WORLD BANK GROUP

COVID-19 and Human Capital

Europe and Central Asia Economic Update
Office of the Chief Economist
Fall 2020

WORLD BANK **ECA ECONOMIC UPDATE** FALL 2020

COVID-19 and Human Capital

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1 2 3 4 23 22 21 20

ISBN (electronic): 978-1-4648-1643-7
DOI: 10.1596/978-1-4648-1643-7

Cover design: Lynn Saghir

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Acknowledgments

This Europe and Central Asia (ECA) Economic Update is a product of ECA's Office of the Chief Economist led by Asli Demirgüç-Kunt, in collaboration with the Macroeconomics, Trade and Investment and the Poverty and Equity Global Practices.

In Part I, Chapter I was prepared in collaboration with the Prospects Group in the Equitable Growth, Finance and Institutions Practice Group. The team included Collette Mari Wheeler, Carlos Arteta, Michael Lokshin, Dana Lauren Vorisek, Damien Matthias Valentin Boucher, Maria Hazel Macadangdang, Vasiliki Papagianni, Julia Renee Roseman Norfleet, and Kaltrina Temaj. Box 1.1 was prepared by Christoph Lakner, and Box 1.2 by Michael Lokshin and Ivan Torre. Useful comments and inputs were provided by Enrique Blanco Armas, Bakyt Dubashov, Thomas Farole, Ivailo Izvorski, Sandeep Mahajan, Evgenij Najdov, Steven N. Schonberger, Salman Zaidi, and Bakhrom Ziyaev. Chapter I was closely coordinated with contributions from Part II authors. Chapter II was prepared by the ECA Chief Economist's team led by Iván Torre with the excellent assistance of Sharanya Venu Pillai, and inputs from Husein Abdul-Hamid, and Christel Vermeersch in the Human Development Global Practice and Aart Kraay and Kibrom Tafere in Development Economics Research Group. Box 2.2 was produced by Jorge Luis Guzmán Correa and Steven Pennings. Useful comments were provided by Damien de Walque, Tania Dmytraczenko, Deon Filmer, Roberta Gatti, Roumeen Islam, Harry Patrinos, Fadia Saadah, and Gil Shapira. The team would like to thank Anna Bjerde, Xiaoqing Yu, and ECA regional leadership team for their guidance and inputs during preparation of the report.

Part II was prepared by teams from the Macroeconomics, Trade and Investment Global Practice (led by Andrew Burns, Lalita M. Moorty, Sandeep Mahajan, and Enrique Blanco Armas) and the Poverty and Equity Global Practice (led by Salman Zaidi). These teams included the following staff: Azamat Agaidarov, Enrique Blanco Armas, Sarah Nankya Babirye, Reena Badiani-Magnusson, Olena Bogdan, Benoit Philippe Marcel Campagne, Jasmin Chakeri, Marie-Anne Chambonnier, Marcel Chistruga, Alexandru Cojocaru, Pablo Facundo Cuevas, Stefano Curto, Diana Victoria De Leon Dardon, Mariam Dolidze, Andrei Silviu Dospinescu, Bakyt Dubashov, Olga Emelyanova, Samuel Freije-Rodriguez, Alan Fuchs, Josip Funda, Anastasia Golovach, Claudia Gutierrez, Gohar Gyulumyan, Alexander Haider, Kiryl Haiduk, Sandra Hlivnjak, Saida Ismailakhunova, Ivailo Izvorski, Charl Jooste, Jonathan George Karver, Tehmina Shaukat Khan, Edith Kikoni, Milan Lakicevic, Chang Kee Lee, Leonardo Ramiro Lucchetti, Sanja Madzarevic-Sujster, Armineh Manookian Salmasi, Monika Anna Matyja, Mikhail Matytsin, Kristina Cathrine Mercado, Rose Mungai, Besart Myderrizi, Vinayakraj Nagaraj, Evgenij Najdov, Arvind Nair, Metin Nebiler, Minh Cong Nguyen, Trang

Van Nguyen, David Knight, Desislava Enikova Nikolova, Ana Maria Oviedo, Catalin Pauna, Habib Nasser Rab, Alisher Rajabov, Nadir Ramazanov, Monica Robayo, Natasha Rovo, Apurva Sanghi, Cristina Savescu, Marc Tobias Schiffbauer, William Hutchins Seitz, Asli Senkal, Lazar Sestovic, Dhiraj Sharma, Hilda Shijaku, Bojan Shimbov, Maryna Sidarenka, David Andrew Stephan, Thi Thanh Thanh Bui, Eskender Trushin, Michal Tulwin, Christoph Ungerer, Kristina Vaughan, and Bakhrom Ziyaev.

Sandra Gain and Barbara Karni provided the editorial support, and Michael Alwan typeset the report. Indira Chand, Paul Anthony Clare, Carl Patrick Hanlon, Artem Kolesnikov, John Mackedon, and Sona V. Panajyan provided communications and outreach support. Ekaterina Ushakova oversaw the layout and production of the report.

Abbreviations

ARWU	Academic Ranking of World Universities
Bbl	barrels
Belstat	National Statistical Committee of the Republic of Belarus
BHAS	Agency for Statistics of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
BMI	Body Mass Index
BPS	Business Pulse Survey
BRSA	Banking Regulatory and Supervision Agency (Turkey)
CA	Central Asia
CAD	current account deficit
CBA	Central Bank of Armenia
CBA	Central Bank of Azerbaijan
CBR	Central Bank of Russia
CE	Central Europe
CPI	Consumer Price Index
CRP	Centralized Remittance Platform
CROSTAT	Croatian Bureau of Statistics
CWUR	Center for World University Rankings
EBU	European Banking Union
ECA	Europe and Central Asia
ECA-HCI	Europe and Central Asia extension of the Human Capital Index
ECAPOV	ECAPOV (ECA Poverty) database of standardized household surveys
EE	Eastern Europe
EMDEs	emerging market and developing economies
ERM II	European Exchange Rate Mechanism
EU	European Union
EU-SILK	European Union Statistics on Income and Living Conditions
FDI	foreign direct investment
FMC	Family Medicine Center
FTSE	Financial Times Stock Exchange
FX	foreign exchange
GDP	gross domestic product
GVCs	global value chains
HBS	Household Budget Survey
HCI	Human Capital Index
HHS	household survey
HICES	Household Income, Consumption, and Expenditure Survey
HIS	Household Income Survey
HLCS	Household Living Conditions Survey
ICT	information and communications technology
IFI	international financial institution
ILCS	Integrated Living Conditions Survey
IMF	International Monetary Fund
INSTAT	Institute of Statistics (Albania)
KIHS	Kyrgyz Integrated Household Survey
LCU	local currency unit

LFS	Labour Force Survey
LMIC	lower-middle-income country
LTGM-HC	Long-Term Growth Model Human Capital
MFMod	Macro-Fiscal Model (World Bank)
MIC	middle-income country
MONSTAT	Statistical Office of Montenegro
NBG	National Bank of Georgia
NBK	National Bank of Kazakhstan
NBR	National Bank of Romania
NBS	National Bank of Serbia
NBT	National Bank of Tajikistan
NCD	noncommunicable disease
NPL	non-performing loan
NWF	National Wealth Fund (Russian Federation)
OECD	Organisation for Economic Co-operation and Development
OLS	ordinary least squares
OPEC	Organization of the Petroleum Exporting Countries
pc	per capita
PIAAC	Program for the International Assessment of Adult Competencies
PMI	Purchasing Managers' Index
pp	percentage point
PPP	public-private partnership
PPP	purchasing power parity
PWT	Penn World Tables
QAYH	quality-adjusted years of higher education
QS	Quacquarelly Symonds
RHS	right-hand side
RTC	research, teaching, and citations
SCC	South Caucasus
SEP	Socioeconomic Program
SES-HCI	Socioeconomic Status–Human Capital Index
SME	small and medium-sized enterprises
SOE	state-owned enterprise
SOFAZ	State Oil Fund of the Republic of Azerbaijan
STEM	science, technology, engineering, and mathematics
TajStat	Agency on Statistics of Tajikistan
TFA	Trade Facilitation Agreement (World Trade Organization)
THE	Times Higher Education
TSA	Targeted Social Assistance (Tajikistan)
Turkstat	Turkish Statistical Institute
UKRSTAT	State Statistics Service of Ukraine
UMIC	upper-middle-income country
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
VAT	value added tax
WAP	working age population
WBK	Western Balkans
WDI	World Development Indicators
WTO	World Trade Organization
yoy	year-over-year

