especially for those who live in crowded slums, and where necessities like water are often accessed at communal points (World Bank 2020a).

FIGURE SF.1 COVID-19 outbreaks

The number of confirmed COVID-19 cases is rising rapidly among EMDEs, with ECA and LAC becoming the new epicenters. However, limited testing capacity is likely understating the true intensity of outbreaks in many countries. To help mitigate the spread of the virus, most EMDEs have imposed necessary, but economically disruptive, mitigation measures. These measures have involved school closures, lockdowns at regional and national level, and travel bans.



Source: Hale et al. 2020; Johns Hopkins University; Oxford University; Our World in Data; World Bank.
Note: EMDE = Emerging Market and Developing Economies, EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.
A. Last observation is May 29, 2020.
B. Bars reflect tests per 100,000 people in each region (for countries that report testing data) as a percent of those in advanced economies. Red markers reflect confirmed COVID-19 cases per 100,000 people in each region as a percent of those in advanced economies. For tests (cases), the sample includes the following number of economies per region: EAP 6 (13); ECA 11 (22); LAC 12 (32); MNA 5 (19), SAR 4 (8), and SSA 9 (46). Last observation is May 28, 2020.
C. "Open public testing" is aggressive testing such as in a "drive-through" and available to everyone. "Testing if symptoms" refers to testing anyone who shows COVID-19 symptoms. "Limited testing" is when an individual is showing symptoms and meets a specific criterion (e.g. key workers, admitted to hospital, came in contact with a known case or came from overseas). "No policy" refers to having no testing policy in place. Last updated on May 29, 2020. Individual countries may be several days older.
D. Bars shows the peak level of stringency imposed for each containment measure from January to May. The diamond markers indicate the latest level of stringency for each measure. The yellow lines indicate the share of countries who have recommended or implemented the containment measure, without weighting by the level of stringency or whether the measure was targeted to a region or was at the national level. Each letter on the x-axis corresponds to a containment measure. A = School closings, B = Restrictions on gatherings, C = Stay-at-home requirements, and D = Restrictions on international travel. The sample includes 154 EMDEs. Last observation is May 29, 2020.
E. Aggregates are calculated as medians. Sample includes 97 EMDEs for mobility and 136 EMDEs for stringency. Last observation is May 25, 2020. Individual countries may be several days older.
F. "Limited contact tracing" is tracing not done for all cases. "Comprehensive contact tracing" is tracing of all cases. Last observation is May 29, 2020. Individual countries may be several days older.
Click here to download data and charts.

Survey indicators suggest the most stringent measures have been implemented in MENA but even in SSA, with limited state capacity, mitigation measures have been introduced on a broad scale. The most commonly used measures across EMDEs have been international travel restrictions (74 percent of countries), shelter-in-place orders and restrictions on internal mobility (71 percent), and school closures (68 percent).

Of these measures, international travel restrictions, shelter-in-place requirements, and restrictions on internal mobility have been most broadly imposed in MENA, LAC, and SSA. School closures have been particularly broad-based in MENA, where virtually all countries have imposed such measures, as well is in SAR and SSA (more than 85 percent). Many countries have also imposed restrictions on the use of public transport, particularly in MNA (95 percent), SAR (89 percent) and LAC (69 percent). Cancellation of public events and restrictions on the size of public gatherings have been more stringent in MENA, LAC, SSA, and ECA. Restrictions on non-essential work have been broad-based in MENA and LAC, but imposed in only about one-half of countries in EAP and SSA.

To further help prevent the domestic spread of COVID-19, many countries have supplemented these social distancing measures with public information campaigns, broad-based testing, and contact tracing of individuals who were potentially exposed to known cases. Contact tracing has been most comprehensive in ECA, EAP and MENA (Figure SF.1.F).

- **EAP**. Measures to mitigate the spread in these economies have included the prohibition of mass gatherings, school closures, restrictions on internal movement, shelter-in-place orders, and travel restrictions, but have been less broadly imposed than in other regions (World Bank 2020b).

- **ECA.** In response to domestic outbreaks, 20 of the 24 countries in ECA have closed schools since mid-March, and many have shut international borders, issued shelter-in-place orders, closed public transport, recommended or required closing of non-essential businesses, and restricted travel from heavily hit areas.

- **LAC.** The majority of countries have closed schools and partially or completely shut their borders to foreigners. Numerous countries (Argentina, Chile, Colombia, Ecuador, Honduras, Peru, Venezuela) have mandated business closures and imposed large-scale mobility restrictions. Some countries have embarked on comprehensive contact tracing efforts, but such measures have generally been limited in most of the region.

- **MENA.** From late February, widespread and highly stringent mitigation measures have been implemented to help limit the spread of infection. These include curtailing the size of public gatherings, air travel restrictions in the Gulf Cooperation Council (GCC) that brought tourism to a halt, cancellation of large international events, closing schools throughout the region, and shelter-in-place requirements orders.

- **SAR.** International travel bans and school closures have been widespread in SAR economies. Public transport has also been closed in two-thirds of countries. Near total lockdowns in several regional economies severely hindered mobility and impeded delivery of essential services. In Bangladesh, large sections of the workforce left major cities to return to their villages. Non-essential businesses have been closed in Pakistan, and airports have been shut for arrivals in Sri Lanka.

- **SSA.** Stringent measures to mitigate the pandemic's spread have been implemented in most countries. These include school closures, travel bans, border closures—national and provincial in some—and lockdowns of entire countries or in other cases large cities. While shelter-in-place orders have been broad-based, they have still accommodated essential trips. In about 6 percent of countries in the region, closing of non-essential businesses has been recommended, as opposed to required (Malawi, Mauritania, Somalia).

Regional vulnerabilities to health and economic stress

The combination of COVID-19 outbreaks, restrictions to reduce the pandemic's spread, and spillovers from the global recession is disrupting activity for all EMDE regions. The magnitude of the disruptions varies, however, according to the scale of the domestic outbreak, the vulnerability of the economy to spillovers from global economic and financial stress, the severity of pre-existing challenges such as widespread poverty and informality, and the degree to which debt levels constrain the fiscal response. Growth forecasts and equity market valuations have fallen most steeply in LAC.

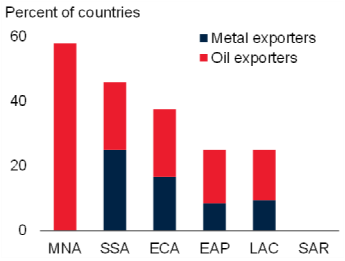
Exposure to commodity market disruptions. Dependence on commodity exports currently constitutes a severe vulnerability. COVID-19 has caused a sharp fall in global commodity demand, and thus prices, with oil prices down 60 percent since late January and many metals prices down by about 20 percent (Chapter 4). Commodity prices are projected to remain low in the near term. The decline in commodity prices has undermined government and export revenues for industrial-commodity exporting EMDE regions, where commodities accounted for more than 75 percent of exports in 2019, on average. MENA and SSA have the largest proportion of such countries (almost 60 percent and almost half, respectively). More than a third of countries in ECA are industrial commodity exporters, as are a quarter of those in EAP and LAC (Figure SF.2.A).

Exposure to global financial market stress. COVID-19 has also led to widespread financial turbulence and record capital outflows, while foreign direct investment in many countries is expected to fall considerably. Since the global financial crisis, debt loads have risen sharply, with EMDE debt reaching a historic high of 170 percent of GDP in 2019. In almost 40 percent of EMDEs, government debt is now at least 20 percentage points of GDP higher than it was in 2007 (Kose et al. 2019). These figures are set to rise further through a combination of lower revenues, larger expenditures, and higher borrowing costs, especially for foreign-currency-denominated debt.

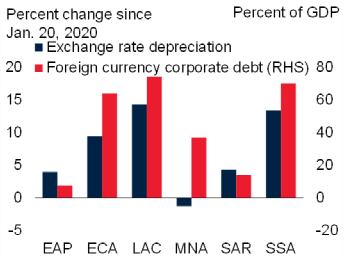
FIGURE SF.2 Regional vulnerabilities and economic impacts

Dependence on commodity exports constitutes a severe vulnerability for many regions. Incoming data suggest that some of the worst-affected countries are commodity exporters integrated in GVCs through forward linkages. Domestic-currency depreciation makes it more challenging to finance foreign-currency-denominated debt. Informal workers are likely to find it difficult to smooth lost income and adapt to food shortages, which will worsen existing malnutrition.

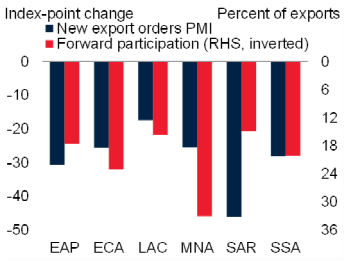
A. Share of industrial commodity exporters by region



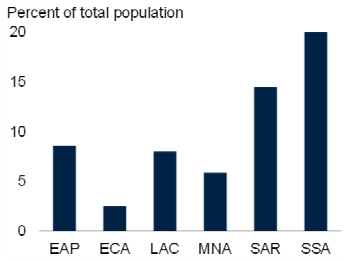
B. Foreign currency denominated debt and domestic currency depreciation



C. New export orders and degree of forward linkages to GVCs



D. Prevalence of undernourishment



Source: Haver Analytics; Organisation for Economic Co-operation and Development; World Bank.
Note: EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.
B. Data for foreign currency denominated corporate debt are 2019Q3. Aggregates are calculated as unweighted averages. Sample includes 21 EMDEs for exchange rates and 22 EMDEs for corporate debt. Last observation is May 29, 2020.
C. GVC = global value chain. PMI = Purchasing Managers' Index. Figure shows change in new export orders PMI since January 2020. Forward participation indicates share of exports for the region that are inputs for other region's to further process and then re-exported as finished goods. Data for forward participation are 2015. Aggregates are calculated using the median for PMI and nominal U.S. dollar exports for forward participation. Last observation is April 2020 for new export orders PMI.
D. Undernourishment is defined as the share of population whose food intake is insufficient to meet dietary energy requirements on a continuous basis.
Click here to download data and charts.

- *Governments.* Risk premia for sovereign bonds in LAC rose especially sharply during March, with investors differentiating according to credit risk. In Argentina, there has been ongoing negotiations around debt restructuring between the government and bond holders. Many countries in the region have sought out lending from official sources to avoid debt servicing difficulties and balance of

payment pressures. In SSA, sovereign borrowing spreads have risen in South Africa, as sovereign debt lost its investment-grade rating. By contrast, the increase in borrowing costs in EAP has been less pronounced reflecting robust monetary, prudential, and fiscal policy frameworks.

- *Corporates.* More than a quarter of corporate debt in the average EMDE is denominated in foreign currency. Regions with greater exposure to foreign-currency corporate debt—ECA, LAC, and SSA—have tended to have larger currency depreciations, increasing debt service burdens (Figure SF.2.B). Informal SMEs, which are especially prevalent in SAR and SSA, face a different problem: they often face significant financing constraints that prevent them from accessing the lending that would help keep them afloat during periods of economic weakness.

- *Financial systems.* The ability of banking systems to withstand financing shocks varies across regions. While MENA countries in the Gulf Cooperation Council entered the crisis with relatively sound financial system buffers, SAR entered the crisis with weaker financial sector balance sheets.

- *Households.* Lost incomes are expected to weigh heavily on households, and may lead to difficulties with debt servicing which may migrate to the financial system, for example through a spike in mortgage defaults. Household are also expected to lose incomes through falling remittances (World Bank 2020c). Recessions in the Euro Area and Russia will weigh on remittance inflows to ECA, which averaged 10 percent of GDP in 2019 and were as high as 30 percent for some countries. Similarly, the deep U.S. recession will substantially reduce remittances to Central America, while weakness in oil-exporting MENA countries will likely have the same impact for countries in SAR and EAP that supply many guest workers. In addition to lost work for migrants, many money transfer agencies in either the origin or recipient countries have closed as a result of lockdown measures.

Exposure to global value chains. Regions are also exposed to global spillovers through their participation in global value chains, which account for about half of global trade and can propagate international shocks (Box SF.1). Regions with a greater prevalence of forward linkages such as ECA, MENA (mostly through oil), and SSA have experienced substantial falls in demand and prices for their exports (Figure SF.2.C).[2] Regions with a preponderance of backward linkages, such as EAP and ECA, are vulnerable to disruptions in production abroad leading to shortages of critical inputs. PMIs in these regions have declined sharply: in Vietnam and Poland, for example, the headline PMI dropped 28 and 27 points between January and April, respectively. In LAC, the abrupt slowdown in China's economy disrupted supply chains for Mexico and Brazil and caused a sharp drop in exports from commodity-producing economies. In ECA, supply chain disruptions and falling demand have caused a collapse in exports from the auto sector among the countries in Central Europe and the Western Balkans (Bulgaria, Hungary, Poland, Serbia). While it is less integrated in global value chains than some other regions, SAR has experienced disruptions in its textile, garments, and auto sectors.

Exposure to tourism. Regions that rely on tourism are being adversely affected by widespread travel restrictions and the associated collapse in tourist arrivals in the first half of 2020. They also face large declines in services activity, particularly in food, entertainment, and retail services. This is particularly important for many EAP and LAC countries, such as both regions' small island economies. Travel bans and changes in consumer behavior have led to a collapse in the number of visitors to popular tourist destinations such as the Caribbean, North Africa, Southern Europe, and Pacific Island countries, among others. In all, global tourism is set to contract by about two-thirds in March, which will weigh heavily on

[2] Countries with forward linkages are those whose exports are not fully absorbed in the importing country and are instead embodied in the importing country's exports to third countries (World Bank 2019b). Countries with backward linkages are those whose exports embody value added previously imported from abroad, such as auto or electronics manufacturers, that process and then export inputs from abroad.

BOX SF.1 The impact of COVID-19 on global value chains

One of the ways that the COVID-19 pandemic is disrupting economic activity is through its impact on global value chains (GVCs), which can amplify the effects of shocks on trade, production, and financial markets. Workplace closures or transportation difficulties have caused interruptions to the delivery of intermediate goods, severely affecting production in manufacturing industries that practice lean inventory management. Governments have become concerned about shortages of essential products from offshore sources. A simulation of the current crisis using a model with input-output linkages suggests that all countries and almost all sectors will suffer a decline in exports, with worse outcomes in regions more dependent on international trade, particularly through GVCs and tourism. In the wake of this shock, firms as well as countries may seek to reduce the risk exposure of supply chains over the medium term by increasing the geographical diversity of their suppliers. Countries that wish to seize this opportunity to become more integrated into GVCs could pursue sound government policies with respect to infrastructure investment, education, and public health. The benefits to real incomes and welfare associated with GVC production have been large, but could be undermined by a rise in protectionism.

Introduction

The COVID-19 pandemic is causing the worst contraction in global trade in the post-war era. One important channel for its impact is through global value chains (GVCs). Industries that participate in GVCs are often dependent on "just-in-time" delivery of intermediate inputs. This contributes to lean inventories and higher productivity, but also makes companies vulnerable to interruptions in the supply of critical components from abroad, such as those that have occurred as a result of the regional quarantines, production shutdowns, and border controls implemented to slow the spread of COVID-19. In this context, this box addresses the following questions:

- How has COVID-19 disrupted GVCs?
- How might disruptions to GVCs amplify the impact of COVID-19?
- Which countries and sectors are more vulnerable?

How has COVID-19 disrupted GVCs?

Even before COVID-19, the growth in GVCs had already been trending lower. GVC's share of global trade peaked at just over 50 percent prior to the global financial crisis, but slipped thereafter as activity slowed, particularly that of investment, and as trade liberalization efforts stalled (World Bank 2019b). More recently, GVCs had been further strained by the increase in tariffs and uncertainty driven by U.S.-China trade tensions.

The prevalence of GVCs could amplify the disruptive effects of COVID-19. By slowing or halting the production and transportation of items needed in other processes, the pandemic and the aggressive controls brought in to contain it increase the risk that critical inputs will be unavailable. Many high-productivity GVC participants rely on just-in-time delivery of inputs and lean inventories. In 2020 these buffers are likely to be limited by the fact that the countries at the center of GVC production have been among the worst-affected by COVID-19 (Figure SF.1.1.A).

Supply shocks tend to be felt most among countries with greater backward linkages, i.e., those whose exports embody imported value-added, such as auto or electronics manufacturers (World Bank 2019b). Demand shocks, by contrast, are more acutely felt by countries with greater forward linkages. This includes, for example, many commodity exporters, which experience a fall in demand from manufacturing centers, which is in turn a reaction to the drop in exports to third countries for the finished goods they produce. Thus far, the steepest declines in activity have been in countries with strong forward linkages, suggesting that the demand factor in the COVID-19 economic shock has been more severe than the supply factor (Figures SF.1.1.B and SF.1.1.C).

How might GVC disruptions amplify the impact of COVID-19?

The propagation of shocks through economic networks and industry interlinkages such as GVCs is historically a major driver of macroeconomic fluctuations (Acemoglu, Akcigit, and Kerr 2015). Global trade, approximately half of which flows through GVCs, is particularly volatile, and tends to fall considerably more than overall activity during crises (Freund 2009; Taglioni and Zavacka 2016). This has been ascribed to several factors. They include the dependence of export-oriented firms on external finance; the strongly cyclical behavior of investment and inventories; and the fact that fiscal stimulus has tended to

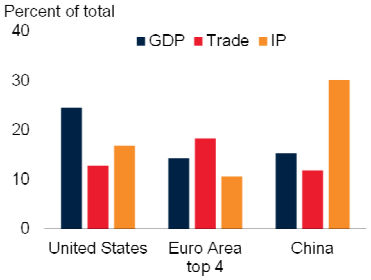
Note: This box was prepared by Patrick Kirby and Maryla Maliszewska, and includes simulation results prepared by Maryla Maliszewska, Aaditya Mattoo, and Dominique van der Mensbrugghe.

BOX SF.1 The impact of COVID-19 on global value chains *(continued)*

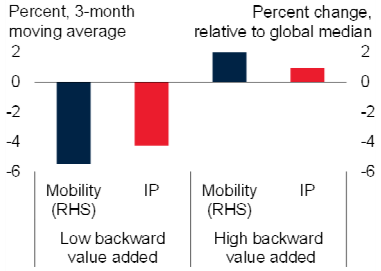
FIGURE SF.1.1 The impact of COVID-19 on GVCs

The countries at the center of the initial waves of the global pandemic are also those at the center of GVC production, which will contribute to a sharp contraction in global trade. Thus far, the steepest declines in trade and industrial production have been concentrated in countries that export more basic intermediate goods for higher value added (i.e., a concentration of forward value added). This is consistent with a greater shock to demand than to supply.

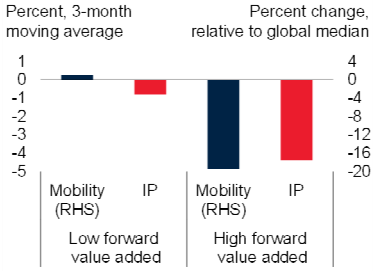
A. Major economies' share of global aggregates



B. Latest mobility and production growth data, by concentration of backward value added in trade



C. Latest mobility and production growth data, by concentration of forward value added in trade



Source: Google; Johns Hopkins University; Organisation for Economic Co-operation and Development; World Bank; World Trade Organization.

Note: GVCs = global value chains. EMDEs = emerging market and developing economies. IP = industrial production.

A. Trade is the average of export and import volumes. "Euro Area top 4" is a weighted average of Germany, France, Italy, and Spain. Sample includes 28 advanced economies and 34 EMDEs, which represent 89 percent of global GDP. Data for GDP and trade are 2019 and industrial production is December 2019.

B.C. Countries are considered to have "low" forward value added if the domestic value added in foreign exports as a share of gross exports is less than 25 percent, and "high" if above 25 percent. The same threshold applies for backward forward value added, in terms of the foreign value added share of gross exports. Last observation for industrial production is March 2020. "Mobility" is the percent change in workplace mobility relative to the global median change for May 21st from baseline, which is the median value for the corresponding day of the week during the 5-week period January 3-February 6, 2020, based on data from Google. Sample includes 32 advanced economies and 23 EMDEs for the Mobility data and 29 advanced economies and 22 EMDEs for IP.

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provide relatively stronger support for non-tradable sectors (Ahn, Amiti, and Weinstein. 2011; Bénassy-Quéré et al. 2009; Bricogne et al. 2012; Bussière et al. 2011; Chor and Manova 2012). Sharp declines in trade through GVCs are generally followed by rapid recoveries.[1]

The fact that trade flowing through GVCs is highly dependent on just-in-time delivery of critical components from abroad may make it particularly vulnerable to the interruptions of supply caused by regional quarantines, production shutdowns, and border controls implemented to slow the spread of COVID-19. GVCs are likely to amplify the effects of the pandemic through other channels as well. For example, they are particularly prominent in the manufacture of durable goods, purchases of which can be postponed until consumers have more freedom to travel and shop (Taglioni and Zavacka 2016).

Moreover, GVCs in emerging markets tend to be reliant on external U.S. dollar financing, which increases in risk spreads has made sharply more expensive (Bruno, Kim, and Shin 2018). This would offset the edge in competitiveness arising from the depreciation of their currencies (Boz, Gopinath, and Plagborg-Møller 2018). For regions with significant backward linkages, such as EAP and ECA, the increased cost of imported inputs also reduces the effect of exchange rate depreciation on competitiveness (Ahmed, Appendino, and Ruta 2015). Disruptions to agri-food supply chains could lead to especially severe problems: food insecurity; health risks; and social unrest. Many countries are suffering from shortages of chemicals, fertilizers, and seeds, which are sometimes exacerbated by restrictions on exports by trading partners (World Bank 2020a). These pose a clear threat of smaller harvests, higher food prices, and rising levels of poverty, with the most vulnerable of the world's population most exposed.

Which countries and sectors are more vulnerable?

A global computable general equilibrium (CGE) model illustrates the heterogenous impact of COVID-19 on

[1] This is known as the "bullwhip effect", and takes place even when the negative shock is largely from demand (Altomonte et al. 2011).

BOX SF.1 The impact of COVID-19 on global value chains *(continued)*

output and trade, and the transmission channels. It encompasses 20 countries, 7 regional country groups, and 29 economic sectors.[2] The model incorporates GVCs through input-output linkages and durable relationships in production networks. Shocks applied identically to all countries for one year represent the economic impact of a stylized representation of COVID-19:

- *Employment shock.* A 3 percent drop in employment as factory closures and social distancing force capital and workers into idleness.
- *Trade cost shock.* A 25 percent rise in the costs of all imports and exports, driven by a combination of additional inspections, reduced hours of operation, road and border closures, and increases in transport costs, among other factors. The Ebola crisis, in comparison, caused an estimated 10-percent increase in trade costs for affected countries (Evans et al. 2015).
- *Tourism shock.* A sharp drop in international tourism, equivalent to approximately 25 percent, which aligns with the forecast of the World Travel and Tourism Council for 2020.
- *Services shock.* A 15 percent switch in household demand away from services requiring close human interaction—such as mass transport, domestic tourism, restaurants, and recreational activities—towards consumption of goods and other services.

Short-term implications

The combination of four shocks in the simulation causes a severe global recession. On a sectoral level, services affected by social distancing and tourism experience a sharper decline than agriculture and manufacturing, as they are negatively impacted by all four shocks. Country-specific results show differences reflecting the composition of output and exports by sector and destination, as well as relative levels of openness, reliance on tourism, and endogenous changes in competitiveness. All countries suffer a decline in exports (Figure SF.1.2.A). The EAP and ECA regions are among the worst-affected, consistent with their significant exposure to GVCs and tourism (World Bank 2020d). Regions that are less integrated through trade and tourism, such as SSA and LAC, are the least affected. On a sectoral level, industries more integrated in GVCs tend to suffer from more severe contractions in activity (Figure SF.1.2.B). This aligns with the results of other simulations (Sforza and Steininger 2020).

Medium- and long-term implications

The shock from COVID-19 comes at the same time as U.S.-China trade relations are once again deteriorating. These shocks may well cause GVC participants to re-assess the viability of existing production networks, and explore whether they should increase the geographical diversify-cation of supply chains, or even reshore production (Freund 2020). Efforts to force reshoring could damage productivity and incomes, especially among EMDEs whose economic development and poverty reduction efforts have benefitted from their participation in GVCs (World Bank 2019b).

The current environment of global recession and heightened risk aversion has been very unfavorable for international trade. This poses a threat to the gains from trade through comparative advantage, specialization, and economies of scale. Regions that are already well-integrated in GVCs should take steps to ensure that they retain, strengthen, or expand their attractiveness as participants in GVCs, including by ensuring the free flow of their manufactured goods across borders. In regions that are not as well integrated, such as MENA, LAC, SAR and SSA, the desire of companies to increase the geographic diversity of their supply chains may provide an opportunity to undertake the structural reforms that would encourage greater integration (Engel, Winkler, and Farole 2016; World Bank 2019c).

Policymakers more generally need to avoid the implementation of trade restrictions that could reverse the global welfare gains, including a large reduction in global poverty, that GVCs have facilitated. Protectionism does not offer a solution to the problems of security of supply highlighted by the pandemic, and countries with more GVC linkages tend to be more reluctant to impose trade barriers (Blanchard, Bown, and Johnson 2017). Shortages would be even more likely in situations where offshore suppliers are shut out, or where domestic suppliers lack the technology and skills available offshore. During the crisis, offshore sourcing has posed less risk to supply in several key sectors than has concentration of production in a few large facilities (e.g., meat packing, medicines)—a reduced reliance on foreign inputs often results in an increased

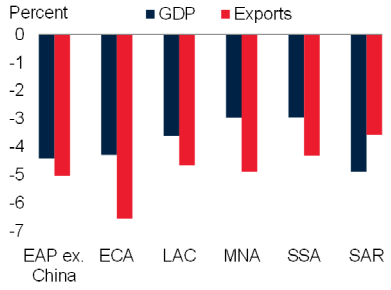
[2] The model and the simulations are detailed in Maliszewska, Matoo, and van der Mensbrugghe (2020). This box describes the paper's amplified global pandemic scenario. The model used is ENVISAGE, calibrated to GTAP Version 10A. It is used in its comparative static specification, and uses 2014 as a reference year.

BOX SF.1 The impact of COVID-19 on global value chains *(continued)*

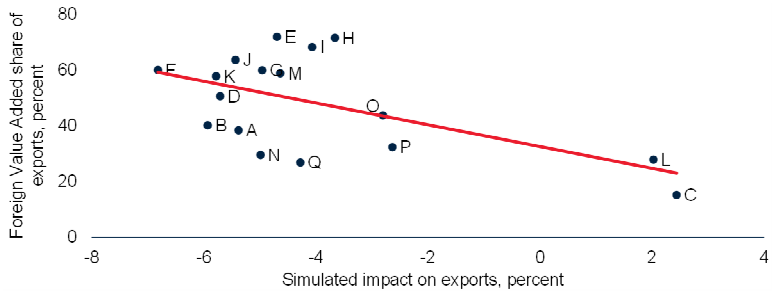
FIGURE SF.1.2 Simulation results

In the modeled scenario, all countries and most sectors suffer a decline in total exports, with the worst-affected regions those that are closely integrated into global trade or dependent on tourism. Using the example of Vietnam, the worst-affected sectors are those with a high share of foreign value added, such as textiles and transport equipment.

A. Regional responses of GDP and exports to modeled COVID-19 shock



B. Sectoral responses in a modeled COVID-19 shock, the case of Vietnam



Source: World Bank.
A.B. "Foreign Value Added share of exports" is the value added of inputs that were imported in order to produce intermediate or final goods/services to be exported. "Impact on GDP" and "Exports" show the change with respect to benchmark in the CGE simulation.
B. Sectors are as follows: A = Agriculture, B = Fishing, C = Mining and Quarrying, D = Food & Beverages, E = Textiles and Wearing Apparel, F = Wood and Paper, G = Petroleum, Chemical and Non-Metallic Mineral Products, H = Metal Products, I = Electrical and Machinery, J = Transport Equipment, K = Other Manufacturing, L = Electricity, Gas and Water, M = Construction, N = Wholesale Trade, O = Transport, P = Post and Telecommunications, and Q = Other Services.
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reliance on domestic inputs, which are also vulnerable to disruption from the pandemic (Bonadio et al. 2020). The most effective way to reduce such risks lies in diversification of sources, which may well include some reshoring, as well as a broadening of foreign sources of supply. The threat to profitability of GVCs provides in itself a market incentive to encourage transnational firms in this direction. Sound government policies with respect to infrastructure investment and improving governance, education, and public health, would facilitate the process.

regions where tourism accounts for a large share of activity, such as MENA (5.5 percent), EAP (5.2 percent), and ECA (4.8 percent).

Informality and food insecurity. In the average EMDE, informal activity accounts for one-third of output and two-thirds of employment—and considerably more in SSA and SAR. This may magnify both the health and economic impacts from COVID-19 (Chapter 1; Box 1.4). Workers and firms in the informal sector have limited options to buffer temporary income losses, and often depend on daily incomes that are insufficient to permit the accumulation of stockpiles of food or other essential items. Measures to slow the spread of the virus such as social distancing and self-isolation are more challenging in the crowded settings of the urban poor. The spread of COVID-19 is expected to cause the number of food insecure people to double in 2020, worsening malnutrition and causing permanent developmental damage, especially in SSA where 20 percent of the population is already undernourished (Figure SF.2.D; WFP 2020).

Macroeconomic policy responses

Regional outcomes also depend on countries having the space and ability to adopt and implement an effective policy response. Many EMDEs have taken measures to support

households and firms through severe economic downturns.

Monetary and macroprudential policy measures

EMDE central banks and governments have implemented a wide range of policy measures to limit the economic and financial fallout of the pandemic (Figure SF.3.A). Prospects of reduced inflationary pressures during the remainder of this year, helped by the collapse in oil prices and weak demand, have aided policy easing efforts in many countries. On aggregate, every region has provided monetary easing through a variety of traditional and novel measures. Central banks have aggressively cut monetary policy rates, with some complementing this easing with unconventional monetary policies such as asset purchase programs—a first for most EMDEs. In addition, they have provided liquidity to help resolve credit crunches, and deployed an arsenal of macroprudential measures to further support lending. While the overall direction of monetary and macroprudential policy has been common across all regions, a considerable degree of variation stems from each region's policy framework and economic circumstances.

- **EAP.** Several economies in EAP implemented conventional monetary policy rate cuts to help support activity (China, Indonesia, Malaysia, Philippines, Thailand, Vietnam). Relatively muted inflation in the region has further aided policy efforts. To ease funding stresses, central banks also provided emergency liquidity to markets (China, Philippines). Indonesia, the Philippines, and Thailand also embarked on asset purchase programs that would buy government securities worth an estimated 1-2 percent of GDP. These measures have been further complemented by a variety of macroprudential measures, including the relaxation of regulatory capital buffers (Indonesia, Malaysia), the lowering of liquid-ity coverage ratios (Malaysia), and the easing of Basel III net stable funding ratios. Heading into the COVID-19 shock, the banking sector in EAP is better capitalized and its balance sheets are stronger when compared to before the global financial crisis of 2008.

- **ECA.** About two-thirds of central banks in ECA have eased their monetary policy stances (Poland, Russia, Tajikistan, Turkey, Ukraine, Uzbekistan), and several have employed liq-uidity measures to boost funding conditions (Hungary, Poland, Romania, Serbia, Turkey). In Poland, the central bank has also started an asset purchase program, as have those in Hungary and Turkey. About 80 percent of economies in the region have also adopted macroprudential measures to further support activity. These have included the easing of regulatory capital buffers (Bulgaria, Hungary, Poland, Russia), banking fee reductions (Ukraine), loan repayment holidays (Russia), and mandated capitalization last year's banking sector profits. Although capital ratios today are on average higher than before the global financial crisis, banking sector balance sheets in several ECA economies are more impaired.

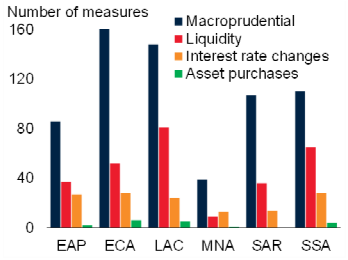
- **LAC.** Several economies in LAC aggressively cut their monetary policy interest rates (Brazil, Chile, Mexico, Paraguay, Peru). Brazil's central bank has reduced the policy interest rate by 150 bps since the start of the year, to a historic low of 3 percent, while also easing capital conservation buffers, reserve require-ments, and provisioning rules to increase liquidity in the banking system. Mexico's central bank has established several new liquidity facilities for banks to ease constraints and enable lending to firms. The central banks of Brazil and Mexico have also benefited from a newly established temporary swap line with the U.S. Federal Reserve that provides dollar liquidity equivalent to 17 and 32 percent of their international reserves. Colombia and Chile have launched asset purchase programs valued at about 1 and 3 percent of GDP, respectively.

- **MENA.** Many economies in MENA have eased their monetary policy stances (Egypt, Algeria, Morocco, Tunisia). Among the Gulf Cooperation Council (GCC) countries, policy rates have also fallen, reflecting these economies' peg to the U.S. dollar tying changes in their policy stances to that of the

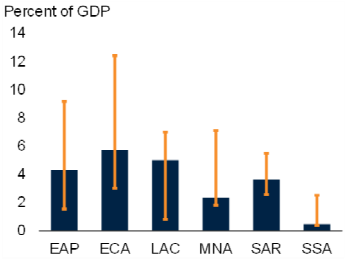
FIGURE SF.3 Policy measures

EMDEs have embarked on unprecedented monetary policy stimulus, including liquidity measures and an array of macroprudential policies. A broad range of fiscal stimulus programs have also been announced that are expected to markedly widen already-large fiscal deficits. Government debt is elevated in some regions, reducing fiscal room to maneuver. Inflation is also expected to exceed central bank targets, weighing on the scope for further monetary policy easing. Banking sectors across EMDE regions are better capitalized today than before the global financial crisis, although some have been grappling with greater balance sheet impairments.

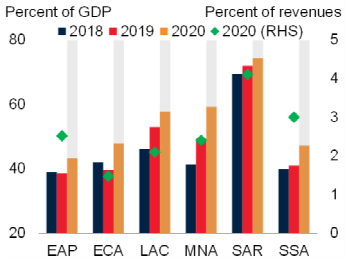
A. EMDE monetary and financial policy measures



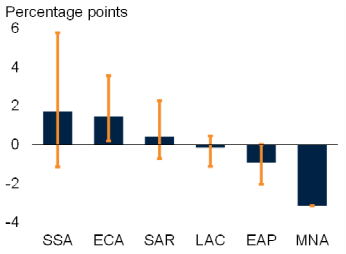
B. Fiscal support measures, by region



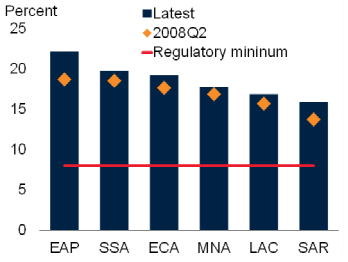
C. Government debt, by region



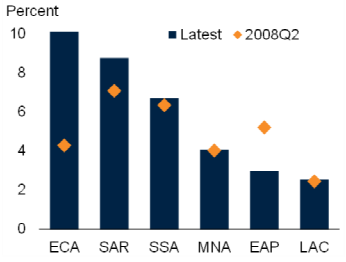
D. Expected inflation deviations from targets in 2020



E. Regulatory capital ratios by region



F. NPLs by region



Source: Bloomberg; Bank for International Settlements; Central Bank News; Consensus Economics; Haver Analytics; International Monetary Fund; Morgan Stanley; World Bank.
Note: EMDE = Emerging Market and Developing Economies, EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.
A. Macroprudential includes prudential methods and measures to support borrowers. Sample includes 120 EMDEs. Last observation is May 27, 2020.
B. Total measures either planned or under consideration as of May 29, 2020. Aggregates are calculated using 2019 nominal U.S. dollar GDP. Orange vertical lines indicate interquartile range. Sample includes 29 EMDEs.
C. Figure shows median for each region. Shaded areas indicate forecasts.
D. Bars reflect the average expected inflation deviation from target in 2020 among EMDEs with inflation targeting regimes. Vertical orange lines indicate interdecile range. Sample includes 56 EMDEs.
E.F. Figures show simple averages for each EMDE group. Due to data limitations, 2008Q2 represents nearest available data no later than 2009Q1. Latest represents most recent data up to 2019Q4.
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Federal Reserve. Some countries have also used macroprudential measures to complement changes in their monetary policy stances. However, scope for further forbearance might be limited, as banking sector capital ratios in many non-GCC MENA economies are vulnerable.

- **SAR.** Several central banks in SAR have also lowered policy interest rates, aided by an impending drop in inflation due to falling oil prices (Bangladesh, India, Pakistan, Sri Lanka). These monetary policy actions have been complemented with measures to provide liquidity to financial markets and banking systems in several economies. In India, the central bank has been purchasing government bonds to further ease financial conditions. In Bangladesh, the central bank lowered the cash reserve ratio and announced purchases of government securities from banks. Some economies have also reverted to macroprudential measures to free up capital in the banking system and help support borrowers. These have included loan repayment holidays (Bhutan, Sri Lanka), easing of regulatory capital buffers (India), and lowering of liquidity coverage ratios (Sri Lanka). Nonperforming loan ratios in SAR are however among the highest across EMDEs, on average—reflecting existing financial sector weaknesses. These could limit the scope for further regulatory forbearance in some economies.

- **SSA.** Monetary policy stances have also been aggressively eased in SSA (Democratic Republic of Congo, Ghana, Kenya, Mauritius, South Africa), despite expectations that inflation will edge up this year due to sharp currency depreciations and higher food prices. Others have lowered reserve requirements to free up liquidity (Botswana, Mozambique), implemented asset purchase programs (Rwanda, South Africa), or deployed a variety of macroprudential policies to enable financial institutions to support distressed borrowers (the Central Bank for the West African Economic and Monetary Union, and the Central Banks of Ghana, Madagascar,

Nigeria). Although several countries' banking sectors have stronger capital positions today than before the global financial crisis (Ghana, Kenya, Rwanda, South Africa), banking sector capitalization is slightly weaker in the region on average—potentially limiting the scope for leveraging macroprudential policies to provide further support to activity.

Fiscal policy measures

EMDEs have also implemented a wide range of fiscal stimulus programs equivalent to around 5 percent of GDP in the EMDEs where they have been announced (Figure SF.3.B). These measures have been targeted at confronting the immediate health crisis, as well as to limit the magnitude of the economic contraction and to provide support for the eventual recovery, and have included expansion of social protection, cash transfers to households, increased access to unemployment benefits, and wage subsidies to firms to protect jobs. To further support firms, policymakers have also provided access to credit, loan guarantees, and vouchers or cash for critical employers and affected sectors such as tourism. However, elevated debt-to-GDP ratios and large fiscal deficits in many EMDEs is constraining their room to aggressively ease fiscal policy—particularly among some industrial commodity exporters, reflecting the loss of revenue due to the collapse in commodity prices. Although most EMDEs have managed to implement discretionary fiscal support packages, those with more fiscal space have generally provided greater support.

- **EAP.** Several countries in EAP have announced large fiscal stimulus packages to help support activity. Measures in China totaled 5.4 percent of GDP and included tax breaks and deferrals and special central and local government bond issuances. Malaysia and Thailand have both implemented extraordinary policy support packages equivalent to around 17 and 13 percent of GDP respectively, which included direct fiscal stimulus packages of about 6 percent of GDP in both countries. The remainder covers health care, public welfare and the expansion of social protection, and other business support initiatives. Indonesia and the Philippines have both announced sizable fiscal stimulus packages that range between 3-5 percent of GDP, which includes targeted support to vulnerable groups. Sharply higher spending is expected to contribute markedly to widening fiscal deficits in the region this year, with the median deficit expected to increase to 5 percent of GDP, from 2.2 percent in 2019.

- **ECA.** Sizable fiscal measures have also been announced in ECA—the fiscal deficit of the median economy is projected to widen from 1 percent in 2019 to 6.8 percent of GDP in 2020. In Poland, an economic package of around 12 percent of GDP will be aimed at boosting health care, expanding social protection coverage, supporting wages, and providing loan guarantees and credit extensions. Measures in Turkey amount to 9 percent of GDP and include increased health care spending, support for utility payments, and increased social protection. In Georgia, announced fiscal measures are equivalent to 3 percent of GDP over the next few years and include additional health spending, support for the tourism sector, accelerated and increased VAT refunds, a moratorium on tax payments for low-income earners, subsidized utility costs of the poor, and unemployment subsidies. In Kazakhstan, fiscal measures—on and off-budget—amount to 5.7 percent of GDP, while several other economies in the region have announced similar measures that range between 2-7 percent of GDP. These include increased health care spending (Armenia, Azerbaijan, Russia, Tajikistan, Uzbekistan), tax payment deferrals (Azerbaijan, Albania, Russia), support for utility payments (Armenia), and employment protection (Armenia, Albania, Kazakhstan, Russia), and expansion of social protection coverage (Armenia, Azerbaijan, Kyrgyz Republic, Russia, Uzbekistan).