Country Codes

Albania	ALB	Latvia	LVA
Armenia	ARM	Lithuania	LTU
Austria	AUT	Luxembourg	LUX
Azerbaijan	AZE	Malta	MLT
Belarus	BLR	Moldova	MDA
Belgium	BEL	Montenegro	MNE
Bosnia and Herzegovina	BIH	Netherlands	NLD
Bulgaria	BGR	Norway	NOR
Croatia	HRV	Poland	POL
Cyprus	CYP	Portugal	PRT
Czech Republic	CZE	Republic of North Macedonia	MKD
Denmark	DNK	Romania	ROU
Estonia	EST	Russian Federation	RUS
Finland	FIN	Serbia	SRB
France	FRA	Slovak Republic	SVK
Georgia	GEO	Slovenia	SVN
Germany	DEU	Spain	ESP
Greece	GRC	Sweden	SWE
Hungary	HUN	Switzerland	CHE
Iceland	ISL	Tajikistan	TJK
Ireland	IRL	Turkey	TUR
Italy	ITA	Turkmenistan	TKM
Kazakhstan	KAZ	Ukraine	UKR
Kosovo	XKX	United Kingdom	GBR
Kyrgyz Republic	KGZ	Uzbekistan	UZB

Regional Classification Used in this Report

This report covers 50 countries referred to as Europe and Central Asia (ECA) countries. These are divided into 10 groups: Central Asia, Central Europe and the Baltic Countries, Eastern Europe, Northern Europe, South Caucasus, Southern Europe, Western Balkans, Western Europe, Russia, and Turkey.

TABLE E.1 Regional classification used in this report

Central Asia	Central Europe and Baltic Countries	Eastern Europe	Northern Europe
Kazakhstan	Bulgaria	Belarus	Denmark
Kyrgyz Republic	Croatia	Moldova	Finland
Tajikistan	Czech Republic	Ukraine	Iceland
Turkmenistan	Estonia		Norway
Uzbekistan	Hungary		Sweden
	Latvia		
	Lithuania		
	Poland		
	Romania		
	Slovak Republic		
	Slovenia		

South Caucasus	Southern Europe	Western Balkans	Western Europe
Armenia	Cyprus	Albania	Austria
Azerbaijan	Greece	Bosnia and Herzegovina	Belgium
Georgia	Italy	Kosovo	France
	Malta	Republic of North Macedonia	Germany
	Portugal	Montenegro	Ireland
	Spain	Serbia	Luxembourg
			Netherlands
			Switzerland
			United Kingdom

	Russian Federation	Turkey	

Executive Summary

The COVID-19 pandemic has sunk the global economy into the deepest recession in eight decades. In the emerging and developing countries of Europe and Central Asia, GDP is expected to contract 4.4 percent in 2020. This update summarizes recent developments and presents the outlook for the region. It also focuses on human capital, an area that requires serious attention given the severe impact of the pandemic on health and education.

Regional output collapsed in the first half of 2020, as growing domestic outbreaks and pandemic-related restrictions caused domestic demand to plummet, exacerbated supply disruptions, and halted manufacturing and services activity. The sharp decline in remittance inflows—which account for about 10 percent of GDP in the region excluding the Russian Federation and Turkey—contributed to the slide in retail sales. The economies hardest hit were those with strong trade or value chain linkages to the Euro area or Russia and those heavily dependent on tourism or energy and metals exports. Economies that were slower to implement measures to stem the spread of the virus suffered more widespread outbreaks, higher death rates, and steeper declines in activity than economies that did so more rapidly, as restrictions to contain the pandemic had to be more stringent. At the end of the year, using the $3.20 a day poverty line, estimates suggest an additional 2.2 million people may slip into poverty in the emerging and developing countries of the region. At the $5.50 a day poverty line, customarily used in upper-middle-income countries, this figure can be as high as 6 million.

Growth is projected to recover in 2021, but the pace of recovery is highly uncertain and depends on the duration of the pandemic, the availability and distribution of a vaccine, and the degree of improvement in trade and investment. The recovery could be weaker than expected if the pandemic worsens, necessitating prolonged restrictive measures and/or escalating geopolitical tensions.

Once the health and economic crises caused by the COVID-19 pandemic are brought under control, policy efforts in the region will need to address the steep fall in productivity growth over the past decade and focus on structural reforms that are essential to reignite long-term growth prospects. Strengthening governance and improving institutional quality could yield growth dividends and attract investment. Structural bottlenecks, including limited exposure to international competition and low innovation rates, continue to weigh on the business environment. Boosting investment in human capital and climate resilience will be crucial to raise living standards and foster inclusive and sustainable growth. Addressing these headwinds to long-run growth will require a well-targeted

reform agenda to increase productivity growth, improve the investment climate, and foster digital development. The feature chapter of this update examines human capital outcomes in the region and the ways in which the pandemic is likely to affect them, in an effort to identify policy priorities in health and education.

The COVID-19 pandemic has hit human capital directly in Europe and Central Asia, adversely affecting both education and health. School closures may lead to learning losses equivalent to a third to a full year of schooling, and they are likely to exacerbate inequalities, by disproportionately affecting students from disadvantaged backgrounds. The disease has already killed thousands of people, and some people who survive will suffer long-term damage to their health. Recovery from the pandemic will require strong investment in both education and health.

In 2018, the World Bank launched the Human Capital Index (HCI), to highlight how improvements in current education and health outcomes shape the productivity of the next generation of workers. This update adds to the HCI by presenting data on and analyzing two additional factors that are particularly important in Europe and Central Asia: the quality of tertiary education and the prevalence of obesity, smoking, and heavy drinking.

Countries in the region provide relatively good basic education and health services; the region's citizens begin their lives in a much better position than their peers in other regions of the world. Job markets now demand higher levels of human capital than they did in the past, however. Basic education is therefore no longer enough; higher education institutions must prepare students for the challenges the future of work may hold.

On the health front, just surviving is not sufficient. Adults need to remain healthy and active, to continue learning and acquiring skills throughout their lives, not just in the initial years. Reducing the health risks of obesity, smoking, and heavy drinking are particularly important for active and productive aging.

Focusing on quality-adjusted years of tertiary education in addition to basic education reveals that Central Asia, the South Caucasus, Turkey, and the Western Balkans would benefit significantly from investing in higher education. And providing a more complete picture of the latent health status for countries in the region by incorporating health risk factors of obesity, smoking, and heavy drinking shows that the overall prevalence of these risks is high in Eastern Europe, the Russian Federation and the Western Balkans.

Measuring the quality of higher education is important, because good indicators of basic education are not necessarily correlated with good indicators of tertiary education. Hungary and Croatia, for example, provide good basic education but lag in higher education. Health and education indicators are not always correlated. Russia, for example, has one of the highest values for education and one of the lowest values for health in the region, partly because of high levels of smoking and heavy drinking.