- **LAC.** The median fiscal deficit in the region is expected to nearly double this year to 5.2 percent of GDP. Brazil's announced fiscal package of more than 8 percent of GDP

includes income support measures for vulnerable groups, tax deferments, and loan guarantees, among others. Peru has announced a fiscal package equivalent to 7 percent of GDP, which includes direct transfers to poor households, deferrals of tax payments, and utility-payment support, among others. Fiscal measures in the region have targeted a range of areas, including health spending (Argentina, Chile, Guatamala), tax payment deferrals (Chile), tax cuts (Jamaica), and loans or credit guarantees to SMEs (Argentina, Chile), and enhanced employment protection (Argentina, Chile, Guatamala). Governments in Mexico, Paraguay, and Honduras, and Uruguay have provided support for SMEs, including through the provision of additional resources to their development banks and other financial institutions. Fiscal support has also included the expansion of social protection coverage (Argentina, Brazil, Peru). In Brazil, limited fiscal space has required reallocation of expenditures toward income support and health spending.

- **MENA.** Announced fiscal policy responses have ranged between 1 and 13 percent of GDP in MENA—a region hit hard by both the pandemic and the collapse in oil prices. As a result, fiscal deficits in the region are expected to widen to 10 percent of GDP in 2020, from 3.1 percent in 2019, on average. In the GCC economies, measures have included health spending and social protection spending increases, employment protection measures, and support for service sectors like tourism. In several GCC economies (e.g., Qatar, Saudi Arabia, United Arab Emirates), packages also specifically provided relief for small and medium-sized enterprises. In non-GCC economies (e.g., Egypt, Iran), measures have focused on health spending, cash transfers, and social protection. With the collapse in oil prices weighing further on fiscal positions in MENA, some support packages have entailed budgetary reallocations (Algeria, Saudi Arabia).

- **SAR.** In SAR, India, Pakistan, and Bangladesh have announced fiscal, liquidity, and loan support measures, ranging from 3 to 10 percent of GDP. Measures in India include spending on health care to bolster the COVID-19 response, wage support, in-kind and cash transfers to lower-income households, deferral of tax payments, as well as loan and liquidity support for small businesses and financial institutions. In Pakistan, measures also include additional spending on health care, cash transfers, and relief of utility payments. The fiscal support package in Bangladesh includes subsidies on interest payments for loans to businesses, loan guarantees equivalent to almost 2 percent of GDP, food distribution, targeted cash transfers to the poor, additional procurement of rice and paddy, and an agricultural lending program. The median fiscal deficit in SAR is foreseen to widen from 5.4 percent of GDP in 2019 to 6.9 this year.

- **SSA.** Several countries in SSA have announced various fiscal measures to support activity and buttress health sector responses to the pandemic. However, given binding fiscal policy constraints, these measures have mostly been smaller than in other EMDE regions and often involved reprioritization of existing budgets (Cabo Verde, Nigeria, Zimbabwe). The median fiscal deficit in the region is projected to reach 5.1 percent of GDP this year, almost doubling from 2019. Despite severely constrained fiscal space and a recent sovereign rating downgrade to sub-investment grade, the South African government has announced a near 10 percent-of-GDP fiscal support package, which includes loan guarantees—equivalent to almost 4 percent of GDP—measures to strengthen the health sector, bolster sanitation infrastructure, and relieve social distress, as well as tax relief. Announced fiscal support in Ethiopia equivalent to close to 2 percent of GDP will boost health care spending and assist in emergency food distribution. In the Republic of Congo, the government's 1.6 percent-of-GDP fiscal package is targeted at bolstering the health system and includes tax payment deferrals.

To help alleviate funding shortfalls among the world's poorest economies, many of which are in SSA, the World Bank and the IMF have called on bilateral creditors to suspend debt payments from fiscally constrained countries. Both institutions have also made emergency support packages available to assist governments; however, given the scale of the pandemic, further external assistance from the broader global development community is imperative.

Limitations on policy room to maneuver

Many economies have limited room to implement additional fiscal and monetary stimulus. EMDE government debt has risen sharply over the last decade, rising to above 60 percent of GDP in one-third of EMDEs by 2019, while fiscal deficits were wider than 3 percent of GDP in 40 percent of countries (Figure SF.3.C). Although inflation among EMDEs is expected to moderate as a result of the pandemic, inflation in many EMDEs is projected to remain above central bank targets, constraining these economies' ability to ease their monetary policy stances further (Figure SF.3.D). In general, EMDE banking sectors were better capitalized in 2019 than they were before the global financial crisis in 2008; however, elevated balance sheet impairments in some regions could weigh on banks' ability to extend much-needed credit to firms and households during the COVID-19 crisis, and could put financial stability at risk (Figures SF.3.E and SF.3.F).

- **EAP**. Banking sectors in EAP are the best capitalized on average of all EMDE regions, with the average regulatory capital to risk-weighted assets ratio around 22 percent. However, banking sectors in the region also have the highest loan-to-deposit ratios of all EMDE regions, suggesting an increased likelihood of liquidity constraints arising in the event of severe funding stress.

- **ECA.** Debt levels in a number of ECA economies are below that of the average EMDE, facilitating the implementation of large fiscal stimulus packages. However, the fall in revenues as a result of the decline in commodity prices is expected to reduce fiscal space in the third of the region's economies that are industrial commodity exporters (Azerbaijan, Kazakhstan, Russia, Tajikistan, Turkmenistan). In some countries, however, elevated shares of foreign-currency-denominated debt could leave their debt burdens vulnerable to sharp depreciations. In over one-half of economies in ECA—particularly among oil exporters—inflation is expected to exceed its target next year by a greater margin than the EMDE median, likely constraining further easing of monetary policy.

- **LAC.** A few LAC economies have weak foreign reserve buffers, with the region's economies accounting for one-quarter of those EMDEs in the bottom quartile for reserves-to-imports cover. There is wide heterogeneity, however, as countries like Brazil have strong reserve buffers. Reserve buffers in some countries with fixed exchange rates, such as the Caribbean islands, have also come under severe pressure amid the international financial turmoil. A number of countries in LAC also have large external financing requirements, exacerbating the limitations of low reserves.

- **MENA.** The region's disproportionate exposure to the collapse in oil prices is expected to weigh heavily on fiscal balances as government revenue is bound to drop steeply, constraining the room for significant countercyclical fiscal stimulus. Fiscal deficits are expected to widen to beyond 9 percent in 2020—from around 4 percent in last year. As a result, median government debt is expected to rise 10 percentage points this year, with debt-to-GDP ratios in about half of the region's economies being in the worst quartile for EMDEs.

- **SAR.** Although banking sectors in SAR are well capitalized relative to regulatory requirements, capital adequacy ratios are the lowest among EMDE regions, on average. Even before the pandemic, credit extension was slowing in some countries (Bangladesh, India). Non-performing loan ratios in SAR are among the highest of all EMDE regions.

In about 90 percent of the region's economies, non-performing loan ratios exceed that of the EMDE median. This weighs heavily on the banking sector's ability to provide credit during the current downturn. High debt burdens in a number of countries are also constraining fiscal space.

- **SSA.** Around 40 percent of economies in the worst quartile for government debt are in SSA. In addition, half of the EMDEs in the worst quartile for government debt-to-revenue ratios—a crude indication of the years of revenue needed to repay debt—are in the region. Many countries in SSA also have limited foreign reserve buffers, with the median economy having enough reserves to cover 3.5 months of imports.

Prospects for per capita growth and poverty

Nearly 80 percent of EMDEs are expected to register negative growth—the highest share on record (Figure SF.4.A). In general, forecast downgrades are larger and the recessions are deeper in EMDE regions with the most severe COVID-19 outbreaks or those most susceptible to global spillovers, such as economies that are heavily dependent on tourism, economies deeply embedded in global value chains, and major exporters of industrial commodities (Figure SF.4.B). LAC and ECA have large downgrades partly because of the size of their domestic outbreaks and exposure to global spillovers, while South Asia's substantial downgrade is primarily the result of stringent lockdown measures.

Per capita incomes among more than 90 percent of EMDEs are expected to contract in 2020—markedly affecting living standards and likely causing many millions to fall back into poverty across all EMDE regions (Figure SF.4.C and D; Lakner et al. 2020; ILO 2020; World Bank 2020b). Per capita income losses are forecast to be steepest in ECA, LAC, MENA, and SSA. These four regions are home to many oil exporters, which will be severely affected by the precipitous fall in oil prices (see Chapter 4).

- **EAP**. Regional growth is projected to slow sharply from 5.9 percent in 2019 to 0.5 percent in 2020—the lowest rate since 1967—with sizable policy support preventing a more severe deceleration. Although subject to significant uncertainty, regional growth is expected to rebound to 6.6 percent in 2021. Per capita incomes are forecast to contract by 0.1 percent, on average, this year—the weakest performance and first contraction since 1968—before rebounding to 6 percent in 2021. Over the last 30 years, per capita income growth in EAP has averaged 7 percent. Falling per capita incomes amid the COVID-19 pandemic is likely to have a devastating impact on poverty and welfare in the region (Lakner et al. 2020; World Bank 2020b).

- **ECA**. Regional economies are forecast to contract by 4.7 percent in 2020—the steepest fall since the 5 percent contraction during the global financial crisis—with recessions in nearly all ECA economies. The outlook assumes that containment and mitigation measures are gradually lifted by the start of the second half 2020. Growth in ECA is projected to recover to 3.6 percent in 2021, as the economic effects of the pandemic gradually wane and the recovery in trade and investment gathers momentum. Per capita incomes in 2020 are projected to contract 5 percent. Although extreme poverty is less prevalent in ECA than in other EMDE regions—about 6 million people in the region live in extreme poverty, or 1.2 percent of the population—the steep decline in per capita incomes is expected to raise the poverty headcount (Lakner et al. 2020).

- **LAC**. The regional economy is projected to shrink by 7.2 percent in 2020—the most of all EMDE regions and a much steeper decline than during the global financial crisis—reflecting measures to slow the domestic spread of the pandemic, significant deterioration in financing conditions and commodity prices, and spillovers from a global recession. As mitigation measures are scaled back and financing, commodity price,

and external demand conditions become more supportive, regional growth is projected to recover to 2.8 percent in 2021. The implied 8.1 percent drop in per capita incomes this year will also be the steepest among all EMDE regions. This sharp contraction in per capita incomes is likely to cause millions to lapse into extreme poverty, as many of those who escaped poverty in recent years are still vulnerable to falling back into it (World Bank 2020d).

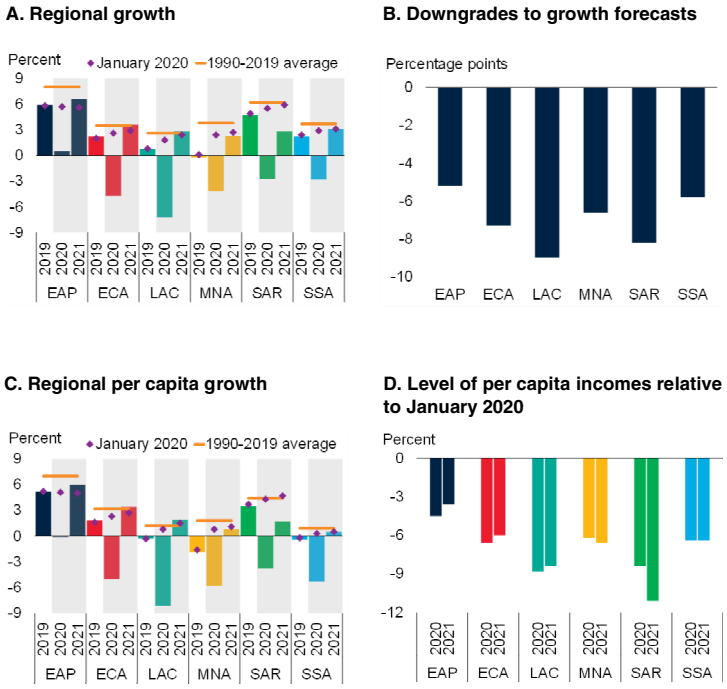
- **MENA**. Activity in the region is expected to contract by 4.2 percent in 2020, as consumption, exports, and services activity like tourism are severely disrupted by the COVID-19 pandemic, and in oil exporters, export and fiscal revenues collapse with the plunge in oil prices. Regional growth is expected to resume in 2021-22 as the impact of the pandemic fades and investment improves. Per capita GDP in MENA is expected to contract by 5.8 percent this year—the steepest contraction among EMDE regions after LAC—reflecting the region's disproportionate exposure to the oil price collapse. It will also be the fourth consecutive year in which per capita incomes in for the region as a whole have fallen. Although per capita growth is expected to recover to 0.8 percent in 2021, it will remain below the long-term average, as the region is foreseen to continue struggling with macroeconomic fragility (World Bank 2020e).

- **SAR**. Activity in the region is projected to shrink by 2.7 percent in 2020. Consumption and services activity have been severely hindered by pandemic mitigation measures. The depth of the global contraction will also weigh substantially on SAR activity, despite more modest trade linkages with advanced economies compared to other EMDE regions. Growth in 2021 is projected to recover to 2.8 percent as pandemic mitigation measures are rolled back and manufacturing and services activity resume. An expected tapering of global headwinds is expected to further support recovery of activity in the region. SAR is expected to experience a reduction of per capita incomes of 3.8 percent in 2020, the first contraction since 1979. Per capita income growth is forecast to rebound to 1.7 percent next year, but remain well-below the long-term average of 4.4 percent.

- **SSA**. Activity in the region is expected to contract by 2.8 percent this year—the deepest contraction on record and 5.8 percentage points weaker than previous forecasts. Efforts to contain the spread of the virus have disrupted the functioning of domestic

FIGURE SF.4 Prospects for growth, per capita incomes and poverty

Nearly 80 percent of EMDEs are expected to register negative growth this year, with the deepest regional contractions in ECA, LAC, and MNA. Revisions to growth forecasts have been substantial across all EMDE regions. The decline in per capita incomes due to the fall in activity is expected to be even steeper and could cause many millions to fall back into extreme poverty.



Source: World Bank.
Note: EMDE = Emerging Market and Developing Economies, EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.
A.C. Bars denote latest forecast; diamonds correspond to January 2020 forecasts in the *Global Economic Prospects* report. Average for 1990-2019 is constructed depending on data availability. For Europe and Central Asia, the long-term average uses data for 1995-2019 to exclude the immediate aftermath of the collapse of the Soviet Union. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates. Shaded areas indicate forecasts.
A. Since the largest economies account for about 50 percent of GDP in some regions, weighted averages predominantly reflect the developments in the largest economies in each region.
B. Figure shows the downgrade in regional GDP forecasts in 2020. Sample includes 145 EMDEs.
D. Bars show the percent difference between the level of per capita GDP in the January and June 2020 editions of *Global Economic Prospects*. Sample includes 144 EMDEs.
Click here to download data and charts.

economies, and will be compounded by sharply lower growth in major trading partners and the collapse in commodity prices. Growth in the region is expected to rebound to 3.1 percent in 2021; however, the outlook is subject to substantial uncertainty. Per capita GDP this year is projected to fall by 5.3 percent, likely causing millions to fall back into extreme poverty. With the region already home to about 60 percent of the world's extreme poor, this rise is bound to further concentrate global poverty in the region (Lakner et al. 2020; World Bank 2020a).

Risks

Given the size and unprecedented nature of the COVID-19 shock to the global economy, any numerical forecast for the period ahead is subject to an unprecedented level of uncertainty. Downside risks to the outlook predominate for all EMDE regions and could lead to a substantially greater loss of output in the near term if they materialize. Several risks common to all regions are discussed in Chapter 1. These include a longer-than-expected pandemic, financial crises, and a retreat from global value chains. These risks are global in nature, notwithstanding a degree of regional variation in their impact. For example, the likelihood of more persistent outbreaks of COVID-19 is higher in regions with weaker health systems, financial crises are more likely and more damaging in regions burdened with higher debt, and a global retreat from value chains would be more damaging for regions that are tightly integrated in world trade. In addition to these global risks, there are also myriad risks specific to each region.

- **EAP.** Key risks include the possibility of a second wave of the outbreaks, which would renew pressure on countries' health care systems and interrupt the recoveries which have begun in countries that have largely brought domestic outbreaks under control. Moreover, it remains to be seen whether the policy accommodation being provided will be sufficient to prevent a more severe deterioration in confidence, investment, and trade. Finally, a renewal of trade tensions between the United States and China would cause renewed disruption to trade, and increase existing pressures on the supply of intermediate goods.

- **ECA.** An even sharper-than-expected slowdown in the Euro Area, perhaps from a worsening of the pandemic or more prolonged mitigation measures, could amplify the negative spillovers from the region, including through global value chains, as well as through commodity, financial, and remittance channels. With remittances accounting for 10 percent of GDP in the region, a sharp fall could amplify the regional economic downturn. Similarly, a prolonged deterioration in global investment sentiment could have material implications for the region if it weighs on foreign direct investment.

- **LAC.** Downside risks to the outlook in LAC include a resurgence of last year's wave of social unrest, increasingly adverse market reactions to rising public debt, weaker-than-expected commodity prices, and persistent pandemic-related uncertainty slowing the recovery of the services sector. In addition, LAC faces persistent risks related to natural disasters and weather-related events. A major natural disaster on the heels of the COVID-19 pandemic would be economically devastating for some countries in the region.

- **MENA.** The recent sharp decline in oil prices and the continued high uncertainty about their future path pose an important downside risk to the region's outlook. More widespread COVID-19 outbreaks could exact a significant humanitarian toll, especially among the fragile economies where forced displacement and insecurity leave populations already highly vulnerable. In addition to the effects of the pandemic, conflict-related risks in MENA remain high.

- **SAR.** The regional spread of COVID-19 could have especially severe humanitarian consequences given the region's high population, large informal sectors, high inequality, and underdeveloped health systems. An intensification of financial market stress

would add further pressure to financial sector balance sheets already burdened with existing vulnerabilities, including high levels of non-performing loans. Financial stress also risks risk saddling governments with contingent liabilities should bailouts be needed, with adverse implications for public debt sustainability. While the region is an oil importer, further volatility in oil prices could curtail remittance flows from South Asian expatriate workers in Gulf economies.

- **SSA.** The region is especially vulnerable to a larger and longer lasting downturn given the weakness of its health care systems, constrained fiscal policy space, and its limited capacity to effectively implement social-distancing measures. SSA is at risk of debt distress given high levels of debt and sharply higher borrowing costs. There are also growing concerns that border closures and trade-restrictive policies may cause a food security crisis in the region.

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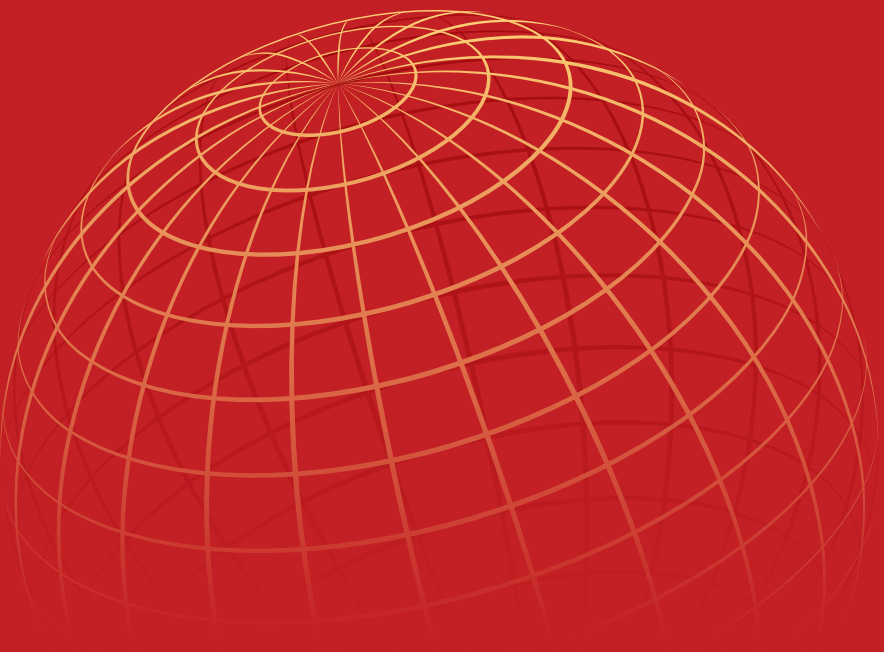


CHAPTER 3

Lasting Scars of the COVID-19 Pandemic

The COVID-19 pandemic has struck a devastating blow to an already-fragile global economy. Lockdowns and other restrictions needed to address the public health crisis, together with spontaneous reductions in economic activity by many consumers and producers, constitute an unprecedented combination of adverse shocks that is causing deep recessions in many advanced economies and emerging market and developing economies (EMDEs). Those EMDEs that have weak health systems; those that rely heavily on global trade, tourism, or remittances from abroad; and those that depend on commodity exports will be particularly hard-hit. Beyond its short-term impact, deep recessions triggered by the pandemic are likely to leave lasting scars through multiple channels, including lower investment; erosion of the human capital of the unemployed; and a retreat from global trade and supply linkages. These effects may well lower potential growth and labor productivity in the longer term. Immediate policy measures should support health care systems and moderate the short-term impact of the pandemic on activity and employment. In addition, a comprehensive reform drive is needed to reduce the adverse impact of the pandemic on long-term growth prospects by improving governance and business environments, and expanding investment in education and public health.

Introduction

On March 11, the World Health Organization declared COVID-19 a pandemic—the first such declaration since the swine flu in 2009. As infections and deaths soared, governments around the world have taken unprecedented measures—including lockdowns and quarantines, school and business closures, and travel restrictions—to stem the spread of the pandemic. These measures, together with the spontaneous reactions of consumers, workers and businesses, have caused severe disruptions to activity in many sectors and a sharp global economic downturn. This has been accompanied by record capital outflows from emerging market and developing economies (EMDEs), a collapse in global trade, and a plunge in oil demand.

This chapter takes stock of the consequences of the pandemic for the global economy. Specifically, it addresses the following questions:

- How has the pandemic evolved?
- Through which channels does the pandemic affect the global economy?
- What is the short-term growth impact of the pandemic?
- What are the likely long-term growth implications of the pandemic?

Contributions. This chapter makes several contributions to a rapidly growing literature on the macroeconomic effects of the pandemic. First, while extensive analysis of the effects on advanced economies is widely available, work on the pandemic's impact on EMDEs has thus far been very limited. This chapter provides the first comprehensive overview of the effects of the pandemic on EMDEs, highlighting the features that make these economies more vulnerable than advanced economies. Second, while much recent analysis has been devoted to the short-term implications, with forecasts for this year and next, this chapter also analyses the long-term macroeconomic effects of the pandemic. Third, the chapter presents, for the first time, a systematic synthesis of the copious literature developed over the past few decades on the macroeconomic effects of past disease outbreaks, including epidemics and pandemics.

Main findings. The chapter reports several novel findings.

- *Evolution of the pandemic:* While outbreaks in most advanced economies appear to be abating, the pandemic is rapidly spreading across EMDEs, including low-income countries (LICs), where health care systems have very limited capacity.

Note: This chapter was produced by a team led by M. Ayhan Kose and Franziska Ohnsorge and including Carlos Arteta, Alistair Dieppe, Justin-Damien Guenette, Alain Kabundi, Sergiy Kasyanenko, Sinem Kilic Celik, Gene Kindberg-Hanlon, Patrick Kirby, Hideaki Matsuoka, Yoki Okawa, Cedric Okou, M. Rudi Steinbach, Dana Vorisek, and Shu Yu. Research assistance was provided by Hrisyana Doytchinova, Maria Hazel Macadangdang, Vasiliki Papagianni, and Heqing Zhao.

- *Severe short-term impact.* The pandemic, the widespread restrictions put in place to stem it, and the spontaneous reactions of many consumers and producers have already caused a deep global recession. Along with the public health crisis, EMDEs are facing tighter financing conditions, plunging oil and other commodity prices, sharp declines in remittances, and collapsing international trade.

- *Magnifying short-term weakness.* Many EMDEs entered this global recession less well-prepared, and with larger vulnerabilities, than when they were hit by the last global recession in 2009. EMDEs that are most vulnerable to the impact of the pandemic include those that have weak health systems, that rely heavily on global trade or tourism, that are vulnerable to financial disruptions, and that depend on oil and other commodity exports. The recession will prolong a decade of disappointing growth for EMDEs.

- *Persistent damage in the long run.* COVID-19 and the resulting recessions engulfing vast swaths of the developing world will leave lasting scars, eroding productivity and potential output for extended periods. The long-term damage will be particularly severe in economies that suffer financial crises, and in energy exporters because of plunging oil prices. In the average EMDE, over a five-year horizon, a recession combined with a financial crisis could lower potential output by almost 8 percent while, in the average EMDE energy exporter, a recession combined with an oil price plunge could lower potential output by 11 percent. The pandemic is expected to exacerbate the weakness in productivity growth and private investment that were features of the past decade.

- *Aggravating long-term challenges.* Recessions associated with the pandemic will likely have an even larger impact on long-term growth prospects because of pre-existing vulnerabilities, fading demographic dividends and structural bottlenecks, and permanent changes in behavior patterns, including consumption habits, and human capital formation. In most years during the past decade, EMDE growth fell short of its long-term average. This was reflected in repeated downgrades to long-term growth projections for EMDEs. The pandemic is expected to exacerbate the multi-decade trend slowdown in potential output growth and productivity growth.

- *Policies.* While the immediate priorities of policymakers are to address the health crisis and moderate the short-term economic losses, the likely long-term consequences of the pandemic highlight the need to forcefully undertake comprehensive reform programs to improve the fundamental drivers of economic growth.

Spread of the pandemic

Outbreak. As of May 22, more than 5.2 million cases of COVID-19 have been confirmed globally, alongside about 340,000 deaths attributed to the disease. Although the number of confirmed cases represents just 0.07 percent of the global population, cases continue to rise rapidly in most countries, including in EMDEs (Figure 3.1). Reported cases may be significantly lower than the number actually infected, given the sparseness of testing in some countries (Bendavid et al. 2020; Hortaçsu, Liu, and Schwieg 2020; Barro, Ursúa, and Weng 2020).

Comparison with previous pandemics. The COVID-19 pandemic is the latest in a long series of epidemics and pandemics during the twentieth and twenty-first centuries. These have included Ebola in West Africa (2014-15), MERS in the Middle East (2012), swine flu (2009-10), SARS in East Asia (2002-03), Hong Kong flu (1968-69), Asian flu (1957-58) and Spanish flu (1918-19). Preliminary estimates suggest that COVID-19 may be considerably more infectious than many of these diseases, but not among the most deadly for those infected (Figure 3.1).

Influenza pandemics during the past century are estimated to have infected around one-quarter to one-half of the global population, although these estimates are highly uncertain (Annex 3.1; Van

Kherkove et al. 2013). Previous coronavirus outbreaks, SARS and MERS, are estimated to have been significantly less contagious than COVID-19; they resulted in approximately 8,000 and 2,500 worldwide cases, respectively (Wilder-Smith, Chiew, and Lee 2020). In some historical episodes, prophylactic measures were taken to reduce the spread of the diseases, but on a much smaller scale than the measures implemented to counter COVID-19.[1]

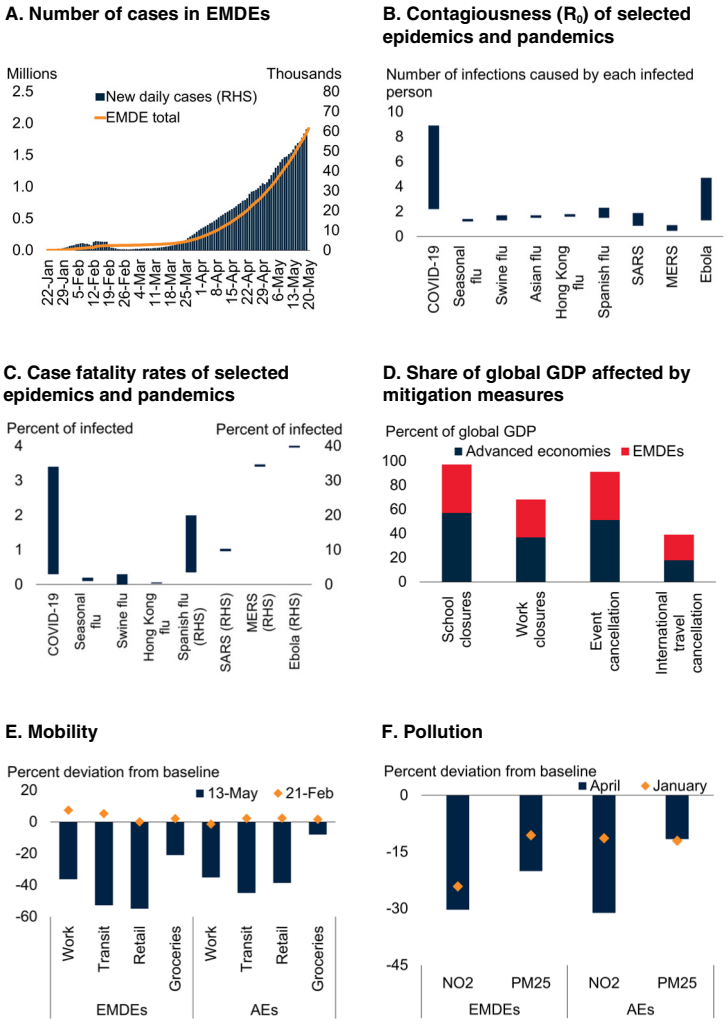
Estimates of COVID-19 fatality rates are currently in flux, in part due to uncertainties over the true number of cases: they have ranged from 0.3 to 3.4 percent, with many of the higher estimates likely to have been biased upwards due to shortfalls in testing and the presence of unrecorded asymptomatic cases (Rajgor et al. 2020). This range is lower than estimates of fatalities resulting from the Spanish flu, which is estimated to have killed 50-100 million people during 1918-19, with case fatality rates of 3.5-20.0 percent (Johnson and Meuller 2002; Spreeuwenberg et al. 2018). The range of estimates of COVID-19 case fatality rates is closer to estimates for the Asian and Hong Kong flus. These pandemics are estimated to have had case fatality rates of approximately 0.01 percent (Li et al. 2008; Wang and Nguyen Thi 2013).

Mitigation measures. Restrictions and voluntary actions taken to stem the pandemic, including social distancing, have helped to lower the infection rate and thus to delay, and lower, the peak number of infections (Eichenbaum, Rebeloz, and Traband 2020; Ferguson et al. 2020). A key part of the policy response to COVID-19 has been the implementation of restrictions on people's movements and economic activity of unprecedented scope and scale, beginning in China and extending to most countries (Figure 3.1). By end-April, nearly 150 countries had closed schools and mandated cancellation of events, and more than 80 had closed all workplaces. Travel restrictions were widespread.

[1] During the Spanish flu, for example, only 6 percent of cities in the United States declared general business closures, while 82 percent of U.S. states issued statewide stay-at-home orders in 2020 (Hatchett, Mecher, and Lipsitch 2007).

FIGURE 3.1 The COVID-19 pandemic and mitigation measures

The global number of infections has been growing rapidly. Many countries, accounting for almost all of global GDP, have put in place mitigation policies that restrict school, work, public gatherings and events, and travel. Reflecting a near-halt to much of economic activity, indicators of mobility as well as air pollution have declined.



Source: Air Quality Open Data Platform; Biggerstaff et al. (2014); Centers for Disease Control and Prevention; Cobos et al. (2016); Coburn et al. (2009); Dawood et al. (2012); Google's *Mobility Tracker;* Johns Hopkins University Coronavirus Resource Center; Johnson and Mueller (2002); University of Oxford COVID-19 Government Response Tracker; Raigor et al. (2020); Sanche et al. (2020); Taubenberger (2006); UN *World Population Prospects*; Van Kerkhove et al. (2013); WHO Ebola Response Team (2016); World Bank, World Development Indicators; Yi et al. (2020).

A. Seven-day rolling average of daily new cases. Sample includes 154 EMDE. Last observation is May 20, 2020.

B.C. Range of estimates from the literature.

C. Confirmed cases are estimated number of those with symptoms for seasonal flu, swine flu, and Hong Kong flu; confirmed cases for SARS, MERS, and Ebola; and total infections for Spanish flu.

D. Figure shows share of GDP accounted for by economies with restrictions. Restrictions are counted if required (i.e., not only recommended) and, for school and work closures, if applied across all levels and sectors, respectively. Travel restrictions are counted if they entail a ban on arrivals from all regions or a total border closure. Data is for April 1, 2020. Sample includes 125 EMDEs and 34 AEs.

E.F. GDP-weighted averages (at 2010 prices and market exchange rates).

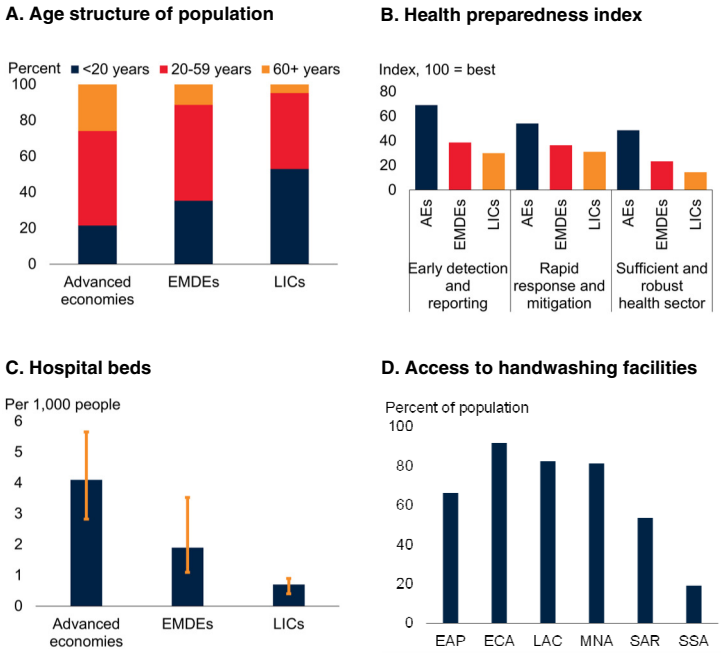
E. Based on data from Google's Mobility Tracker. Weekly averages for weeks ending May 13 and February 15.

F. Baseline is defined as daily average for same month in 2015-19. NO_2 = nitrogen dioxide; PM2.5 = particulate matter with diameter less than 2.5 micrometers. Based on daily data from Air Quality Open Data Platform. GDP-weighted monthly averages for January and April.

Click here to download data and charts.

FIGURE 3.2 Health vulnerabilities in EMDEs

EMDEs, with generally younger populations, might be better placed to limit fatalities from COVID-19 than advanced economies. However, EMDEs also tend to have poorer clinical care, are less prepared to manage health crises, and their populations have less access to safe water and sanitation.



Source: Johns Hopkins University and Nuclear Threat Initiative, Global Health Security Index; UN *World Population Statistics*; World Bank, World Development Indicators.
A. Population-weighted averages. Data for 2020. Sample includes 37 advanced economies and 143 EMDEs, of which 29 are LICs.
B. "Early detection and reporting" reflects countries' capacity for detecting and reporting epidemics of potential international concern; "Rapid response and mitigation" reflects their ability to respond to and mitigate the spread of an epidemic; and "Sufficient and robust health sector" reflects the capacity of health sectors to treat the sick and protect health workers. Data reflects 2019. Sample includes 31 LICs, 123 EMDEs, and 35 advanced economies. EMDEs exclude LICs.
C. Bars denote medians. Whiskers indicate first and third quartile ranges. Data for 2015 or closest available year (earliest 2010). Sample includes 36 advanced economies and 155 EMDEs, of which 31 are LICs.
D. Bars denote medians. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa. Data for 2017 or closest available year (earliest 2015). Sample includes 154 EMDEs.
Click here to download data and charts.

EMDE-specific considerations. One feature of COVID-19 is that its lethality has been highest among the elderly (CDC 2020). This may help lower the case fatality rate in EMDEs, including LICs, which typically have younger populations. The proportion of the population older than 60 years is 11 percent, on average, in EMDEs, and only 5 percent in LICs (as well as in Sub-Saharan Africa more broadly), compared with 26 percent in advanced economies (Figure 3.2). However, EMDEs generally are less prepared for epidemics and have poorer public health and medical care systems than advanced economies, making the likelihood of recovery from COVID-19 lower should medical attention be needed. The median LIC, for instance, has less than one hospital bed per 1,000 people—compared to more than four in the median advanced economy. Finally, a higher proportion of the population of EMDEs live in informal, crowded housing conditions where access to clean water and sanitation services is limited, making the hygiene and physical distancing measures needed to contain the virus impractical or impossible (Corburn et al. 2020).

The economics of the pandemic: Shocks and spillovers

COVID-19 is the most adverse peacetime shock to the global economy in a century. Demand for goods and services has been severely curtailed, while at the same time supply has fallen sharply, as the number of people working has declined and the cost of doing business has risen. The shock has caused unprecedented disruptions to global trade, travel, and tourism; stress in global financial markets; and sharp declines in commodity prices.

Demand shortfalls. While the measures taken by governments, consumers, and firms to reduce social interaction have been critical to slow the spread of the virus, they have entailed significant disruptions to economic activity. A substantial share of private consumption requiring social interaction was lost in the first half of the year. Reduced consumption of goods and services has been one of the main drivers of lost output in a range of model-based estimates of the effects of pandemics (Annex 3.1). Investment has also been curtailed, not only by difficulties in maintaining production and construction but also by sharply weaker growth prospects, rising financing costs, eroding confidence, and increased uncertainty.

Supply disruptions. Air travel, schools and universities, restaurants, theaters, sports venues, and other facilities servicing masses of people have been largely closed down. Labor supply has declined, because of restrictions on movement and human interaction, illness of workers and family members, and school closures (Keogh-Brown et al. 2010; Kilbourne 2004). Workers able to work at

home have in many countries been encouraged or instructed to do so, but fewer jobs can be undertaken remotely in EMDEs than in advanced economies, partly because of more limited internet connectivity (ILO 2020). In some advanced economies, such restrictions as quarantine requirements on the entry of temporary foreign workers have been threatening agricultural production. Delays in input deliveries and limited access to financing, which have been exacerbated by the increased reliance on global value chains, have been causing operational challenges for firms. Over the longer term, workplace closures and quarantines can limit the diffusion of new technologies and knowledge, with lasting damage to productivity.

Global spillovers to EMDEs. These adverse demand and supply shocks have resulted in cross-border spillovers to EMDEs through multiple channels—real channels, including disruptions in global trade, supply chains, travel, and tourism; and financial channels, including sharp declines in remittance flows and large capital outflows amid a flight to safety in March. Commodity prices have been depressed by the sharp decline in demand and, with oil the most affected. These cross-border spillovers have been amplified by plunging confidence and rising uncertainty.

Initial impact: Economic activity, financial and commodity markets

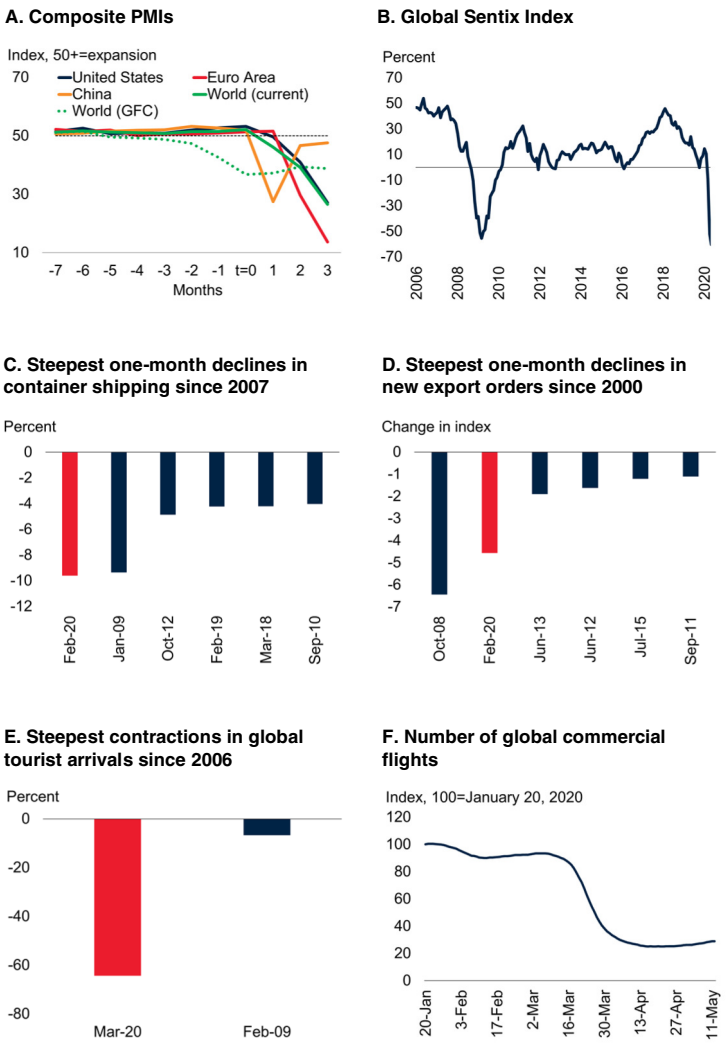
Consistent with the gravity of the shocks and spillovers discussed above, recent data point to substantial disruptions in global activity and trade, a sharp tightening of financial conditions, and a severe decline in commodity prices (Chapter 1).

Global activity and trade

Data released in the first half of 2020 point to a severe global recession. The global composite PMI—a gauge of worldwide manufacturing and services activity—sank deep into contractionary territory to a record low of 26.5 in April (Figure 3.3). Along with the implied sharp drop in output, global trade has also contracted significantly. The new export orders PMI stood at 35.3

FIGURE 3.3 Indicators of economic activity and international trade

The recent decline in global economic activity is one of the steepest and deepest on record. Purchasing managers' indexes have fallen sharply in major economies and global sentiment has plunged. Global trade indicators, such as container shipping and the new export order component of PMI, experienced historically large falls in February. Air traffic volumes have fallen to a fraction of early 2020 values.



Source: flightradar.com; Haver Analytics; Institute of Shipping Economics and Logistics; J.P. Morgan; Sentix GMBH; World Bank.

A. PMI = Purchasing managers' index. GFC = global financial crisis. PMI readings above (below) 50 indicate expansion (contraction) in economic activity. For World (GFC), t=0 at November 2008, the lowest value over the period 2007-2009. For all other data, t=0 at January 2020. Last observations are April 2020 for the Euro Area and March 2020 for China, the United States, and the world. Percent balance of sentiment on the current economic situation. Last observation is April 2020.

B. Figure shows percent balance of sentiment on the current economic situation. Last observation is May 2020.

C-E. Consecutive months not shown.

C. Data only available from 2007. Figure only considers dates that are at least six months apart.

D. Data only available from 2010. Figure only considers changes that are accompanied by declines below the threshold of 50, which indicates a contraction, and dates that are at least six months apart.

E. Year-on-year growth. Monthly data only available from January 2005. Sample includes 22 advanced economies and 29 EMDEs.

F. Figure shows a 7-day moving average. Commercial flights include commercial passenger flights, cargo flights, charter flights, and some business jet flights. Last observation is May 12, 2020.

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in April, deep in recessionary terrain. Its 11-point fall from March was the steepest on record and considerably steeper than at the onset of the global financial crisis, during the Euro Area crisis (2010-13), or during the recent period of trade tensions (2018-19).

With international travel restricted and internal travel discouraged in most countries, global tourism and travel have been severely curtailed. So far this year, tourist arrivals declined by nearly 100 percent among reporting countries. Globally, the number of commercial flights is down about 70 percent since the beginning of the year.

Disruptions to production and international transport have increased the risk that critical inputs will be unavailable, potentially leading to cascading production shortfalls in global value chains. Manufacturers' stocks of purchases have fallen, while suppliers' delivery times have lengthened. Industries reliant on "just-in-time" inputs from global value chains and lean inventories have been particularly affected. In the automobile sector, a collapse in demand, combined with production and delivery challenges, has led to a precipitous plunge in sales worldwide.

Global financial conditions

Global equity markets fell sharply as the pandemic spread across the world. Within a week of reaching an all-time high in mid-February, the S&P 500 index in the United States experienced its fastest decline since October 1987, and stock markets in other major economies experienced declines of similar magnitude. The VIX volatility index more than quadrupled in March before settling at about double its February value in mid-May.

Flight to safety resulted in a sharp tightening of EMDE financing conditions (Chapter 1). Net portfolio outflows from EMDEs during each of the last three weeks of March were the three largest on record (Figure 3.4).

More recently, global risk sentiment improved in May amid large-scale liquidity injections by major central banks and a gradual relaxation of lockdown measures in some countries. Capital outflows from EMDEs have subsided and equity market valuations have retraced a share of their earlier losses. Nonetheless, financial conditions remain fragile for many EMDEs. Remittance inflows to EMDEs are expected to collapse in 2020 across EMDE regions (World Bank 2020b). Foreign aid flows may also shrink in 2020 as donors focus on supporting their own economies (UNCTAD 2020).

Commodity markets

As a result of the sharp decline of global commodity demand, the prices of most commodities have fallen steeply, particularly those used in the transport industry. Benchmark oil prices have been most affected, with the European Brent spot price plunging by 85 percent between late January—when the first human-to-human transmissions of the virus were announced—and its trough in late-April and the WTI price briefly trading at negative levels, before a gradual recovery in May. The decline in oil prices in March was the largest one-month price plunge on record (Figure 3.4; Chapter 4). The restrictions implemented to control the outbreak have resulted in sharp declines in travel and transport—which account for two-thirds of oil consumption—and in other energy-using economic activities. Oil demand is expected to fall by about 20 percent in the year to the second quarter of 2020 and an unprecedented decline of 9 percent is projected for the year as a whole.

Industrial metals prices declined by 24 percent between late January and late April—more than one-quarter as much as they did at the peak of the global financial crisis. With some exceptions, agricultural commodity prices have experienced only minor declines since January, reflecting their less direct relationship with economic activity (World Bank 2020a). While stocks-to-use ratios of most grains are at near-record highs, concerns about food security as a result of the pandemic have grown as countries have announced export bans (for example, Russia for wheat, Vietnam for rice) or "excess" buying (for example, Philippines for rice, Egypt and Saudi Arabia for wheat). Although most of these announcements have thus far not resulted in policy action, such action could

result in localized food price spikes despite ample global supply (Voegele 2020). Disruptions to supply chains have already affected the exports from some EMDEs of perishable products such as flowers, fruits, and vegetables.

Short-term growth impact

The global economy was confronted by the pandemic when it was on a weak footing. Since the 2009 global recession, growth in all country groups had fallen short of pre-crisis and long-term averages in most years. And, in 2019, the global economy delivered its weakest growth performance in the past decade.

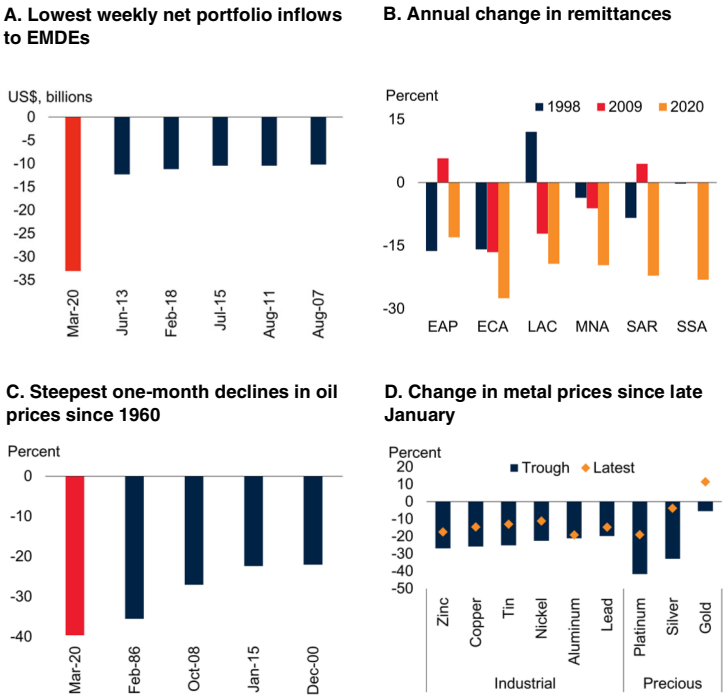
The global economy is now experiencing a deep recession. Its severity and duration will depend on a wide range of factors, including the intensity and duration of restrictions to stem the pandemic, global spillovers from developments in major economies, the ability of policymakers to prevent financial market stress and protect firms and households hurt by the recession, the behavior of the virus, and the success of medical and other scientific advances to contain it.

Previous studies have analyzed the roles of some of these factors in driving short-term growth outcomes, through multiple channels, in the context of the Spanish flu or a hypothetical pandemic influenza. They have found initial GDP losses in the range of 1-8 percent (Annex 3.1).[2] However, these studies do not take into account the effects of restrictions of the kind used to stem the current pandemic, which reflect their unprecedented nature. Taking them into account would be likely to increase estimates of short-term economic losses substantially (Eichenbaum, Rebelo, and Trabandt 2020).

Although subject to considerable uncertainty, studies that do take account of containment measures, as well as other channels for the pandemic's economic impact, have found that EMDEs could suffer output losses of 3-8 percent in the short term, in line with simulations in previous studies of the effects of severe pandemics (IMF 2020; World Bank 2020c). Some studies report that containment measures significantly increase the economic costs of COVID-19.[3] Restrictions on retail, travel, and other service industries could reduce output by 25 percent in

FIGURE 3.4 Financial and commodity market conditions

Net portfolio outflows from EMDEs were the largest on record in March. Across all EMDE regions, remittances in 2020 are expected to suffer larger declines than during the global financial crisis or the Asian financial crisis. Most commodity prices have fallen since January, with oil prices in March experiencing their largest one-month fall since at least 1960. Base metals prices have also declined amid weak industrial demand, while a sharp fall in platinum prices reflects the use of the metal in the automobile industry. In contrast, gold prices have risen on heightened uncertainty and safe-haven demand.



Source: Bloomberg; Dealogic; Institute of International Finance; World Bank.
A.C. Consecutive months or weeks not shown.
A. One-week sum of net daily purchases of EMDE stocks and bonds by non-residents (published by International Institute for Finance) for 20 EMDEs. Data available from 2005. Chart only considers dates that are at least six weeks apart.
B. Data exclude China. Figure for 2020 is a forecast. Orange bar for ECA is for 1999 – after the Russian financial crisis. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.
D. Trough shows largest fall in prices relative to January 20th. Latest shows the change in price between January 20, 2020 and May 20, 2020.
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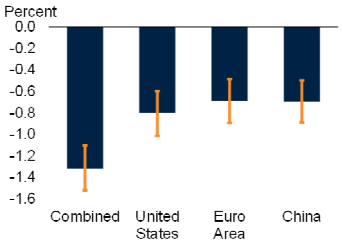
[2] See Barro, Ursúa, and Weng 2020; Burns, van der Mensbrugge, and Timmer 2006; McKibbin and Sidorenko 2006; and Verikios et al. 2011.

[3] For example, in a stylized model for the United States, consumption falls by 22 percent under "optimal" containment measures, compared to just 7 percent if only the effect on labor supply owing to illness and mortality and consumer behavior is considered (Eichenbaum, Rebelo, and Trabandt 2020).

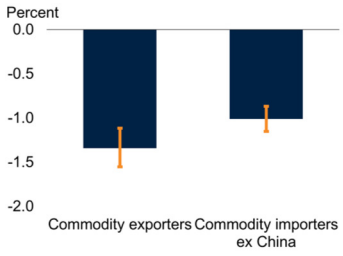
FIGURE 3.5 EMDE growth response to growth slowdown in major economies

A steep growth slowdown in advanced economies and China is expected in 2020, which will generate considerable adverse spillovers for other EMDEs, especially the ones most open to global trade, including commodity exporters, and with less resilient policy frameworks.

A. Response of EMDE growth (excluding China) to a 1 percentage point growth slowdown in the United States, Euro Area, and China



B. EMDE growth response, by commodity exporter status



Source: World Bank.
A. "Combined" stands for GDP-weighted average (at 2010 market exchange rates and prices) of GDP growth in the United States, China, and the Euro Area. Figure shows impulse response of growth in EMDEs excluding China after one year to a 1 percentage point growth slowdown in the United States or China or in all three of these economies simultaneously. Estimates are based on the methodology discussed in Annex 3.2, replacing the "Combined" aggregate with the United States, the Euro Area, and China (in this order).
B. Response of GDP-weighted average (at 2010 market exchange rates and prices) real GDP of groups of EMDEs to a 1 percentage point decline in GDP-weighted average real GDP of United States, Euro Area and China as proxy for global growth, based on impulse responses from the structural vector autoregression described in Annex 3.2. Blue bars show median estimates, yellow whiskers show 16-84 percent confidence intervals. Commodity exporter status as defined in Table 1.2.
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OECD economies during the enforcement period (OECD 2020a).

Spillovers

EMDEs face a perfect storm of both domestic shocks (health crises, restrictions to promote social distancing) and external shocks (plunging trade, collapsing tourism, capital outflows, falling commodity prices). Most immediately, the domestic shocks may well be more disruptive to economic activity than the external shocks. However, the external shocks are likely to also leave a damaging legacy beyond the control of EMDEs. The growth slowdown in the world's major economies, uncertainties about economic policy, and financial market volatility are also expected to weigh heavily on short-term output and investment growth in EMDEs.

The uncertainties surrounding economic policies in the major advanced economies alone would already weigh on investment. Both in the United States and in the Euro Area, economic policy uncertainty is currently at record highs. In the past, such uncertainty significantly lowered EMDE investment. For example, a doubling of the U.S. or Euro Area economic policy uncertainty index (approximately the rise thus far in 2020) has been associated with 6 percentage point weaker investment growth in EMDEs and in EMDEs in Europe and Central Asia, respectively, over the following year (World Bank 2017a).

More broadly, the world's three largest economies—the United States, the Euro Area, and China—are expected to experience sharp economic downturns. It is not expected that any of these three economies will return to pre-pandemic output levels in the short term, before the end of 2021. Since, together, these economies account for almost half of global GDP, this implies important adverse spillovers to EMDEs. A 1 percentage point growth slowdown in the United States or the Euro Area alone has been estimated to lower growth in EMDEs (excluding China) by 0.8 and 0.7 percentage point, respectively, in the following year (Annex 3.2; Figure 3.5). A similarly-sized growth slowdown in China alone could lower growth in other EMDEs by 0.7 percentage point in the following year and, because China accounts for a large part of global commodity demand, would set back growth in commodity-exporting EMDEs by considerably more (Huidrom et al. 2020; Ahmed et al. 2019). Were growth in all three major economies to slow simultaneously by 1 percentage point, growth in EMDEs other than China would be 1.3 percentage points lower in the following year.

The impact of a slowdown in all three major economies would likely be more pronounced in EMDEs that are more open to global trade, finance and commodity markets (Figure 3.5).[4] For example, over the course of one year, growth would slow one-third more in commodity-exporting EMDEs than in commodity-importing

[4] These estimates are based on a Bayesian vector autoregression (Annex 3.2).

ones if growth in the three largest economies slowed by 1 percentage point.

Vulnerabilities: Magnifying the short-term impact

The impact on individual EMDEs will depend on country-specific factors, including vulnerabilities to external and domestic stresses and the ability to provide income support or policy stimulus. These vulnerabilities generally refer to conditions that increase the likelihood or severity of economic or financial stress when downside risks materialize.

Evolution of vulnerabilities

During the last global recession, in 2009, many EMDEs were able to implement large-scale countercyclical fiscal and monetary policies. They were in a position to stimulate activity because they could draw on sizable fiscal and monetary policy buffers accumulated during the pre-recession period of strong growth: government debt had fallen, current account and fiscal deficits had narrowed, and inflation had moderated.

These EMDEs had more resilient economies and, with more forceful stimulus, experienced milder growth slowdowns (Ruch 2019a).

Today, the average EMDE is less well placed to respond to a global downturn than before the 2009 global recession. EMDEs are more vulnerable to external shocks, in part because of larger debt, the trend weakening of demand for commodities, and slower underlying domestic growth. Softening external demand and trade disputes among major economies have also chipped away at an important engine of growth. At the same time, weaker fiscal positions make it more difficult for these economies to support activity with expansionary fiscal policy.

The evolution of vulnerabilities over time is captured in an index that aggregates 20 commonly used vulnerability indicators, grouped into five broader categories of economic vulnerabilities: financial, fiscal, trade, tourism, and poverty (Annex 3.3; Figure 3.6). Both for commodity-importing and commodity-exporting EMDEs, financial and fiscal vulnerabilities have grown since 2007, with particularly large deteriorations in fiscal vulnerabilities in commodity-importing EMDEs. In contrast, commodity-importing EMDEs have scaled back their openness, and corresponding vulnerability, to global trade and tourism since 2007. However, island states that rely heavily on tourism have seen a small increase in their exposure to this sector since 2007. With regard to poverty, commodity exporters continue to have sizable vulnerable population groups, with limited savings and recourse to finance and typically reliant on informal sector activity. While these vulnerable groups tend to be smaller in commodity-importing EMDEs, they have not shrunk there since 2007.[5]

Vulnerable EMDEs

The large capital outflows and steep increases in borrowing costs that have occurred since the beginning of the pandemic are hurting most severely those economies that have large financing requirements; falling commodity prices are hurting the economies that rely most heavily on resource sectors for export and fiscal revenues; and the collapse of foreign demand is hurting most the economies that are most open to trade and tourism. Countries with weak public health and medical care systems, high levels of informal economic activity, and vulnerabilities to food insecurity may face the most disruptive macroeconomic, social and poverty impacts.

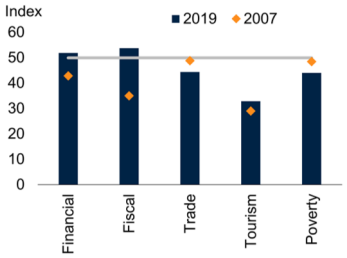
Weak public health and medical care systems. EMDEs with weak public health infrastructure and limited capacity to treat the sick will tend to experience higher mortality rates and larger labor supply disruptions as a result of the pandemic. Low- and lower-middle-income economies tend to suffer particularly large economic losses from epidemics as a result of lower-quality health care and poorer population health (Fan, Jamison, and Summers 2018; McKibbin and Sidorenko 2006). COVID-19 mortality is greatly higher among populations with pre-existing chronic health problems. Many EMDEs have limited medical

[5] In the average LIC, 48 percent of the population is poor and another 26 percent is near-poor, compared with 13 percent of the population in each category in other EMDEs (World Bank 2020e).

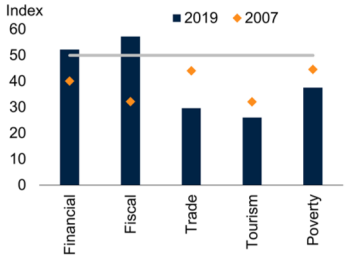
FIGURE 3.6 EMDE vulnerabilities

Financial and fiscal vulnerabilities have increased in all regions since 2007. Some EMDEs are particularly open to trade, exposing them to spillovers from steep recessions in major economies, or are heavily reliant on commodity exports, exposing them to falling commodity prices.

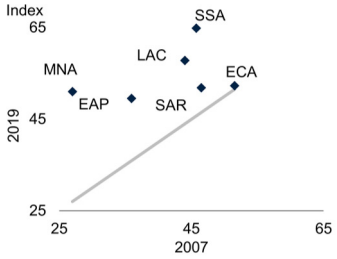
A. Vulnerability indexes: EMDE commodity exporters



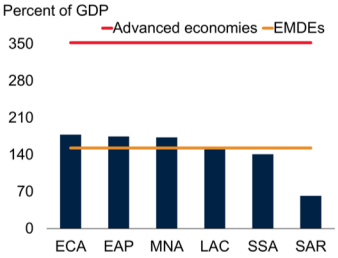
B. Vulnerability indexes: EMDE commodity importers



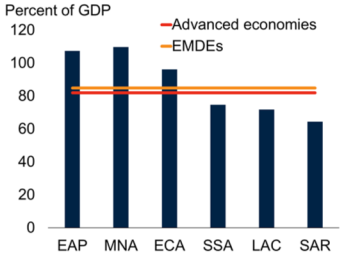
C. Financial vulnerabilities, 2007 and 2019



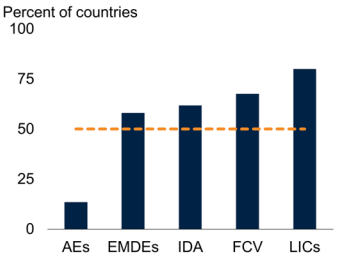
D. Financial openness



E. Trade openness



F. Share of commodity exporters in country groups



Source: IMF International Financial Statistics, *World Economic Outlook*; Kose et al. (2017); UN *World Population Prospects*; World Bank World Development Indicators.

A.-C. Unweighted averages for EMDEs and EMDE regions. Vulnerability indexes are defined in Annex 3.3. An index above 50 means that, on average, the indicators score worse than the median in a sample of up to 197 countries for 1960-2019.

A.B. Grey lines denote 1980-99 averages.

C. Data points above the 45-degree line indicate greater vulnerabilities in 2019 compared to 2007.

D.E. Unweighted averages across groups. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa. Data for 2018.

D. Financial openness defined as the sum of international assets and liabilities in percent of GDP. Sample includes 25 advanced economies (excluding financial centers, such as Cyprus, Ireland, Malta, Singapore, Switzerland, and the United Kingdom) and 80 EMDEs with population over 2.5 million people (excluding offshore centers).

E. Trade openness is defined as the sum of exports and imports of goods and nonfactor services in percent of GDP.

F. Commodity exporters as defined in Table 1.2. AEs = advanced economies, EMDEs = emerging and developing economies, IDA = International Development Association countries, FCV = fragile and conflict-affected countries, LICs = low-income countries.

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care capacity, which even before the outbreak suffered from lack of public funding and underinsured populations. The median LIC has less than one hospital bed per 1,000 people, and the median EMDE just under two, compared with more than four per 1,000 people in the median advanced economy.

Economic structure. Economies that rely heavily on certain sectors are more vulnerable to the adverse macroeconomic effects of the pandemic (Figure 3.6).

- *Service sector dependence.* Demand contractions in sectors that rely heavily on social interactions, such as the travel, accommodation, and restaurant industries, were key drivers of output losses in the SARS and MERS epidemics (Joo et al. 2019; Keogh-Brown and Smith 2008). Many small EMDEs that are heavily reliant on tourism will see a sudden stop in a major source of income and foreign exchange earnings because of travel restrictions, while mitigation measures last.
- *Openness to trade.* EMDEs highly open to international trade or deeply integrated into global supply chains will be hit hard by the collapse in global trade. In several East Asian countries, for example, foreign inputs account for 50 percent or more of domestic exports, making them highly vulnerable to supply chain disruptions.
- *Dependence on commodity exports.* Almost two-thirds of EMDEs are commodity exporters. Because of the decline in prices and demand this year, these economies are experiencing severe contractionary forces. When the pandemic erupted, many commodity exporters already had more limited fiscal buffers to counter a commodity price shock than they had just before the 2009 global recession, as a result of the 2014-16 commodity price plunge (Stocker et al. 2018). Their fiscal balances turned from (cyclically adjusted) surpluses of almost 1 percent of GDP in 2007 to deficits of a similar magnitude in 2018 (Ruch 2019a). The revenue losses stemming from this year's commodity price declines will further

constrain commodity exporters' ability to support their economies with income support or fiscal stimulus.

- *Reliance on labor-intensive sectors.* Many LICs have large shares of labor-intensive production, which require working in close proximity, than higher-income countries. This type of production may suffer large disruptions as a result of social-distancing efforts or missed work due to illness (Smith and Keogh-Brown 2013).

Financial vulnerabilities. EMDEs with large financing needs (including wide current account or fiscal deficits) or large debt burdens are particularly vulnerable to a sharp increase in borrowing cost or more limited access to financing. Between 2007 and 2019, government debt in EMDEs increased by about 11 percentage points of GDP, on average, to reach 55 percent of GDP. Over this period, debt ratios rose in three-quarters of EMDEs and by more than 20 percentage points of GDP in one-third of them. In LICs, following a steep fall between 2000 and 2010, government debt increased to 67 percent of GDP in 2018 (Kose et al. 2020). In EMDEs, fiscal surpluses of more than 2 percent of GDP in 2007, on average, had turned into deficits of 1 percent of GDP by 2019; near-balanced current accounts in 2007 had become sizable deficits (Figure 3.7).

Financial vulnerabilities not only constrain EMDEs' ability to support their economies with monetary and fiscal stimulus; they can also reduce the effectiveness of fiscal stimulus (Huidrom et al. 2019). In addition, the health of public sector balance sheets is an important determinant of the costs of credit for banks and non-financial corporations since they are linked to the sovereign credit rating. In times of stress, sovereign-bank financial linkages can amplify shocks (World Bank 2018). Banks hold sovereign debt to manage their balance sheets and to fulfill regulatory requirements. Losses on these holdings can disrupt financial intermediation. Over the past decade, bank exposures to sovereign debt have increased in EMDEs relative to both GDP and total bank assets (World Bank 2018).

FIGURE 3.7 Fiscal and external positions of EMDEs

The global expansion before the global recession of 2009 helped EMDEs improve their fiscal and external positions. Since 2007, however, fiscal and current account deficits have widened, government debt has risen, and international reserves have declined.

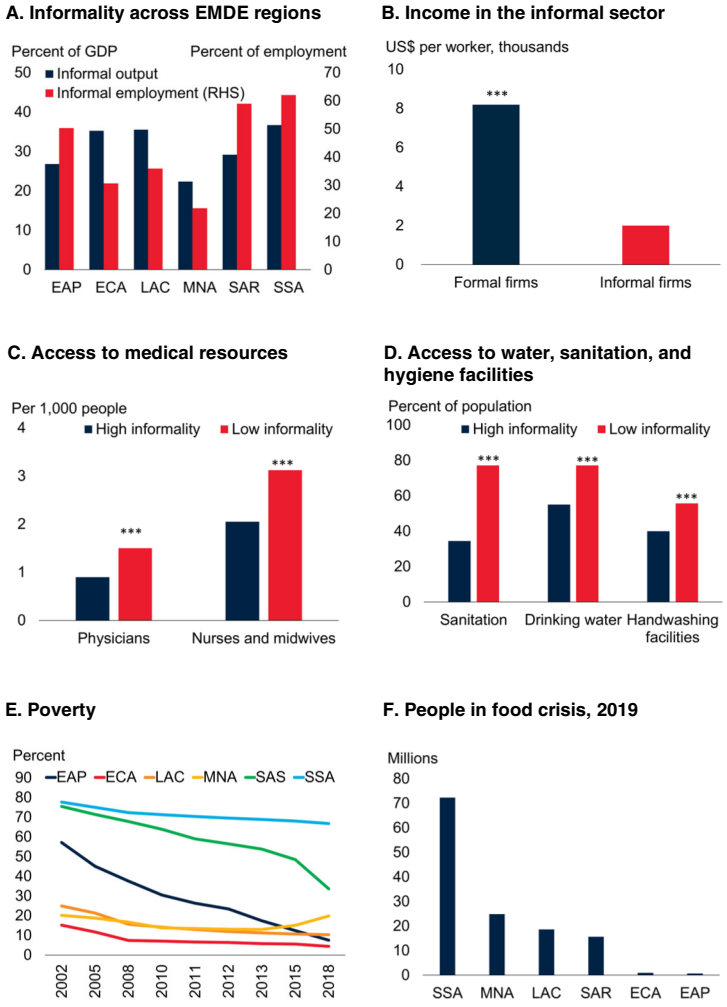
Source: IMF International Financial Statistics, *World Economic Outlook*; Kose et al. (2017); World Bank.
Note: Bars denote unweighted averages. Orange whiskers denote interquartile ranges. Green lines denote 1990-99 averages.
A. Based on data for 149 EMDEs.
B. Based on data for up to 150 EMDEs.
C. Based on data for up to 154 EMDEs.
D. Based on data for up to 130 EMDEs.
Click here to download data and charts.

Informality. The informal sector, on average, accounts for about a third of official GDP and about 70 percent of total employment in EMDEs (World Bank 2019b; Figure 3.8). Pervasive informality is associated with widespread poverty, lack of access to sanitation, lack of access to financial and medical resources, and poor social safety nets—all factors likely to amplify the health and economic impacts of the pandemic.

Poverty. In EMDEs with large numbers of extremely poor or near-poor, populations may not be able to comply with restrictions on economic activity unless the restrictions are suitably designed (Chang and Velasco 2020). The poorest often live in crowded conditions that make social distancing extremely challenging or impossible (Sánchez-

FIGURE 3.8 Informality, poverty, and food insecurity

Informality is widespread in many EMDEs. It is associated with lower incomes and higher incidence of poverty, less access to medical treatment, and poorer sanitation. Even before the pandemic spread to EMDEs, several economies were struggling with the challenges of extreme poverty and food crisis.



Source: Amin, Ohnsorge, and Okou (2019); Elgin et al. (forthcoming); Global Surgery and Social Change (PGSSC) at Harvard Medical School; Haver Analytics; IMF Government Financial Statistics; PovCalNet; WFP (2020); WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation, and Hygiene; World Bank (Enterprise Survey World Development Indicators); World Bank (2019).

A. Mean of informal output (DGE-based estimates) and employment estimate (share of self-employment) in each region during 2010-16.

A E. EAP = East Asia Pacific, ECA = Europe and Central Asia, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.

B. *** indicates the group differences between formal and informal firms are not zero at 10 percent significance level.

C.-D. Bars are group means calculated for EMDEs with "high informality" (i.e., the highest one-third DGE-based informal output measure) and those with "low informality" (i.e., the highest one-third DGE -based informal output measure) over the period 2010-16. *** indicates the group differences are not zero at 10 percent significance level.

E. Regional aggregates use a poverty line of $3.20 per day in 2011 purchasing power parity terms.

F. Bars show peak number of people in IPC/CH phase 3 food crisis or worse. "Food crisis" is defined as having food consumption gaps that are reflected by high or above-usual acute malnutrition or being marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies. Sample includes 55 EMDEs.

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Páramo 2020). For example, 70 percent of city dwellers in SSA live in crowded slums where handwashing facilities are sparse and communal and where sanitation is weak (World Bank 2019c). Among the most vulnerable groups are women, which tend to be overrepresented in the informal sector and in services jobs that cannot easily move online (Freund and Hamel 2020). Women employed in the tourism industry and as small-scale farmers are particularly hard-hit (Freund 2020, Freund and Hamel 2020).

Food insecurity. Among the poor, income losses, lack of savings, lack of access to finance, and breakdowns in local agricultural supply chains may all threaten food insecurity. Although global food markets were well supplied at the start of the pandemic, availability of some foods has recently been strained by restrictions on the movement of workers and reductions in air freight capacity (FAO et al. 2020; Pangestu 2020). Restrictions on food exports could further amplify food insecurity (Figure 3.8). In parts of Africa, this could be compounded by the locust infestation currently underway.

Globally, acute hunger could double in 2020, to affect more than 260 million people (WFP 2020). In addition to being a serious health risk, insufficient food supply has the potential to trigger social unrest and conflict, with adverse economic outcomes (Hendrix and Brinkman 2013; Koren and Bagozzi 2016). Food insecurity could also generate significant migration pressure (FAO et al. 2018; Sadiddin et al. 2019).

Long-term growth effects

Prior to the pandemic, the global economy already faced prospects of slower long-term growth, with long-term (ten-year-ahead) growth forecasts having been repeatedly revised down for all country groups since the global recession of 2009. This, in part, reflected a recognition of slowing potential growth in EMDEs, particularly China, over the past decade and reaching into the next decade (Kilic Celik, Kose, and Ohnsorge 2020; World Bank 2018).

In addition to its devastating short-term health and macroeconomic effects, the pandemic may

have significant long-term effects. The substantial economic dislocations, deep output contractions across large numbers of countries, and heightened and wide-ranging uncertainties that have arisen from the pandemic may dampen human and physical capital accumulation. Supply chains and working arrangements in many industries may go through costly reconfigurations. There may also be long-lasting shifts in consumer behavior, including in the composition of spending. Households may also opt for increased precautionary saving in view of heightened uncertainty about employment and income prospects. Both consumer spending and business investment may suffer from sustained declines in confidence. Depressed capital spending would be particularly damaging to long-term growth prospects in EMDEs, coming on the heels of several years of weak investment (World Bank 2019a).

There is little research on the medium- or long-term effects of disease outbreaks on output (McKibbin and Fernando 2020). However, it is well-known that other major adverse economic shocks, such as financial or currency crises, have been associated with persistently negative effects on growth. This suggests that the current pandemic may also leave lasting scars on the global economy by lowering potential output and productivity.

Implications for potential output

Sources of long-term effects. Severe recessions have been associated with highly persistent losses in output in both advanced economies and EMDEs (Box 3.1).[6] These effects arise from various interlinked factors. Low levels of capacity utilization discourage investment and lead to a legacy of obsolete capacity; expectations of weak growth also discourage investment and become self-fulfilling; protracted unemployment causes losses of human capital and reduces job-search activity. All these forces will tend to lower long-run as well as short-run labor productivity.[7]

The current pandemic may be particularly damaging to long-term growth prospects because the disruptions caused by the measures to contain the pandemic call into question the viability of global supply chains that have been a foundation of growth over the past two decades. Productive firms may be disproportionally affected by the disruptions because they are more likely to export, are embedded in complex value chains and employ workers with firm-specific skills (Didier et al. 2020).

The current global recession has occurred with a severity that is unmatched in eight decades and has been accompanied by sharply tighter financing conditions and a record oil price collapse. These two key features of the current global recession—the higher likelihood of financial crisis and a severe terms-of-trade shock to energy exporters—increase the risk of lasting damage to potential output in many EMDEs.

- *Recessions and financial crises.* The lasting damage of recessions has been more severe when they have been accompanied by financial crises.[8] A range of channels drive this outcome. Financial crises increase liquidity demand and tighten credit conditions more broadly—including for productivity-enhancing technologies embodied in new investment and for research and development spending; they curtail access to bank lending for creative firms; they leave a legacy of obsolete capacity; they trigger self-fulfilling expectations of weak growth; and

[6] For estimates of the impact of contractions on actual output levels, see Ball (2014); Blanchard, Cerutti, and Summers (2015); Cerra and Saxena (2008, 2017); and Martin, Munyan, and Wilson (2015). For estimates of the impact on actual output growth, see Candelon, Carare, and Miao (2016). For estimates of the impact on potential output growth, see Haltmeier (2012) and World Bank (2018).

[7] For technology absorption, see Anzoategui et al. (2016); for the legacy of obsolete capacity, see Nguyen and Qian (2014); for self-fulfilling expectations of weak growth prospects, see Caballero and Simsek (2017); and for human capital loss and reduced job search activity among the long-term unemployed, see Ball (2009); Blanchard and Summers (1987); Hall (2014); Lindbeck (1995); Lockwood (1991); and Reifschneider, Wascher, and Wilcox (2015).

[8] Claessens, Kose, and Terrones (2009 and 2012); Furceri and Mourougane (2012); Mourougane (2017); Queralto (2019); and Reinhart and Rogoff (2014) estimate lasting losses from financial crises and Ball (2014) and Hall (2014) the lasting losses from the global financial crisis. Candelon, Carare, and Miao (2016) and Cerra and Saxena (2008) find longer-lasting losses from banking, debt, or equity market crises than from currency, inflation, or political crises.

BOX 3.1 How do deep recessions affect potential output in EMDEs?

The global economy is currently in the midst of one of the deepest recessions in living memory, which is hitting emerging market and developing economies (EMDEs) hard. Historically, recessions accompanied by financial crises or, in energy exporters, by oil price collapses tend to generate particularly deep and lasting damage to potential output, especially in countries that enter the recession with larger vulnerabilities. The average EMDE is now more vulnerable to financial stress than before the 2007-09 global financial crisis, and the average energy-exporting EMDE remains as dependent on energy exports as before the last oil price collapse in 2014. Under these circumstances, the recessions associated with the COVID-19 are likely to have a severely adverse and lasting impact on potential output. Pro-active monetary and fiscal policies, and structural reforms, could moderate this damage.

Introduction

A deep global recession is underway, of a severity that is unmatched in decades. The world economy is expected to start recovering once the pandemic recedes and restrictions on economic activity are lifted.

However, historically, the setbacks to investment and potential output (the level of output an economy can sustain at full capacity and employment) caused by deep recessions have been long-lasting.[1] Beyond the immediate health crisis, two key features of the current global recession increase the risk of lasting damage to potential output in EMDEs. First, even if financial markets appear to have stabilized for now, tight financial conditions and record-high debt increase the probability of prolonged balance sheet repair or even outright financial crises. Second, oil prices have suffered a record collapse. Today's average EMDE is more vulnerable to financial market stress than before the 2007-09 global financial crisis, with higher government and corporate debt, and wider fiscal deficits. And energy exporters remain as dependent on energy exports as before the last oil price plunge in 2014 (Figure 3.1.1).

Against this backdrop, this box explores the likely impact of COVID-19 on potential output by addressing the question: How do recessions, crises and oil price plunges interact to generate long-term implications for potential growth?

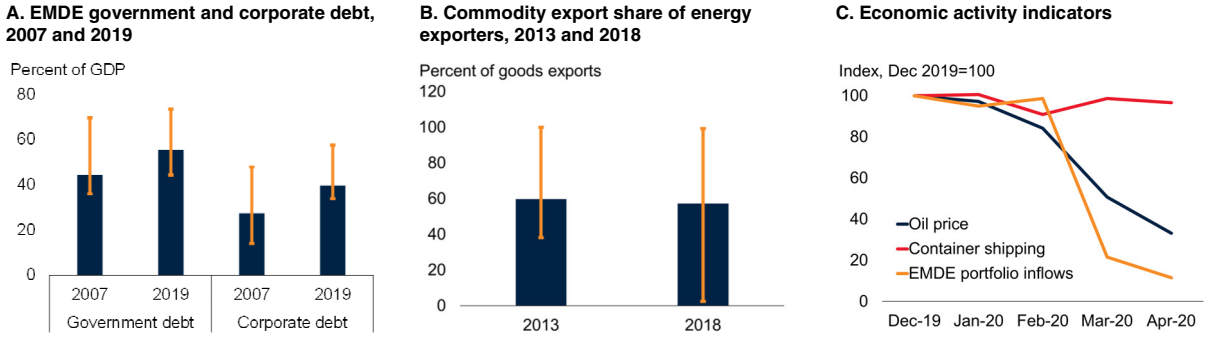
The box builds on earlier work that found that deep recessions lower potential output levels four to five years

Note: This box was prepared by Sinem Kilic Celik, Cedric Okou, and Franziska Ohnsorge, with research assistance from Hrisyana Doytchinova.

[1] Potential output is estimated using a production function approach (Kilic Celik, Kose, and Ohnsorge 2020; World Bank 2018).

FIGURE 3.1.1 EMDE vulnerabilities to financial stress and oil price plunges

Today's average EMDE is more vulnerable to financial market stress, with higher debt and wider fiscal deficits, than before the global financial crisis. Today's average energy-exporting EMDE is as dependent on commodity exports as before the last oil price plunge.

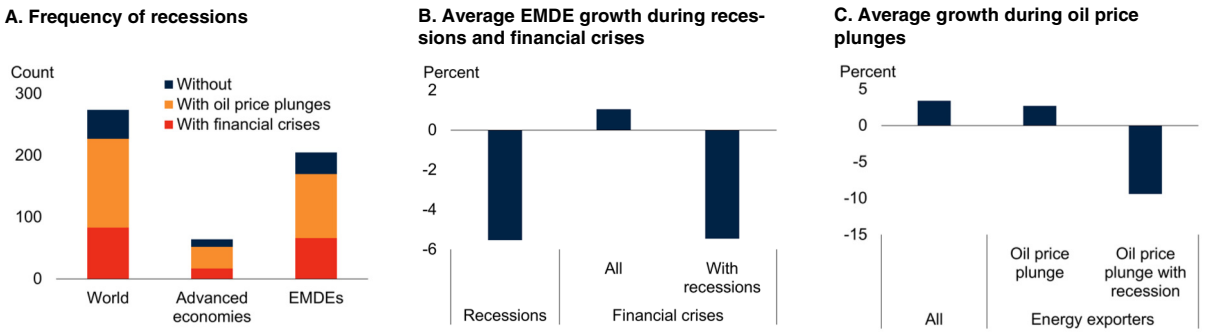


Source: Institute of International Finance; Institute of Shipping Economics and Logistics; International Monetary Fund; World Bank, World Integrated Trade Solution; World Bank.
A.B. Bars show unweighted averages. Whiskers show interquartile range. Based on data for up to 150 EMDEs (A) and up to 27 energy-exporting EMDEs (B).
C. Net portfolio inflows to EMDEs, based on data for 20 economies. EMDE = emerging market and developing economies.
Click here to download data and charts.

BOX 3.1 How do deep recessions affect potential output in EMDEs? *(continued)*

FIGURE 3.1.2 Growth: Recessions, crises, and oil price plunges

In EMDEs, three-quarters of recessions have been accompanied by financial crises or oil price plunges. These tend to be associated with particularly steep output contractions.



Source: World Bank.
Note: Based on a sample of 32 advanced economies and 91 emerging market and developing economies (EMDEs) with available data for potential growth for 1982-2018 (Annex 3.4). Recessions are years with negative growth; in the case of consecutive years with negative growth, the year of output trough is selected. Financial crises are banking, currency, or debt crises, as defined as in Laeven and Valencia (2018). Oil price plunges occurred in 1986, 1990-91, 1998, 2001, 2008, and 2014-15.
B. Unweighted average for EMDE regression sample. Difference between the bars are illustrative and not statistically significant because of wide heterogeneity.
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after the event (World Bank 2018). It extends this work by analyzing the extent to which the long-term impact of recessions differs when they are accompanied by financial crises or oil price plunges.

Impact of recessions with crises and oil price plunges

The COVID-19 pandemic presents a public health crisis. The direct impact of sickness and mortality, and the associated restrictions to stem the pandemic, alone would constitute a major global economic shock. In addition, many EMDEs are facing exceptionally severe economic pressures from financial and oil markets. The 2020 global recession will be extraordinarily deep and prolonged (Chapter 1). To shed light on its implications over a longer time horizon, this section presents evidence on the long-term output cost of severe recessions and how they interact with financial crises and oil price plunges.