The quality of education and health varies across socioeconomic quintiles as much as across countries. Gender differences in education and health are more limited in the region; where they exist, they mostly favor women, with a few exceptions. This suggests, for most of the region, it is men who need to catch up. However, there is a strong gender difference in fields of study, with women's

presence in science, technology, engineering, and mathematics (STEM) fields still considerably lower than that of men. This gap has important implications, because holders of tertiary degrees in STEM disciplines tend to participate more in the labor market and to earn higher wages.

The gender gap in smoking and heavy drinking is stark, with both behaviors much more prevalent among men. As a result, mortality rates are higher for men than for women across the region, particularly in Russia and Eastern Europe.

Overall, this analysis suggests that modernizing the foundations of education systems, improving access to and the quality of tertiary education, and reducing adult risk factors for health are key for the region. Post-COVID-19 policy initiatives will also need to recognize the challenges posed by increased reliance on remote learning and the need to reduce risk factors for noncommunicable diseases, manage and deliver health services to keep the aging population healthy and active into old age, and promote lifelong learning. Being able to prevent, detect, and respond to public health emergencies such as future pandemics will be especially critical, given the vulnerability of the region's aging societies and the large number of people with underlying health risks.

Closing equity gaps—which the pandemic is likely to widen—is particularly important in lagging regions, among disadvantaged minorities at the basic and higher education levels, and in child and maternal health. Important gender-related challenges include improving men's education, while increasing women's presence in STEM fields, and developing policy interventions to reduce the prevalence of smoking and heavy drinking among men.

PART

The Economic Outlook and Long-term Challenges

1

COVID-19 Pandemic and the Economic Outlook

Global Context

The COVID-19 pandemic has sunk the global economy into the deepest recession in eight decades. Per capita incomes in the vast majority of emerging markets and developing economies will shrink this year. The global recession could be deeper if financial stress triggers cascading debt defaults. The pandemic highlights the urgent need for policy action to cushion its consequences, protect vulnerable populations, and improve countries' capacity to cope with similar future events.

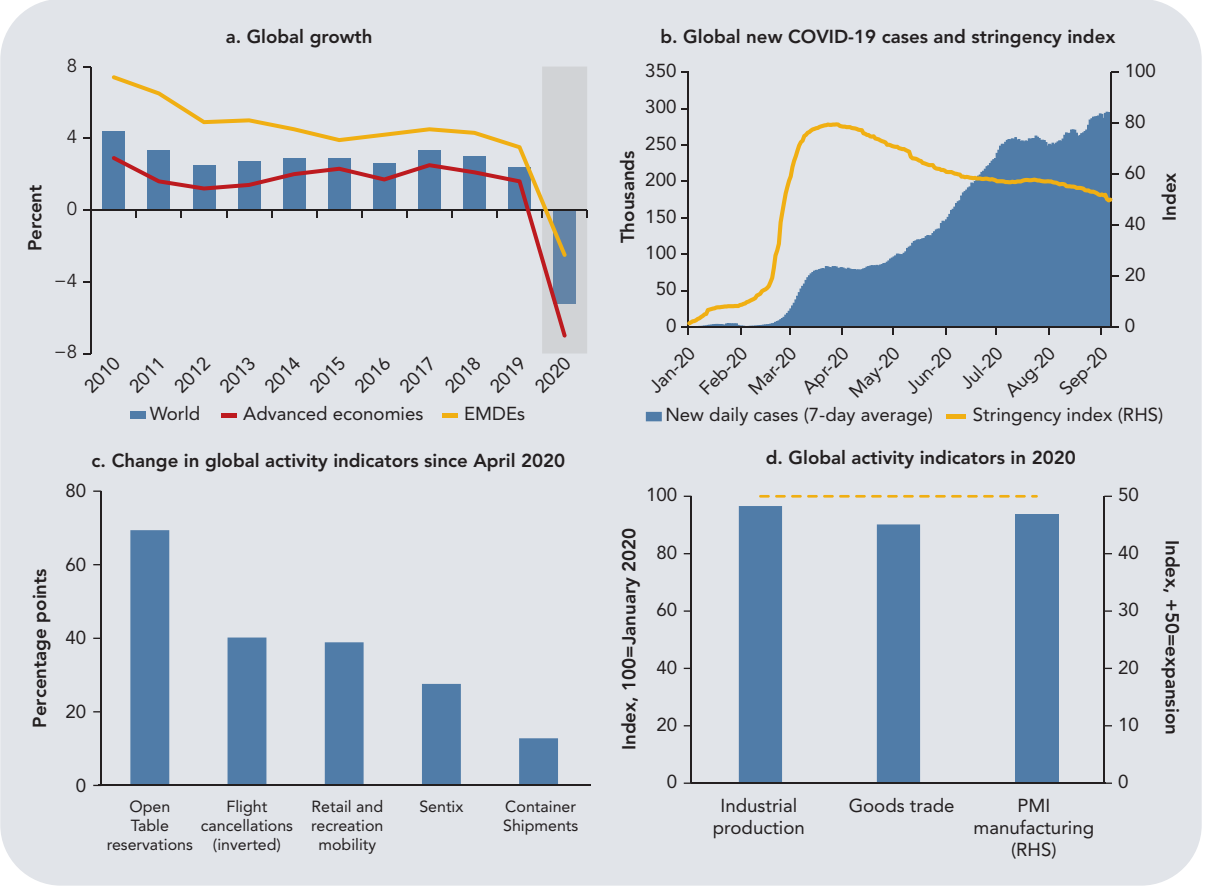
COVID-19 Pandemic and Overall Trends

COVID-19 has delivered an enormous shock to the global economy, triggering the deepest global recession in eight decades, almost three times as deep as the 2009 global recession. The baseline forecast in June envisioned a 5.2 percent contraction in global gross domestic product (GDP) in 2020, despite unprecedented policy support (figure 1.1, panel A) (World Bank 2020a). The health and human toll of the pandemic has continued to grow, with over one million deaths and millions of people suffering from diminished prospects and disrupted livelihoods. The pandemic and associated control measures have sharply curbed consumption and investment and deeply disrupted labor markets. Estimates place the fall in working hours equivalent to the loss of nearly 500 million full-time jobs in the second quarter of 2020 (ILO 2020). Cross-border spillovers have interrupted financial and commodity markets, global trade, supply chains, travel, and tourism. As a result, per capita incomes in the vast majority of emerging markets and developing economies (EMDEs) are expected to shrink in 2020, tipping many millions back into poverty.

New cases of COVID-19 are accumulating at a rate of more than 250,000 per day, with particular concentrations in the United States, India, Brazil, Colombia, South Africa, and Mexico (figure 1.1, panel B). High-frequency data suggest that after collapsing in the second quarter, global activity is starting to recover (figure 1.1, panel C). Various activity indicators remain well below levels observed at the start of the year, however (figure 1.1, panel D).

Economic activity in the United States collapsed in the second quarter of 2020, with output falling by an unprecedented 31.7 percent annualized rate, as pandemic-related restrictions inhibited private consumption. The majority of states

FIGURE 1.1 Global economic activity and COVID-19



Sources: Haver Analytics; Oxford University; World Bank.
A. Shaded areas indicate forecasts. Data for 2019 are estimates. Aggregate growth rates were calculated using gross domestic product weights at 2010 prices and market exchange rates. EMDEs = emerging markets and developing economies.
B. The figure shows the seven-day moving average of daily new cases and the stringency index. 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. The last observation is September 27, 2020.
C. Retail and recreation mobility show the difference between April 24 and September 27, 2020, based on data from Google. Flight cancelations show the difference in flight cancelations between April 24 and September 27, 2020. Open Table reservations show the change in seated diners at restaurants on the OpenTable network between April 24 and September 27, 2020. Sentix shows the change in the percent balance of sentiment on the current economic situation between April and September 2020. Container shipments show the change in container shipping between April and September 2020.
D. Data show the 3-month average. PMI = Purchasing Managers' Index; readings above (below) 50 indicate expansion (contraction). The last observation is July 2020 for trade, June 2020 for industrial production, and August 2020 for PMI.

reported an upward daily trend in new COVID-19 cases, leading some to pause their reopening plans or reintroduce restrictions. Although high-frequency indicators had started to firm over the summer, it appears the recovery has lost steam, with the pace of improvement in retail sales and industrial production slowing in August.