Data and methodology. The medium-term impact of recessions on potential output is estimated using a local projections model (Annex 3.4). Recessions are defined as years of negative output growth (see Huidrom, Kose, and Ohnsorge 2016). Financial crises include banking, currency, or debt crises defined as in Laeven and Valencia (2018). Years with oil price plunges are those in which the average of the Brent, Dubai and West Texas Intermediate oil prices plunged by 30 percent or more over a six-month period (1986, 1990-91, 1998, 2001, 2008, and 2014-15).

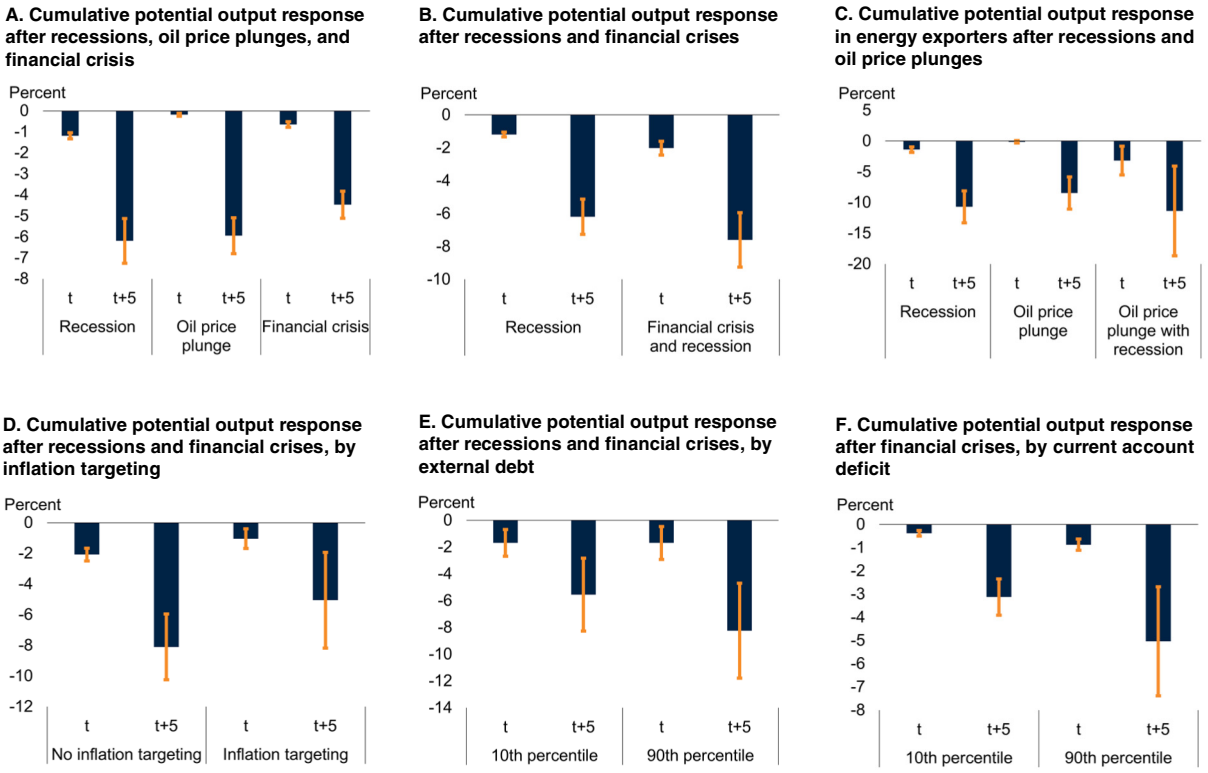
Short-term output losses. In the average year of recession, output declined by more than 3 percent in advanced economies and more than 5 percent in EMDEs. On their own, neither financial crises nor oil price plunges were associated with recessions (Figure 3.1.2). However, when they did accompany recessions, financial crises or oil price plunges were associated with steep output losses.

- *Financial crises.* On average, economies still grew by almost 1 percent in the year of financial crisis and the following year. More than one-half of these events were currency crises, which tend to be associated with milder output losses (Cerra and Saxena 2008; Candelon, Carare, and Miao 2016). Financial crises that did accompany recessions (about 24 percent of financial crises in the sample) were associated with output contractions of more than 5 percent.
- *Oil price plunges.* Oil price plunges were, on average, accompanied by more than 3 percent growth in the same year. Energy-exporting EMDEs historically have had large fiscal buffers, which have allowed them to provide substantial policy support to their domestic economies: their growth averaged more than 2

BOX 3.1 How do deep recessions affect potential output in EMDEs? *(continued)*

FIGURE 3.1.3 Potential output in EMDEs: Recessions, crises, and oil price plunges

Recessions in EMDEs, especially those associated with financial crises or (for energy exporters) oil price plunges, lowered potential output over the medium-term. Potential output losses were lower when countries entered these events with lower external debt or current account deficits, and with an inflation-targeting monetary policy framework.



Source: Ha, Kose, and Ohnsorge (2019); World Bank.

Notes: Data and methodology are detailed in Annex 3.4. Charts show impulse responses for 75 EMDEs from a local projections model. Dependent variable is cumulative slowdown in potential output after a recession, financial crisis, or oil price plunge event. Year t is the year of the event. Bars show coefficient estimates; vertical lines show 90 percent confidence bands.

E. 10th percentile of external debt in EMDEs is 27 percent of GDP; 90th percentile of external debt in EMDEs in 73 percent of GDP.

F. 10th percentile of current account deficit in EMDEs is 1 percent of GDP; 90th percentile of current account deficit in EMDEs is 10 percent of GDP.

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percent in the year of the plunge (Stocker et al. 2018). In cases when oil price plunges were accompanied by recessions (17 percent of recessions in energy-exporting EMDEs), the output contractions in energy exporters were especially deep (about 10 percent).

Medium-term potential output losses. In line with earlier findings, recessions left a legacy of lower potential output for four to five years after their onset. Five years after the average recession, potential output were about 6 percent below baseline in EMDEs (Figure 3.1.3).

Financial crises and oil price plunges alone—including those which were not associated with outright recessions—also tended to be associated with lower potential output over the medium term. Five years after a financial crisis, potential output in EMDEs was about 4 percent below the baseline. Five years after an oil price plunge, potential output in energy-exporting EMDEs was about 8 percent below the baseline.

Recessions that were accompanied by financial crises caused larger long-term potential output losses in EMDEs than recessions without financial crises. Five years after a recession-cum-crisis, potential output in EMDEs remained almost 8 percent below baseline—more than the 6 percent potential output loss following the average recession.

BOX 3.1 How do deep recessions affect potential output in EMDEs? *(continued)*

In energy-exporting EMDEs, oil price plunges that were accompanied by recessions were associated with particularly severe and lasting potential output losses. On average five years after such plunges-cum-recessions, potential output in energy exporting EMDEs remained 11 percent below the baseline.

Effect of policy regimes. Long-term potential output losses are somewhat more modest for countries that enter the recession with fewer vulnerabilities. For example, estimated potential output losses five years after a combined recession and financial crisis were lower in countries that entered the recession with external debt in the bottom decile of the sample than in those that entered it in the top decile of the sample. Similarly, EMDEs with inflation-targeting monetary policy regimes suffered about one-half the potential output losses in recessions and financial crises than countries with other monetary policy regimes. EMDEs that entered financial crises with narrower current account deficits witnessed lower potential output losses after five years.

Conclusions

The immediate policy priority is to address the COVID-19 health crisis. Policies also need to take into account the lasting economic damage from the deep recession triggered by the health crisis. Evidence presented in this box points to two broad sets of priorities to improve growth prospects.

First, since financial crises cause longer-lasting and more severe output losses, EMDEs need to avoid sliding into a financial crisis. Macroprudential policies as well as monetary and fiscal policy support and international assistance are critical to ensure the maintenance of confidence, the stability of lending institutions, and normal flows of credit to households and firms.

Second, oil price plunges cause particularly lasting output losses in energy exporters when they are accompanied by outright output contractions—as will be the case for energy-exporting EMDEs in 2020 (Chapter 1). Once the current crisis subsides, efforts to diversify these economies can help reduce their vulnerability to oil price shocks (Chapter 4). Such measures include ensuring appropriate trade policies that promote diverse exports, infrastructure investment to enable private sector competition, competition regulation to avoid market concentration, and support for innovation through research and development (Ruch 2019b). They also include reforms to establish institutional frameworks for sustainable fiscal and monetary policies. These would help to buffer external shocks and macroeconomic volatility in the short run, and to provide a growth-friendly environment for the long run.

they cause long-term unemployment that leads to human capital loss and reduced job-search activity.[9]

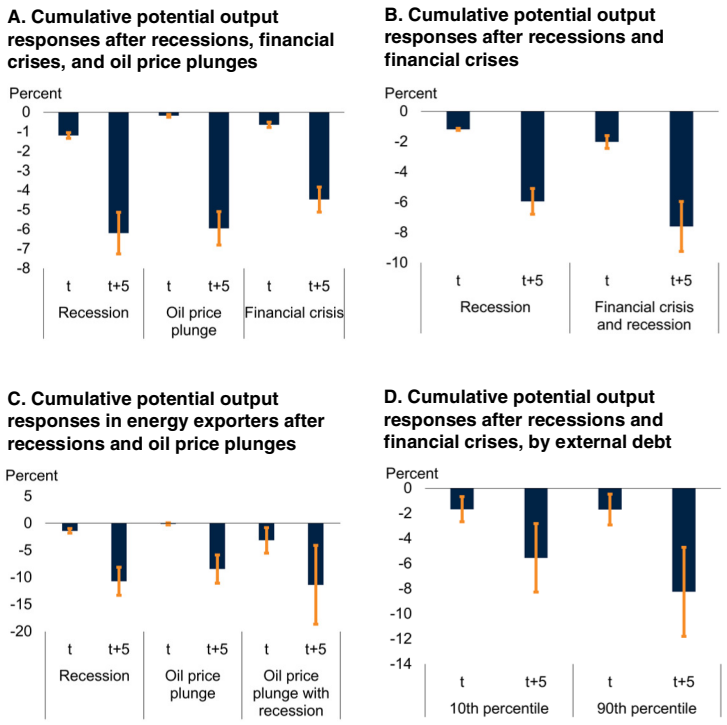
- *Oil price plunges and recessions.* Steep drops in the price of oil have a direct negative impact in oil-exporting economies that magnifies the depth and duration of a recession. They also weigh on global growth in the short-term (Chapter 4). Once the global economic recovery gains momentum, however, the overall effect of lower oil prices, while they are sustained, on global growth may be positive, through increased real incomes, lower inflation and interest rates, and the expansion of energy-intensive activities.

Estimates of potential output impacts. Empirically, recessions were associated with large and lasting potential output losses in EMDEs, especially when accompanied by financial crises. Five years after a recession, EMDE potential output was about 6 percent below baseline and five years after recessions with financial crises, EMDE potential output was about 8 percent below baseline (Box 3.1; Figure 3.9). For energy-exporting EMDEs, recessions accompanied by oil price plunges were particularly damaging: on average, five years after such episodes, potential output in energy exporters was about 11 percent below baseline. These potential output losses were somewhat smaller when economies entered recessions and financial crises with lesser

[9] For loss of access to bank lending for creative firms, see Queralto (2019); for lower labor productivity after financial crises, see Oulton and Sebastia-Barriel (2017); and for lower productivity-enhancing investment, see De Ridder (2016) or, specifically, for R&D spending, see Fatás (2000).

FIGURE 3.9 EMDE potential output and recessions

Recessions have tended to lower potential output in EMDEs over a five-year horizon. Recessions associated with financial crises have tended to reduce potential output by more than those without such crises. Oil price plunges have also significantly lowered potential output in EMDEs over the long term but by less than recessions or financial crises—except for EMDE energy exporters when oil price plunges have been accompanied by recessions.



Source: Ha, Kose, and Ohnsorge (2019); World Bank.

Note: Data and methodology are detailed in Box 3.1 and Annex 3.4. Charts show impulse responses for 75 EMDEs from local projections model. Year t is the year of the event. Dependent variable is defined as cumulative slowdown in potential output after a recession event. Bars show coefficient estimates; vertical lines show 90 percent confidence bands.

D. 10th percentile of external debt in EMDEs is 27 percent of GDP; 90th percentile of external debt in EMDEs is 73 percent of GDP.

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vulnerabilities (e.g., lower external debt, narrower current account deficits) or with more resilient monetary frameworks (e.g., inflation targeting).

Implications for productivity

Productivity growth is the primary source of lasting growth in per capita incomes and living standards, which in turn is the main driver of poverty reduction. The current pandemic is the latest in a string of epidemics and pandemics in the twentieth and twenty-first century (Box 3.2). Pandemics are one of the rarest forms of natural disasters, which also include climate disasters or extreme weather events (such as storms, floods, droughts, and periods of extreme temperature) and geological disasters (such as volcanic eruptions). Evidence from different types of more common natural disasters suggests lasting productivity losses.

Since 2000, there have been several large-scale disease outbreaks, including SARS (2002-03), swine flu (2009-10), MERS (2012-13), Ebola (2014-15), and Zika (2016). These affected over 115 EMDEs and advanced economies. Climate disasters occurred twice as often as all other types of natural disasters combined, accounting for around 70 percent of all natural disasters in 2000-19, but on average they lasted only half as long as epidemics.

Estimates of productivity impacts. Major epidemics have had persistent adverse effects on productivity in the afflicted countries, although without the global reach of the COVID-19 pandemic (Box 3.2). For example, major epidemics that have occurred since 2000—such as SARS, MERS, Ebola and Zika—are estimated to have been associated with 6 percent lower labor productivity in the affected countries after five years (Figure 3.10). This largely reflects a significant erosion in capital deepening: investment was, on average, about 11 percent lower five years after these events, amid heightened risk aversion and uncertainty. The greater global spread and death toll of COVID-19 than these previous epidemics suggest it could have even more costly long-term consequences for productivity.

Unique nature of the pandemic: Magnifying the long-term impact

The deep recessions associated with the current pandemic are likely to leave more permanent economic scars than typical recessions because of lasting effects of the pandemic and related mitigation policies on the behavior of households and firms—effects that will be exacerbated in many countries by pre-existing vulnerabilities (Figure 3.11). The key longer-term dangers to growth include the following:

- *Weak confidence.* Persistently weak confidence could result in a buildup of precautionary savings by households and also more cautious spending by firms, markedly reducing

BOX 3.2 How do disasters affect productivity?

Epidemics that occurred since 2000 are estimated to have lowered labor productivity by a cumulative 6 percent after five years, mainly through their adverse impact on investment and the labor force. In contrast, severe climate events tend to be of shorter duration and reduce labor productivity mainly through weakened total factor productivity. Severe disasters have disproportionately deeper negative effects on productivity partly because they have been more likely to trigger financial stress. Given its global nature, COVID-19 may lead to sizable adverse cross-border spillovers and weaken global value chains, which will further damage productivity. The immediate policy focus is to address the health crisis but policymakers also need to introduce reforms to rekindle productivity growth once the health crisis abates.

Introduction

Prior to the emergence of COVID-19, there were already concerns about the prospects for long-term productivity growth in emerging market and developing economies (EMDEs) and the achievement of development goals, especially the reduction of poverty. COVID-19 has put these goals in even greater jeopardy (World Bank 2020e). In less than half a year since its start, COVID-19 already ranks as a major disaster (Figure 3.2.1). Since pandemics are rare events, this box sheds light on the effects of COVID-19 on labor productivity by examining severe disasters (including epidemics, climate disasters, and wars) since 1960.

Natural disasters (such as biological, climate, and geophysical events), and wars have caused significant economic damage.[1] Past severe disasters (more than 100 deaths per million people) are relevant for gauging the likely effects of COVID-19 on labor productivity and understanding the channels through which disasters may affect the economy. The box examines three questions:

- What are the main channels through which severe disasters affect productivity?
- What are the frequency and extent of severe disasters?
- What are the likely implications of severe disasters for productivity?

Channels through which severe disasters affect productivity

Severe disasters, such as pandemics, epidemics, severe climate disasters, and wars, can affect productivity and long-term growth through supply- and demand-side channels.

Disasters can impact supply through:

- *Depleted labor force and human capital.* Major disasters can disrupt the functioning of labor markets by making it difficult for workers to get to their places of employment or (in the case of infectious diseases) work in close physical proximity with each other, or by causing widespread sickness, injuries and fatalities that directly reduce the labor supply (Field 2019; Ksoll, Macchiavello, and Morjaria 2010; and Mueller 2013). These disruptions undermine the productivity of those remaining in the workforce owing to the loss of complementary skills. Unexpected adverse events that affect large geographic areas have been shown to have lasting consequences on human capital formation (health, education and nutrition outcomes) regardless of the income group.[2]
- *Destruction and misallocation of physical capital.* Severe climate and geophysical disasters tend to reduce and degrade the capital stock, and can lead to a misallocation of capital which can weigh on productivity (Hallegatte and Vogt-Schilb 2019). Disasters more generally can hold back growth-enhancing investment—including by damaging the outlook for activity and profitability, increasing uncertainty, triggering capital flight, and tightening credit conditions (Collier 1999; Hutchinson and Margo 2006). By magnifying economic uncertainty, disasters can also cause a misallocation of investment (Claessens et al. 1997; Claessens and Kose 2017, 2018).
- *Disruption of supply chains and innovation.* Major disasters can damage global value chains.[3] They also

Note: This box was prepared by Alistair Dieppe, Sinem Kilic Celik, and Cedric Okou, with research assistance from Yi Li, Kaltrina Temaj, and Xinyue Wang.

[1] Natural disasters include climate (floods, cyclones), biological (epidemics, insect infestation), and geophysical disasters (earthquakes, volcanoes), and follow EM-DAT definitions.

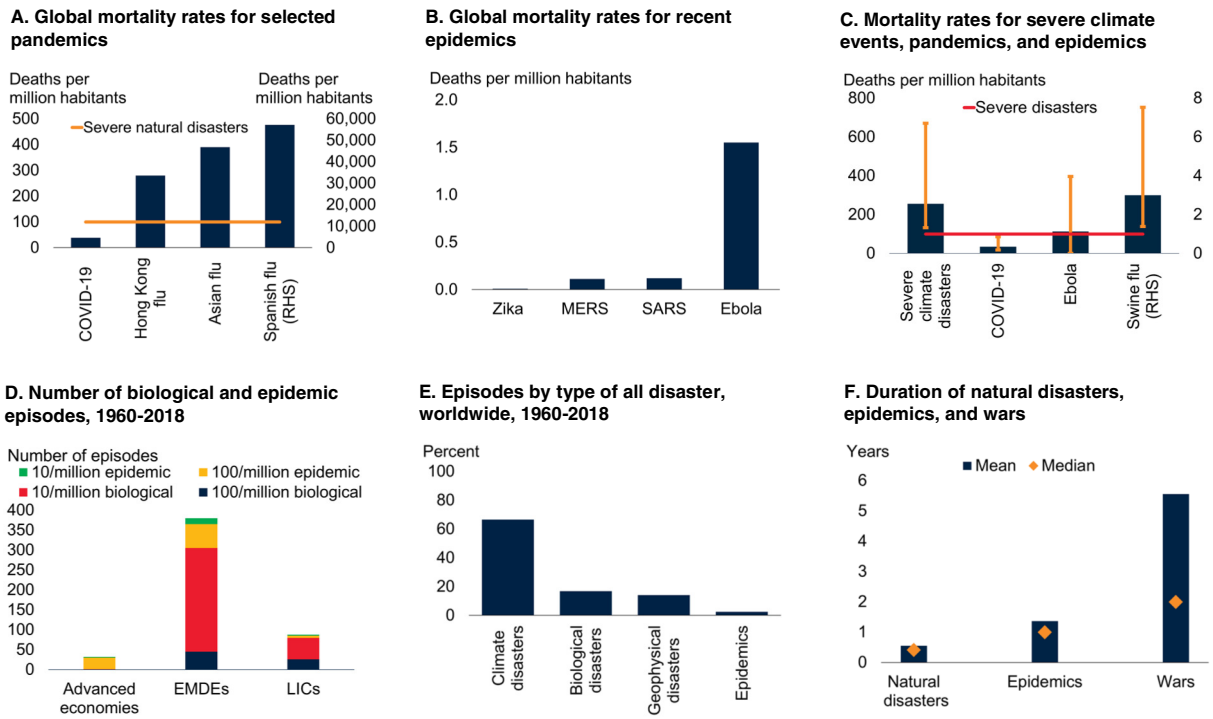
[2] See Acevedo et al. (2018), IMF (2017), and Thomas and López (2015). Biological epidemics can also disproportionally affect low-skilled workers and raise inequality (Furceri et al. 2020).

[3] See Collier (1999), Reynaerts and Vanschoonbeek (2018), and Rodrik (1999).

BOX 3.2 How do disasters affect productivity? *(continued)*

FIGURE 3.2.1 Severity, frequency, and duration of pandemics, epidemics, and climate disasters

In less than half a year, COVID-19 already ranks as a major disaster. In the most severely affected countries, its impact may be as large as those from a severe climate disaster, which typically results in mortality rates of over 100 per million of the population. Climate disasters were the most frequent type of natural disaster in 1960-2018, accounting for nearly 70 percent of all disasters. Epidemics and wars are much rarer although their duration is longer. About 20 percent of biological disasters that have affected EMDEs and LICs have been severe and resulted in death ratios of over 100 per million (0.01 percent) of the population.



Source: Centers for Disease Control and Prevention; Correlates of War; EM-DAT; Johns Hopkins University; OurWorldInData.org; Peace Research Institute Oslo; United Nations; World Bank; World Health Organization.

A.-C. Cumulative deaths per million habitants worldwide. Last observation of death toll for COVID-19 is May 14, 2020. Severe climate disasters are defined as events that led to at least 100 deaths per million population.

C. Blue bars indicate the medians of mortality rates across affected countries. The bottom (top) of the yellow line represents the 1st (3rd) quintile. Red marker indicates 100 deaths per million habitants.

D.-F. Natural disasters include climate (floods, cyclones), biological (epidemics, insect infestation), and geophysical (earthquakes, volcanoes) disasters, and follow EM-DAT definitions. Wars are identified using the World Bank's Correlates of War database. The sample includes 170 economies: 35 advanced economies and 135 EMDEs, of which 27 are low-income countries.

E. Biological disasters include epidemics.

F. The five pandemics and epidemics considered are SARS (2002-03), MERS (2012), Ebola (2014-15), and Zika (2015-16) .

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undermine the incentives to invest in R&D and new technologies, including by triggering wide-scale institutional dysfunction, weakening property rights, and increasing costs of doing business. Capital outflows tend to be associated with drops in inward foreign direct investment, which can be an important source of technology transfer. Containment efforts during biological events—such as workplace closures and quarantines—can further limit the diffusion of technologies.

Disasters can also impact demand through:

- *Lower business investment.* Short-term projections of demand and economic activity tend to be scaled back and business uncertainty to increase sharply following

BOX 3.2 How do disasters affect productivity? *(continued)*

major disasters, while financial conditions tighten, including in response to increased risk aversion. These typically cause a sharp drop in investment demand. A more prolonged disaster, even at the same magnitude, results in higher uncertainty. This causes firms to delay or deter investments and thereby compounding the negative economic effects of disasters (Bloom 2014; Baker, Bloom, and Terry 2019; and Bloom et al. 2018). The more severe the disaster, the larger the uncertainty (Ludvigson, Ma, and Ng 2020). Model-based estimates by Baker et al. (2020) suggest that increased uncertainty accounts for half of the output loss in the United States in early 2020.

- *Weaker consumer demand.* Job losses, reduced income, increased cost of debt service, higher uncertainty, the forced closure of marketing outlets, and, in the case of diseases, fear of infection, all tend to cause consumers to reduce their spending on goods and services and to increase saving rates. Furthermore, effects on consumer behavior could be long-lasting—for example, a pandemic could cause households to reduce their demand, over an extended period, for travel, tourism, eating out, entertainment, and other activities involving human interaction, and to increase their saving in the absence of close substitutes.

Frequency and short-term effects of disasters

This section briefly reviews the experience of severe disasters over the past 60 years for insights into the main channels through which they impact productivity. Pandemics, epidemics and wars are rare events although they last longer than other types of disasters. Biological disasters and geophysical disasters are more common. Climate disasters (such as storms, floods, droughts, and periods of extreme temperature) occur more often but typically last for less than six months. All these events are associated with weaker productivity over long time spans.

Pandemics. The Spanish flu (1918-19) has an unusually high death toll and mortality rate, killing between 20-100 million people globally. Other, more recent, pandemics had far lower mortality rates. They included the Hong Kong flu (1968-69) and the Asian flu (1957-58), with nearly 300 and 400 deaths per million, respectively. This was followed by swine flu (2009-10), with 11 deaths per million globally (Figure 3.2.1). COVID-19 is the most severe pandemic since the Hong Kong flu, despite the unprecedented mitigation efforts that have been implemented.

Epidemics since the 2000s. During 2000-18, the world experienced SARS (2002-03), MERS (2012), Ebola (2014-15), and Zika (2015-16). The increased frequency of epidemics increases the likelihood that pandemics will break out. Since 1960, there have been more than 250 episodes of biological disasters with losses of life of over 10 per million population in the countries affected. LICs have been disproportionally affected by these types of disasters, whereas advanced economies were not affected. The frequency of biological episodes has been increasing over time, but they have mostly been contained in size and severity.

Frequent climate disasters. Climate disasters accounted for around 70 percent of natural disasters during 1960-2018, occurring twice as often as other types of natural disasters combined (Figure 3.2.1). However, the frequency of severe climate disasters—defined as causing losses of life exceeding 100 people per million—has stabilized since 2000, perhaps reflecting better mitigation policies in some countries as they have confronted climate change (Figure 3.2.2). Furthermore, climate disasters tend to be short-lived compared to epidemics which on average last twice as long.

Wars. Apart from their direct toll on human life and welfare, wars also have major adverse effects on output and productivity (Abadie and Gardeazabal 2003; Cerra and Saxena 2008). The frequency of wars has dropped over 2000-18, although a typical LIC was twice as likely to experience a conflict as a typical EMDE.[4] The destruction, disruption, and diversion effects of wars can cause sharp reductions in the labor force and physical capital, and also dampen productive investment and innovation.[5]

Damaging severe disasters. Compared to unaffected countries, severe biological disasters are associated with 9 percent lower median labor productivity and 8 percent lower total factor productivity (TFP) three years after the shock (Figure 3.2.2). Severe natural disasters (including climate and biological disasters) also correlate with weaker labor productivity and TFP compared to countries not suffering such disasters. In EMDEs, three years into a

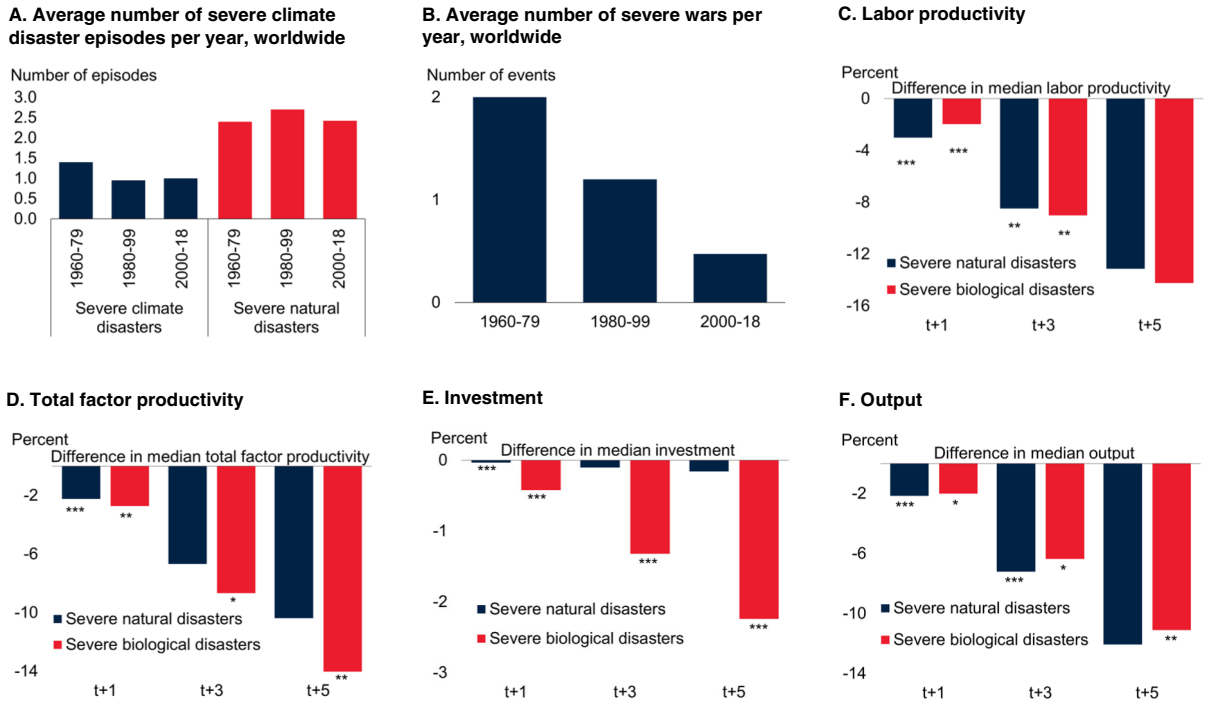
[4] The definition and data for wars are from the Correlates of War database (Singer and Small 1994). The dataset was updated after 2007 using the Peace Research Institute Oslo (PRIO) data (Pettersson, Högbladh, and Öberg 2019). In the database, wars are defined as conflicts with at least 1,000 battle-related deaths.

[5] See Becker and Mauro (2006); Collier (1999); Easterly et al. (1993); Field (2008); Raddatz (2007); and Rodrik(1999).

BOX 3.2 How do disasters affect productivity? *(continued)*

FIGURE 3.2.2 Disasters and productivity

The frequency of the most severe climate disasters stabilized after 2000. In EMDEs, severe natural disasters, especially severe biological disasters, are associated with lower labor productivity. Severe biological disasters are also correlated with lower investment, possibly reflecting a sizable increase in uncertainty that holds off new spending.



Source: EM-DAT; World Bank.

A. B. Natural disasters include climate (floods, cyclones), biological (epidemics, insect infestation), and geophysical (earthquakes, volcanoes) disasters, and follow EM-DAT definitions. Wars include intra-state and external (extra-state and inter-state) wars. Severe climate or natural disasters and severe wars are defined as events that led to at least 100 deaths per million population. The sample includes 170 economies: 35 advanced economies and 135 EMDEs, of which 27 are low-income countries.

C-F. Bars show the difference between the median growth of macroeconomic indicators in EMDEs with and without severe biological disasters (red) and severe natural disasters (blue; including climate, biological, geophysical disasters). A Fisher's test is used to test if medians in two subsamples (with and without disasters) are equal. Severe natural disasters are defined as those that lead to at least 100 deaths per million population. The four biological disasters considered are SARS (2002-03), MERS (2012), Ebola (2014-15), and Zika (2015-16). Swine flu (2009), which coincided with the 2008-09 global financial crisis, is excluded to limit possible confounding effects. ***, ** and * indicates 1, 5, and 10 percent significance levels.

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severe natural disaster episode median labor productivity was around 8 percent lower in the countries affected, and TFP was 7 percent lower than in countries unaffected whereas investment remained virtually unchanged, which could reflect large-scale reconstruction investment offsetting other negative effects.

Long-term effects of severe disasters

To help draw inferences on the possible effects of COVID-19, this section examines the extent different types of disasters such as epidemics, climate disasters, and wars have lasting negative effects on labor productivity. Epidemics are particularly damaging to productivity, lowering it by between 6 percent and 15 percent (if accompanied with recessions) after five years. Climate disasters weaken productivity by between 4 to 8 percent. Wars also affect productivity for a sustained period.

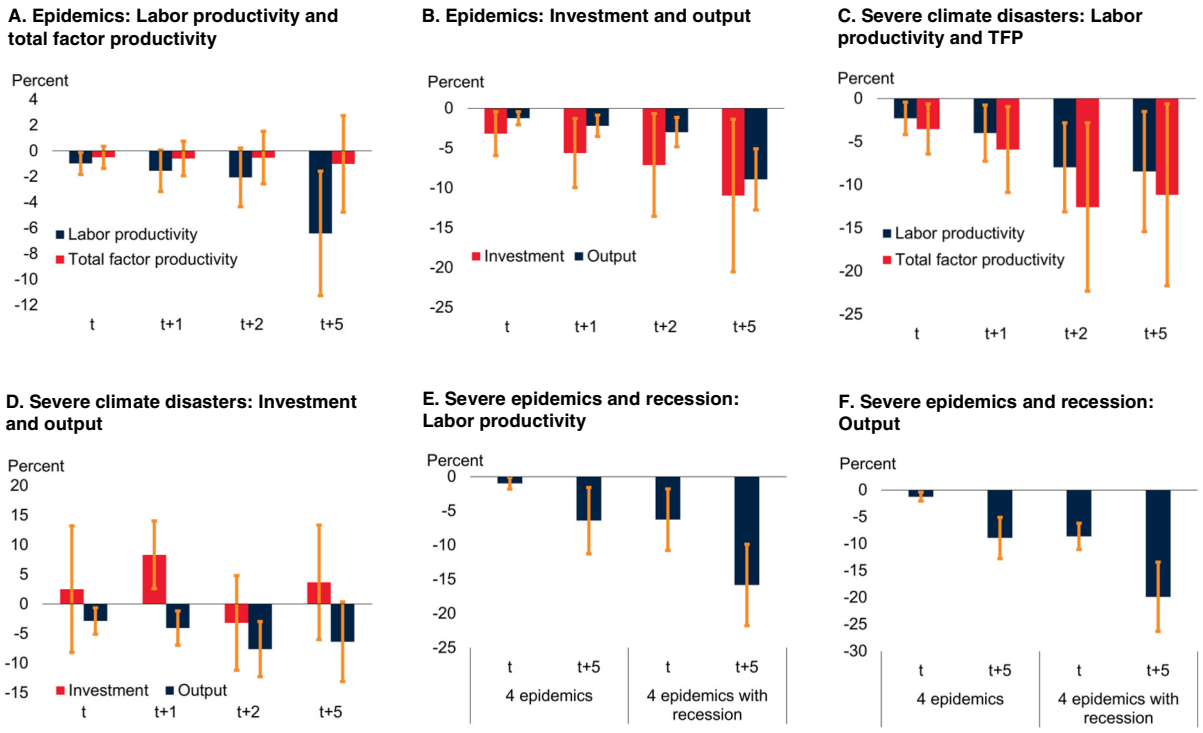
Methodology. The local projection method (LPM) is used to provide a reduced-form estimate of the response of labor productivity to adverse events over various horizons, and to identify key transmission channels through output, investment, and TFP (Jordà, 2005; Jordà, Schularick, and Taylor, 2013).

Adverse effects of epidemics. Results suggest that four epidemics since 2000 (SARS, MERS, Ebola, and Zika)

BOX 3.2 How do disasters affect productivity? *(continued)*

FIGURE 3.2.3 Impact of disasters

Disasters have resulted in considerable losses in output and labor productivity in EMDEs. Severe disasters have larger effects. SARS, MERS, Ebola, and Zika left lasting scars on labor productivity with declines of around 6 percent and larger effects on investment, whereas estimates suggest that total factor productivity hardly declined. The impact of swine flu too was probably large, but impossible to assess because the epidemic overlapped with the 2008-09 global financial crisis. Climate disaster has also led to significant productivity losses, although public and private investment have tended to increase in the short term, reflecting the shorter duration of the shock and reconstruction.



Source: EM-DAT; World Bank.

Note: Orange lines display the range of the estimates with 90 percentile significance.

A.B. Bars show the estimated impacts of the four most severe biological epidemics on output, labor productivity, total factor productivity, and investment levels relative to non-affected economies. The four epidemics considered are SARS (2002-03), MERS (2012), Ebola (2014-15), Zika (2015-16). Swine flu (2009), which coincided with the 2008-09 global financial crisis, is excluded to limit possible confounding effects. The sample includes 116 economies: 30 advanced economies, and 86 EMDEs.

C.D. Bars represents impulse responses of various economic variables to a severe adverse climate event. Severe climate disasters are defined as those that resulted in at least 100 in 1 million population death tolls. The sample includes 116 economies: 30 advanced economies and 86 EMDEs.

E.F. Bars show the estimated impacts of the four most severe biological disasters on labor productivity and output. Orange lines display the range of the estimates with 90 percentile significance. The four epidemics considered are SARS (2002-03), MERS (2012), Ebola (2014-15), and Zika (2015-16). Swine flu (2009-10), which coincided with the 2008-09 global financial crisis, is excluded to limit possible confounding effects.

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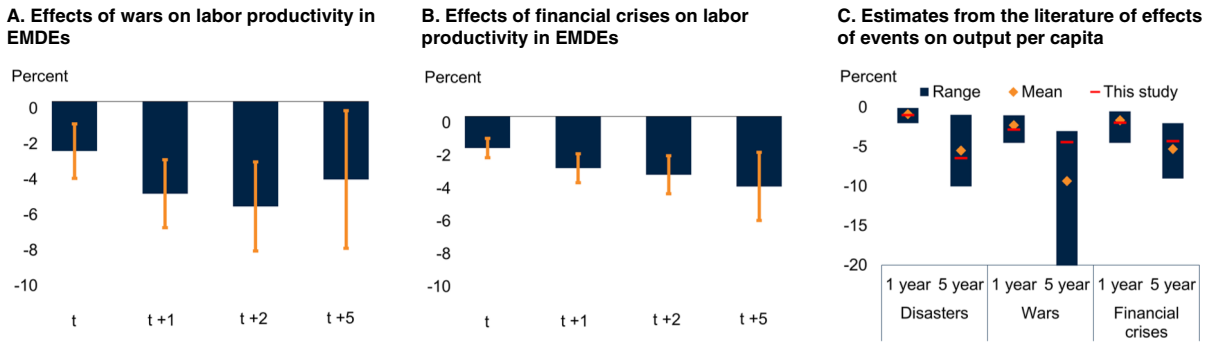
had significant and persistent negative effects on productivity (swine flu is excluded since it coincided with the global financial crisis).[6] These estimates indicate that epidemics led, on average, to a contemporaneous loss of productivity equal to about 1 percent (Figure 3.2.3). After five years, such disasters lowered labor productivity by a

[6] Jordà, Singh, and Taylor (2020) consider major pandemics and find long lasting effects on output. Barro and Ursúa (2008) report that the macroeconomic impact of the Great Influenza Pandemic of 1918 is substantial. Sustained low levels of demand, and excess capacity during disasters, including pandemics, can have persistent effects on productivity (Dieppe, Francis, and Kindberg-Hanlon, forthcoming). Ma, Rogers, and Zhou (2020) focused on the same set of epidemics in 210 countries and found that real GDP in EMDEs is around 2 percent lower, on average, in the first year, and 4 percent lower, on average, after five years. This suggests some uncertainty around the long-run effects.

BOX 3.2 How do disasters affect productivity? *(continued)*

FIGURE 3.2.4 Impact of wars and financial crises on productivity

Wars tend to leave large and persistent productivity losses. Many disasters have been associated with financial crises, which often result in large and persistent losses in labor productivity.



Source: Correlates of War (COW); EM-DAT; Laeven and Valencia (2018); Peace Research Institute Oslo (PRIO); World Bank
Note: Wars include intra-state and external (extra-state and inter-state) wars (COW and PRIO). Financial crisis episodes include banking crisis, currency crisis, and sovereign debt crisis (Laeven and Valencia 2018). Natural disasters include climate, biological, and geophysical disasters (EM-DAT). EMDEs=emerging market and developing economies (including low-income countries), The sample includes 170 economies: 35 advanced economies and 135 EMDEs, of which 27 are low-income countries.
A.B. Blue bars indicate the average impact of the event for each group and orange lines represent the 90 percent significance range.
C. The range of estimates is from the literature.
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cumulative amount of about 6 percent. Over the same horizon, investment declined by nearly 11 percent reflecting heightened uncertainty and risk aversion.

Losses associated with severe climate disasters. In EMDEs, severe disasters (greater than 100 deaths per million) have resulted in considerable losses in output, labor productivity, and total factor productivity. The LPM estimates for climate disasters indicate that labor productivity was lower by 8 percent after five years (Figure 3.2.3, Fomby, Ikeda, and Loayza; 2013). The estimates show that lower labor productivity is mainly accounted for by weaker total factor productivity rather than reduced investment. Possibly because after a severe disaster, firms delay or cancel investment in R&D, which impedes the creation, transfer, and adoption of new technologies and hinders global value chains. On the other hand, reconstruction spending offsets to some extent the negative impact on other capital spending.

The literature finds severe disasters have disproportionately larger economic impacts due to non-linear effects on labor force participation and human capital, particularly amongst younger workers (Cavallo et al. 2013; Hallegatte and Przyluski 2010; Loayza et al. 2012). Furthermore, the cumulative loss of productivity tends to be larger if the disaster lasts for a more extended period—as is the case with biological disasters—or if reconstruction efforts are delayed (Cerra and Saxena 2008; Sawada 2007).[7] Twelve out of around 360 recessions (excluding the 2009 global financial crisis) were associated with severe disasters; 38 were associated with epidemics. In the case of the four major epidemics, the effects associated with recessions are significantly larger on productivity (Figure 3.2.3).[8]

Scarring effects of wars. This is due to the destruction of human and physical capital and reduced total factor productivity. In EMDEs, wars (including internal and external wars) have been especially damaging as they lowered labor productivity by about 4.5 percent after five years (Figure 3.2.4).

[7] The pace of reconstruction may be slowed by financial, physical, and transaction constraints (Hallegatte and Rentschler 2018).

[8] Severe disasters can widen inequalities and exacerbate political tensions in affected countries. Besley and Persson (2011) estimated, for a sample of 97 countries in the period 1950-2005, that severe natural disasters increased the probability of wars by about 4 percentage points. Biological epidemics can also disproportionally affect low-skilled workers and raise inequality (Furceri et al. 2020).

BOX 3.2 How do disasters affect productivity? *(continued)*

Conclusions

The COVID-19 pandemic raises questions about its effects on productivity. Pandemics and epidemics are rare events in comparison to climate disasters and wars, but they have had adverse and persistent effects on productivity. Adverse impacts on productivity increase more than proportionately with the severity and duration of these types of disasters. Severe disasters were lowered labor productivity by 6 percent over the subsequent five years.

The COVID-19 pandemic may have a significantly worse impact on productivity than most previous disasters for three reasons:

- *Global reach.* The COVID-19 pandemic appears to have considerably broader reach—in terms of numbers of both countries and people affected—than other disasters since 1960 (Hassan et al. 2020). The increased integration of the global economy, through trade and financial linkages will amplify the adverse impact of COVID-19.

- *Contagion prevention and physical distancing.* As long as strict social distancing is required, some activities will not be viable. In the hospitality sector, where close socialization is part of the product, the capital stock will become obsolete. Even in less directly affected sectors, severe capacity under-utilization lowers TFP while restrictions to stem the spread of the pandemic remain in place. Disruptions to employment, schooling and other education while restrictions remain in place—or, in the event of severe income losses, even once restrictions are lifted—will also lower human capital and labor productivity (World Bank 2020d).

- *Compounding financial stress.* Financial crises tend to result in especially protracted labor productivity losses (Figure 3.2.4, World Bank 2020f).[9] Larger disasters are more likely to cause a cascade of business and household bankruptcies and hence a systemic financial crisis. Whilst only a few disasters have been associated with financial crises, governments and private sectors entered the COVID-19 pandemic with already-stretched debt burdens (Kose et al. 2020). These have since increased further and heighten risk of a financial crisis should financial conditions tighten further (Ludvigson, Ma, and Ng 2020).

Mitigating factors. In some dimensions, disasters can accelerate productivity-enhancing changes. They can encourage investment in new and more technologically advanced capital and to train more highly skilled workers (Bloom 2014). Moreover, destruction of old capital may lead to new opportunities for green growth with environmentally friendly new investment, especially if it is induced by structural reforms (Strand and Toman 2010). The mitigation measures of COVID-19, including social distancing, may encourage investment in more efficient business practices, including robotics and other digital technologies such as artificial intelligence.[10]

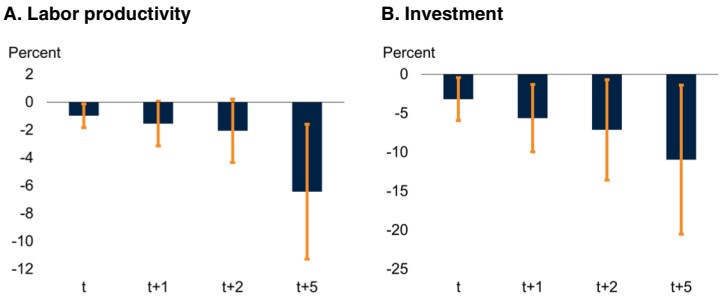
Structural reforms. The negative outlook ahead means that, after addressing the immediate health crisis, countries need to make productivity-enhancing reforms a priority. These include facilitating investment in human and physical capital, as well as in research and development; encouraging reallocation of resources toward more productive sectors; fostering technology adoption and innovation; and promoting a growth-friendly macroeconomic and institutional environment (World Bank 2020f). In addition, raising the quality and effectiveness of governance and improving the business climate can encourage a faster rebound from disasters. Governments that improved labor and product market flexibility, strengthened legal systems and property rights, fostered effective competition, and addressed inequality set the foundations for more effective adjustment to adverse events (Anbarci, Escaleras, and Register 2005).

[9] See Benson and Clay (2004); Blanchard, Cerutti, and Summers (2015); Celiku and Kraay (2017); and Cerra and Saxena (2008, 2017). During 1990-2018, the number of financial crises—sovereign debt, banking, and currency—nearly doubled compared to 1960-1989. Over the past three decades, labor productivity growth halved in advanced economies and slowed, albeit less markedly, in EMDEs.

[10] See Hallward-Driemeier and Nayyar (2017); Hsiang (2010); Skidmore and Toya (2002); and Strobl (2011).The accompanying job losses are likely to be lower-skilled and less productive (Lazear, Shaw, and Stanton 2013). To the extent vulnerable groups are particularly exposed to economic losses from disasters, policies to protect these groups are needed (OECD 2020b).

FIGURE 3.10 Productivity and epidemics

Since 2000, severe biological disasters (including SARS, MERS, Ebola, and Zika) have left large and lasting scars on affected economies. On average, after five years, they lowered labor productivity by about 6 percent and investment by about 10 percent.



Source: World Bank.
Note: Bars show the estimated impacts of SARS (2002-03), MERS (2012), Ebola (2014-15), and Zika (2015-16). Orange lines display the range of the estimates with 90 percentile significance. Swine flu (2009-10), which coincided with the 2008-09 global financial crisis, is excluded to limit possible confounding effects. The sample includes 116 economies: 30 advanced economies and 86 EMDEs.
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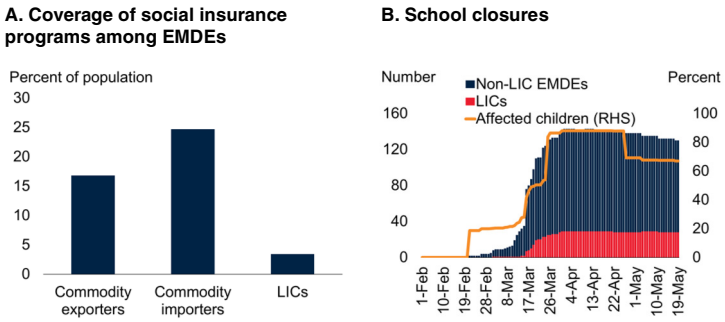
FIGURE 3.11 Factors aggravating long-term costs

The ability of safety nets to cushion income losses varies considerably across EMDEs, and tends to be less in LICs, highlighting the potential for severe welfare losses among the poorest. Prolonged school closures in EMDEs could have lasting implications for human capital accumulation.



Source: UNESCO; World Bank, World Development Indicators; World Bank.
Note. LICs = low-income countries.
A. Aggregates calculated using population weights for the latest available year of data for each country. Sample includes 106 EMDEs, of which 60 are commodity exporters, 46 are commodity importers, and 21 are LICs. Coverage of social insurance programs shows share of population participating in programs that provide old-age contributory pensions (including survivor benefits and disability) and social security and health insurance benefits (including occupational injury benefits, paid sick leave, maternity leave, and other social insurance).
B. Number of countries that have either recommended or required school closings as part of measures to contain the domestic spread of COVID-19. Last observation is May 19, 2020.
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aggregate demand and supply (Bhandari, Borovicka, and Ho 2019; Ilut and Schneider 2014).

- *Changing consumption patterns.* There could be long-lasting changes in consumption patterns motivated by the aim of lowering infection risks (Smith et al. 2014).
- *Erosion of human capital.* The learning disruptions associated with widespread school and university closures, as well as income losses, may cause lasting setbacks to human capital accumulation (UNESCO 2020; Wang et al. 2020).[10]
- *Possible mis-steps in macroeconomic policy management.* Governments in many countries have taken fiscal and monetary policy action on unprecedented scales in response to the pandemic to support demand and activity. Great care will need to be taken when withdrawing this support, as multiple objectives will need to be served, including sustaining the recovery of output and employment, ensuring the sustainability of public debt, maintaining price stability, promoting long-term growth, and ensuring social cohesion.

Conclusion

The COVID-19 pandemic has already taken an exceedingly heavy human toll and ravaged the global economy. Both advanced economies and EMDEs are experiencing an unprecedented combination of public health crises; sharp increases in borrowing costs, especially in EMDEs; a collapse in global trade, travel, and tourism; and a plunge in commodity prices. These shocks have already led to sharp contractions in many economies.

The pandemic is expected to have severe adverse effects on both short- and long-term economic growth. In the short term, the global economy has already begun to experience a deep recession. Many EMDEs will suffer particularly deep downturns because of their substantial vulnerabilities. In the long term, the pandemic

[10] For example, evidence from the Ebola epidemic in West Africa in 2014 suggests that school closures were associated with higher dropout rates and wider gender gaps in educational attainment (UNDP 2015). Large declines in household income are also associated with increased school dropout rates in EMDEs (Glick, Sahn, and Walker 2016).

will weigh on potential output and productivity, especially if financial crises erupt and oil prices remain depressed for an extended period. The pandemic and the accompanying recessions will likely prolong and deepen the multi-decade trend decline in long-term growth prospects.

The exceptional severity of the pandemic and economic collapse raises concerns about the risk of "super-hysteresis": not only a permanent loss of output *levels* but a permanent slowdown in potential output *growth* (Ball 2014). The pandemic could alter the very structures upon which the growth of recent decades was built, since it could cause prolonged damage to global supply chains, global trade and financial flows, and global collaboration.

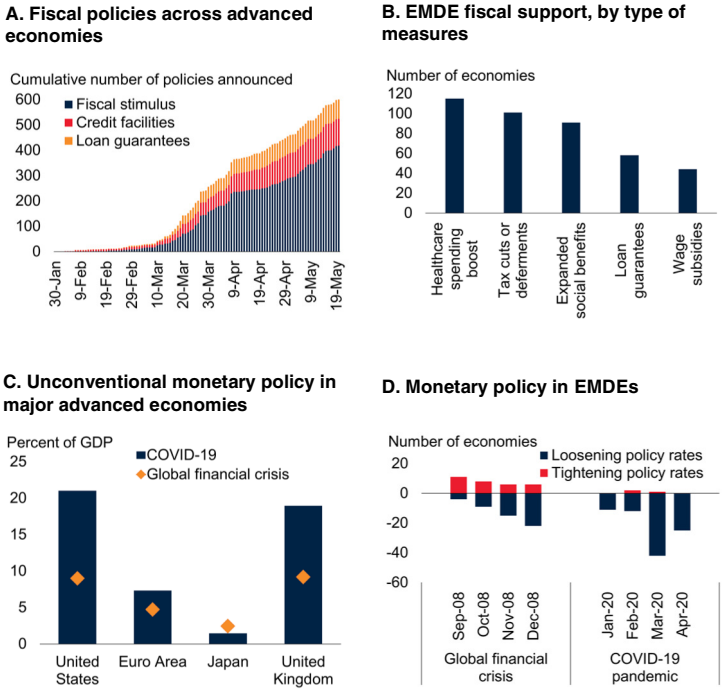
The evolving response to the pandemic has included an extensive menu of policies to dampen the effects of the health crisis, including the short-term economic losses. Many countries have instituted stringent measures to stem the pandemic, including full lockdowns. They have restricted international and domestic travel, closed schools and non-essential businesses, and discouraged work performed other than at home. They have banned, or advised their citizens to avoid, large gatherings. As countries cautiously feel their way toward a gradual reopening of their economies, they face the challenge of rebuilding a healthy economy while at the same time guarding against the threat of a renewed outbreak of the pandemic.

To support their economies through the shutdowns, policymakers have implemented relief programs of an unprecedented scale (Chapter 1; Figure 3.12). The immediate fiscal policy response has included support for health care systems, expanded social benefit programs, and measures to help firms and households. EMDE monetary authorities across the world have eased monetary conditions to support activity and provided emergency liquidity support to stabilize financial markets.

Beyond these short-term policies to confront the current health and economic crisis, the likely long-term implications of the COVID-19 pandemic also highlight the need to lay the foundation for stronger long-term growth. The implication is that for policymakers to be able to fund health systems and support domestic demand through the eventual recovery, they need to credibly undertake comprehensive reform programs to improve institutions and frameworks that can ensure an eventual return to robust growth while setting the stage for stronger long-term prospects. This will require credible fiscal frameworks that ensure that fiscal sustainability will be restored; it will also demand credible monetary policy frameworks that ensure that monetary policy will safeguard low inflation and financial stability. In addition, it will require stronger governance and business environments, and expanding investment in education and public health.

FIGURE 3.12 Fiscal and monetary policy responses

Many countries have implemented unprecedented and wide-ranging fiscal support in the wake of the COVID-19 outbreak, while many central banks have moved quickly to provide accommodation, in many cases beyond levels seen during the global financial crisis.



Source: Bank for International Settlements; Bloomberg; European Central Bank; Haver Analytics; World Bank; Yale Program on Financial Stability.

A. Sample comprises 27 advanced economies and the Euro Area. Last observation is May 20, 2020.

B. Total of measures either planned or under consideration. Contains 147 EMDEs. Last updated May 17, 2020.

C. "COVID-19" reflects recently announced asset purchases and are expressed as a share of 2019 nominal GDP. "Global financial crisis" asset purchases reflect the increase in central bank balance sheets between August 2008 and December 2009 as a share of 2008 nominal GDP.

D. Sample consists of 26 EMDEs.

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As the world emerges from the pandemic, it will also be critical to strengthen the mechanisms for preventing and responding to epidemics before the next one strikes. Less than 5 percent of countries entered this pandemic scoring in the highest tier for their ability to respond to and mitigate the spread of an epidemic (Johns Hopkins University and NTI 2019). Improving these capabilities will require international policy cooperation and coordination, especially given the global reach of such disasters.

ANNEX 3.1 The macroeconomic effects of pandemics and epidemics: A literature review

A growing literature has examined the economic losses from historical and simulated pandemics, taking account of a range of channels, including labor force disruption; a collapse in consumption, trade, and travel; and amplification through confidence and financial market disruptions. These studies have found initial GDP losses that fall in a range of 1-8 percent. However, these estimates generally do not account for containment measures of the scale used during the COVID-19 pandemic, which could significantly increase the economic costs. Other major economic shocks, such as financial or currency crises, have been associated with persistently negative effects on growth, suggesting that there may be long-term scarring effects from COVID-19.

Introduction

SARS-CoV-2 (COVID-19) is the latest in a long series of global disease outbreaks. In just the past century, the world has experienced four influenza pandemics: H1N1 in 1918-19 (Spanish flu), H2N2 in 1957-58 (Asian flu), H3N2 in 1968-69 (Hong Kong flu), and H1N1 in 2009-10 (swine flu). HIV/AIDS, which appeared in the early 1980s, was also eventually classified as a pandemic. In addition, the world has suffered from numerous other disease outbreaks, such as SARS-Cov (Severe Acute Respiratory Syndrome, or SARS) in 2002-03, MERS-Cov (Middle East Respiratory Syndrome, or MERS) in 2012, Ebola in 2014-15 and again in 2018-20, the Zika virus in 2015-16, as well as endemic diseases such as cholera and yellow fever (Table A.3.1.1).

Past pandemics, especially the Spanish flu, have imposed a heavy toll in terms of human lives. The number of fatalities from COVID-19 is rising strongly, and is likely to rise considerably more (Figure A.3.1.1; Atkeson 2020; Ferguson et al. 2020).

Pandemics and epidemics also have significant economic impacts. Even a relatively mild pandemic, in terms of the number of deaths, can generate substantial global output losses in the short term. This annex reviews the relevant literature, addressing the following questions:

- What are the channels through which the global economy is disrupted by pandemics and epidemics?
- What were the economic costs associated with previous pandemics and what do model-based simulations suggest about the costs of pandemics of different severity?
- What are the expected economic costs of COVID-19, based on existing studies?

Channels of economic impact

The macroeconomic impacts of disease outbreaks (epidemics or pandemics) stem from effects on aggregate demand and aggregate supply. Demand-side channels capture the effects on consumption, investment, trade, and travel, while supply channels capture workforce and supply-chain disruptions and the rising costs of doing business.[1]

Demand channels

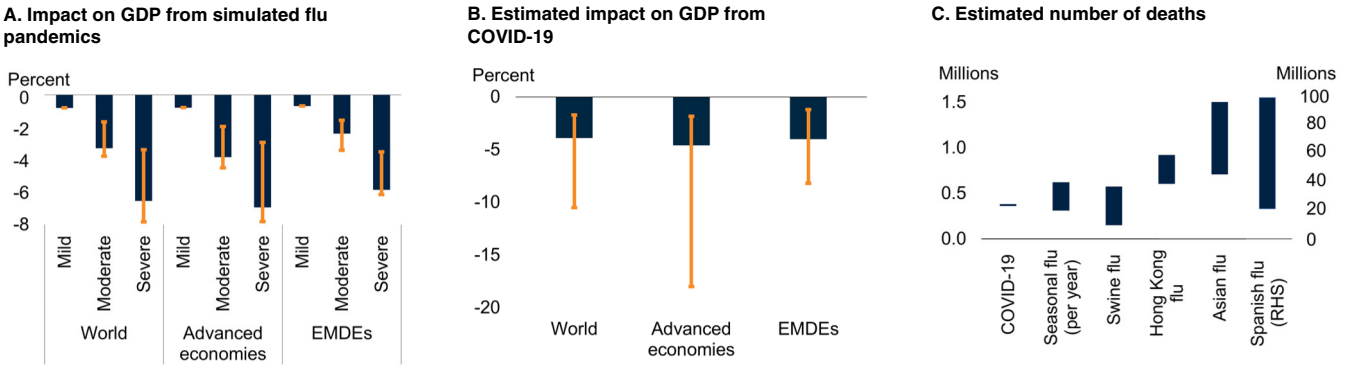
Avoidance, fear, and uncertainty. Infectious disease outbreaks can have a substantial impact on demand as governments, consumers, and firms

Note: This annex was prepared by Gene Kindberg-Hanlon, Yoki Okawa, and Dana Vorisek.

[1] In addition, the supply-side effects can trigger large falls in income which are then magnified by credit constraints and firm failures, reducing demand (Guerrieri et al. 2020).

FIGURE A.3.1.1 Economic impact of pandemics

Model simulations of pandemics of varying severities find that output can be reduced by 2-8 percent in moderate to severe scenarios. The models account for a range of channels affecting the economy, such as work absenteeism, reduced consumption, credit constraints, and financial volatility, but generally do not consider aggressive measures of the sort widely used to contain the COVID-19 pandemic. For this reason, the economic impact of COVID-19 tend to be larger in simulated severe scenarios in recent studies.



Source: Cobos et al. (2016); Dawood et al. (2012); Simonsen (1999); Spreeuwenberg, Kroneman, and Paget (2018); WHO (2018); World Bank.

A. Blue bars show the median of reported GDP shrinkage. Orange lines represent the range of the median estimates of influenza pandemics on first-year (peak impact in all cases) GDP growth from models in McKibbin and Sidorenko (2006); Burns, Mensbrugghe, Timmer (2006); Verikios et al. (2011); and McKibbin and Fernando (2020). In "mild" scenarios, the mortality rate is 2.2 per 10,000 population. In "moderate" scenarios, the mortality rate is 20-50 per 10,000 population. In "severe" scenarios, the mortality rate is 90-110 per 100,000 people.

B. Blue bars show the median reported GDP shrinkage. Orange line represents the range of the simulated impacts of COVID-19 on first-year GDP growth from Baker et al. (2020b); Breisinger et al. (2020); IMF (2020); McKibbin and Fernando (2020); and World Bank (2020b). Baseline estimates from IMF (2020) are changes in forecasts in April 2020 from January 2020. Baker et al. (2020b) and Breisinger et al. (2020) are estimates for only the United States and Egypt, respectively.

C. Number of cumulative daily infections from first day when infections exceeded 100. Data for COVID-19 is as of May 22, 2020.

Click here to download data and charts.

take actions to limit contagion. In some cases, this effect may be magnified by uncertainty. SARS, for example, triggered a substantial reduction in travel, consumption, services exports (including tourism), and even investment, despite causing just 800 deaths. Consumer spending patterns have shifted dramatically during the COVID-19 pandemic. In the United States, the magnitude of changes in spending has been linked to both the severity of local outbreaks, which creates heightened avoidance of contagion risk, and to controls imposed at the city and state level, which halt many normal activities (Baker, Farrokhina et al. 2020). Heightened uncertainty may also be reflected in financial market stress. The market volatility from COVID-19 has been severe. Risk spreads on borrowing costs have widened sharply. Many EMDEs have experienced capital flight. Previous infectious disease outbreaks have had qualitatively similar effects on financial markets (Ma, Rogers, and Zhou 2020).

Supply channels

Labor force effects. Illness and preventive measures to reduce contagion during infectious disease outbreaks reduce available labor supply and labor productivity in the short run, while loss of schooling and job experience, as well as mortality, can have persistent effects. In past pandemics, illness and absences to care for family members reduced labor supply more than mortality (Kilbourne 2004; McKibbin and Sidorenko 2006).[2]

Business closures and supply chain disruptions. Business costs are likely to increase during a pandemic as measures are taken to protect employees and the general population, and closures can exact an even greater toll. Empirical assessments of disease outbreaks have found that high-exposure service sectors, such as travel, accommodation, and food services, are hardest hit during pandemics, even when few restrictions or closures were imposed (Joo et al. 2019; Siu and Wong 2004). Manufacturing can be deeply affected by supply chain disruptions. In some CGE-based estimates of the economic costs of pandemics, rising business costs in affected sectors

[2] In addition, over the long term, the loss of human capital due to fatalities during the outbreak can result in long-term output losses (Fan, Jamison, and Summers 2018).

TABLE A.3.1.1 Estimated mortality and infection rates of pandemics during the past century

	Spanish flu	Asian flu	Hong Kong flu	Swine flu	COVID-19
Period	1918-19	1957-58	1968-69	2009-10	2020
Deaths (% of global population)	1.0-5.7	0.03-0.05	0.02-0.03	0.001-0.004	0.004
Infections (% of global population)	28	42-55	30-57	24	0.07

Source: Cobos et al. (2016); Johnson and Mueller (2002); Johns Hopkins University Coronavirus Resource Center; Simonsen (1999); Taubenberger and Morens (2006).
Note: COVID-19 infections and deaths are as of May 22, 2020.

are responsible for the majority of economic losses (Lee and McKibbin 2003; McKibbin and Sidorenko 2006).

Amplifying and dampening factors

Several factors affect the magnitude of economic losses from disease outbreaks.

Demographic profiles. Large-scale infectious disease outbreaks tend to strike some age segments more than others. For example, the case fatality rate during the Spanish flu was highest for young adults, while during the Asian flu, school-aged children and young adults experienced the largest elevation in mortality relative to the baseline (Gagnon et al. 2013; Viboud et al. 2016). Early experience with COVID-19 shows a disproportionally higher frequency of death for the elderly suggesting that the loss of life may be severe for countries and regions with a high share of older people (Farzanegan, Feizi and Gholipour 2020; Sornette et al 2020; Verity et al. 2020).[3]

Health care systems and social safety nets. Low- and lower-middle-income economies may suffer particularly high loss of life from disease outbreaks as a result of low-quality health care systems and poor access to water and sanitation services (Corburn et al. 2020; Farzanegan, Feizi, and Gholipour 2020; McKibbin and Sidorenko 2006). Weak social safety nets can magnify the economic impacts of pandemics for lower-income households. Because low-income workers typically have limited savings to buffer income shocks, and because telecommuting is not an option for many low-paid service jobs, these workers may be forced to work in environments where the risk of infection is high.

Cross-country spillovers. Simulations have shown that global trade would fall by as much as 14 percent in a medium-scale outbreak of avian flu, even if viral cases were limited to South and East Asia (Bloom, de Wits, and Carangal-San Jose 2006). During the SARS outbreak, the high dependence of Hong Kong SAR, China on tourism and services exports was found to have magnified GDP losses (Siu and Wong 2004). Disruption to global value chains provides an additional channel that can increase the economic cost of pandemics and epidemics. The impact of COVID-19 on global trade has been a major concern in part because countries that collectively account for the majority of global manufacturing production and exports (China, Germany, Italy, Korea, and the United States) have also experienced some of the largest outbreaks (Baldwin and Tomiura 2020).

Macroeconomic policy response. Fiscal and monetary policy support can blunt the adverse economic impacts of disease outbreaks and aggressive mitigation measures. With much of the global economy under lockdown during the COVID-19 pandemic, such support has been essential to offset drastic interruptions to the normal income, credit, and spending patterns among businesses and households. The effectiveness of policy support depends on the credibility of the measures, and the extent of pre-existing vulnerabilities such as high debt levels and large external financing needs, and structural issues. For example, fiscal multipliers are typically lower in economies with high debt (Huidrom et al. 2019). The effectiveness of fiscal policy also depends critically on a well-functioning social security system, and could be complicated by high levels of informality (Box 1.4; Loayza and Pennings 2020). Monetary policy easing also may be less effective in economies with large informal sectors and low financial inclusion (Alberola-Ila and Urrutia 2019).

[3] The U.S. Department of Health and Human Services (2020) estimates that the case fatality rate for patients ages 20-44 is less than one-tenth of the rate for patients ages 65-74.

Estimates of economic losses

The literature has studied the economic impacts of disease outbreaks using both model-based simulations and empirical analysis of historical pandemics.

- **Computable general equilibrium (CGE) models**. Several global CGE models have been applied to estimate losses of simulated pandemics (Lee and McKibbin 2004; McKibbin and Fernando 2020; McKibbin and Sidorenko 2006; Verikios 2011). These models offer rich sectoral disaggregation that allows the consideration of differential effects across industries, estimation of trade spillovers, and endogenous policy responses.

- **Empirical estimates of historical episodes.** Estimates of the impact of actual pandemics have the advantage of taking account of the actual losses experienced (Barro, Ursua, and Weng 2020; Correia, Luck, and Verner, 2020; Keogh-Brown and Smith 2008; Siu and Wong 2004). However, they are often unable to distinguish the effects of the pandemic from other factors.

Simulated outbreaks

Studies of simulated pandemics typically use mortality rates to classify the severity of the event (Table A.3.1.2).[4] Simulations with higher mortality rates tend to generate larger economic losses. Containment and mitigation measures, including social distancing and restriction of movements, are largely absent from the literature on simulated pandemics. However, a study of the United Kingdom reports that a three-week school closure in response to a simulated influenza outbreak reduces GDP by about 0.5 percentage point in the first year, in addition to the 0.8-1.7 percent loss of output directly attributable to infections (Smith, Keogh-Brown, and Barnett 2011).

Mild pandemics. These are defined to have mortality rates of less than 20 per 10,000 people.[5] Historical examples are the Hong Kong flu, with about 2 deaths per 10,000; and the Asian flu, with about 4 deaths per 10,000. In model simulations, their impact reduces GDP by 0.7-0.8 percent in both advanced economies and EMDEs in the first year (Figure 1.1; McKibbin and Sidorenko 2006).

Intermediate pandemics. These are defined to have mortality rates of 20-50 per 10,000 population. Model simulations suggest, during the first year, reductions of 1.6-3.5 percent of GDP in EMDEs, and 2.0-4.6 percent of GDP in advanced economies (Burns, van der Mensbrugghe, and Timmer 2006; Verikios et al. 2011).[6] Relative to mild pandemics, modeled intermediate pandemics show larger losses from reduced labor supply, negative shocks to consumption, financial market disruption, and increases in business costs (Table A.3.1.2).

Severe pandemics. These are defined to have more than 50 deaths per 10,000 population. In model simulations, pandemics on this scale reduce GDP by 3.6-7.0 percent in EMDEs, and 3.0-8.0 percent of GDP in advanced economies (McKibbin and Sidorenko 2006; Burns, van der Mensbrugghe, and Timmer 2006).

Historical outbreaks

Historical analysis of the economic costs of previous pandemics and epidemics is complicated by lack of data and the simultaneous presence of other shocks. For example, the Spanish flu overlapped with World War I, while the swine flu pandemic broke out during the global financial crisis. Empirical investigations of these episodes suggest that the results of the model-based simulations are in the right range (Table A.3.1.3). Thus, the Spanish flu is estimated to have lowered GDP by about 6 percent during 1918-19, with

[4] Mortality rates are more variable than infection rates. Estimates put the mortality rate of the Spanish flu at more than 500 times that of the 2009 swine flu pandemic, and the infection rate only 1.5 times larger.

[5] Here and in the subsequent two paragraphs, the 10,000 figure refers to the whole population, rather than just the infected population.

[6] Pandemics can also be differentiated into those with high mortality but low infection rates and vice versa. A pandemic with a moderate case fatality rate but high contagion could generate economic losses many times higher than a pandemic with a high fatality but low contagion (Verikios et al. 2011).

more cyclical economic sectors, such as manufacturing, experiencing output reductions of up to 18 percent (Barro, Ursua, and Weng 2020; Correia, Luck, and Verner 2020). In contrast, estimates for more moderate episodes of influenza, such as the Asian flu, which killed approximately 1 million people globally, show GDP losses that are largely indistinguishable from normal growth volatility (Henderson et al. 2009). SARS is estimated to have reduced output by 1-4 percent in some of the worst affected economies in the second quarter of 2003, with less clear impacts on growth during the whole of 2003 (Siu and Wong 2004).

COVID-19: Short and long-term losses

Several studies have published initial estimates of the possible economic losses from the COVID-19 pandemic (Table A.3.1.4). Some take account of the economic impacts of the stringent containment and mitigation measures, which could make the economic impacts of this pandemic much more severe relative to past episodes (Boissay and Rungcharoenkitkul 2020).[7]

Short-term economic losses

The existing estimates of the economic consequences of COVID-19 have a wide range, reflecting the large uncertainty surrounding contagiousness, the eventual infection and fatality rates, the stringency and duration of policies to reduce virus transmission, and other factors (Figure A.3.1.1). The first estimates showed small economic losses. Subsequent estimates were higher, as the pervasiveness and severity of the disease, and the containment and mitigation measures, became more apparent.[8]

One study puts output losses from the COVID-19 pandemic at 2-6 percent of GDP in EMDEs in the first year, and 2-8 percent in advanced economies (McKibbin and Fernando 2020). This would be comparable to the estimated 6 percent global economic losses due to Spanish flu (Barro, Ursua, and Weng 2020). Maliszewska, Mattoo, and van der Mensbrgghe (2020) estimate losses of 2.5-4.0 percent in EMDEs, and 1.8-3.8 percent of GDP in advanced economies. This results from a fall in employment, lower consumption, rising trade costs, and reduced travel and tourism. However, these studies do not factor in the full stringency of the controls that were later imposed globally.

Several studies have attempted to separate the losses of output that preventive controls may impose from those of a hypothetical COVID-19 outbreak with no such restrictions. Restrictions on retail, travel, and other services industries could reduce output by 25 percent in OECD economies during their enforcement (OECD 2020a). Were these restrictions to remain in place over three months in 2020, this would imply a 6 percent reduction in annual GDP, equivalent to estimates of lost output in severe simulated pandemics (without explicit containment measures) and empirical estimates of losses from Spanish flu. Other estimates suggest that growth will be approximately 5-8 percentage points lower in advanced economies and EMDEs in 2020 due to the effects of COVID-19 and associated containment measures. The impact on growth would be an additional 3 percentage points if the duration of containment measures is extended to increase the number of lost working days by 50 percent (IMF 2020).

A developing strand of the literature models the economic impact of imposing "optimal" containment measures to limit the spread of COVID-19. In a model of the United States, consumption falls by 22 percent under optimal containment measures, compared to just 7 percent if only the effect on labor supply owing to illness and mortality and consumer behavior is considered (Eichenbaum, Rebelo, and Trabandt 2020).[9] Another model-based approach applied to the United States finds that targeting containment

[7] Keogh-Brown et al. (2010) estimate that extending a four-week school closure to 15 weeks alongside increased levels of prophylactic absenteeism might double economic losses in a medium-scale pandemic but only reduce the rate of infection by 2-15 percent.

[8] For example, ADB (2020) initially estimated a "worst-case scenario" of 0.4 percent of global GDP. A similar scenario with moderate global contagion modeled by the OECD (2020c) estimated that world GDP would be reduced by around 1.5 percent relative to baseline.

[9] The "optimal" containment measures are assumed to reduce deaths as a share of the initial population from 0.4 percent to 0.26 percent.

measures to older age groups results in a 10 percent reduction in output over one year, compared to a 24 percent loss of output with universally-applied lockdown measures (Acemoglu et al. 2020). Age-targeted containment measures may be particularly effective at limiting output losses in EMDEs, which have a smaller share of their population in vulnerable age groups (Alon et al. 2020).

Medium- and long-term impacts

Scarring effects and offsetting policy. Most analysis of the economic costs of pandemics and epidemics focuses on short-term impacts. However, severe economic contractions of the magnitude expected in 2020 have historically cast long shadows, typically lowering potential growth for four to five years (Box Lasting damage of recessions; Martin, Munyan, and Wilson 2015; World Bank 2018). This can result from reduced investment, credit constraints, and slower adoption of new technologies (Anzoategui et al. 2019; Queralto 2019).[10] History suggests that good policy may reduce the adverse effects of severe contractions. Regions implementing significant containment measures during the Spanish flu are found to have experienced faster rates of growth than other regions in the five years following the pandemic (Brainerd and Siegler 2003; Correia, Luck, and Verner 2020).

Debt and insolvency risk. The negative shock from COVID-19 is occurring at a time of heightened vulnerabilities in sovereign and private sector debt. Historically, episodes of rapidly accumulating debt are associated with an increased likelihood of a financial crisis (Kose et al. 2020). The unprecedented scale of the current fiscal stimulus will stretch public sector balance sheets even further in many EMDEs, and in some advanced economies. Private sectors may experience a wave of insolvencies, posing a threat to banking systems in various jurisdictions. One of the lasting effects of the COVID-19 induced recession may be increased financial fragility.

Human capital implications. Schools and universities have been closed across the world as part of the policy response to slow the spread of COVID-19 (UNESCO 2020). The associated learning disruptions, although partially compensated by home schooling and remote teaching, are likely to have the most adverse effects for disadvantaged students, including on health and safety (World Bank 2020d). School closures may cause lasting setbacks to human capital accumulation and earnings potential (Psacharopoulos et al. 2020; Wang et al. 2020). Missed learning opportunities can have larger impacts for low-income families, who often have limited ability to support learning at home (Van Lancker and Parolin 2020). Evidence from the Ebola epidemic in West Africa in 2014 suggests that school closures were associated with higher dropout rates and wider gender gaps in educational attainment (UNDP 2015). Large declines in household income are also associated with increased school dropout rates in EMDEs (Glick, Sahn, and Walker 2016). In addition, closure of workplaces will deprive many people of opportunities to improve skills and productivity through apprenticeships and on-the-job learning.

Poverty implications. The COVID-19 pandemic could have severe effects for the poor through multiple channels, including greater vulnerability to declines in labor and non-labor income, increased risk of infection and mortality, and lower availability of essential items due to market disruptions hit the poor particularly hard (Barnett-FAO et al. 2020; Howell and Mobarak 2020; World Bank 2020d). Although the social assistance measures that have been implemented by many countries may soften the impacts on households, they do not fully offset the income losses from shutdowns. Moreover, the poorest members of society have little capacity to manage negative income shocks. Less than 20 percent of workers are covered by social insurance or assistance programs in low-income countries (LICs), in part due to their large informal sectors (World Bank 2019b). All this suggests that recent progress on the reduction of poverty and inequality will likely be lost (Sumner, Hoy, and Ortiz-Juarez 2020).

[10] Downward pressure on real rates of return following a pandemic may be particularly persistent, lasting for about 40 years (Jordá, Singh, and Taylor 2020).

Structural changes in production, consumer behavior, and work patterns. The fragility of the global trading system, highlighted by disruptions in global value chains, and by shortages of essential goods in many countries during the COVID-19 outbreak, may lead governments and firms to reassess the benefits of low-cost, off-shore sourcing. Onshoring efforts will have costs, however. Domestically, resources may be diverted into capital-intensive import-substitution. Aside from this, efforts to avoid viral contamination may linger long after the pandemic dissipates. This could lead to changes in the structure of production on a much larger scale than those which past recessions have triggered. Certain restrictions, and adjustments in consumer behavior, to reduce the risk of infection may prove highly persistent (Smith et al. 2014). For example, the experience with widespread remote working may permanently change the nature of workplaces. Avoidance of crowds may mean that established business models of popular entertainment are no longer viable. It may take the travel industry years to recoup the tourist losses it has suffered in 2020.

TABLE A.3.1.2 Economic impacts of simulated influenza pandemics

Paper	Total mortality (per 10,000 people)	Channels and shocks	Containment measures and policy response	Time horizon	Method	Peak GDP loss in advanced economies (percent)	Peak GDP loss in EMDEs (percent)
McKibbin and Sidorenko (2006)	2.2-22	- Illness: the labor force is reduced by 1.15% - Mortality: 0.02-2.2% of the labor force is killed by influenza - Tourism and trade reductions - Financial market disruption - Business costs rise, with the largest increase in sectors requiring more social interaction - Costs shocks for the most affected sectors - Demographics and health care quality affect the illness and mortality rates across economies	No explicit containment or policy measures	1 year	DSGE/CGE	0.7-7.1	0.7-6.3
Burns, Mensbrugghe, and Timmer (2006)	108	- Illness and mortality - Reduction of 20% in travel, transport, and restaurant consumption for 1 year	No explicit containment or policy measures	1 year	DSGE/CGE	3.0	3.6
Smith, Keogh-Brown, and Barnett (2011)		- Illness: 35% of working labor force is infected - Case fatality rate of 0.06-0.35%	School closures and prophylactic absenteeism considered in alternate scenarios	1 year	CGE	United Kingdom: 0.3-0.6 considering disease only; 3.4-4.3 with school closures and prophylactic absenteeism	-
Verikios et al. (2011)	20	- Illness and mortality - *unspecified* - School closures add 75% to lost working days - Reduction of tourism and travel of 70%	School closures	Multi-year. Losses largely unwound after one year	CGE	3.9	2.4

Note: Losses are reported relative to a baseline level of GDP or growth rate, which are approximately equivalent. Median of the first year GDP loss in advanced economies or EMDEs are reported, except Burns, Mensbrugghe, and Timmer (2006), which only reports aggregated GDP impact. "High-income countries" in Burns, Mensbrugghe, Timmer (2006) are presented in the tables as advanced economies and "low and middle-income countries" are presented as EMDEs.