Activity in the euro area cratered in the second quarter, with output contracting at an annualized 39.4 percent pace. High-frequency indicators pointed to firming activity, particularly in retail sales, as many member countries relaxed pandemic-control measures going into the third quarter, but the recent rise in new COVID-19 cases has slowed the pace of recovery. Improvement in industrial production has been modest, with levels in July about 7 percent below those observed at the start of 2020. Policy makers agreed to a landmark European Union–wide recovery fund that includes €390 billion in grants to the member countries hardest hit by COVID-19.

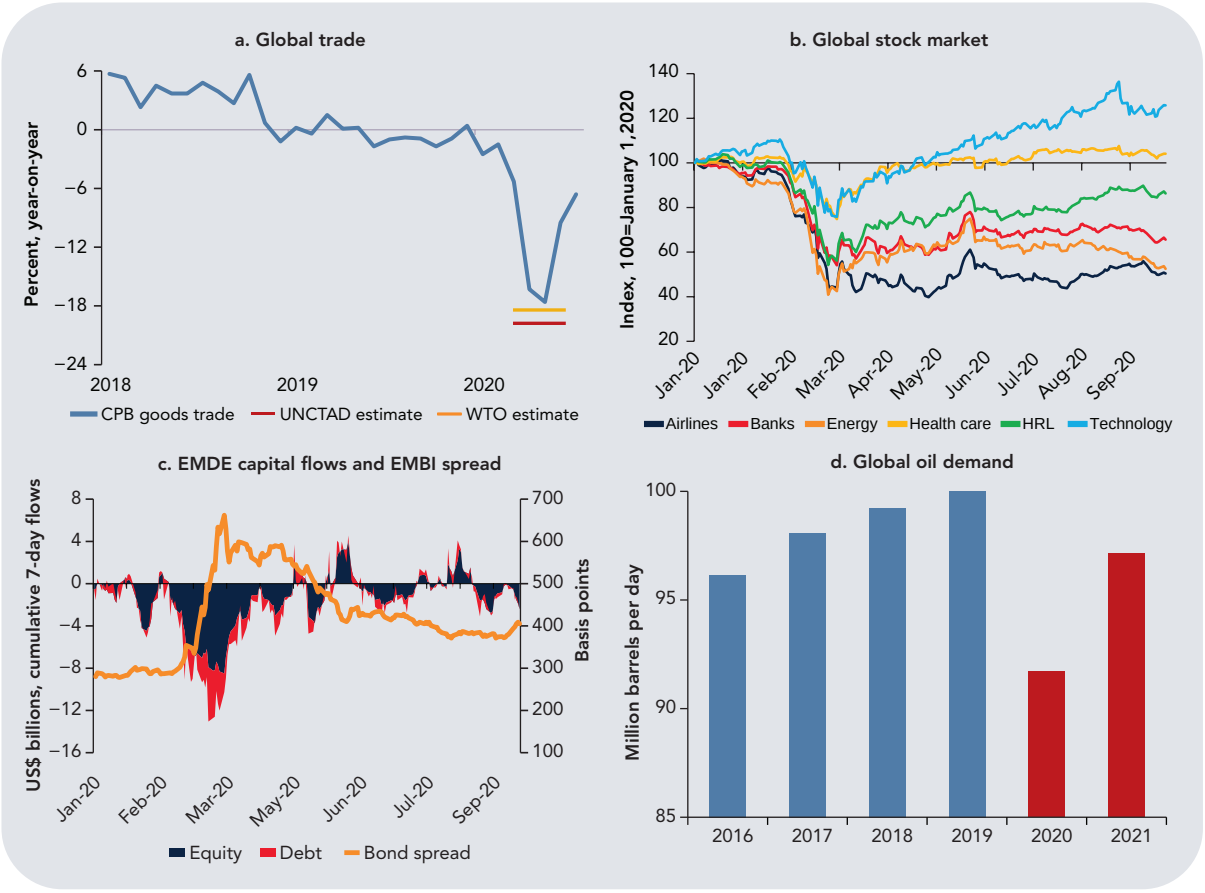
Output in China expanded in the second quarter of 2020, by 3.2 percent year-on-year, amid relaxation of lockdown measures and monetary and fiscal policy support. The recovery reflects firming industrial production growth, rebounding trade flows, and improving real fixed asset investment growth, the latter of which was supported by an acceleration in infrastructure investment. The recovery has been uneven, however, with retail sales growth remaining anemic.

Global goods trade volumes plummeted in the second quarter, and are forecast to fall by as much as 20 percent for the year (figure 1.2, panel A) (UNCTAD 2020; WTO 2020). The pace of contraction for manufacturing PMI new export orders has eased since falling to a record low in April, while household spending for durable goods has picked up as consumers continue to shy away from face-to-face services. International tourist arrivals plunged by more than 90 percent in the second quarter relative to a year ago across many countries and barely rose in the third quarter, despite the easing of travel restrictions. The number of global commercial flights has plateaued since July, at less than 60 percent of the pre-pandemic level. Annual tourism could fall by 60 to 80 percent in 2020 (UNWTO 2020).

Following substantial losses in the first quarter of 2020, global equity markets posted a near-record gain in the second quarter, fueled by central bank accommodation and the gradual easing of mobility restrictions in some economies. More recently, worse-than-expected COVID-19 metrics in many countries have led to falling valuations in the sectors most closely linked to reopening, such as travel and energy (figure 1.2, panel B). The pace of central bank policy easing has stabilized. Despite this, many countries' borrowing costs remain at or near record lows, with the 10-year yield approaching 0.5 percent in the United States, close to zero in Japan, and negative in many large euro area countries. In the United States, corporate borrowers issued as much debt in the first half of 2020 as they did in all of 2019.

Improving investor sentiment and monetary policy support also contributed to an easing of EMDE financing conditions since March. Increasing sovereign debt issuance is supported a recovery in capital flows to EMDEs, but the improvement slowed sharply in the third quarter as rising COVID-19 cases and policy uncertainty weighed on investor sentiment. Borrowing costs trended

FIGURE 1.2 Global trade and financial indicators



Sources: Bloomberg; CPB Bureau for Economic Policy Analysis; Haver Analytics; Institute of International Finance; International Energy Agency; International Monetary Fund; UNCTAD; World Bank; World Trade Organization.
A. Trade is the average of import and export volumes. Bars indicate 2020Q2 forecasts for the United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO). The last observation is July 2020 for goods trade. CPB = CPB World Trade Monitor.
B. HRL = hotels, restaurants, and leisure. The last observation is September 29, 2020.
C. Equity flows include Brazil, India, Indonesia, Pakistan, the Philippines, Sri Lanka, South Africa, Thailand, Turkey, and Vietnam. Debt flows include Hungary, India, Indonesia, Mexico, Poland, South Africa, Thailand, and Turkey. Bond spreads are represented by the Emerging Market Bond Index (EMBI) Global Sovereign Index. The last observation is September 25, 2020.
D. Data for 2020 and 2021 show International Energy Agency forecasts.

down after reaching their highest level since the global financial crisis in March. However, the Emerging Market Bond Index (EMBI) spread remains 125 basis points higher than at the start of the year (figure 1.2, panel C). Many EMDE currencies have recouped some of their value after plunging earlier in the year, although less so in countries with large, ongoing outbreaks of COVID-19 or in those facing a rise in policy uncertainty.

Most commodity prices declined in the first half of 2020 as the pandemic led to a sharp fall in global demand. Crude oil prices declined by almost 70 percent from late January to mid-April, with Brent crude oil falling to less than $20/barrel (bbl) in late April. Brent crude oil regained some of these losses, averaging $45/bbl in August, but falling slightly in September amid concerns about the durability of the recovery in global demand and rising supply. The International Energy

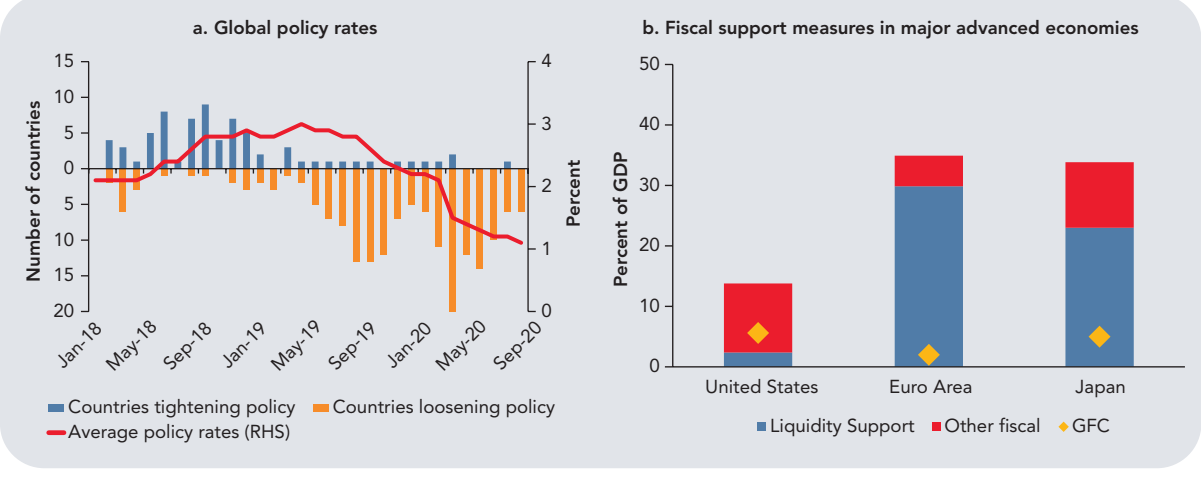
Agency and OPEC both revised down forecasts for oil demand in 2020 and 2021, with the former citing the ongoing high number of new COVID-19 cases and expected continued weakness in the aviation sector (figure 1.2, panel D) (IEA 2020). Production is likely to rise in the second half of 2020 as the OPEC+ cuts taper and production in the United States and Canada recovers modestly amid higher prices.

Metals prices have recouped earlier losses and stabilized near pre-pandemic levels, supported by the strengthening of global demand, particularly in China. Agricultural prices firmed throughout August and September, with the rise being broad-based across food, beverages, and raw materials products. Despite production levels and stocks for most staple foods being near all-time highs, there are growing concerns about food security (FAO 2020).

To alleviate the economic impacts of the pandemic, central banks in advanced economies and EMDEs have cut policy rates and taken far-reaching actions to provide liquidity and maintain investor confidence (figure 1.3, panel A). An arsenal of macroprudential support policies has been deployed in EMDEs to maintain financial sector resilience and promote lending, including relaxing capital and liquidity requirements and encouraging banks to offer temporary loan repayment holidays to distressed borrowers. Many countries have initiated debt moratoria and government guarantees on bank loans to strengthen bank balance sheets and support distressed borrowers.

The announced fiscal policy support already exceeds that enacted during the 2008–09 global financial crisis (figure 1.3, panel B). 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 has kept the financial system functional.

FIGURE 1.3 Global policy interest rates and fiscal support measures



Sources: Bank for International Settlements; European Central Bank; Haver Analytics; International Monetary Fund; World Bank.
A. Average policy rates are weighted using 2018 U.S. dollar gross domestic product (GDP). The sample includes 13 advanced economies, the euro area economies, and 21 emerging markets and developing economies. The last observation included is August 2020.
B. Total of measures planned or under consideration as of August 20, 2020. Share of 2019 nominal GDP. Global financial crisis (GFC) indicates fiscal measures implemented over 2008–09.

Global Risks

The global forecast published in June assumed that the pandemic would recede in such a way that mitigation measures in advanced economies would begin to be lifted around mid-2020 and those in EMDEs somewhat later. It also assumed that adverse global spillovers would ease during the second half of the year and dislocations in financial markets would not be long lasting. Although a moderate recovery was envisioned in 2021, with global growth reaching 4.2 percent, output was not expected to return to its previously anticipated levels. Additionally, it was projected that COVID-19 could push 71 million to 100 million people into extreme poverty globally, reversing earlier gains in poverty reduction and representing the first increase in global extreme poverty since 1998 (Lakner et al. 2020).

Recent data indicate that the daily rise in new COVID-19 cases has continued to accelerate in many economies. To varying degrees, some restrictions on movement and interactions have been extended or reintroduced in some countries. The resurgence of infections that has followed the easing of restrictions has generated additional uncertainty around the progress and duration of the pandemic. A widespread flare-up could lead to more stringent restrictions and result in negative growth in many countries, as well as further dent investment and confidence. Although vaccine development is underway, it is not anticipated to be widely available until mid-2021 at the earliest, highlighting the importance of continued social distancing and mask wearing to slow the spread of infection. Delays to a vaccine could prolong the economic damage and generate financial market turmoil. Additionally, vaccine procurement and distribution may be hindered in EMDEs, which could lead to a more protracted downturn and deepen the long-lasting economic scars.

Europe and Central Asia: Recent Developments and Outlook

The severe impact of the COVID-19 pandemic was initially felt across the EMDEs in ECA through disruptions to activity and supply chains, the collapse in global commodity prices, and heightened global risk aversion in financial markets. The downside growth scenario of the spring 2020 Economic Update has materialized and EMDEs in ECA are now expected to experience a 4.4 percent GDP contraction in 2020, with the hardest hit economies being those with large domestic outbreaks, strong trade or value chain linkages to major economies, and heavy dependence on tourism or energy and metals exports. Growth is projected to recover in 2021, between a range of 1.1 to 3.3 percent. The pace of recovery will depend on the duration of the pandemic, the availability and distribution of a vaccine, and the degree of improvement in trade and investment. The outlook remains highly uncertain and growth could be weaker than expected if the pandemic worsens or geopolitical tensions escalate.