TABLE A.3.1.3 Estimates of economic impacts of historical pandemics and epidemics

Event	Study	Estimation technique	Geographical coverage	Estimate of immediate impact	Estimate of subsequent impact
Spanish flu	Brainerd and Siegler (2003)	Growth regressions controlling for the death toll from flu and other factors as explanatory variables in 1918 for per capita growth over the subsequent 10 years	United States (state by state)	n/a	+0.2 percentage points per year growth for 10 years following the pandemic
Spanish flu	Karlsson, Nilsson, and Pichler (2014)	Growth regressions exploiting regional differences in influenza incidence and mortality rates during 1918-19	Sweden	No discernable effect on aggregate earnings or GDP per capita but a large increase in poverty rates	
Spanish flu	Barro, Ursua, and Weng (2020)	Growth regressions controlling for country-specific factors, war-related deaths, and influenza-related deaths to assess the influenza-specific fall in GDP	43 advanced economies and EMDEs	GDP reduced by 6%, consumption reduced by 8%	
Spanish flu	Correia, Luck, and Verner (2020)	Exploits state and city influenza deaths to assess the specific effects on manufacturing output and employment	United States	Manufacturing output reduced by 18% and employment by 23% by 1919	Regions with longer-lasting public health interventions (46 days longer) experienced a 6% rise in manufacturing employment and a 7% rise in output following the pandemic
Asian flu	Henderson et al. (2009)	Event study of industrial production	Canada	1% fall in industrial production at the time of the outbreak	
SARS	Lee and McKibbin (2004)	CGE modeling exercise calibrated following the SARS epidemic	Asia-Pacific	Reduction in 2003 GDP: Hong Kong SAR, China -2.6% China -1.1% Singapore -0.5%	
SARS	Siu and Wong (2004)	Event study of the effects of SARS using sectoral, trade, and tourism data	Hong Kong SAR, China	Initial 15% decline in year-on-year retail sales growth during the peak of the outbreak; tourist arrivals decline 10% at peak; unemployment rate increases by more than one percentage point at peak; tourist arrivals and consumption subsequently recover to pre-SARS levels but no indication that lost growth is recovered	
SARS	Keogh-Brown and Smith (2008)	Event study examining a range of aggregate and sectoral indicators	16 economies, primarily in Asia	One-quarter losses: China -3% Hong Kong SAR, China -4.75% Canada -1% Singapore -1% Losses are concentrated in travel, leisure activities, and tourism; results do not specify whether quarterly impacts are recovered in subsequent quarters	
SARS	Kholodilin and Rietha (2020)	VAR using monthly data on industrial production and index of news about flu-like disease	Eight major economies	News of SARS outbreak reduced industrial production by 2% in China and 10% in Republic of Korea during the peak of the episode	
MERS	Joo et al. (2019)	Event study of tourism, travel, accommodation, and food sectors during 2015	Republic of Korea	Permanent losses in affected sectors equivalent to -0.2% of GDP	

TABLE A.3.1.4 Preliminary estimates of economic impacts of COVID-19

Paper	Total mortality (per 10,000 people)	Channels and shocks	Containment measures and policy response	Time horizon	Method	Peak GDP loss in advanced economies (percent)	Peak GDP loss in EMDEs (percent)
IMF (2020)	Not specified	- Labor supply falls by 5-8% globally in 2020 - Financial market disruption and credit tightening in 2020, fading in 2021. Downside scenario assumes an additional 75 basis point rise in sovereign credit spreads in EMDEs and an additional 50 basis point rise in advanced economies - Commodity prices sharply fall in 2020. Oil prices remain around 15% below baseline in 2021	- Containment measures implemented in 2020Q2 and withdrawn in 2020Q3; more severe case restrictions last 50% longer - Unconventional monetary policy is implemented in advanced economies, alongside fiscal measures	2 years	Baseline WEO forecast and semi-structural DSGE model	7.7 – 10[1]	5.4-8[1]
Maliszewska, Mattoo, and van der Mensbrugghe (2020); World Bank (2020c)	Not specified	-Illness and mortality reduce labor input by 3% in year 1 -Trade costs increase by 25% across all goods and services -Tourism fall implemented with a 50% increase in costs -Demand "reallocated" away from high-risk service sectors	- Effect of containment embedded in assumptions about labor input and consumption reduction	1 year	CGE	1.8-3.8	2.5-4.0
McKibbin and Fernando (2020)	20-90	-Illness and mortality: -0.4 to -4.6% fall in labor supply -Consumer behavior: initial -0.8 to -4.5% fall in total consumption, including targeted tourism and trade reductions -Financial market disruption: 1.1-2.9 percentage point increase in equity risk premium -Costs of doing business: 25-50% increase, varying by sector -Demographics and health care quality indexes vary mortality rates across economies	- No explicit containment measures - 0.2-2.7% positive shock to government expenditure - Endogenous fiscal and monetary response to shocks	1 year (year of shock); reversion to baseline after 1 year	DSGE/ CGE	2.0-8.0	1.6-6.0
WTO (2020)		- Illness and mortality reduce labor supply by 1-4% in year 1 -Tourism declines 20-80% over 3-6 months -Retail activity declines 5-20% over 3-9 months -Manufacturing falls by a maximum of 80% for 3 months and 40% for 6 months -Trade costs increase: 22.5% rise in cost of services transport and specialized equipment transport over 6-18 months, 70% rise in air cargo costs over 6-18 months	-Work from home for 3 months to 1 year and school closures for 3 months	2 years	CGE	4.8-11.1 in year 1 (global)	
Baker et al. (2020b)	Not specified	-Based on U.S. stock return and volatility from February 24 to March 31	n/a		VAR	3-20 (United States)[2]	
Banco de España (2020)	Not specified	-Spillovers from weak global economy -Weak domestic demand due to containment - Discretionary fiscal policy to support the economy	- 8-12 weeks of containment measures, reducing domestic demand	2 years, with strong rebound in year 2	Hybrid macro model	8.5-14.1 (Spain)	

TABLE A.3.1.4 Preliminary estimates of economic impacts of COVID-19 *(continued)*

Paper	Total mortality (per 10,000 people)	Channels and shocks	Containment measures and policy response	Time horizon	Method	Peak GDP loss in advanced economies (percent)	Peak GDP loss in EMDEs (percent)
Breisinger et al. (2020)	Not specified	- Zero internal tourism during crisis - 10-15% reduction in remittance and Suez Canal revenue - Shocks last 3-6 months	n/a	1 year	Social accounting matrix		2.1-4.8 (Egypt)
Çakmaklı et al. (2020)	0.2-96	- Illness and mortality - Changing consumer demand - 18-23% decline in exports due to weaker external demand for final goods and intermediate goods	- 0-35 weeks of lockdown - Only selected industries are active during full lockdown	1 year	DSGE/CGE/ SIR		4.5-11.0 (Turkey)
Duan et al. (2020)	0.24	- Household consumption declines 5-10% in Q1	- Labor supply reduced by 10-50% in Q1 and rebounded in Q2	1 year	CGE		0.6-1.7 (China)
Eichenbaum, Rebelo, and Trabandt (2020)	20-30	-Illness and mortality -Consumer behavior – consumption falls by 7% without containment measures in year 1; consumption falls by 22% with containment measures	- Optimal containment measures at their peak during the year restrict 76% of the population from working	2 years – effects largely dissipate in year 2	DSGE/CGE/ SIR	4.7-14.5 (United States)[3]	

Note: Losses are reported relative to a baseline level of GDP or growth rate, which are approximately equivalent. Median of the first year GDP loss in advanced economies/EMDEs are reported.

1. Calculated as the deviation of the forecast in the IMF's April 2020 *World Economic Outlook* relative to its January 2020 *World Economic Outlook Update*. Upper bound is calculated under the scenario such that containment measures last 50 percent longer than baseline. Upper bound numbers are rounded to nearest integer.

2. 90 percent confidence interval of year-on-year change on quarterly GDP in the worst quarter.

3. Indicates a GDP impact based on the study's cited consumption impact of 7 percent without containment and 22 percent with containment, and assuming that consumption accounts for two-thirds of GDP.

ANNEX 3.2 Bayesian vector autoregression model

A Bayesian vector autoregression model (BVAR) is employed, in reduced form, to capture past empirical relationships through multiple channels. These channels operated historically, including during previous global synchronized downturns. Spillovers are estimated using the BVAR model including, in this Cholesky ordering, the GDP-weighted average of GDP growth in China, the Euro Area, and the United States; oil prices (unweighted average of Brent, WTI, and Dubai prices); a measure of global interest rates (GDP-weighted average of up to 122 central bank policy rates); a measure of EMDE sovereign borrowing costs (J.P. Morgan's EMBI Emerging Market Bond Index); and GDP-weighted average GDP growth of groups of EMDEs. GDP-weighted averages are at 2010 market exchange rates and prices. These variables correspond to those used in VAR-based estimations of spillovers across economies and in standard small open economy DSGE models that have been used to examine the transmission of shocks across economies (Huidrom et al. 2020). The sample includes quarterly data for 1998-2019.

The VAR is estimated using four lags, as is standard in quarterly VARs, and using Normal-Wishart priors, taking the form:

$$Y_t = C + \sum_{i=1}^{4} B_i Y_{t-i} + \epsilon_t$$

where Y_t is an $m \times 1$ vector of endogenous variables, C is an $m \times 1$ vector of constants, B_i is an $m \times m$ vector of coefficients for each lag of Y, and ϵ_t is an $m \times 1$ vector of reduced-form error terms.

The BVAR is identified using an assumption on the exogeneity of the variables with respect to one another in the first quarter following an economic shock (using a Cholesky decomposition of the error variance-covariance matrix). In particular, the identification assumes that a shock to all three major economies' (China's, Euro Area's and U.S.) GDP growth combined is initially exogenous to changes in the other variables, such that they can only affect growth in the three major economies with a lag of at least one quarter. Oil prices, global interest rates, and the EMBI are also assumed to be initially exogenous to growth in each of the EMDE regions under consideration, but not exogenous to fluctuations in growth of the three major economies. This is consistent with the three major economies, and in particular China, accounting for a major proportion of global demand for oil (Baffes, Kabundi, and Nagle 2020). It is also consistent with research suggesting that monetary policy in the United States is a key driver of global financial conditions, in part reflected by the EMBI, which can subsequently drive macroeconomic developments in EMDE regions (Miranda-Agrippino and Rey 2020).

Impulse response functions (IRFs) are estimated to account for the impact of shocks from growth in the three major economies to each EMDE aggregate. Due to the identification of the VAR, these shocks also contemporaneously affect oil prices, interest rates, and the EMBI, allowing additional spillovers through commodity and financial channels to EMDE aggregates.

ANNEX 3.3 EMDE vulnerability index

Methodology. For each country, six vulnerability sub-indexes are calculated that capture the main challenges EMDEs are facing in the current pandemic: health, financial, fiscal, trade, tourism, and poverty.

- The *financial* vulnerability index is compiled from current account and fiscal balances (percent of GDP); government, corporate, and external debt (percent of GDP); the share of short-term external debt; and the share of foreign-currency-denominated government and corporate debt.
- The *fiscal* vulnerability index is compiled from government debt and fiscal balances (in percent of GDP) and the share of foreign-currency government debt.
- The *trade* vulnerability index is compiled from the share of trade in GDP; the share of commodity exports in total goods exports; the

share of external value added in domestic exports (backward global value chain integration); and the share of domestic value in foreign exports (forward global value chain integration).

- The *tourism* vulnerability index is derived from tourism revenues as a share of GDP.
- The *health* vulnerability index is derived from the number of beds, nurses and doctors per 1000 people; the DALY; and health expenditures as percent of GDP.
- The *poverty* vulnerability index is derived from the share of the informal economy in GDP, the share of adults with access to emergency funds, the share of firms with accounts, and the share of firms with bank loans.

The indicators are aggregated in three steps. First, for each indicator, its percentile in the full panel is calculated. Second, for each sub-index, a country-specific sub-index is calculated as the unweighted average of all indicators within the sub-index. A sub-index with a value above 50 therefore indicates that, on average, indicators in this sub-index score worse than the median in their largest available sample of data. Third, country-specific sub-indexes are aggregated into GDP-weighted averages (at 2010 market exchange rates and prices) of EMDE sub-indexes.

Data. Fiscal indicators are drawn from the International Monetary Fund's *World Economic Outlook* and the International Institute of Finance. Financial indicators are drawn from the International Monetary Fund's *World Economic Outlook*, the International Institute of Finance, and the World Bank's *External Debt Hub*. Trade indicators are drawn from the OECD's *TiVA database* and the World Bank's *WITS*. The tourism indicator is drawn from the World Tourism Association. The health indicators are drawn from the World Bank's *World Development Indicators* and the World Health Organization. The poverty indicators are drawn from World Bank (2019d) and the World Bank's Findex database (World Bank 2017). The database is an unbalanced sample of 197 countries, of which 154 EMDEs, for 1960-2019.

ANNEX 3.4 Long-term implications of recessions: Data and methodology

Definitions and data. Potential growth is defined as in Kilic Celik, Kose, and Ohnsorge (2020) and World Bank (2018) and is based on a production function approach. Annual data is available for up to 95 EMDEs for 1982-2018. *Recessions* are defined as years of negative output growth, as in Huidrom, Kose, and Ohnsorge (2016). Depending on data availability for potential growth estimates, this definition yields up to 65 recession events in 32 advanced economies and up to 203 recession events in 75 EMDEs during 1982-2018. Hence, outright output contractions are rare, at about 6 percent of the country-year pairs in the sample.

Financial crises are defined as having an economic crisis in the form of systematic banking crises, currency crises, or sovereign debt crises as identified in Laeven and Valencia (2018). During 1982-2018, there have been 42 financial crises in 26 advanced economies and 274 financial crises in 87 EMDEs in the regression sample—almost 7 percent of country-year pairs in the sample.

Oil price plunges are defined as periods when the average of Brent, WTI, and Dubai oil prices declined by 30 percent or more over a seven-month period. Before 2020, there were six such oil price plunges: two supply-driven plunges, when OPEC agreements were abandoned (1986, 2014-15) and four demand-driven plunges when the global economy went into a downturn or an outright recession (1990-91, 1998, 2001, 2008).

Methodology. A local projection model (LPM) is used to assess and quantify the effects of recessions on potential and actual growth and output levels (Jorda 2005). Impulse response functions show the duration, smoothness, and recovery of potential output levels after the onset of an event.

$$y_{i,t+h} - y_{i,t-1} = \alpha_i + \beta_h event_{i,t} + \sum_{p=1}^{h-1} \gamma_p event_{i,t+h-p} + \rho_h event_{i,t-1} + \delta\, dy_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

where y is log potential output level, dy is potential growth and β_h is the main coefficient of

the interest. The equation controls for country-specific effects (α_i) and persistence of the shock by including the lagged shock in a forward bias correction (Teulings and Zubanov 2014).

Five shocks are considered: recessions, financial crises, oil price plunges, a combination of recessions and financial crises, and a combination of recessions and oil price plunges. The final event is estimated for the subsample of 26 energy-exporting countries, including 24 energy-exporting EMDEs.

In a second step, regressions are estimated with three separate interaction terms to explore the role of vulnerabilities to financial crises: external debt in percent of GDP, current account balances in percent of GDP, and the presence of an inflation targeting regime.

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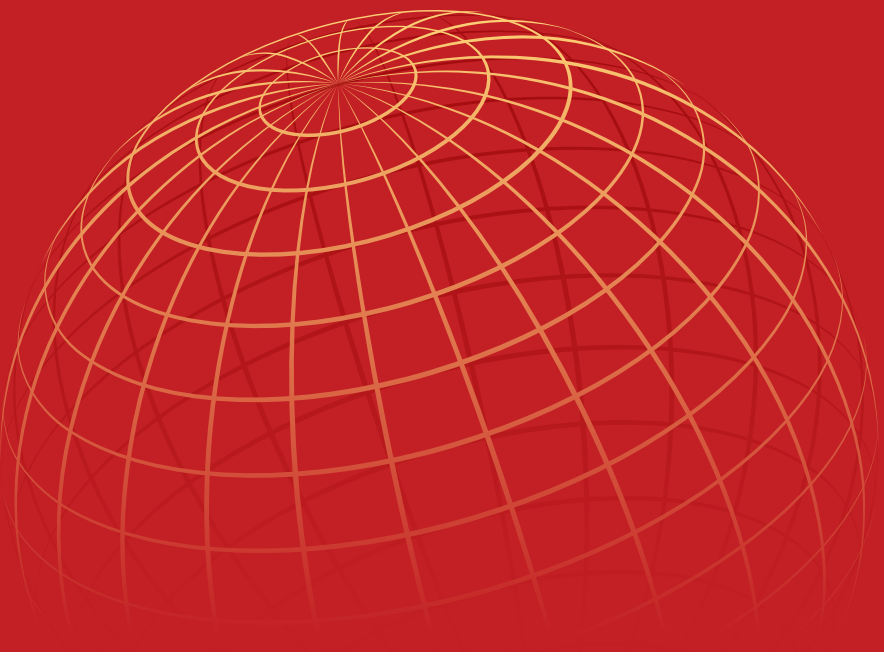


CHAPTER 4

Adding Fuel to the Fire: Cheap Oil during the Pandemic

The outbreak of COVID-19 and the wide-ranging measures needed to slow its advance have precipitated an unprecedented collapse in oil demand, a surge in oil inventories, and, in March, the steepest one-month decline in oil prices on record. In the context of the current restrictions on a broad swath of economic activity, low oil prices are unlikely to do much to buffer the effects of the pandemic, but they may provide some initial support for a recovery once these restrictions begin to be lifted. Like other countries, energy-exporting emerging market and developing economies (EMDEs) face an unprecedented public health crisis, but their fiscal positions were already strained even before the recent collapse in oil revenues. To help retain access to market-based financing for fiscal support programs, these EMDEs will need to make credible commitments to a sustainable medium-term fiscal position. For some of them, current low oil prices provide an opportunity to implement energy-pricing policies that yield efficiency and fiscal gains over the medium term.

Introduction

Since March, oil markets have been buffeted by an exceptional confluence of demand and supply shocks that have culminated in an unprecedented collapse in oil prices. The COVID-19 pandemic and the measures deployed to contain its spread—quarantines, travel restrictions, shutdowns of non-essential activities—have caused severe economic dislocations. Governments have responded with programs to mitigate personal hardship and disruptions to economic life, and central banks have cut policy rates and injected liquidity on an extraordinary scale. Many countries have nevertheless suffered deep economic contractions, with especially sharp reductions in travel and transportation—both heavily oil-intensive activities.

The collapse in energy demand came on the heels of delays of OPEC and the Russian Federation in extending a production agreement in early March. This was followed by outright production increases in some OPEC countries (World Bank 2020). A new agreement between OPEC and non-OPEC producers to curb production was reached in early April; however, prices fell further after the announcement. Coupled with the collapse in global energy demand, global oil inventories have risen steeply and, by June, remaining storage capacity may be limited (IEA 2020).

Oil prices have plummeted, recording their largest one-month fall on record in March (Figure 4.1). By one measure, the European Brent spot price, the oil price fell by 85 percent between January 22, when the first human-to-human transmission of COVID-19 was announced, and its trough on April 21—more than at the height of the global financial crisis (70 percent from end-August to late-December 2008) and more than the plunge during the whole period of end-June 2014 to mid-January 2016 (77 percent).[1] The West Texas Intermediate oil price fell into negative territory on April 20.[2] Since then, Brent oil prices have regained some ground but, at around $30 per barrel on average in the first three weeks of May, remain less than half their January average and around the January 2016 trough of the oil price slide of 2014-16.

In the context of the current widespread and severe restrictions on economic activity to stem the spread of the pandemic, low oil prices are unlikely to provide much of a buffer for the global economy. Indeed, there are signs that low oil prices may even be compounding the damage being done by the pandemic by weakening the balance sheets of producers. However, high levels of inventories suggest that oil prices may remain low for some time, which may provide some initial support for the broader economic recovery once it gets underway.

Against this background, this chapter examines the likely implications of the 2020 oil price plunge by

Note: This chapter was produced by a team led by Franziska Ohnsorge and including John Baffes, Alain Kabundi, Gene Kindberg-Hanlon, Peter Nagle, and Collette Mari Wheeler, with research assistance from Kaltrina Temaj.

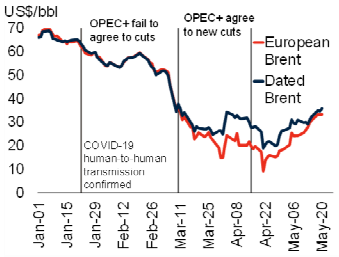
[1] Another frequently used measure, the Dated Brent spot price, fell by 72 percent over this period, on par with the declines during these comparator periods for the global financial crisis and the 2014-16 price slide.

[2] This reflected an expiring futures contract and no physical oil traded at negative prices.

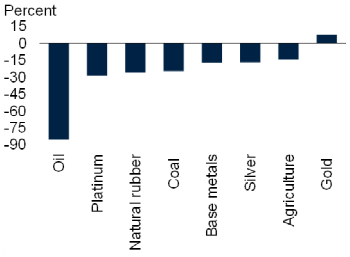
FIGURE 4.1 Oil price decline

Oil prices collapsed in the first quarter of 2020, with March featuring the single largest one-month drop on record. Meanwhile, oil inventories have risen steeply.

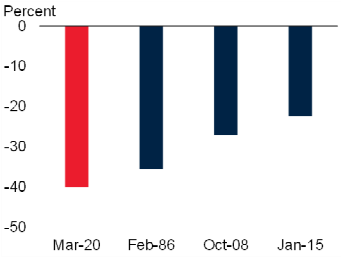
A. Spot oil prices



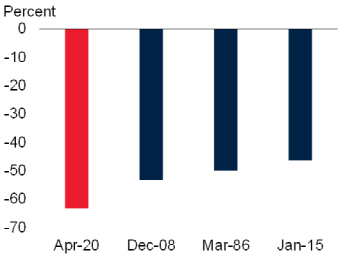
B. Commodity price changes during January 22-April 21, 2020



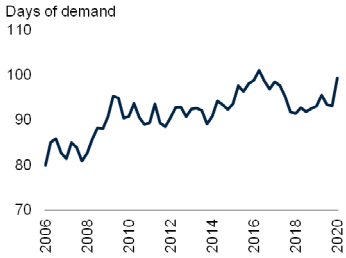
C. Largest one-month declines in oil prices since 1970



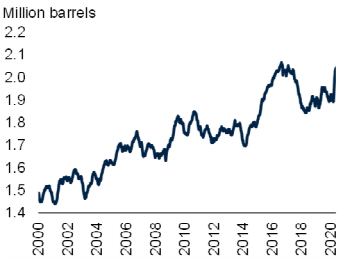
D. Largest cumulative three-month declines in oil prices since 1970



E. OECD oil inventories



F. U.S. oil inventories



Source: Bloomberg; Energy Information Administration; Haver Analytics; International Energy Agency; Thomson Reuters; World Bank.

Note: Oil price refers to Brent oil prices.

A. January 22, 2020, is the date the first human-to-human COVID-19 transmission was announced. Last observation is May 20, 2020. Data is from Bloomberg and U.S. Energy Information Administration.

B. "Base metals" is an unweighted average for aluminum, copper, lead, nickel, tin, and zinc. "Agriculture" shows an unweighted average for corn, rice, and wheat. "Oil price" refers to European Brent spot oil price. Figure shows the change in commodity prices between January 22, 2020, and April 21, 2020, which was the trough in Brent prices.

C.D. Figure shows the largest declines in oil prices since 1970. Dates on the horizontal axis indicate the date in which the decline occurred. Months with consecutive declines are omitted.

E. Days of demand represent the level of OECD oil inventories at the end of the quarter (government and industry) divided by average daily OECD oil demand. Last observation is 2020 Q1.

F. Last observation is May 15, 2020.

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putting it in a historical context and drawing lessons from the experience of emerging market and developing economy (EMDE) energy exporters and importers during the 2014-16 plunge. Specifically, the chapter addresses the following questions:

- What has been the source of the 2020 oil price collapse?
- How does it compare with earlier episodes?
- How will low oil prices likely affect the eventual recovery of EMDE energy exporters and importers?

Contributions. This chapter adds to the literature in several ways. First, it is the first comprehensive analysis of the potential impact of the 2020 oil price plunge on EMDEs and the global economy. Second, it puts the current decline into historical context to allow an assessment of the severity of the plunge. Third, it draws policy lessons from previous episodes of sharp declines in oil prices to examine the implications of the current plunge for EMDEs.

Main findings. The chapter presents the following findings.

- *The steepest drop on record.* The collapse in oil prices in March was the steepest one-month drop on record. A precipitous decline in oil consumption in the context of still-robust production has led to a rapid buildup in oil inventories. By June, remaining storage capacity may be limited.
- *Predominantly demand-driven oil price decline.* The oil price plunge since late January mainly reflected a collapse in demand arising from the pandemic and the restrictions that were needed to stem its spread. Besides triggering a global recession, these restrictions severely disrupted travel and transport, which account for around two-thirds of oil demand. Oil demand is expected to decline by about 9 percent in 2020—an unprecedented plunge. Supply-side factors, in particular the initial delay in agreeing to limit production, added to downward pressures on oil prices.

- *Output losses in energy-exporting EMDEs.* This latest oil price plunge was preceded by six previous plunges over the past half-century. During past demand-driven episodes, energy exporters and importers suffered similar initial output losses (about 0.5 percent) that were unwound within three years. In supply-driven oil price plunges, however, energy importers did not witness robust growth pickups but energy exporters witnessed similar initial output losses as in demand-driven plunges and less than one-third of these losses had been unwound three years later. This lasting impact of supply-driven oil price plunges may reflect a reassessment of long-term prospects for energy exporters. Energy-exporting EMDEs with lower debt, more flexible exchange rates, and more diversified export bases suffered smaller short-term output losses.

- *Potential support for global growth early in a recovery.* As long as widespread restrictions continue to constrain economic activity across the global economy, low oil prices are unlikely to provide meaningful support to global growth. If anything, the current episode of low oil prices holds less promise for a sustained boost to global growth than past episodes of low oil prices since energy exporters entered the current episode with eroded fiscal positions and foreign exchange buffers to support their economies, after having drawn on them to weather the previous oil price plunge of 2014-16. That said, when current pandemic-related restrictions ease, excess inventories and low oil prices could provide some initial support for the revival of global economic activity.

- *Need for policy action.* Current low oil prices are an opportunity to review energy-pricing policies, including remaining energy subsidies. A carefully calibrated design, phasing, and communication of such reforms is critical for their success. For energy exporters, this most recent oil price decline is yet another reminder of the urgency to continue with reforms to diversify their economies. These include measures to strengthen competition, broaden fiscal revenue bases, and enhance fiscal and monetary policy frameworks.

Drivers of the oil price plunge

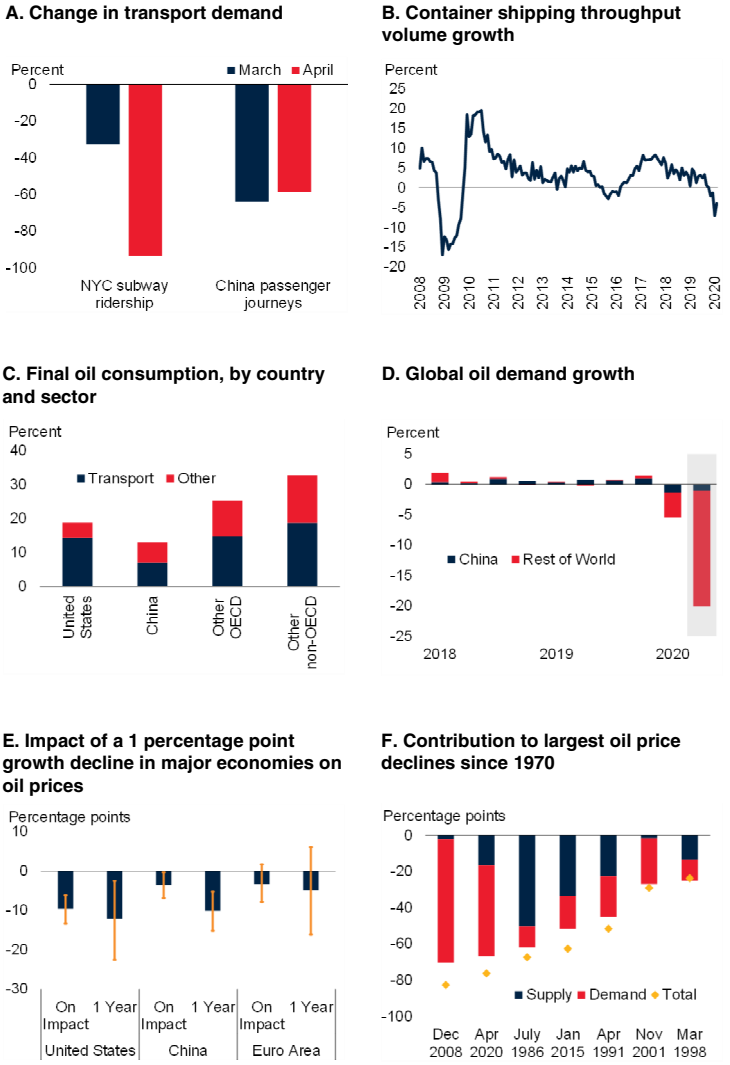
By one measure, the European Brent spot price, crude oil prices fell by 85 percent between January 22nd (the date the first recorded human-to-human infection was announced) and their trough of $9 per barrel on April 21st before recovering in May to less than half their January average (Figure 4.1).[3] The oil market has been hit by an unprecedented combination of demand and supply shocks. The pandemic, and the restrictions on business and personal activities imposed to stem its spread, have triggered a global recession, and a steep drop in the demand for oil (Chapter 3). Total oil demand fell by almost 5 percent in the first quarter of 2020, and is projected to decline 20 percent in the second quarter of 2020 (IEA 2020). This coincided with a delay in early March of OPEC and its partners (OPEC+) to agree an extension of their production cuts (World Bank 2020). Meanwhile, petroleum inventories have risen rapidly and are expected to reach near-full capacity in June (IEA 2020).

Demand decline resulting from lockdowns. The single largest factor driving the collapse in oil prices has been the sharp reduction in oil demand arising from government restrictions to stem the spread of the pandemic. Many countries have implemented wide-ranging travel bans, sharply reducing the number of flights. Stay-at-home orders and a widespread shift to remote working have caused the number of passenger journeys to plummet. For example, passenger journeys in China fell by three-fifths compared to their normal level in March, while subway journeys in New York fell by more than nine-tenths in April

[3] Another frequently used measure, the Dated Brent spot price, fell by 72 percent over this period, on par with the 70 percent decline during the global financial crisis (end-August to late December 2008) and the 76 percent decline during end-June 2014-mid-January 2016. In late-April, the West Texas Intermediate oil price (a U.S. oil price benchmark) contract for delivery in May temporarily fell below zero on concerns about near-full U.S. storage capacity; however, no physical oil was traded at negative prices.

FIGURE 4.2 Drivers of the 2020 oil price plunge

Government restrictions to stem the pandemic have disproportionately disrupted travel and transport, which accounts for around two-thirds of global oil consumption. Global oil consumption has fallen steeply in the first half of 2020. The pandemic has also triggered a global recession that has sharply reduced oil demand. The initial failure to agree on an extension of the production agreement between OPEC and its partners in March (although agreement was achieved in April) added to price pressures.



Source: Bloomberg; Institute of Shipping Economics and Logistics; International Energy Agency; New York Metropolitan Transportation Authority; Ministry of Transport of China; World Bank.

A. "NYC subway ridership" is the sum of entries into each station in New York's Metropolitan Transportation Authority network, which serves a population of 15.3 million people across a 5,000-square-mile travel area surrounding New York City, including Long Island, southeastern New York State, and Connecticut. "China passenger journeys" include all daily passenger journeys in China.

B. Year-on-year growth. Last observation is March 2020.

C. Percent of global oil consumption.

D. Shaded area shows IEA estimates for year-on-year demand growth in 2020Q2.

E. Based on a Bayesian vector autoregressive estimation. Cumulative response to a 1-percentage-point decline on oil prices on impact or after four quarters. Orange whiskers reflect the 16th-84th percentile confidence bands. The model includes U.S. growth, Euro Area growth, 10-year U.S. government bond interest rate, VIX volatility index, China's growth, oil price, and commodity-importing or commodity-exporting EMDE growth over 2000Q1 to 2019Q2. The model has four lags. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates.

F. Chart shows the contribution to explained six-month log changes (in percent) in oil prices. Decomposition based on structural vector autoregression estimation (Annex 4.1). For each of the seven episodes, only the month with the deepest six-month oil price plunge is shown (consecutive months are not shown). The gap between the total price decline and the contributions of demand and supply represents speculative demand factor.

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(Figure 4.2). There has also been a reduction in the volume of shipping, both for consumers (most notably cruises) and container shipping for industry, as a result of shrinking global trade. The unprecedented reduction in transport in many countries—which accounts for around two-thirds of demand for oil—has led to a sharp fall in fuel consumption.

Demand decline resulting from the economic downturn. The global recession currently unfolding, which is on track to be the steepest in the past eight decades, also reduces global consumption of oil.[4] Declines in economic growth can lead to sharp falls in oil prices, because of the high income elasticity of demand for oil. Over the past two decades, a 1 percentage-point decline in income growth in the United States or China has typically been associated with a 13 and 10 percent fall, respectively, in global oil prices after one year.

Supply fluctuations. Oil markets have also been buffeted by production decisions by OPEC and its partners. Following several years of rapid growth in U.S. shale oil production and amid falling global oil demand, the production agreement among OPEC+ partners failed to be renewed in early March.[5] This exacerbated the initial decline in prices and triggered a further 24 percent fall in prices the day after the announcement. In early April, OPEC and its partners announced a new agreement to cut production by a historically large 9.7 percent in May and June that would be unwound gradually. However, the size of the cuts was apparently insufficient to reassure markets that they would offset the decline in consumption, and oil prices fell further following the announcement.

Net effect: Oil price plunge in 2020 mostly demand-driven. A structural vector autoregression model helps decompose the oil price decline in 2020 into demand- and supply-driven factors (Annex 4.1). The decomposition identifies a

[4] See Baffes, Kabundi, and Nagle (2020); Csereklyei, del Mar Rubio Varas, and Stern (2016); Gately and Huntington (2002); and World Bank (2018a).

[5] OPEC+ includes all OPEC countries, together with Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, Sudan, and South Sudan.

positive supply shock—such as would have been caused by the failure of the OPEC agreement in early March—as an event that lowers prices and at the same time raises both global oil output and industrial production. In contrast, a negative demand shock—such as would have been caused by travel restrictions or falling global growth—is an event that lowers oil prices amid falling oil output and industrial production. The decomposition suggests that two-thirds of the price decline in the six months ending in April 2020 has been due to falling demand.[6]

Comparison with previous periods of disruptions

This time, the widespread economic weakness and travel disruptions have been associated with a considerably steeper oil price collapse than similar episodes in the past (Figure 4.3). For 2020 as a whole, oil demand is expected to drop by an unprecedented 9 percent—more than twice as much as during any previous global recession or oil-specific demand slowdown.

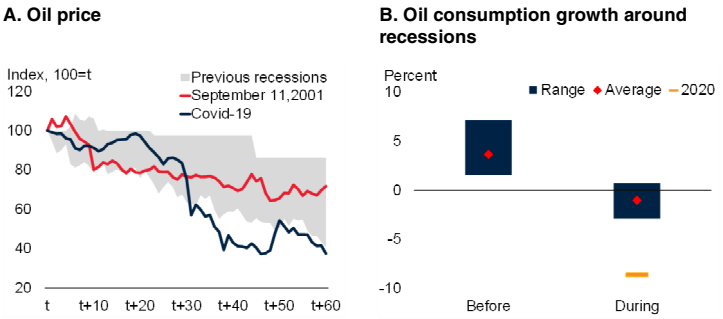
Global recessions. Prior to this year's event, there have been four global recessions over the past 70 years: 1975, 1982, 1991, and 2009 (Kose and Ohnsorge 2019; Kose, Sugawara, and Terrones 2020). In each of these episodes, there was a contraction in real per capita global output and broad-based weakness in multiple indicators of global economic activity.

During these recessions, oil prices (and other industrial commodity prices) fell. The sharpest declines occurred during the global financial crisis, when oil prices fell by nearly 60 percent over three months. In most of these recessions, oil prices remained below pre-recession levels for several years.

[6] In contrast, other research finds that only around one-third of the fall in oil prices can be attributed to demand conditions, while supply factors explain most of the remainder of the fall (Groen and Nattinger 2020). Instead of industrial production as a proxy for oil demand, these other models use asset prices which have considerably more resilient than real activity indicators (in part reflecting monetary policy measures). If anything, other factors, in particular the widespread anticipation of a failure in negotiations, point to an even greater role of demand than estimated here.

FIGURE 4.3 Oil markets during past recessions and travel disruptions

Travel disruptions in the aftermath of the 2001 terrorist attacks on the United States contributed to a decline in oil prices. During global recessions, oil prices tended to fall, with the largest declines in the current global recession.



Source: Bloomberg; BP Statistical Review; Energy Information Administration; International Energy Agency; World Bank.

A. The y-axis is a price index, with "100=t" indicating prices at the start of the events. The x-axis shows the passage of time (in days). Start dates for the two events are the first trading day before a major event occurred: September 10, 2001, for 9/11; and January 22, 2020, for COVID-19. Swath shows the four global recessions: 1974-75, 1981-82, 1990-91, and 2008-09. For the first two recessions, daily data were unavailable, so monthly percent changes were taken (assuming each month lasts 22 working days).

B. Dates of recessions are taken from Kose, Sugawara, and Terrones (2020). The four recessions included are: 1974-75; 1981-82; 1990-91; and 2008-09."Before" shows average annual growth rates in commodity consumption over the three years prior to the recession. "During" shows average annual growth rates of recession years. Note that in 1980 a global slowdown occurred with similar negative growth rates in consumption; as such the "Before" period covers 1977-79.

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Oil consumption also typically fell during these episodes. The largest decline in oil consumption occurred in 1980-82, when consumption fell by a cumulative 9 percent from its peak in 1979. The supply-driven spike in oil prices in 1980, around the revolution in the Islamic Republic of Iran, contributed to the global recession in 1981-82, which further depressed oil consumption. In contrast, the two most recent recessions saw much smaller declines in oil demand. For the 2008-09 recession, this reflected the strong shift in global oil consumption towards China, which continued to grow robustly through the global financial crisis (Stocker et al. 2018).

Travel disruptions. Measures implemented in 2020 to limit the spread of the pandemic bear some similarities to the widespread travel disruptions in the aftermath of the terrorist attacks on the United States on September 11, 2001. U.S. airline passenger traffic fell by 30 percent in the immediate aftermath of the attacks, and remained as much as 7 percent lower after two years (Ito and Lee 2005). The attacks also resulted in a sharp

spike in uncertainty and prolonged the recession following the dot-com collapse in the United States, and hence the slowdown in global activity.

In the aftermath of the 9/11 attacks, oil prices fell sharply (by one-third over the following two months), while other commodity prices were largely unaffected. Travel disruption disproportionately affected oil consumption but heightened uncertainty and slowing growth also weighed on oil demand. However, the oil price decline was short-lived: within six months, oil prices had returned above their pre-attack levels. Oil consumption growth averaged close to zero in the three quarters following the attacks, down from an average of 1.5 percent (y/y) in the previous four quarters.

Implications of oil price plunges for the global economy

Other things being equal, low oil prices might be expected to help boost global growth, including by stimulating energy-intensive activities such as travel and transportation. Moreover, by dampening inflation, lower prices would also give central banks more room to ease monetary policy (Baffes et al. 2015; Ratti and Vespigniani 2016).[7] However, these effects would vary across countries: energy exporters in particular would suffer real income losses, which would dampen consumption and investment.

In practice, however, all of the oil price plunges since 1970 have been accompanied by global recessions, global slowdowns and, in some cases, widespread financial crises.[8] Three reasons may account for this.

- *Sources*. Many of the past oil price plunges were themselves responses to economic downturns rather than independent shocks that might have triggered upturns (Cashin, Mohaddes, and Raissi 2014; Kilian 2009; Peersman and Van Robays 2012).
- *Timing*. During oil price plunges, the output losses in energy exporters materialized more quickly than output gains in energy importers, resulting in short-term global growth slowdowns (de Michelis, Ferreira, and Iacovelli, forthcoming).
- *Asymmetries*. Uncertainty, frictions, and asymmetric monetary policy responses can create asymmetries that increase the damage to energy exporters compared with the benefits to energy importers.[9]

Past oil price plunges

Features of past plunges. Since 1970, the global economy has witnessed seven oil price plunges when oil prices fell by 30 percent or more over a six-month period: 1985-86, 1990-91, 1998, 2001, 2008-09, 2014-16, and 2020.

- *Drivers.* Oil price plunges in 1990-91, 1998, 2001, and 2008-09 were one-half (1998) to entirely (2008-09) demand-driven, whereas the oil price plunges of 1985-86 and 2014-16 were four-fifths and two-thirds supply-driven, respectively (Figure 4.2).[10]
- *Persistence.* Oil price plunges associated with global slowdowns were short-lived (1998, 2001), with oil prices regaining their pre-plunge levels in less than four years. In contrast, oil price plunges around global recessions (1990-91, 2008-09) and largely supply-driven plunges (1985-86, 2014-16) were followed by more prolonged periods of low prices (Figure 4.4).

[7] Depending on the source of the fall in oil prices, it may also depress equity markets (Kang, Ratti, and Vespigniani 2016).

[8] The long-term benefits that may have ensued go beyond the scope of this section.

[9] See Hamilton (2011); Hoffman (2012); Jimenez-Rodriguez and Sanchez (2005); and Jo (2014).

[10] The 1990-91 plunge was almost equally demand- and supply-driven. It reflected a global recession as well as an unwinding of supply concerns triggered by Iraq's invasion of Kuwait. This episode differs from others in that it unwound a short-lived price spike at the beginning of the first Gulf War whereas other episodes followed extended periods of price increases or price stability.

- *Depth.* Similarly, oil price plunges associated with global slowdowns (1998, 2001) were shallower than those around global recessions (2008-09, 1990-91) or those associated with largely supply-driven plunges (1985-86, 2014-16). The oil price plunge of 2014-16 was particularly protracted.

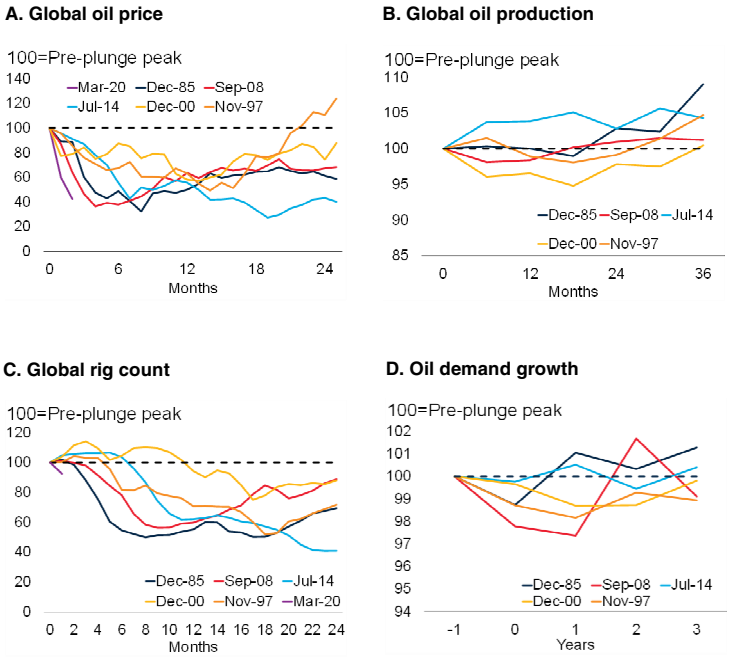
Impact of past plunges. Most of these plunges were triggered by weakening global growth, which contributed to the decline in oil prices, and were followed by slow recoveries (Annex 4.2). Although virtually all episodes of significant oil price declines since 1984 have been accompanied by monetary policy loosening in advanced economies, several were accompanied or followed by financial market strains.