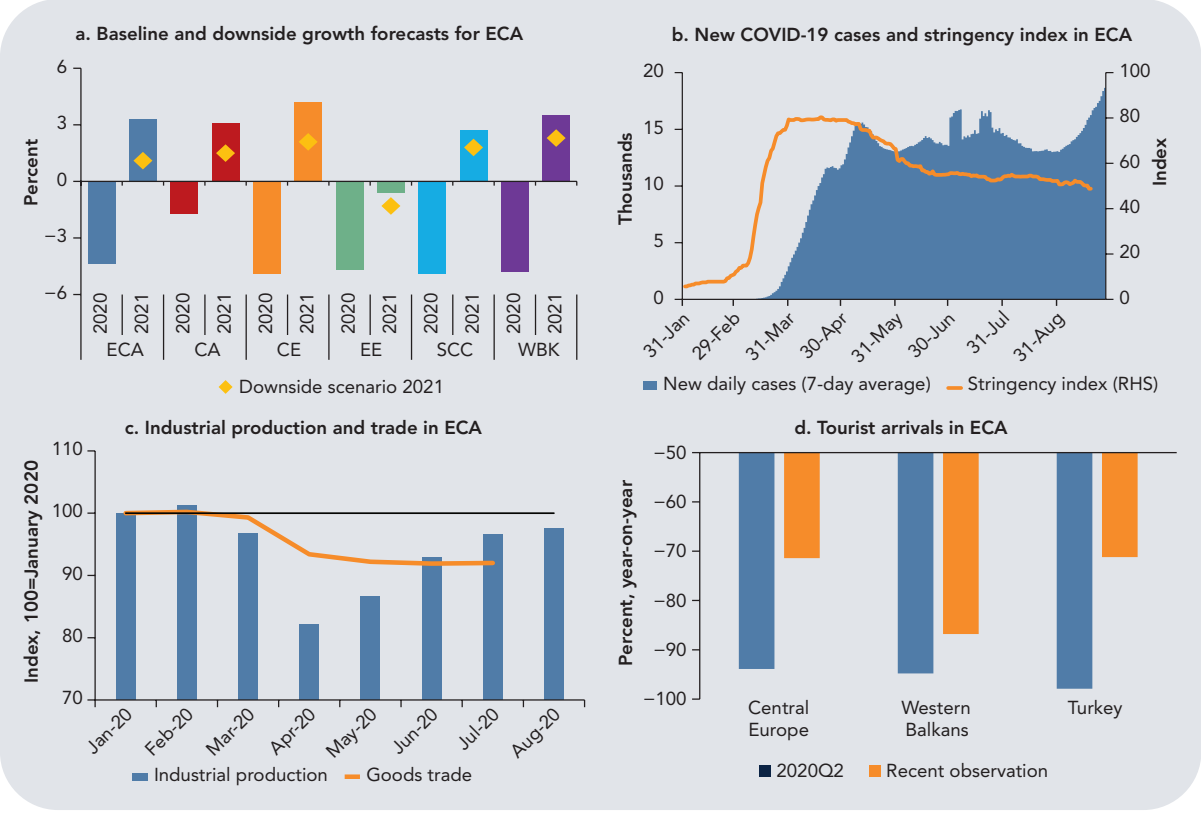
Recent Developments

Regional output collapsed in the first half of 2020 as growing domestic outbreaks and pandemic-related restrictions steepened the decline in domestic demand,

exacerbated supply disruptions, and halted manufacturing and services activity.[1] The slide in retail sales has been exacerbated by rising unemployment and the fall in remittance inflows, with some economies experiencing a 25 percent decline in remittances relative to a year ago. The economies that were hardest hit were those with strong trade or value chain linkages to the euro area or Russia and those heavily dependent on tourism or energy and metals exports (World Bank 2020a). ECA is expected to experience a 4.4 percent GDP contraction in 2020, which, while less severe than the global financial crisis, is more broad-based, with nearly all economies in recession this year versus less than half in 2009. Growth is expected to recover in 2021, between a range of 1.1 to 3.3 percent, depending on the duration of the pandemic, availability and distribution of a vaccine, and when the adverse effects of the pandemic wane and trade and investment firm (figure 1.4, panel A; tables 1.1 and 1.2). The 2020 recession in ECA is consistent with the downside scenario of the spring 2020 Economic Update (although less steep than

1. ECA refers to the 23 EMDEs in ECA for which the World Bank forecasts GDP growth.

FIGURE 1.4 Economic forecasts and COVID-19 in ECA



Sources: Haver Analytics; Oxford University; World Bank.
Note: CA = Central Asia; CE = Central Europe; ECA = Europe and Central Asia; EE = Eastern Europe; SCC = South Caucasus; WBK = Western Balkans.
A. Aggregate growth rates calculated using constant 2010 U.S. dollar GDP weights.
B. The figure shows the seven-day moving average of daily new cases and the stringency index. The stringency index range is between 0 and 100, with 100 being the most stringent. The last observation is September 27.
C. The last observation is July 2020 for trade and August 2020 for industrial production.
D. The sample includes 10 ECA EMDEs due to data availability. "Recent observation" refers to data as of August 2020.

that in June), but the recovery in 2021 is likely to be more subdued than previously envisioned, as countries continue to grapple with the virus and its lingering disruption to activity. Additionally, the level of output is expected to remain well below its pre-pandemic projection in 2021.

The contraction in 2020 is expected to increase poverty in all ECA countries. At the $3.20 a day poverty line, estimates suggest that an additional 2.2 million people may slip into poverty in EMDE ECA. At the $5.50 a day poverty line, which is customarily used in upper-middle-income countries, the number may be as high as six million (box 1.1).

Mobility indicators pointed to rising activity in the third quarter as restrictions eased across much of the region, with modest improvements in industrial

BOX 1.1 Impact of COVID-19 on poverty in Europe and Central Asia

Poverty is expected to increase in all 47 countries of Europe and Central Asia (ECA) as a result of the COVID-19 pandemic.

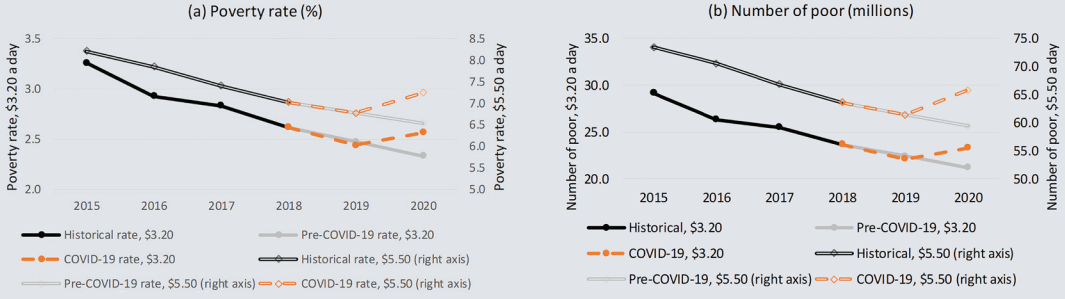
Poverty rates are estimated under a COVID-19 scenario that assumes that the COVID-19 outbreak remains at currently projected levels and economic activity in the region starts to recover by late 2020. Under this scenario, global growth in 2020 contracts by about 5 percent.[a]

The analysis measures poverty at the $3.20 and $5.50 a day levels, which are customarily used in lower-middle-income ($3.20 a day) and upper-middle-income ($5.50 a day) countries.

Figure B1.1.1 presents poverty estimates through 2018 that are largely based on survey data and realized growth rates and population figures (Prydz et al. 2019). The figure also presents nowcasts for 2019–20, which are based on growth and population projections. For the $3.20 a day poverty line, the poverty rate in ECA is projected to increase by 0.27 percentage point. This estimate translates into a 12 percent increase in poverty in 2020. Measured using this poverty line, 2.4 million people in the region are projected to be pushed into poverty in 2020. Over 90 percent of them—2.2 million—live in emerging markets and developing economies (EMDEs) in the region.

At the $5.50 line, poverty in the region is projected to increase by 0.7 percentage point in 2020, an increase of 11 percent. Measured using this poverty line, 6.4 million people in the region are projected to be pushed into poverty in 2020, with almost 6 million living in EMDE ECA.

FIGURE B1.1.1 Actual and projected percentage and number of people in Europe and Central Asia living on less than $3.20 a day and less than $5.50 a day, 2015–20



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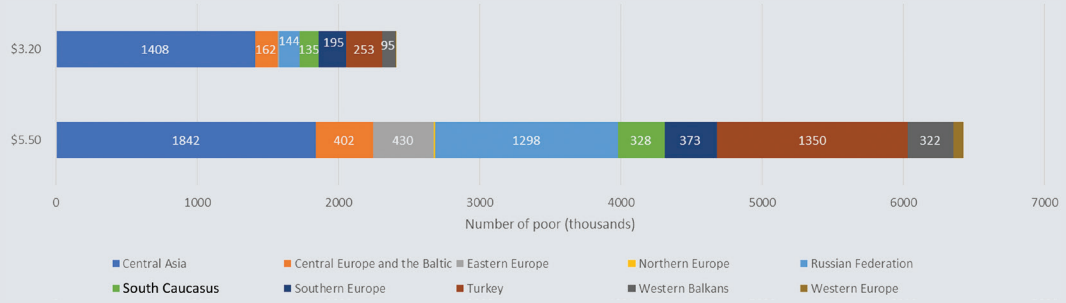
BOX 1.1 (continued)

These projections mask considerable variation across subregions. At the poverty line of $3.20 a day, Central Asia would account for 58 percent of the new poor—equivalent to 1.4 million additional poor people. Turkey would contribute 11 percent of the new poor in the region (figure B1.1.2).

The composition of the poor changes significantly at the $5.50 a day line (figure B1.1.2). The share of the region's new poor in Central Asia falls to about 28 percent. The Russian Federation and Turkey see significant increases in the number of new poor, with each country accounting for more than a fifth of the total new poor in the region.

FIGURE B1.1.2 Projected increase in the number of people living on less than $3.20 a day and less than $5.50 a day in Europe and Central Asia, by country group, 2020



a. The changes in poverty caused by COVID-19 are estimated using a difference-in-difference estimator. Increases in poverty (ΔP_{2020}) are estimated as follows:

$$\Delta P_{2020} = (P_{COVIDbaseline_{2020}}) - (P_{COVIDbaseline_{2019}}) - (P_{pre\text{–}COVID_{2020}}) - (P_{pre\text{–}COVID_{2019}}).$$

Sources: Lakner et al. (2020); Mahler et al. (2020); PovcalNet (accessed September 2020)).

production, the manufacturing PMI, and retail sales since the trough in April (figure 1.4, panels B and C). However, sustained weakness in global trade continues to dampen regional exports, while tourist arrivals have all but evaporated in most destinations amid the collapse in international travel (figure 1.4, panel D). The recovery remains fragile as governments have been forced to maintain or reintroduce some mitigation measures to stem the renewed spread of COVID-19. Russia accounts for nearly half of the region's total cases, and Armenia, Belarus and Montenegro have also been hard hit as a share of the population. Relative to the other EMDE regions, ECA has the second highest number of cases per capita after Latin America and the Caribbean. The virus has been confirmed as the cause of over 50,000 deaths in ECA, but excess mortality statistics suggest that the true human toll could be much higher. Economies that were slower to implement measures to stem the spread of the virus (or that relaxed pandemic-related restrictions too soon) have suffered more widespread outbreaks, higher death rates, and steeper declines in activity as restrictions to contain the pandemic had to be more stringent (box 1.2) (Demirgüç-Kunt, Lokshin, and Torre 2020).

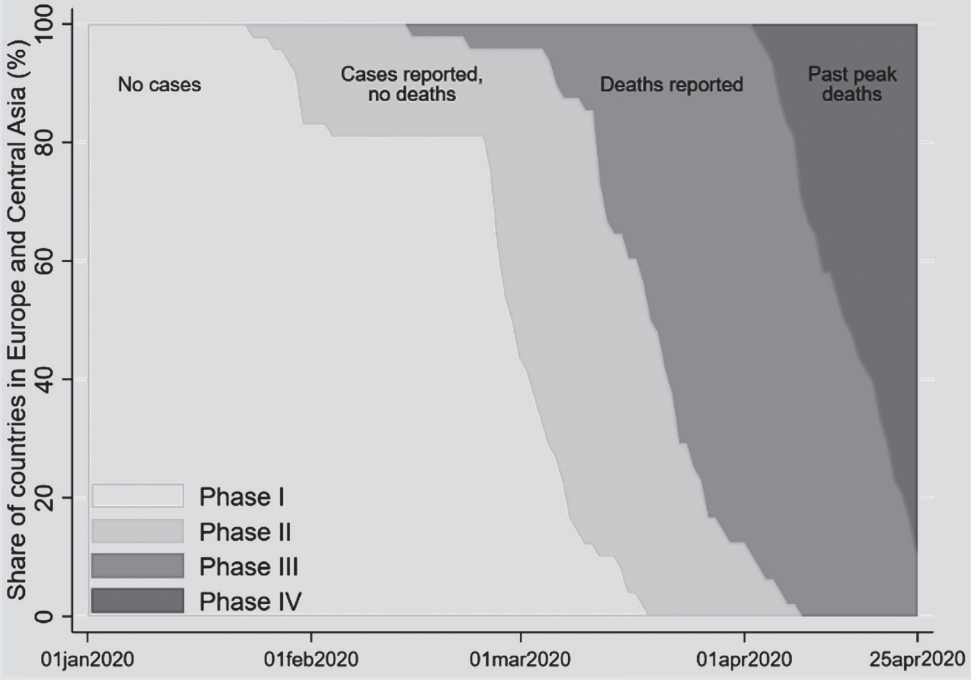
BOX 1.2 The sooner, the better: COVID-19 and the importance of acting quickly to save lives and livelihoods

The COVID-19 pandemic has caused a huge economic and human cost since its outbreak in early 2020. But the economic consequences of the pandemic are still not well understood. The social distancing measures and especially the lockdowns that were introduced to contain the pandemic have had a systemic impact on the global economy. With the closure of stores, restaurants, and nonessential businesses came unprecedently high unemployment rates and sharp declines in personal incomes. Given the economic costs, it is not surprising that the impact of these nonpharmaceutical interventions (NPIs) on economic activity quickly moved to the forefront of public debate. In many countries, there were questions about whether the "cure was worse than the disease," claiming that the economic downturn associated with NPIs was more severe than the human cost these interventions were trying to prevent.

Demirgüç-Kunt, Lokshin, Torre (2020) contribute to this debate on the human and economic impact of the NPIs by studying the experience of countries in Europe and Central Asia. The region was quickly impacted after the virus was first identified in Wuhan, China, in late December 2019. The first case in Europe was on January 24, but within a month it had already spread to most of Europe. Defining the evolution of the pandemic at the country level in four phases—(I) no cases are reported; (II) cases are reported, but there are no deaths; (III) deaths are reported and the number of daily deaths is increasing; and (IV) the period after the peak in daily deaths has been reached—figure B1.2.1 shows that by end-April, most countries in the region had already passed the peak of their daily deaths.

Since official economic indicators become available with a significant lag, the paper estimates the

FIGURE B1.2.1 Evolution of the COVID-19 pandemic in the ECA Region, by phase



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BOX 1.2 (continued)

early economic impact of the NPIs and the pandemic by tracking high-frequency proxies such as daily measurements of electricity consumption, nitrogen dioxide emissions, and personal mobility. Countries in the region implemented different types of NPIs—broad social distancing measures, closure of schools, partial lockdowns, and full lockdowns. But full lockdowns quickly became the most widespread, and by April 9, all countries in the region were in complete lockdown except Belarus, Sweden, Tajikistan, Turkey, and Turkmenistan.

Table B1.2.1 illustrates how the COVID-19 curve was flattened in countries where NPIs were implemented in earlier stages of the pandemic. The table reports the mean value of the number of deaths at the peak—defined as the highest seven-day moving average of daily deaths per million people—for the countries that implemented different types of NPIs, by the phase of the local outbreak. Countries that imposed a full lockdown before any deaths were reported had a mean peak of less than one daily death per million. In contrast, countries that imposed a full lockdown after deaths were reported had a peak more than seven times higher, at more than six daily deaths per million.