Empirical estimates. A local projections model is estimated for 155 EMDEs, of which 36 are energy exporters, for 1970-2018 (Annex 4.3). The model estimates the response of real output, investment, and consumption to the seven oil price plunges described above over the following five years. It distinguishes between demand-driven (1998, 2001, 2008-09) and supply-driven oil price plunges (1985-86, 2014-16).

- *Demand-driven versus supply-driven oil price plunges.* EMDE output evolved differently in demand-driven and supply-driven oil price plunges. In the first year of both supply- and demand-driven oil price plunges, EMDE output fell by about 0.5 and 0.3 percent, respectively (Figure 4.5). The recovery, however, differed: output recovered after demand-driven oil price plunges and, three years later, had returned to the baseline; after supply-driven oil price plunges, EMDE output did not recover and remained below the baseline three years later.[11]

FIGURE 4.4 Oil market developments during past oil price plunges

The oil price plunge in 2020 is only the latest in a series of plunges since 1970. During two of these (1985-86, 2014-16), supply remained robust or increased as did demand. During three others (2000-01, 2008-09, 1997-98), demand dropped sharply and, in response, production was reined in.



Source: Baker Hughes; Energy Information Administration; International Energy Agency; World Bank.
Note: Horizontal axis shows months (A-C) or years (D) from pre-plunge peak in t = 0. Plunges begin (t = 1) in March 2020, July 2014, September 2008, December 2000, November 1997, and November 1990, and December 1985. All oil prices scaled such that 100 = pre-plunge peak.
D. Refers to annual growth in refined petroleum consumption, scaled such that 100 = pre-plunge growth (1989, 1996, 1999, 2007, 2013).
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- *Demand-driven plunges: Similar impacts on energy exporters and importers.* Demand-driven oil price plunges were associated with global recessions or slowdowns, which tended to be associated with an initial output decline in EMDEs (0.3 percent) in the year of the plunge that was recouped within three years. Output, investment, and consumption in energy exporters and other EMDEs recovered together with oil prices.

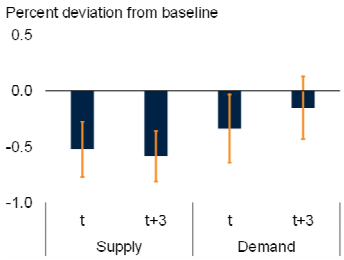
- *Supply-driven plunges: Lasting impact in energy exporters.* Supply-driven oil price plunges were associated with initial output losses in energy exporters of somewhat larger magnitude than those associated with demand-driven plunges (0.5 percent in the first year). Almost three quarters of these output losses persisted into

[11] Based on vector autoregression models, existing studies find wide ranges of impacts. A demand-driven 30 percent oil price decline reduces output by 0-5 percent over a year or two, an oil-specific demand decline reduces output by 0.3-4 percent over a year or two, and a supply-driven oil price decline reduces output by 0-15 percent over a year or two. These studies include Aastveit, Bjørland, and Thorsrud (2015); Baumeister and Hamilton (2019); Baumeister and Peersman (2013); Cashin, Mohaddes, and Raissi (2014); Killian (2009); Kilian and Murphy (2014); Mohaddes and Raissi (2019); and Peersman and Robays (2012).

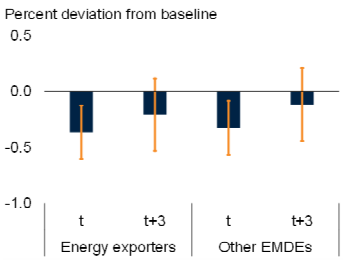
FIGURE 4.5 Macroeconomic developments in EMDEs during past oil price plunges

The global economy has witnessed seven oil price plunges since 1970. Supply-driven oil price plunges have been followed by lasting contractions in EMDE output as a result of steep output losses in energy exporters that were not offset by output gains in energy importers. Demand-driven plunges were followed by shorter-lived output contractions. Those energy exporters with higher debt and fixed exchange rates witnessed greater output losses.

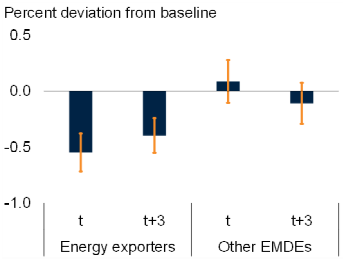
A. Cumulative impulse response of output, by type of oil price plunge



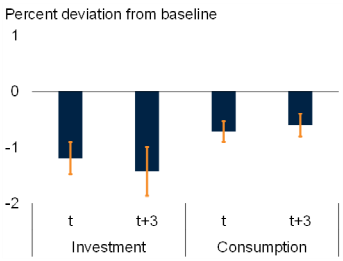
B. Cumulative impulse response of output to demand-driven oil price plunges



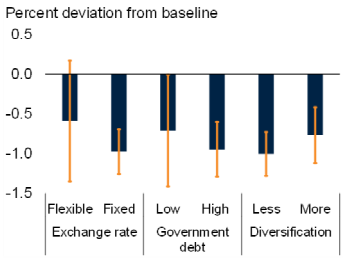
C. Cumulative impulse response of output to supply-driven oil price plunges



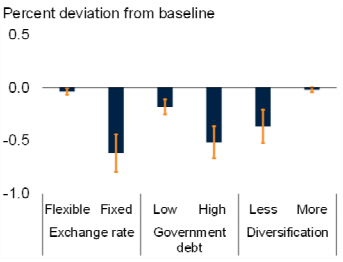
D. Supply-driven oil price plunges: Cumulative investment and consumption responses in energy-exporting EMDEs



E. Demand-driven oil price plunges: Cumulative output responses of energy-exporting EMDEs



F. Supply-driven oil price plunges: Cumulative output responses of energy-exporting EMDEs



Source: Haver Analytics; International Monetary Fund; World Bank.

Note: Cumulative impulse responses of real output (A, B, C, E, F), real investment (D), and consumption (D) in EMDEs (A, B, C) or in energy-exporting EMDEs (D, E, F) in response to an oil price plunge, based on a local projections model estimated for 155 EMDEs, of which 36 are energy exporters (oil, gas, or coal), for 1970-2018 (Annex 4.3). Numbers on the horizontal axes indicate years since the oil price plunge, which occurs at t=0. Oil price plunges of more than 30 percent over seven months occurred in 1985-86 (supply-driven), 1990-91 (demand-driven), 1998 (demand-driven), 2001 (demand-driven), 2008-09 (demand-driven), and 2014-16 (supply-driven).

E.F. Output declines in the year following the oil price plunge. High (low) debt is government debt above (below) 30 percent of GDP for upper-middle and lower-middle income economies and 70 percent of GDP for high-income economies. Fixed exchange rates are as defined in IMF's *Annual Report on Exchange Arrangements and Restrictions*.

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the third year. Three years after the shock, investment and consumption in energy exporters were still 1.4 and 0.6 percent, respectively, below baseline levels. These lasting losses may have reflected a reassessment of long-term growth prospects of energy exporters in supply-driven oil price drops. Meanwhile, growth gains in energy importers were gradual and delayed (de Michalis, Ferreira, and Iacovelli forthcoming).

- *Policies mattered.* Energy-exporters tend to be particularly hard-hit by supply-driven oil price plunges, but even in those plunges, energy-exporting EMDEs with flexible exchange rates, lower debt, and more diversified export bases suffered smaller output losses than those with fixed exchange rates, higher debt, and less diversified export bases.[12]

The 2014-16 oil price plunge

In late 2014, the 50 percent decline in oil prices between June and November 2014 was expected to lift global GDP by around 0.3-0.7 percent (Arezki and Blanchard 2014). The cheaper cost of a critical input into global production was expected to raise global activity, and the transfer of income and wealth from energy-exporting economies with higher savings rates to energy-importing economies, with higher propensities to spend, was also expected to boost global demand (Baffes et al. 2015; World Bank 2015a). While lower oil prices were expected to depress investment in the oil industry, this was expected to be more than offset by the boost to consumption and energy-intensive sectors (transportation, manufacturing, and agriculture).

However, the expected "shot in the arm" to global growth was slow to materialize. Instead, in 2016, global growth slowed to a near-post-crisis low of 2.6 percent. Global growth only picked up in 2017-18 once considerable policy stimulus was put in place in major economies. The disappointing short-term growth trajectory reflected several factors.

[12] In demand-driven plunges, similar patterns emerged but differences were less pronounced and there was wide heterogeneity between countries.

Output and investment slump in energy exporters. The impact of the oil price plunge of 2014-16 on commodity exporters was severe. Growth slowed in more than 70 percent of energy-exporting EMDEs in 2015 and 2016, with many facing declining consumption and investment (Figure 4.6). Since energy-exporting countries are generally less diversified than other commodity exporters, they are particularly vulnerable to oil price declines (Aslam et al. 2016).

- *Fiscal policy tightening in energy exporters.* Many EMDE energy exporters, relying heavily on hydrocarbon revenues, were forced to tighten fiscal policies to realign spending with revenues, despite rising economic slack and diminishing long-term growth prospects.[13] Some were able to at least partially mitigate exchange rate and fiscal pressures by drawing on sovereign wealth funds (World Bank 2015a).
- *Monetary policy tightening in energy exporters.* Fiscal policy tightening was often compounded by monetary policy tightening, and exchange rate market intervention to support currencies or currency pegs. As foreign reserves eroded, several countries eventually adopted more flexible exchange rate regimes as part of the adjustment to low oil prices. A small number of countries with severe liquidity pressures resorted to unconventional measures (Sommer et al. 2016).

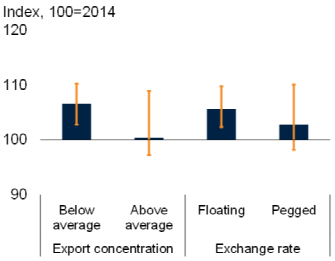
Adverse spillovers from the slowdown in energy exporters. Headwinds in Russia and the Gulf Cooperation Council (GCC) economies reduced within-region flows of trade, remittances, foreign direct investment, and official grants (World Bank 2015a, 2016c). Energy-exporting low-income countries (Chad, South Sudan) were hit particularly hard, as the effect of the oil price shock was exacerbated by conflict and deteriorating security conditions.

[13] See Danforth, Medas, and Salins (2016) and World Bank (2016a, 2016b, 2017a). The effects of the price shock were also exacerbated by idiosyncratic factors, including sanctions on Russia and conflict and geopolitical tensions in the Middle East and North Africa region.

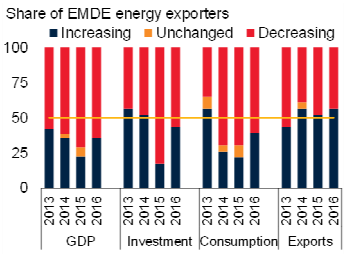
FIGURE 4.6 Impact of 2014-16 oil price plunge on energy exporters

The oil price plunge of 2014-16 forced many energy exporters into procyclical fiscal and monetary tightening. Market intervention to support currencies caused a substantial decline in foreign exchange reserves. Those with more flexible exchange rates and greater export diversification had milder output losses.

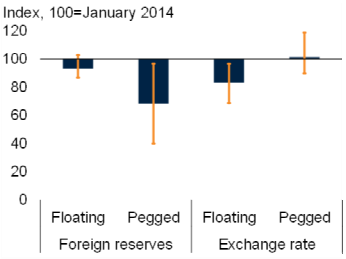
A. Cumulative output increase for energy-exporting EMDEs, 2014-16



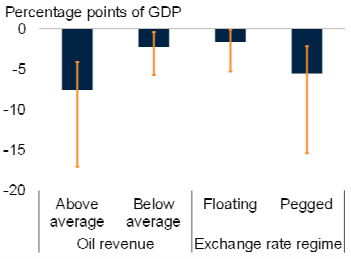
B. Share of energy-exporting EMDEs with increasing/decreasing growth



C. Foreign exchange reserves and nominal effective exchange rate appreciation of energy exporters, 2014-16



D. Change in fiscal balance in energy exporters, 2014-16

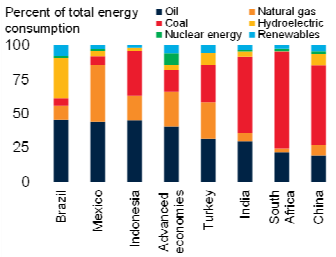


Source: Bank for International Settlements; Haver Analytics; International Monetary Fund; United Nations Conference on Trade and Development (UNCTAD); World Bank.
A.C.D. Unweighted averages. Whiskers indicate minimum-maximum ranges.
A. "Above average concentration" and "below average concentration" groups are defined by countries above or below the sample average for export concentration in 2016. Concentration index measures the degree of product concentration, where values closer to 1 indicate a country's exports are highly concentrated on a few products. The average for the sample is 0.6, where 1 is the most concentrated. Exchange rate classification is based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions database, in which countries are ranked 0 (no separate legal tender) to 10 (free float). "Pegged" refers to countries with either a hard or soft peg, which is denoted by a ranking of 1 to 6, while "floating" denotes those with rankings of 7 to 10 and includes countries with horizontal bands and other managed arrangements. Sample includes 34 (exchange rate) or 34 (concentration) energy-exporting EMDEs.
B. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates. Increasing/decreasing growth are changes of at least 0.1 percentage point from the previous year. Countries with a slower pace of contraction from one year to the next are included in the increasing growth category.
C. Nominal effective exchange rate and foreign reserve levels indexed to 100 in January 2014. Change in official reserve assets from 2014 to 2016. Last observation is December 2016.
D. Sample includes 28 oil-exporting EMDEs (excludes Albania, Brunei Darussalam, Ghana, Libya, Myanmar, South Sudan, and Turkmenistan). Change in overall fiscal balance is measured from 2014-16. "Above average" and "below average" oil revenue groups are defined by countries above or below the sample average of oil revenues as a share of GDP based on 2014 data.
Click here to download data and charts.

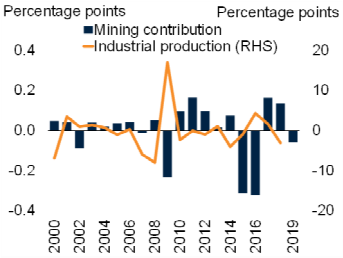
FIGURE 4.7 Impact of 2014-16 oil price plunge on the largest energy importers

The oil price plunge of 2014-16 provided limited boost to activity in China, which tends to use more coal than oil for energy generation. In the United States, the shale oil industry slowed sharply.

A. Consumption of fuels, 2018



B. Contribution of mining investment to U.S. GDP growth and U.S. industrial production growth



Source: BP Statistical Review; Federal Reserve Bank of St. Louis; U.S. Bureau of Economic Analysis; World Bank.
A. Oil consumption is measured in million tonnes; other fuels in million tonnes of oil equivalent. Renewables are based on gross generation from renewable sources including wind, geothermal, solar, biomass, and waste, but not accounting for cross-border electricity supply.
B. Mining investment is real private fixed investment of nonresidential structures for mining exploration, shafts, and wells.
Click here to download data and charts.

- *Stalled recovery in energy-importing EMDEs and advanced economies.* Growth also slowed in most energy-importing economies in 2015-16 (Figure 4.7).

- *China's energy mix and rebalancing needs.* China is the second-largest oil importer in the world, but the share of oil in its overall energy consumption is the lowest among G20 economies. Regulated fuel costs and a low energy and transportation weight in consumer baskets limit real income gains for consumers from lower oil prices (World Bank 2015a). The oil price plunge also coincided with a policy-guided near halving of investment growth, which tends to be resource-intensive, to ease growth to a more sustainable level.[14]

- *Lower sensitivity of other energy-importing EMDEs to oil shocks.* Activity in energy-importing EMDEs is less responsive to oil price shocks than that in major advanced economies (Aastveit, Bjørnland, and Thorsrud 2014; Caldara, Cavallo, and Iacoviello 2019). This reflects less oil-intensive energy mixes, less energy-intensive consumption, and energy price controls that limit the pass-through of world prices to domestic retail prices. In addition, many countries seized the opportunity to lower energy subsidies (Box 4.1). While this improved fiscal and external positions, it dampened the benefit to activity in energy-importing EMDEs.

- *Policy tightening in energy-importing EMDEs.* A number of non-oil commodity exporters and commodity importers raised monetary policy rates during 2015–16 to stem currency depreciation. Others reacted to above-target inflation. In some cases, fiscal deteriorations amid slow growth reduced government revenues and required spending cuts.

- *Investment in the United States.* In the United States, the boost to private consumption from lower oil prices was partly offset in the short run by a sharper-than-expected contraction in capital spending in the energy sector (Baumeister and Kilian 2016a). This investment is highly price elastic (Bjørnland, Nordvik, and Rohrer 2017; Cakir Melek 2018; Newell and Prest 2019): mining investment halved in the two years that followed the mid-2014 oil price plunge, lowering growth by 0.2 percentage point in both 2015 and 2016.

The 2020 oil price plunge

Low oil prices are likely to provide, at best, temporary initial support to growth once restrictions to economic activity are lifted and until excess inventories are unwound. In the very short term, restrictions to stem the pandemic are likely to close off the main channel for low oil prices to benefit growth, by limiting transport and other energy-intensive activities. However, even once these restrictions are lifted and energy demand recovers, the current demand-driven oil price plunge is likely to be associated with deep and lasting output losses. More than in previous demand-driven oil price plunges, the adverse impacts on energy exporters—regardless of whether they are advanced economies or

[14] See Huidrom, Kose, and Ohnsorge (2017); Kang and Liao (2016); and World Bank (2016a).

BOX 4.1 Reforms after the 2014-16 oil price plunge

The 2014-16 oil price plunge triggered significant reforms. In energy exporters, the main focus was on encouraging diversification and putting public finances on a sounder footing. Both energy exporters and importers cut energy subsidies. Current low oil prices may provide a window of opportunity to put in place mechanisms that permanently eliminate energy subsidies.

The 2014-16 oil price plunge forced many energy exporters into procyclical fiscal tightening that deepened their downturns. Many energy exporters recognized an urgent need to render both their economies and their public finances more resilient, and embarked on reforms to encourage diversification, strengthen non-oil revenues, and cut poorly targeted subsidies (Stocker et al. 2018; Figure 4.1.1). Energy-importing EMDEs also seized the opportunity of low oil prices to cut energy subsidies. This box examines these reforms in greater detail, answering the following two questions:

- Which reforms did EMDE energy exporters embark on?
- Which reforms did EMDE energy importers embark on?

Reforms in energy exporters

Energy exporters initiated economic diversification programs, energy subsidy reforms, and measures to strengthen non-energy government revenues.

Diversification programs. Before the current plunge in oil prices, hydrocarbon sector activity represented more than one-third of GDP in a number of countries in Central Asia, Sub-Saharan Africa, and, in particular, the Middle East. Oil production represented the majority of government revenue and exports in most energy-exporting EMDEs in 2013. This suggests an untapped potential for greater diversification of exports and government revenues, which would bolster long-term growth prospects and improve these economies' resilience to external shocks (Hesse 2008; IMF 2016; Lederman and Maloney 2007).

Following the 2014-16 oil price collapse, several large energy-exporting EMDEs laid out medium- to long-term plans to reduce their reliance on the energy sector. As part of Saudi Arabia's 2016 Vision 2030 plan, the National Transformation Program targeted an increase in non-oil commodity exports and non-oil government revenues (Kingdom of Saudi Arabia 2016; World Bank 2016c). Saudi Arabia's fiscal non-oil revenues improved from 7.7 percent of GDP in 2016 to 10 percent of GDP in 2019. Nigeria identified several sectors to promote greater diversification of export earnings and government revenues (Nigeria Ministry of Budget and National Planning 2017). Kazakhstan's "100 Concrete Steps" program, adopted in 2015, aimed to diversify the economy and improve competitiveness and transparency. By the start of 2020, Kazakhstan has completed more than half of these 100 steps, including efforts to improve governance. However, efforts to boost industrialization have encountered challenges, while plans to increase private land ownership have been delayed.

Efforts to encourage diversification have continued and include: reducing labor market rigidities (for example, Saudi Arabia, Oman, Qatar), supporting foreign and private investment (for example, Saudi Arabia), expanding infrastructure investment (for example, Malaysia), improving the business environment (for example, Algeria, Brunei Darussalam, the GCC countries, Kazakhstan, Nigeria, Russia), expanding deeper trade integration within the Eurasian Economic Union (for example, Russia), and strategic investment plans in renewables energy (Azerbaijan, the GCC countries). However, in some cases, the structural reform agenda has faced legislative or implementation delays (for example, Algeria, Kazakhstan).

Energy subsidy reform. The sharp reduction in government revenues among energy-exporting EMDEs led to an increased emphasis on reducing energy subsidies to restore fiscal space, discourage wasteful energy consumption, and reallocate spending to programs that better target the poor (IMF 2017b). Between mid-2014 and end-2016, more than half of energy-exporting EMDEs reformed energy subsidies, including countries in the Middle East and North Africa, Sub-Saharan Africa, East Asia, Latin America, and Central Asia.[1] A number of energy exporters have also reduced utility subsidies

Note: This box was prepared by Collette Mari Wheeler, with research assistance from Kaltrina Temaj.

[1] Energy subsidies were reformed between mid-2014 and late 2017 in Algeria, Bahrain, Cameroon, Ecuador, Gabon, Ghana, the Islamic Republic of Iran, Iraq, Kazakhstan, Kuwait, Malaysia, Nigeria, Oman, Qatar, Saudi Arabia, Sudan, Trinidad and Tobago, Turkmenistan, the United Arab Emirates, and Yemen. Reforms in Angola, Indonesia, and Nigeria, were, however, not sustained once oil prices rose.

BOX 4.1 Reforms after the 2014-16 oil price plunge *(continued)*

although, during the COVID-19 pandemic, subsidies were raised again in some countries (for example, Gabon, Indonesia, Oman, Saudi Arabia, United Arab Emirates).

In some cases, subsidy reform was a significant break from past policy (Krane and Hung 2016; World Bank 2017b). Encouragingly, the design and implementation of recent energy subsidy reforms have been superior to past efforts, which were poorly phased and hampered by insufficient communication to the public about the rationale for reform (Asamoah, Hanedar, and Shang 2017; Clements et al. 2013). In many cases, recent reforms have also helpfully included measures to mitigate the impact on the poor and to strengthen social safety nets (for example, Algeria, Angola, Saudi Arabia). More recently, Nigeria announced plans to eliminate energy subsidies. However, revenue-enhancing energy price reforms have remained absent in some countries (for example, Cameroon).

Fiscal reforms. Several countries have implemented tax reforms to compensate for the loss of government revenues and to insulate themselves from future oil price fluctuations (World Bank 2018c). This has included the introduction of taxes on goods and services or value-added taxes (for example, Bahrain, Malaysia, Saudi Arabia, the United Arab Emirates), as well as raising existing VAT or excise tax rates (Bahrain, Colombia, Oman, Saudi Arabia, United Arab Emirates). Russia has implemented a fiscal rule that targets a primary deficit of 0.5 percent of GDP at the benchmark oil price of $40 per barrel (in 2017 U.S. dollars). Any excess fiscal resources that are generated from higher oil prices are saved in the National Welfare Fund. The assets from this fund have already helped Russia support its economy and extend benefits to vulnerable households during the recent pandemic. However implementation of fiscal reforms has stalled in some cases (for example, Kuwait, Oman, Qatar), while exemptions have limited revenue growth in some others (Malaysia).

Reforms in energy importers

Energy subsidy reform. Like energy-exporting EMDEs, energy-importing EMDEs took advantage of declining oil prices to begin dismantling energy subsidies, which tend to disproportionately benefit those with higher incomes. In addition, they can crowd out public investment and encourage more intensive use of fossil fuels (Arze del Granado, Coady, and Gillingham 2012). Several countries have implemented such reforms in response to the 2014-16 oil price plunge (for example, China, the Arab Republic of Egypt, Mexico, Morocco, Tunisia), but slippages in implementation have occurred in some cases (for example, Egypt, Mexico).[2] In response to the COVID-19 pandemic, some governments have provided fuel price discounts to some sectors (for example, Egypt) or increased subsidies to vulnerable households (for example, Guatemala, Montenegro, Ukraine).

Other reforms. Other reforms have aimed to raise revenues, with some countries increasing taxes on energy or energy-dependent sectors such as transportation (for example, Bangladesh, China, Egypt, Mozambique, Rwanda, South Africa, Vietnam; IEA 2015; IMF 2016; Kojima 2016). These steps also included measures to avoid energy subsidies reemerging if oil prices rebound—automatic pricing mechanisms or full energy price liberalization have been common (for example, China, Côte d'Ivoire, India, Jordan, Madagascar, Mozambique, Mexico, Thailand, Ukraine; Asamoah, Hanedar, and Shang 2017; Beylis and Cunha 2017).[3]

Conclusion

Remaining challenges. Some of these policies have yet to bear fruit. Notwithstanding fiscal and energy subsidy reforms in energy exporters, fiscal break-even prices—the oil prices at which government budgets are balanced—in almost all energy-exporting EMDEs exceed current prices, often by considerable margins. Energy subsidies still represented an average of 4 percent of GDP as of 2018 among energy-exporting EMDEs, many of which implemented reforms 2014-16 (Figure 4.1.1). In 2019, the share of commodity exports in total goods exports remained as high now as in 2013, before the last oil price plunge. The recent oil price plunge may provide further momentum to proceed with planned reforms and deepen them once the immediate health crisis subsides. Energy importers, in contrast, should take advantage of lower energy prices to lower subsidies—which averaged over 2.5 percent of GDP in 2018—and utilize these resources to finance urgent health care needs. In energy exporters and importers alike, there is an opportunity to put in place reforms now that are non-binding in the short term but address long-standing inefficiencies and fiscal costs in the long term.

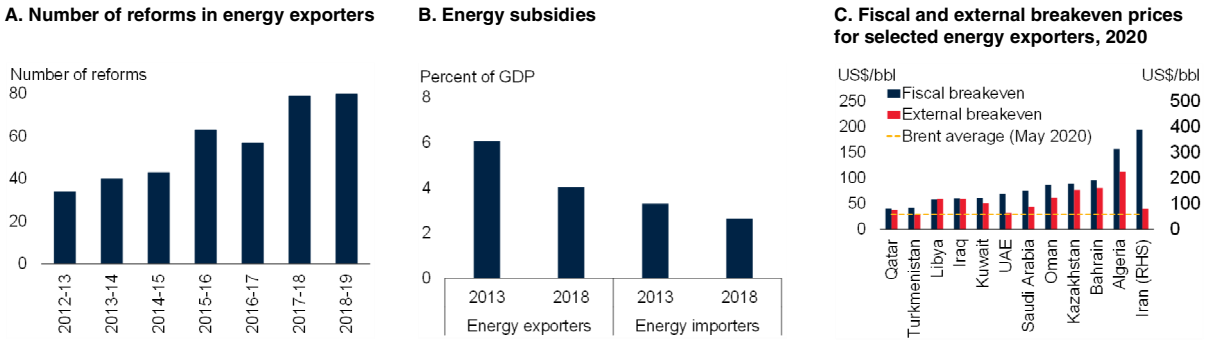
[2] Mexico has a diversified export base and, hence, is classified as an energy importer.

[3] In Mozambique, the elimination of fuel subsidies, the introduction of an automatic fuel price adjustment, and increased tariffs on electricity and public transportation, contributed to the 2 percentage points of GDP narrowing of the primary fiscal balance between 2016 and 2018.

BOX 4.1 Reforms after the 2014-16 oil price plunge *(continued)*

FIGURE 4.1.1 Reforms since 2014

Energy exporters have implemented reforms to strengthen business climates and reduce energy subsides, but current oil prices remain below fiscal and external break-even prices in most energy exporters.



Sources: International Energy Agency; International Monetary Fund; World Bank Doing Business.
A. Sample includes 35 energy-exporting EMDEs.
B. Sample includes 25 energy-exporting EMDEs and 14 energy-importing EMDEs.
C. Breakeven prices refer to the oil price at which either the fiscal balance or the current account balance is zero in 2020. Dashed line indicates the average of daily Brent oil prices from May 1, 2020, to May 20, 2020.
Click here to download data and charts.

Fiscal space generated by subsidy reforms. Replacing energy subsidies with expanded and better-targeted social safety nets, coupled with structural reforms, can improve fiscal positions while supporting low-income households.[4] Policies to reduce subsidies can help promote growth because fiscal savings generated by lower subsidies can fund productivity-enhancing education and infrastructure. For example, in Egypt, fiscal savings from the energy subsidy reforms were redirected towards social spending (ESMAP 2017b). These policies can also foster low-carbon transition and promote green energy (Monasterolo and Raberto 2019; Mundaca 2017). For energy-exporting EMDEs, eliminating costly energy subsidies could help offset the collapse in revenue from oil extraction given that oil prices are well below their fiscal breakeven points.

Increasing the chances of success of subsidy reform. Energy subsidy reform raises formidable political-economy challenges (Inchauste and Victor 2017). The different prongs of reforms, however, need to be carefully sequenced and communicated to avoid delays, social unrest or reversals, as has been the experience in some client countries (for example, Ecuador; Worley, Pasquier, and Canpolat 2018). Reforms may prove more lasting if a few principles are observed in their implementation.

- *Entrenching reform.* Reforms formally embedded in legislation may be more likely to be enforced and sustained once oil prices rise again.
- *Transparency.* Reforms are more likely to be sustained if price setting can be de-politicized (Inchauste and Victor 2017). This can be achieved with a transparent formula for setting energy prices.
- *Frequent price adjustments.* A formula with more frequent price adjustments can help avoid larger and more disruptive price changes, especially once oil prices return to more normal levels.
- *Tax design for price stability.* A transparent formula for frequent price adjustments can be accompanied by combination of fixed and variable taxes that can smooth price volatility, such as in the case of Chile.
- *Supporting reforms.* Subsidy cuts that are accompanied by cuts in the cost of other household public services, such as school or public transport fees, or increases in other social benefits can help build public support for reform. In India, for example, the removal of price controls was accompanied by targeted cash transfers and in Brazil by targeted assistance to low-income households for energy conservation (Deichmann and Zhang 2013). Such supporting reforms need to be accompanied by improved capacity to implement benefit programs (Inchauste and Victor 2017).

[4] For details, see Coady et al. (2017, 2019); Guénette (2020); Stocker et al. (2018); and World Bank (2014, 2015a, 2015b).

BOX 4.1 Reforms after the 2014-16 oil price plunge *(continued)*

- *Public awareness.* Awareness campaign can highlight the benefits of subsidy reforms, in terms of giving greater room for higher-priority spending, and thus raise public support for reform (El-Katiri and Fattouh 2017).

Role of competition, legal and regulatory frameworks. Improving the macroeconomic framework and competitive environment can be more effective in improving the financial positions of both consumers and producers than energy subsidies. Carefully designed and properly enforced antitrust laws and consumer protection legislation are essential components of institutional frameworks that support market mechanisms. A sound legal and regulatory framework favoring competitive markets provides a more effective response to many of the problems that subsidies attempt to address. For example, the removal of price controls and barriers to entry in the transportation sector significantly increased competition and lowered transportation costs in Rwanda (Teravaninthorn and Raballand 2009). Even in the case where incumbent firms maintained outsized market shares, the presence of competition and the potential for new entrants significantly lowered their markups.

Energy pricing reform. Even in EMDEs where energy subsidies have been eliminated, the current low oil prices provide an opportunity to introduce carbon pricing and other energy taxation that will discourage inefficient consumption as global oil prices rise again. As a cost-effective instrument for meeting climate targets, 57 initiatives (including 28 emission trading systems) were implemented at the national and subnational level in 2019, covering about 20 percent of global green-house gas emissions (World Bank 2019a). Existing carbon pricing is considered insufficient to meet climate targets, so policymakers should seize the current opportunity of exceptionally low energy prices to put in place pricing formulas now that encourage more energy-efficient growth once the recovery gathers momentum (World Bank 2019a). Finally, support measures for energy-intensive industries during the current pandemic could be made contingent on improvements in fuel efficiency.

EMDEs—may outweigh benefits to activity in energy importers.[15] Adverse effects are likely to be compounded by new headwinds, including elevated macro-financial vulnerabilities that were less relevant in previous oil price plunges, or even a second wave of infections. That said, there might be a short window early in the recovery when still-high inventories depress prices and support activity.

Implications of the demand-driven nature of oil price plunge. In contrast to the oil price plunge of 2014-16, the 2020 episode has been mainly driven by a collapse in energy demand resulting from restrictions to stem the spread of the pandemic and the global recession (Figure 4.1). Once the global recovery is underway, and excess inventories are unwound, oil prices would be expected to increase again in tandem with global growth.

Coincidence with other shocks. The public health crisis, unprecedented capital outflows from EMDEs, and a collapse in global trade and tourism have put financial and economic pressures on energy exporters and importers alike (Figure 4.8).

- *Public health crisis.* The number of confirmed infections has soared in energy-exporting EMDEs, as well as energy-importing EMDEs, and the effect of the sharp loss in consumer and investor confidence may linger long after the pandemic has subsided.
- *Trade collapse.* Global manufacturing activity, tourism, and trade have plunged amid closures of non-essential services, shops, factories, and public spaces; stay-at-home orders travel restrictions; and a high degree of risk aversion of consumers (Chapter 1).
- *Tightening financial conditions.* Flight to safety has resulted in a sharp tightening of financial conditions in EMDEs (Chapter 1). Global equity markets have fallen sharply, with

[15] The 2014-16 oil price plunge is a reminder that this will also be a challenge, although to a lesser extent, in energy importing economies with sizable energy sectors.

extreme volatility. EMDE currencies have weakened substantially against the U.S. dollar despite foreign exchange market interventions by central banks. Yield spreads on EMDE bond issues have risen steeply.

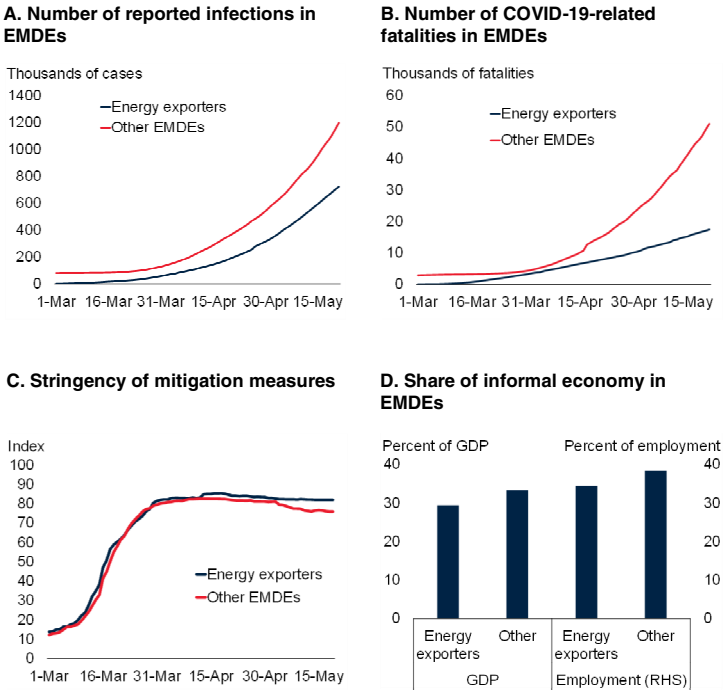
Obstacles to policy effectiveness in EMDEs. Many central banks and governments have engaged in large-scale monetary and fiscal stimulus to support their economies amid the pandemic (Chapter 1). However, these may not reach the most vulnerable groups. This is of particular concern for economies with widespread informality. Large sections of their population do not have bank accounts, which would usually provide a means for delivering direct cash support quickly. By the same token, many people are outside the formal social benefit and tax system, and would not benefit from tax deferments and cuts, or from higher regular social benefits (Chapter 3).

Macro-financial vulnerabilities in energy exporters. During the oil price plunge of 2014-16, energy exporters with highly concentrated export and revenues bases, weak fiscal positions, and fixed exchange rates witnessed considerably steeper growth slowdowns. In today's context, these effects are likely to be more pronounced since there has been limited progress in export diversification, and fiscal positions are weaker than they were before the 2014-16 oil price plunge.

In 2014-16, growth in energy exporters with a higher degree of economic diversification (for example, Bahrain, Ghana, Malaysia, Qatar), and a floating exchange rate regime (for example, Albania, Russia), recovered more quickly from the fall in oil prices than in those with low diversification and fixed exchange rates. Fiscal balances also fared better in energy-exporting EMDEs with more flexible exchange rate regimes, in part because real exchange rate depreciation mitigated revenue declines and spurred needed adjustment within the private sector. Growth remained stronger in energy exporters with larger foreign reserves and low historical inflation volatility (Grigoli, Herman, and Swiston 2017; World Bank 2016a). The need for fiscal adjustment was greater in energy-exporting

FIGURE 4.8 Pandemic and mitigation measures in EMDE energy exporters

The pandemic is spreading in energy-exporting and energy-importing EMDEs. In response, governments have imposed restrictions that curtail economic activity. The impact on informal activity may be particularly adverse.



Source: European Centre for Disease Prevention and Control (ECDC); OurWorldInData.org; Oxford COVID-19 Government Response Tracker; World Bank.

A.B. Daily data. Last observation May 21, 2020.

C. The Oxford COVID-19 Government Response Tracker collects publicly available information on 11 indicators of government response including school closures, public events cancellations, and public information campaigns, as well as fiscal and monetary measures and emergency investment in health care. The index ranges between 0 and 100 where higher indicates more stringent measures. Aggregate growth rates calculated using GDP weight at 2010 prices and market exchange rates. To correct for data gaps, data is extended with the most recent observation. Sample includes 121 EMDEs, of which 33 are energy exporters.

D. 2016 data used for share of GDP; 2014 data used for share of employment.

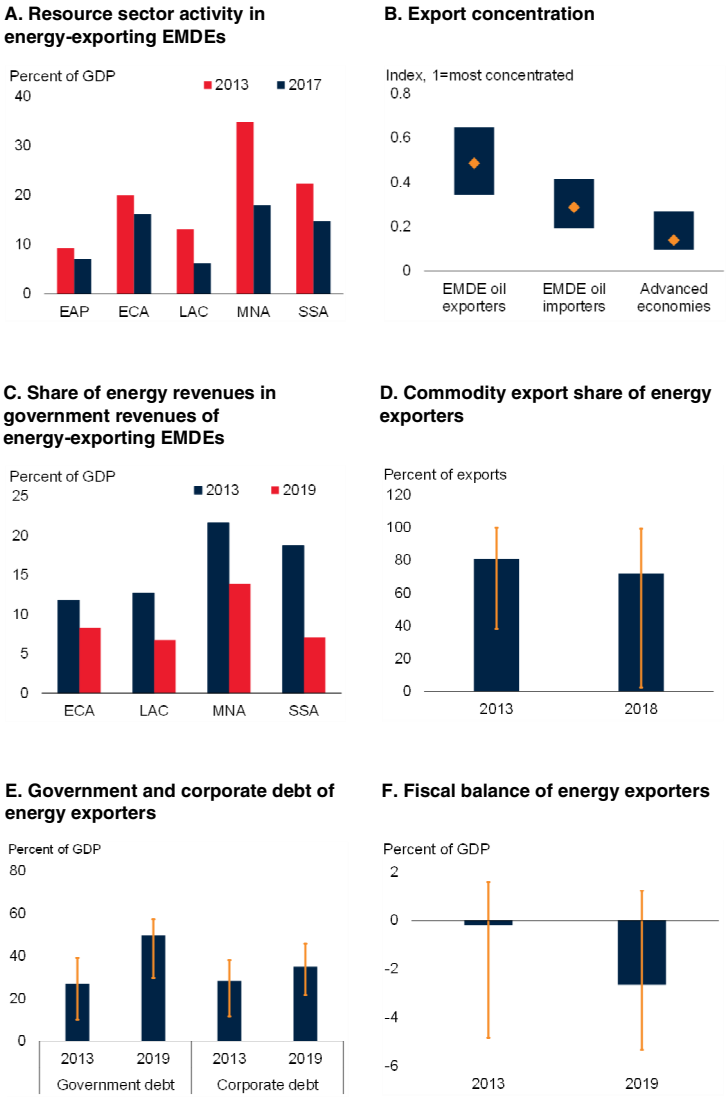
Click here to download data and charts.

EMDEs that lacked the necessary buffers (Husain et al. 2015; World Bank 2015b). Energy-exporting EMDEs with higher reliance on oil-related revenues faced a more pronounced deterioration in fiscal balances than in those economies that managed to diversify government revenue away from oil before 2014.

Energy exporters remain highly reliant on commodity exports and have more precarious fiscal positions (Figure 4.9). In 2019, the energy sector continued to account for 12 percent of government revenues in the average energy-exporting EMDE. Government debt in energy-

FIGURE 4.9 EMDE energy exporters' vulnerabilities: 2014-16 and 2019

Today's energy-exporting EMDEs are typically no less reliant on energy exports than in 2013, and have more precarious fiscal positions.



Sources: Haver Analytics; International Monetary Fund; United Nations Conference on Trade and Development (UNCTAD); World Bank.
A.C. EAP=East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, and SSA = Sub-Saharan Africa.
A. Regional aggregates are medians. Sample includes 34 energy-exporting EMDEs. Chart shows resource rents in percent of GDP.
B. Orange diamonds denote the median and blue bars represent the interquartile range of individual country groups. Sample includes 33 energy-exporting EMDEs (excludes South Sudan), 118 energy-importing EMDEs, and 35 advanced economies. Concentration index measures the degree of product concentration, where values closer to 1 indicate a country's exports are highly concentrated on a few products.
C. Regional aggregates are medians. Sample includes 24 energy-exporting EMDEs (Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Cameroon, Chad, Colombia, Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Nigeria, Oman, Qatar, Russia, Saudi Arabia, Sudan, Trinidad and Tobago, and the United Arab Emirates).
D. Blue bars show share of commodities in total goods exports. Orange whiskers show the minimum-maximum range.
E.F. Blue bars show unweighted averages. Orange whiskers show the interquartile range.
Click here to download data and charts.

exporting EMDEs had risen to 50 percent of GDP in 2019 from 27 percent of GDP in 2013, and the fiscal balance has turned from near-balance in 2013 to a deficit of 2.7 percent of GDP in 2019 (IMF 2017a; World Bank 2017a). As a result, even after the public health crisis subsides, the need to shore up public finances is likely to weigh on their recovery.

Conclusions

The the restrictions imposed to stem the pandemic and the global recession triggered by the outbreak of the COVID-19 pandemic have been accompanied by an unprecedented collapse in oil demand and prices. Unfortunately, the price decline is unlikely to provide much of an immediate buffer for global growth, because of the impact of mitigation measures that are constraining energy-intensive activities and because energy-exporting EMDEs have less fiscal and monetary policy room to counter the impact on their economies. That said, there might be a short window early in a recovery when still-high inventories depress prices and support activity.

Currently, responding to the health emergency and its impact on economic activity remains the immediate priority. In both energy exporters and importers, support measures could focus on boosting health infrastructure and capacity, in addition to protecting employment and social safety nets. To alleviate the burden on fiscal balance sheets, energy exporters and importers with high debt levels may want to preemptively identify priority expenditures that need to be safeguarded if financing shrinks, as well as lower-priority, poorly targeted, or inefficient spending programs that can be delayed or suspended. Additional liquidity could be injected in economies with low and stable inflation to enable banks to extend credit to firms and households, and to prevent widespread insolvency.

The economic damage of the pandemic could be long lasting, as it will take considerable time to repair the disruptions to labor markets, value chains, and balance sheets, and to restore consumers' confidence in the safety of retail, leisure, and work spaces (Chapter 3). Economic

and financial weaknesses in energy exporters are especially likely to pose difficulties. This highlights the importance of ensuring that necessary fiscal support during the pandemic be accompanied by credible commitments to restore fiscal sustainability once it subsides. For the energy exporters, this will require pressing ahead with the reform programs that many launched after the price plunge of 2014-16 (Box 4.1). Some energy-exporting EMDEs have successfully diversified their economies after implementing measures to stimulate non-energy exports, as part of a broad program of reforms to improve the business environment, education, and skills acquisition (for example, Malaysia, Mexico; Callen et al. 2014). For the energy-importing EMDEs, the plunge in oil prices is an opportunity to revisit energy pricing and make lasting fiscal room for higher-priority spending to reignite long-term growth prospects (Chapter 3).

ANNEX 4.1 Methodology: Decomposition of oil price movements

Methodology. A structural vector autoregression (SVAR) as in Kilian and Murphy (2014) is used to model global oil prices. The SVAR includes the logarithms of global oil production, global oil prices, global industrial production, and OECD inventories. Three shocks are identified using a combination of sign restrictions on impact responses and on the impact price elasticity of oil demand.

- *Sign restrictions.* A negative demand shock is identified as a shock that lowers oil prices while lowering global industrial production and global oil production. A positive supply shock is identified as a shock that lowers oil prices while raising oil production and industrial production. A positive speculative demand shock (the residual in Figure 4.2.F) is identified as one that raises oil inventories, increases prices and oil production, and reduces industrial production.
- *Elasticity restrictions.* Restrictions are imposed on the short-run price elasticity of oil demand. The impact price elasticity of demand is assumed to be non-positive; the median draw in the range -0.2 to -0.1 is used, in line with estimates of the elasticity since the 1980s in Baumeister and Peersman (2013).

Data. The data set uses monthly data from January 1980 to April 2020. Global industrial production is the production-weighted average of industrial production in 31 advanced economies and 47 EMDEs (unbalanced sample depending on availability). Data for industrial production in April is estimated as the level predicted by the global manufacturing purchasing managers' index. Global oil production is from the International Energy Agency (IEA) from 1987-2020 and the U.S. Energy Information Administration (EIA) from 1980-86. Oil prices are the unweighted average of Brent, West Texas Intermediate, and Dubai crude oil prices from the World Bank's Pink Sheet (measured in U.S. dollars). OECD inventories use IEA data from 1991-2020 and EIA data from 1987-1990. In April 2020 and prior to 1987, percent changes in U.S. inventories are used as a proxy for changes in OECD inventories (U.S. stocks account for around one-third of total OECD inventories).

ANNEX 4.2 Oil price plunges since 1970

Until 2020, there had been six previous oil price plunges since 1970 when oil prices fell by 30 percent or more over a six-month period.

1985-86. The 1985-86 oil price slump arose from a supply shock as OPEC reverted to its production target of 30 mb/d in response to rising oil supply from the North Sea and Mexico and breaches of OPEC production agreements (Gately, Adelman, and Griffin 1986). The oil price plunge ushered in a period of weak growth and significant debt problems in some large EMDEs as well as slow growth in European countries, and, at the end of 1987, a significant downward correction in U.S. and global stock markets

1990-91. While the oil price decline of 1990-91 satisfy the definition employed here, it differed from other oil price plunges in being a reversal of a previous oil price spike triggered by the first Gulf War. Despite monetary policy loosening, global growth slowed in 1992 before recovering modestly in 1993, as a recession in Europe ran its course, the recovery in the United States remained hesitant amid financial strains in the savings and loans sector, and Japan entered a period of prolonged stagnation.

1998. The 1997 Asian financial crisis, set against a backdrop of a continued expansion of OPEC production until mid-1998, was accompanied by weakening oil demand and a sharp decline in oil prices (Fattouh 2007). Despite low oil prices, the global recovery remained tepid for most of 1998, partly as a result of the failure of a large asset management fund in the United States and financial stress in major emerging markets.

2001. The disruptions and uncertainty caused by the September 11 terrorist attacks in the United States intensified a growth slowdown already underway as the "dotcom" bubble deflated. Softening global activity and rising uncertainty triggered a sharp decline in oil prices. However, aggressive monetary policy easing by the Federal Reserve and other major central banks supported a rapid rebound in activity.

2008-09. A severe recession following the global financial crisis sent all commodity prices tumbling. The recovery from the global recession was sluggish as many countries faced a wide variety of legacy challenges and global potential growth slowed (Kilic, Kose, and Ohnsorge 2020; Kose and Ohnsorge 2019). However, starting in 2009, strong demand for oil and other commodities from China propelled a rebound in their prices.

2014-16. Between mid-2014 and early 2015, oil prices fell by more than 50 percent and then continued to fall until their trough in early 2016. The decline was triggered by a combination of surging U.S. shale oil production, receding geopolitical risks involving some key producers, shifts in policies by OPEC, and weakening global growth prospects (Baffes et al. 2015; Baumeister and Kilian 2016b; World Bank 2018a). Supply factors accounted for about two-thirds of the oil price decline (Figure 4.2; Baffes et al. 2015b).[1] It was accompanied by a period of slowing global potential growth (World Bank 2018c, 2019b).

ANNEX 4.3 Methodology: Impact of oil price plunges on output

Methodology. The responses of real output, investment, consumption, and productivity growth—denoted by y_t—following oil price collapses are estimated using the local projections model of Jordà (2005). The model is given by

$$y_{t+h,j} = \alpha_{(h),j} + \beta_{(h)} E_{t,j} + \sum_{s=1}^{p} \sum_{l=1}^{q} \gamma_{(h)} X^{l}_{t-s,j} + \sum_{s=1}^{p} \delta_{(h),s} y_{t-s,j} + u_{(h)t,j}$$

where $h = 0, \ldots, 5$ is the forecast horizon, $\alpha_{(h),j}$ is country j fixed effects, and $u_{(h)t,j}$ is an error term. The coefficient of interest $\beta_{(h)}$ captures the dynamic multiplier effect (impulse response) of the dependent variable with respect to the event dummy variable $E_{t,j}$. $X^{l}_{t,j}$ represents a set of control variables with coefficients $\gamma_{(h)}$. The specification controls for lagged dependent variables $y_{t-s,j}$. The number of lags for each variable is denoted by p and varies from 1 to 3 for the estimation. While the supply shock is represented by a univariate model, the demand shock controls for lagged output and investment as critical macroeconomic determinants. Driscoll and Kraay (1998) standard errors are used to address cross-sectional and serial correlation. The model is estimated separately for all EMDEs, for energy-exporting EMDEs, and for other EMDEs, and for subgroups of EMDEs with fixed and floating exchange rates and with high and low government debt.

Definitions. Oil price collapses are defined as years in which oil prices fell by 30 percent or more

[1] Other estimates put the share of supply factors at just under half (Baumeister and Hamilton 2019).

over a six-month period: 1985-86, 1991, 1998, 2001, 2008-09, 2014-16. Largely supply-driven collapses occurred in 1985-86 and 2014-16 when OPEC abandoned production agreements in favor of raising market share; the other oil price collapses were largely demand-driven as recessions lowered energy demand (Baffes et al. 2015).

Data. Using annual data, the sample includes 155 EMDEs for 1970-2018. This includes 36 EMDEs that are energy exporting (oil, gas, or coal), defined as in Table 1.2 (Chapter 1) and 120 other EMDEs. Data on output, investment, consumption, and productivity are available from the World Bank' *World Development Indicators*. The exchange rate classification follows the IMF's *Annual Report on Exchange Arrangements and Restrictions*. High (low) public debt is above (below) 70 percent of GDP for high-income EMDEs and 30 percent of GDP for upper-middle-income, lower-middle-income, and low-income EMDEs.

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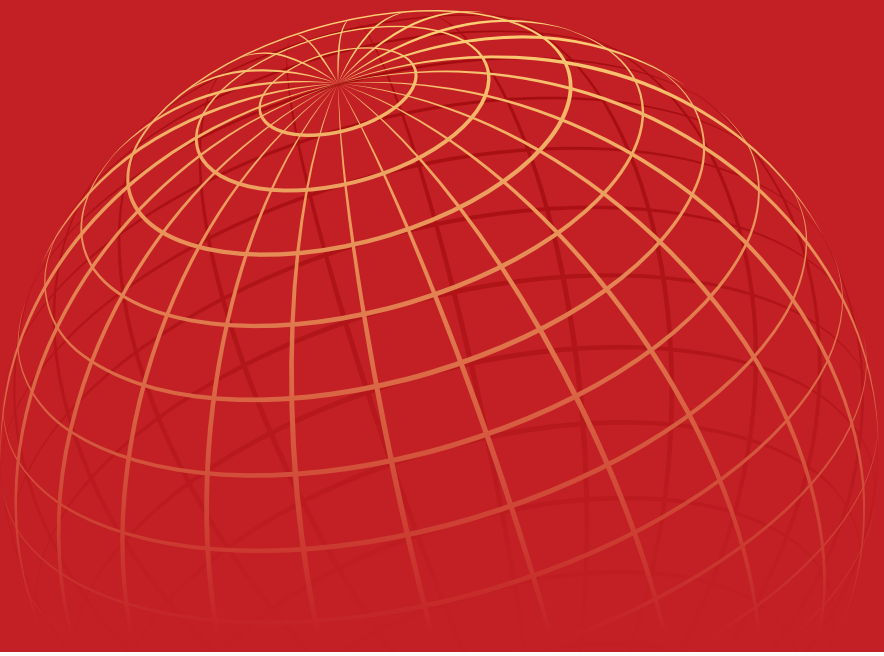

STATISTICAL APPENDIX

Real GDP growth

	Annual estimates and forecasts[1] (Percent change)					Quarterly estimates[2] (Percent change, year-on-year)					
	2017	2018	2019e	2020f	2021f	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1e
World	3.3	3.0	2.4	-5.2	4.2	2.6	2.5	2.4	2.5	2.4	..
Advanced economies	2.5	2.1	1.6	-7.0	3.9	1.7	1.8	1.6	1.7	1.4	..
United States	2.4	2.9	2.3	-6.1	4.0	2.5	2.7	2.3	2.1	2.3	0.3
Euro Area	2.5	1.9	1.2	-9.1	4.5	1.2	1.4	1.2	1.3	1.0	-3.2
Japan	2.2	0.3	0.7	-6.1	2.5	-0.3	0.8	0.9	1.8	-0.7	-2.2
Emerging market and developing economies	4.5	4.3	3.5	-2.5	4.6	4.2	3.8	3.8	3.8	4.0	..
East Asia and Pacific	6.5	6.3	5.9	0.5	6.6	6.3	6.1	5.9	5.8	5.7	-5.2
Cambodia	7.0	7.5	7.1	-1.0	6.0	..	..	..	..	..	..
China	6.8	6.6	6.1	1.0	6.9	6.5	6.4	6.2	6.0	6.0	-6.8
Fiji	5.4	3.5	1.0	-4.3	1.9	..	..	..	..	..	..
Indonesia	5.1	5.2	5.0	0.0	4.8	5.2	5.1	5.1	5.0	5.0	3.0
Lao PDR	6.9	6.3	4.7	1.0	4.6	..	..	..	..	..	..
Malaysia	5.7	4.7	4.3	-3.1	6.9	4.8	4.5	4.8	4.4	3.6	0.7
Mongolia	5.3	6.9	4.8	-0.5	4.9	9.6	8.7	6.3	4.2	1.8	-10.5
Myanmar	6.2	6.8	6.3	1.5	6.0	..	..	..	..	..	..
Papua New Guinea	3.5	-0.8	6.0	-1.3	3.4	..	..	..	..	..	..
Philippines	6.9	6.3	6.0	-1.9	6.2	6.4	5.7	5.4	6.3	6.7	-0.2
Solomon Islands	3.7	3.9	2.7	-6.7	-0.3	..	..	..	..	..	..
Thailand	4.1	4.2	2.4	-5.0	4.1	3.8	2.9	2.4	2.6	1.5	-1.8
Timor-Leste	-3.8	-0.8	3.4	-4.8	3.8	..	..	..	..	..	..
Vietnam	6.8	7.1	7.0	2.8	6.8	7.3	6.8	6.7	7.5	7.0	3.8
Europe and Central Asia	4.1	3.3	2.2	-4.7	3.6	1.8	1.1	1.4	2.2	3.6	..
Albania	3.8	4.1	2.2	-5.0	8.8	3.1	2.4	2.5	4.2	-0.1	..
Armenia	7.5	5.2	7.6	-2.8	4.9	..	..	..	..	..	..
Azerbaijan	0.2	1.5	2.2	-2.6	2.2	..	..	..	..	..	..
Belarus	2.5	3.1	1.2	-4.0	1.0	1.6	1.3	0.5	1.4	1.6	..
Bosnia and Herzegovina	3.2	3.7	2.6	-3.2	3.4	4.1	2.8	3.0	3.1	1.6	..
Bulgaria	3.5	3.1	3.4	-6.2	4.3	3.0	4.5	3.6	2.9	2.9	..
Croatia	3.1	2.7	2.9	-9.3	5.4	2.2	4.1	2.4	2.9	2.5	0.4
Georgia	4.8	4.8	5.1	-4.8	4.0	3.2	5.0	4.6	5.8	5.1	..
Hungary	4.3	5.1	4.9	-5.0	4.5	5.3	5.3	4.9	5.0	4.5	2.2
Kazakhstan	4.1	4.1	4.5	-3.0	2.5	4.1	3.8	4.4	4.7	5.0	..
Kosovo	4.2	3.8	4.2	-4.5	5.2	..	..	..	..	..	..
Kyrgyz Republic	4.7	3.8	4.5	-4.0	5.6	..	..	..	..	..	..
Moldova	4.7	4.3	3.6	-3.1	4.0	3.8	4.4	5.8	4.3	0.2	..
Montenegro[5]	4.7	5.1	3.6	-5.6	4.8	..	..	..	..	..	..
North Macedonia	1.1	2.7	3.6	-2.1	3.9	6.2	3.8	3.4	3.6	3.4	..
Poland	4.9	5.3	4.1	-4.2	2.8	4.8	4.8	4.2	4.1	3.5	1.7
Romania	7.1	4.4	4.1	-5.7	5.4	4.4	5.0	4.4	3.0	4.3	2.4
Russia	1.8	2.5	1.3	-6.0	2.7	2.8	0.4	1.1	1.5	2.1	1.6
Serbia	2.0	4.4	4.2	-2.5	4.0	3.5	2.6	2.9	4.8	6.2	5.0
Tajikistan	7.6	7.3	7.5	-2.0	3.7	..	..	..	..	..	..
Turkey	7.5	2.8	0.9	-3.8	5.0	-2.8	-2.3	-1.6	1.0	6.0	4.5
Turkmenistan	6.5	6.2	6.3	0.0	4.0	..	..	..	..	..	..
Ukraine	2.5	3.3	3.2	-3.5	3.0	3.7	2.9	4.7	3.9	1.5	-1.5
Uzbekistan	4.5	5.4	5.6	1.5	6.6	..	..	..	..	..	..

Real GDP growth *(continued)*

	Annual estimates and forecasts[1] (Percent change)					Quarterly estimates[2] (Percent change, year-on-year)					
	2017	2018	2019e	2020f	2021f	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1e
Latin America and the Caribbean	1.9	1.7	0.8	-7.2	2.8	1.1	0.6	0.6	1.0	0.8	..
Argentina	2.7	-2.5	-2.2	-7.3	2.1	-6.1	-5.8	0.0	-1.8	-1.1	..
Belize	1.9	2.1	0.3	-13.5	6.7	..	..	..	..	..	..
Bolivia	4.2	4.2	2.7	-5.9	2.2	3.3	3.1	2.6	2.2	1.1	..
Brazil	1.3	1.3	1.1	-8.0	2.2	1.2	0.6	1.1	1.2	1.7	-0.3
Chile	1.2	3.9	1.1	-4.3	3.1	3.3	1.4	1.8	3.4	-2.1	0.4
Colombia	1.4	2.5	3.3	-4.9	3.6	2.7	2.9	3.2	3.5	3.5	1.1
Costa Rica	3.9	2.7	2.1	-3.3	3.0	1.3	2.0	0.6	2.5	3.3	..
Dominica	-9.5	0.5	9.6	-4.0	4.0	..	..	..	..	..	..
Dominican Republic	4.7	7.0	5.1	-0.8	2.5	6.3	5.7	3.7	5.0	5.8	..
Ecuador	2.4	1.3	0.1	-7.4	4.1	0.7	1.1	0.5	-0.3	-1.0	..
El Salvador	2.3	2.4	2.4	-5.4	3.8	1.8	2.2	1.6	2.9	2.8	..
Grenada	4.4	4.2	3.1	-9.6	6.5	..	..	..	..	..	..
Guatemala	3.0	3.1	3.6	-3.0	4.1	3.4	3.6	3.8	4.1	3.9	..
Guyana	2.1	4.1	4.7	51.1	8.1	..	..	..	..	..	..
Haiti[3]	1.2	1.5	-0.9	-3.5	1.0	..	..	..	..	..	..
Honduras	4.8	3.7	2.7	-5.8	3.7	4.5	3.0	1.9	3.3	2.4	..
Jamaica[2]	1.0	1.9	0.7	-6.2	2.7	2.0	1.7	1.3	0.6	0.0	..
Mexico	2.1	2.2	-0.3	-7.5	3.0	1.3	1.1	-1.1	-0.4	-0.7	-1.4
Nicaragua	4.6	-4.0	-3.9	-6.3	0.7	-7.4	-9.1	-3.1	-2.9	-0.2	..
Panama	5.6	3.7	3.0	-2.0	4.2	4.2	3.1	2.9	2.7	3.3	..
Paraguay	5.0	3.4	0.0	-2.8	4.2	0.5	-2.7	-3.3	2.6	3.5	..
Peru	2.5	4.0	2.2	-12.0	7.0	4.8	2.4	1.2	3.2	1.8	-3.4
St. Lucia	2.2	1.4	1.4	-8.8	8.3	..	..	..	..	..	..
St. Vincent and the Grenadines	1.0	2.0	0.4	-5.5	4.0	..	..	..	..	..	..
Suriname	1.8	2.6	2.3	-5.0	3.0	..	..	..	..	..	..
Uruguay	2.6	1.6	0.2	-3.7	4.6	0.6	-0.5	0.1	1.1	0.2	..
Middle East and North Africa	1.1	0.9	-0.2	-4.2	2.3	3.7	2.4	1.7	1.1	0.9	..
Algeria	1.3	1.4	0.8	-6.4	1.9	..	..	..	..	..	..
Bahrain	4.3	1.8	1.8	-4.5	2.3	5.1	3.3	1.8	2.7	-0.4	..
Djibouti	5.4	8.4	7.5	1.3	9.2	..	..	..	..	..	..
Egypt[3]	4.2	5.3	5.6	3.0	2.1	5.5	5.6	5.7	5.6	5.6	..
Iran	3.8	-4.7	-8.2	-5.3	2.1	..	..	..	..	..	..
Iraq	-2.5	-0.6	4.4	-9.7	1.9	..	..	..	..	..	..
Jordan	2.1	1.9	2.0	-3.5	2.0	1.8	2.0	1.8	1.9	2.1	..
Kuwait	-4.7	1.2	0.4	-5.4	1.1	2.0	0.9	1.8	0.1	-1.1	..
Lebanon	0.9	-1.9	-5.6	-10.9	-6.3	..	..	..	..	..	..
Morocco	4.2	3.0	2.3	-4.0	3.4	..	..	..	..	..	..
Oman	0.3	1.8	0.5	-4.0	2.0	..	..	..	..	..	..
Qatar	1.6	1.5	-0.3	-3.5	3.6	0.5	0.8	-1.0	0.0	-0.6	..
Saudi Arabia	-0.7	2.4	0.3	-3.8	2.5	4.3	1.7	0.5	-0.5	-0.3	..
Tunisia	1.9	2.7	1.0	-4.0	4.2	2.1	1.2	1.2	1.0	0.8	-1.5
United Arab Emirates	0.5	1.7	1.7	-4.5	1.4	..	..	..	..	..	..
West Bank and Gaza	1.4	1.2	0.9	-7.6	5.1	3.5	4.1	2.3	-0.6	-1.8	..

Real GDP growth *(continued)*

	Annual estimates and forecasts[1] (Percent change)					Quarterly estimates[2] (Percent change, year-on-year)					
	2017	2018	2019e	2020f	2021f	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1e
South Asia	6.5	6.5	4.7	-2.7	2.8	5.5	5.6	5.5	5.0	4.6	..
Afghanistan	2.7	1.8	2.9	-5.5	1.0	..	..	..	..	..	..
Bangladesh[3 4]	7.3	7.9	8.2	1.6	1.0	..	..	..	..	..	..
Bhutan[3 4]	6.3	3.8	3.9	1.5	1.8	..	..	..	..	..	..
India[3 4]	7.0	6.1	4.2	-3.2	3.1	5.6	5.7	5.2	4.4	4.1	3.1
Maldives	6.8	6.9	5.2	-13.0	8.5	..	..	..	..	..	..
Nepal[3 4]	8.2	6.7	7.0	1.8	2.1	..	..	..	..	..	..
Pakistan[3 4]	5.2	5.5	1.9	-2.6	-0.2	..	..	..	..	..	..
Sri Lanka	3.6	3.3	2.3	-3.2	0.0	1.9	3.7	1.1	2.4	2.0	..
Sub-Saharan Africa	2.6	2.6	2.2	-2.8	3.1	2.6	2.1	2.3	2.0	2.1	..
Angola	-0.1	-2.0	-0.9	-4.0	3.1	..	..	..	..	..	..
Benin	5.8	6.7	6.9	3.2	6.0	..	..	..	..	..	..
Botswana	2.9	4.5	3.5	-9.1	4.2	4.2	4.3	3.0	3.0	1.6	..
Burkina Faso	6.3	6.8	5.7	2.0	5.8	..	..	..	..	..	..
Burundi	0.5	1.6	1.8	1.0	2.3	..	..	..	..	..	..
Cabo Verde	3.7	5.1	5.5	-5.5	5.0	..	..	..	..	..	..
Cameroon	3.5	4.1	3.9	-0.2	3.4	..	..	..	..	..	..
Central African Republic	4.5	3.7	3.1	0.8	3.5	..	..	..	..	..	..
Chad	-3.0	2.6	3.2	-0.2	4.7	..	..	..	..	..	..
Comoros	3.8	3.4	1.9	-1.4	3.2	..	..	..	..	..	..
Congo, Dem. Rep.	3.7	5.8	4.4	-2.2	3.5	..	..	..	..	..	..
Congo, Rep.	-1.8	1.6	-0.9	-6.2	-1.1	..	..	..	..	..	..
Côte d'Ivoire	7.4	6.8	6.9	2.7	8.7	..	..	..	..	..	..
Equatorial Guinea	-4.7	-6.1	-6.2	-8.4	-1.6	..	..	..	..	..	..
Eritrea	-10.0	13.0	3.7	-0.7	5.7	..	..	..	..	..	..
Eswatini	2.0	2.4	1.3	-2.8	2.7	..	..	..	..	..	..
Ethiopia[3]	10.0	7.9	9.0	3.2	3.6	..	..	..	..	..	..
Gabon	0.5	0.8	3.3	-3.2	-2.6	..	..	..	..	..	..
Gambia, The	4.8	6.6	6.0	2.5	6.5	..	..	..	..	..	..
Ghana	8.1	6.3	6.5	1.5	3.4	6.8	6.7	5.7	5.6	7.9	..
Guinea	10.3	6.2	5.6	2.1	7.9	..	..	..	..	..	..
Guinea-Bissau	5.9	3.8	4.7	-1.6	3.1	..	..	..	..	..	..
Kenya	4.8	6.3	5.4	1.5	5.2	6.5	5.5	5.3	5.2	5.5	..
Lesotho	-0.4	1.5	1.4	-5.1	5.5	0.5	-3.4	-2.1	1.3	..	..
Liberia	2.5	1.2	-2.3	-2.6	4.0	..	..	..	..	..	..
Madagascar	3.9	4.6	4.8	-1.2	4.0	..	..	..	..	..	..
Malawi	4.0	3.5	4.4	2.0	3.5	..	..	..	..	..	..
Mali	5.3	4.7	5.1	0.9	4.0	..	..	..	..	..	..
Mauritania	3.0	3.6	6.3	-2.0	4.2	..	..	..	..	..	..
Mauritius	3.8	3.7	3.6	-6.8	6.4	..	..	..	..	..	..
Mozambique	3.7	3.4	2.2	1.3	3.6	3.0	2.5	2.3	2.0	2.0	..
Namibia	-0.3	0.7	-1.1	-4.8	3.0	-4.2	-3.6	-2.9	-0.8	..	..
Niger	4.9	6.5	6.3	1.0	8.1	..	..	..	..	..	..
Nigeria	0.8	1.9	2.2	-3.2	1.7	2.4	2.1	2.1	2.1	2.5	2.0
Rwanda	6.1	8.6	9.4	2.0	6.9	..	..	..	..	..	..
São Tomé and Príncipe	3.9	2.7	2.4	-9.5	6.1	..	..	..	..	..	..
Senegal	7.4	6.4	5.3	1.3	4.0	..	..	..	..	..	..
Seychelles	4.3	4.1	3.8	-11.1	6.3	..	..	..	..	..	..
Sierra Leone	3.8	3.5	5.1	-2.3	4.0	..	..	..	..	..	..

Real GDP growth *(continued)*

	Annual estimates and forecasts[1] (Percent change)					Quarterly estimates[2] (Percent change, year-on-year)					
	2017	2018	2019e	2020f	2021f	18Q4	19Q1	19Q2	19Q3	19Q4	20Q1e
Sub-Saharan Africa (continued)											
South Africa	1.4	0.8	0.2	-7.1	2.9	1.1	0.0	0.9	0.1	-0.5	..
South Sudan[3]	-6.9	-3.5	3.2	-4.3	-23.6	..	..	..	..	..	..
Sudan	4.3	-2.3	-2.6	-4.0	0.5	..	..	..	..	..	..
Tanzania	6.8	5.4	5.8	2.5	5.5	7.1	6.5	7.2	6.8	..	..
Togo	4.4	4.9	5.3	1.0	4.0	..	..	..	..	..	..
Uganda[3]	3.9	6.2	6.5	3.3	3.7	7.3	7.7	4.8	4.5	5.6	..
Zambia	3.4	4.0	1.7	-0.8	2.4	2.5	2.4	2.4	1.0	..	..
Zimbabwe	4.7	3.5	-8.1	-10.0	2.9	..	..	..	..	..	..

Source: World Bank and Haver Analytics.
Note: e = estimate; f = forecast.
1. Aggregate growth rates calculated using GDP weights at 2010 prices and market exchange rates.
2. Quarterly estimates are based on non-seasonally-adjusted real GDP, except for advanced economies, as well as Ecuador, Poland and Tunisia. Data for Bosnia and Herzegovina are from the production approach. Quarterly data for Jamaica are gross value added.
Regional averages are calculated based on data from following countries.
East Asia and Pacific: China, Indonesia, Malaysia, Mongolia, Philippines, Thailand, and Vietnam.
Europe and Central Asia: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Kazakhstan, North Macedonia, Poland, Romania, Russia, Serbia, Turkey, and Ukraine.
Latin America and the Caribbean: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay.
Middle East and North Africa: Bahrain, Egypt, Kuwait, Jordan, Qatar, Saudi Arabia, Tunisia, and West Bank and Gaza.
South Asia: India and Sri Lanka.
Sub-Saharan Africa: Botswana, Ghana, Kenya, Mozambique, Nigeria, South Africa, and Uganda.
3. Annual GDP is on fiscal year basis, as per reporting practice in the country.
4. GDP data for Pakistan are based on factor cost. For Bangladesh, Bhutan, Nepal, and Pakistan, the column labeled 2019 refers to FY2018/19. For India, the column labeled 2018 refers to FY2018/19.
5. Quarterly data are preliminary.
Click here to download data.

Data and Forecast Conventions

The macroeconomic forecasts presented in this report are prepared by staff of the Prospects Group of the Equitable Growth, Finance and Institutions Vice-Presidency, in coordination with staff from the Macroeconomics, Trade, and Investment Global Practice and from regional and country offices, and with input from regional Chief Economist offices. They are the result of an iterative process that incorporates data, macroeconometric models, and judgment.

Data. Data used to prepare country forecasts come from a variety of sources. National Income Accounts (NIA), Balance of Payments (BOP), and fiscal data are from Haver Analytics; the World Development Indicators by the World Bank; the World Economic Outlook, Balance of Payments Statistics, and International Financial Statistics by the International Monetary Fund. Population data and forecasts are from the United Nations World Population Prospects. Country- and lending-group classifications are from the World Bank. The Prospects Group's internal databases include high-frequency indicators such as industrial production, consumer price indexes, emerging market bond indexes (EMBI), exchange rates, exports, imports, policy rates, and stock market indexes, based on data from Bloomberg, Haver Analytics, IMF Balance of Payments Statistics, IMF International Financial Statistics, and J.P. Morgan.

Aggregations. Aggregate growth for the world and all sub-groups of countries (such as regions and income groups) is calculated using GDP weights at 2010 prices and market exchange rates of country-specific growth rates. Income groups are defined as in the World Bank's classification of country groups.

Forecast process. The process starts with initial assumptions about advanced-economy growth and commodity price forecasts. These are used as conditioning assumptions for the first set of growth forecasts for EMDEs, which are produced using macroeconometric models, accounting frameworks to ensure national account identities and global consistency, estimates of spillovers from major economies, and high-frequency indicators. These forecasts are then evaluated to ensure consistency of treatment across similar EMDEs. This is followed by extensive discussions with World Bank country teams, who conduct continuous macroeconomic monitoring and dialogue with country authorities and finalize growth forecasts for EMDEs. The Prospects Group prepares advanced-economy and commodity price forecasts. Throughout the forecasting process, staff use macro-econometric models that allow the combination of judgement and consistency with model-based insights.

Global Economic Prospects: Selected Topics, 2015-20

Growth and Business Cycles		
Economics of Pandemics		
	Regional macroeconomic implications of COVID-19	Special Focus, June 2020
	Lasting Scars of the COVID-19 Pandemic	Chapter 3, June 2020
	Adding Fuel to the Fire: Cheap Oil in the Pandemic	Chapter 4, June 2020
	How deep will the COVID-19 recession be?	June 2020, Box 1.1
	Scenarios of possible global growth outcomes	June 2020, Box 1.3
	How does informality aggravate the impact of COVID-19?	June 2020, Box 1.4
	The impact of COVID-19 on global value chains	June 2020, Box SF1
	How do deep recessions affect potential output?	June 2020, Box 3.1
	How do disasters affect productivity?	June 2020, Box 3.2
	Reforms after the 2014-16 oil price plunge	June 2020, Box 4.1
	The macroeconomic effects of pandemics and epidemics: A literature review	June 2020, Annex 3.1
Informality		
	How does informality aggravate the impact of COVID-19?	June 2020, Box 1.4
	Growing in the shadow: Challenges of informality	January 2019, Chapter 3
	Linkages between formal and informal sectors	January 2019, Box 3.1
	Regional dimensions of informality: An overview	January 2019, Box 3.2
	Casting a shadow: Productivity in formal and informal firms	January 2019, Box 3.3
	Under the magnifying glass: How do policies affect informality?	January 2019, Box 3.4
	East Asia and Pacific	January 2019, Box 2.1.1
	Europe and Central Asia	January 2019, Box 2.2.1
	Latin America and the Caribbean	January 2019, Box 2.3.1
	Middle East and North Africa	January 2019, Box 2.4.1
	South Asia	January 2019, Box 2.5.1
	Sub-Saharan Africa	January 2019, Box 2.6.1
Inflation		
	Low for how much longer? Inflation in low-income countries	January 2020, Special Focus 2
	Currency depreciation, inflation, and central bank independence	June 2019, Special Focus 1.2
	The great disinflation	January 2019, Box 1.1
Growth prospects		
	The macroeconomic effects of pandemics and epidemics: A literature review	June 2020, Annex 3.1
	How deep will the COVID-19 recession be?	June 2020, Box 1.1
	Lasting Scars of the COVID-19 Pandemic	Chapter 3, June 2020
	Regional macroeconomic implications of COVID-19	Special Focus, June 2020
	Growth in low-income countries: Evolution, prospects, and policies	June 2019, Special Focus 2.1
	Long-term growth prospects: Downgraded no more?	June 2018, Box 1.1
Global output gap		
	Is the global economy turning the corner?	January 2018, Box 1.1
Potential growth		
	How do deep recessions affect potential output?	June 2020, Box 3.1
	Building solid foundations: How to promote potential growth	January 2018, Chapter 3
	What is potential growth?	January 2018, Box 3.1
	Understanding the recent productivity slowdown: Facts and explanations	January 2018, Box 3.2
	Moving together? Investment and potential output	January 2018, Box 3.3
	The long shadow of contractions over potential output	January 2018, Box 3.4
	Productivity and investment growth during reforms	January 2018, Box 3.5
	East Asia and Pacific	January 2018, Box 2.1.1
	Europe and Central Asia	January 2018, Box 2.2.1
	Latin America and the Caribbean	January 2018, Box 2.3.1
	Middle East and North Africa	January 2018, Box 2.4.1
	South Asia	January 2018, Box 2.5.1
	Sub-Saharan Africa	January 2018, Box 2.6.1

Global Economic Prospects: Selected Topics, 2015-20

Growth and Business Cycles		
Cross-border spillovers		
	Who catches a cold when emerging markets sneeze?	January 2016, Chapter 3
	Sources of the growth slowdown in BRICS	January 2016, Box 3.1
	Understanding cross-border growth spillovers	January 2016, Box 3.2
	Within-region spillovers	January 2016, Box 3.3
	East Asia and Pacific	January 2016, Box 2.1.1
	Europe and Central Asia	January 2016, Box 2.2.1
	Latin America and the Caribbean	January 2016, Box 2.3.1
	Middle East and North Africa	January 2016, Box 2.4.1
	South Asia	January 2016, Box 2.5.1
	Sub-Saharan Africa	January 2016, Box 2.6.1
Productivity		
	How do disasters affect productivity?	June 2020, Box 3.2
	Fading promise: How to rekindle productivity growth	January 2020, Chapter 3
	EMDE regional productivity trends and bottlenecks	January 2020, Box 3.1
	Sectoral sources of productivity growth	January 2020, Box 3.2
	Patterns of total factor productivity: a firm perspective	January 2020, Box 3.3
	Debt, financial crises, and productivity	January 2020, Box 3.4
	Labor productivity in East Asia and Pacific: Trends and drivers	January 2020, Box 2.1.1
	Labor productivity in Europe and Central Asia: Trends and drivers	January 2020, Box 2.2.1
	Labor productivity in Latin America and the Caribbean: Trends and drivers	January 2020, Box 2.3.1
	Labor productivity in Middle East and North Africa: Trends and drivers	January 2020, Box 2.4.1
	Labor productivity in South Asia: Trends and drivers	January 2020, Box 2.5.1
	Labor productivity in Sub-Saharan Africa: Trends and drivers	January 2020, Box 2.6.1
Investment slowdown		
	Investment: Weak prospects strong needs	June 2019, Special Focus 11
	Weak investment in uncertain times: Causes, implications and policy responses	January 2017, Chapter 3
	Investment-less credit booms	January 2017, Box 3.1
	Implications of rising uncertainty for investment in EMDEs	January 2017, Box 3.2
	Investment slowdown in China	January 2017, Box 3.3
	Interactions between public and private investment	January 2017, Box 3.4
	East Asia and Pacific	January 2017, Box 2.1.1
	Europe and Central Asia	January 2017, Box 2.2.1
	Latin America and the Caribbean	January 2017, Box 2.3.1
	Middle East and North Africa	January 2017, Box 2.4.1
	South Asia	January 2016, Box 2.5.1
	Sub-Saharan Africa	January 2016, Box 2.6.1
Forecast uncertainty		
	Scenarios of possible global growth outcomes	June 2020, Box 1.3
	Quantifying uncertainties in global growth forecasts	June 2016, Special Focus 2
Fiscal space		
	Having space and using it: Fiscal policy challenges and developing economies	January 2015, Chapter 3
	Fiscal policy in low-income countries	January 2015, Box 3.1
	What affects the size of fiscal multipliers?	January 2015, Box 3.2
	Chile's fiscal rule—an example of success	January 2015, Box 3.3
	Narrow fiscal space and the risk of a debt crisis	January 2015, Box 3.4
	Revenue mobilization in South Asia: Policy challenges and recommendations	January 2015, Box 2.3
Other topics		
	Education demographics and global inequality	January 2018, Special Focus 2
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The COVID-19 pandemic has, with alarming speed, dealt a heavy blow to an already-weak global economy, which is expected to slide into its deepest recession since the second world war, despite unprecedented policy support. The global recession would be deeper if countries take longer to bring the pandemic under control, if financial stress triggers defaults, or if there are protracted effects on households and firms. Economic disruptions are likely to be more severe and protracted in emerging market and developing economies with larger domestic outbreaks and weaker medical care systems; greater exposure to international spillovers through trade, tourism, and commodity and financial markets; weaker macroeconomic frameworks; and more pervasive informality and poverty. Beyond the current steep economic contraction, the pandemic is likely to leave lasting scars on the global economy by undermining consumer and investor confidence, human capital, and global value chains. Being mostly a reflection of the recent plunge in global energy demand, low oil prices are unlikely to provide much of a boost to global growth in the near term. While policymakers' immediate priorities are to address the health crisis and moderate the short-term economic losses, the likely long-term consequences of the pandemic highlight the need to forcefully undertake comprehensive reform programs to improve the fundamental drivers of economic growth, once the crisis abates.

Global Economic Prospects is a World Bank Group Flagship Report that examines global economic developments and prospects, with a special focus on emerging market and developing economies, on a semiannual basis (in January and June). The January edition includes in-depth analyses of topical policy challenges faced by these economies, while the June edition contains shorter analytical pieces.

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