To estimate the economic impact of NPIs, the paper relies on an econometric model in which the baseline specification relates economic activity, proxied by electricity consumption in a country, to the implementation of NPIs, controlling for the pandemic. Potential endogeneity of the pandemic death rate is addressed by instrumenting for it using the predicted daily number of deaths from a standard susceptible-infected-recovered epidemiological model that assumes unmitigated spread of the disease with no NPIs implemented. Since the short-term elasticity of electricity consumption and economic output is close to one, the estimated coefficients of the NPIs provide the magnitude of the impact on the economy. The results of the econometric model suggest that NPIs, and specifically the most commonly used national lockdowns, are associated with a decline in economic activity of around 10 percent across the region. The analysis also shows that the spread of the disease had a significant economic impact separate from that of NPIs during this period. The drop in economic activity due to the pandemic at the peak of the outbreak—associated with the incapacitation of workers or the precautionary reaction of consumers and investors—may be just as strong or even stronger than the shock triggered by lockdown measures.

The overall effect of national lockdowns on economic activity is therefore conditional on when

TABLE B1.2.1 Timing of NPI implementation and daily deaths at the peak of COVID-19

	Phase of the local outbreak at the time of implementation		
Type of NPI	**I (no cases)**	**II (cases but no deaths)**	**III (deaths reported)**
	Mean daily deaths per million at peak[a]		
Ban of public events	1.19	2.75	11.22
School closure	0.41	1.16	11.75
Partial lockdown	—	1.05	6.22
Full lockdown	—	0.79	6.29

Note: Countries implemented different NPIs at different phases of the pandemic. The following countries implemented full lockdown in phase II (infection cases but no deaths): Albania, Croatia, Cyprus, Czech Republic, Estonia, Finland, Georgia, Kazakhstan, Kyrgyz Republic, Lithuania, Malta, Serbia, Slovak Republic, and Uzbekistan. The following countries implemented full lockdown in phase III (deaths reported): Austria, Azerbaijan, Belgium, Denmark, France, Germany, Greece, Hungary, Italy, Kosovo, Luxembourg, Montenegro, the Netherlands, Norway, Portugal, Slovenia, Spain, Switzerland, and the United Kingdom. No country implemented any NPI in phase IV (past peak daily deaths). NPI = nonpharmaceutical intervention.
a. The numbers in the table could be affected by intercountry differences in definitions and reporting of COVID-19 deaths.

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BOX 1.2 (continued)

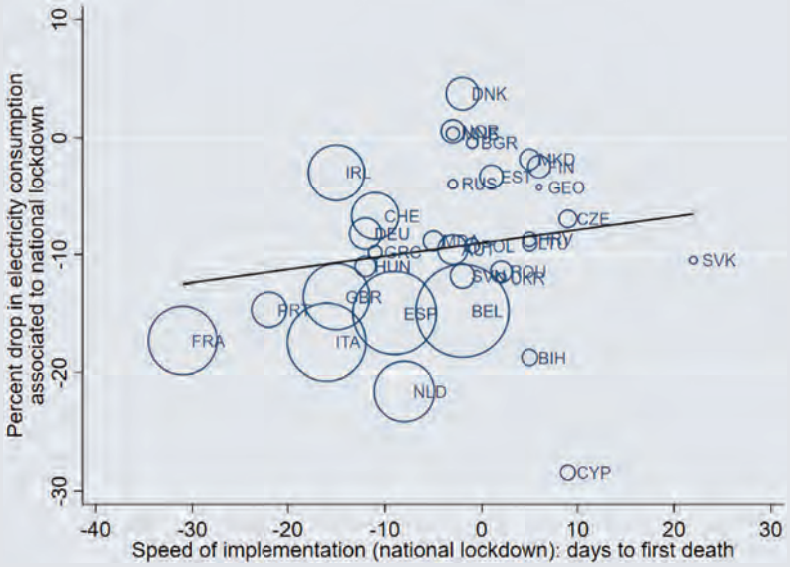
they are implemented: a country that implemented a lockdown one week before the first death was reported saw a decrease in economic activity about 2 percent smaller, while a country that implemented a lockdown one week after the first death saw a decrease in activity about 2 percent larger, each day of "delay" being associated with a 0.3 percent additional decrease in activity. The smaller economic fallout of speedier interventions can be partly explained by their effectiveness in containing the spread of the disease, and partly by the fact that earlier interventions were able to do this despite being less strict. Indeed, the results show that using different measures of strictness, the impact of lockdowns can vary from a 10 to 20 percent drop in electricity consumption, and speeder interventions tend to be significantly less strict, reducing the adverse economic impact.

Figures B1.2.2 and B1.2.3 provide an illustration of these results at the country level. In both figures, the size of the bubbles corresponds to the mortality rate per million inhabitants as of April 25, 2020.

Figure B1.2.2, which plots the change in electricity consumption in each country associated with national lockdown against the speed of implementation of the full lockdown. The figure illustrates that countries that implemented their lockdowns at earlier stages of the pandemic have seen lower overall drops in electricity consumption as well as lower cumulative mortality rates.

Figure B1.2.3 illustrates the finding that countries that acted faster were able to control the pandemic with less strict interventions. Using mobility as a proxy for the effective strictness of the lockdown, the figure shows that the reduction in citizens' mobility in response to the national lockdown is lower the earlier the lockdowns are imposed. Hence, speedier lockdowns also tend to be less stringent, although they are still associated with lower mortality. Thus, acting earlier appears to have allowed governments not only to contain the pandemic more effectively, but also to do so by less stringent measures, thus minimizing the economic costs as well.

FIGURE B1.2.2 Change in electricity consumption and speed of implementation of national lockdown



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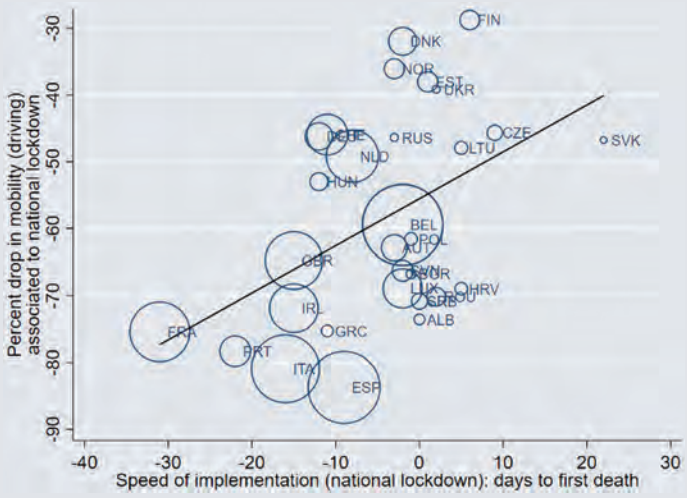
BOX 1.2 (continued)

These initial NPIs provided much-needed breathing space for developing testing and contact tracing capacity in many countries, which could be put to use in designing a better and faster response to the next wave of infections. At a time when countries in the region are grappling with ways to relax lockdown measures, these results suggest that policy makers should be cautious in reopening their economies too fast. The drop in economic activity observed when lockdowns are in place is not solely explained by the lockdown restrictions themselves, but also is associated with the behavioral response to the spread of the disease. Therefore, a fast reopening that generates a rebound in the spread of the disease can be damaging not only in human terms, but also in economic ones. An unexpected increase in infection rates or number of deaths after opening up might slow down or even reverse positive economic trends.

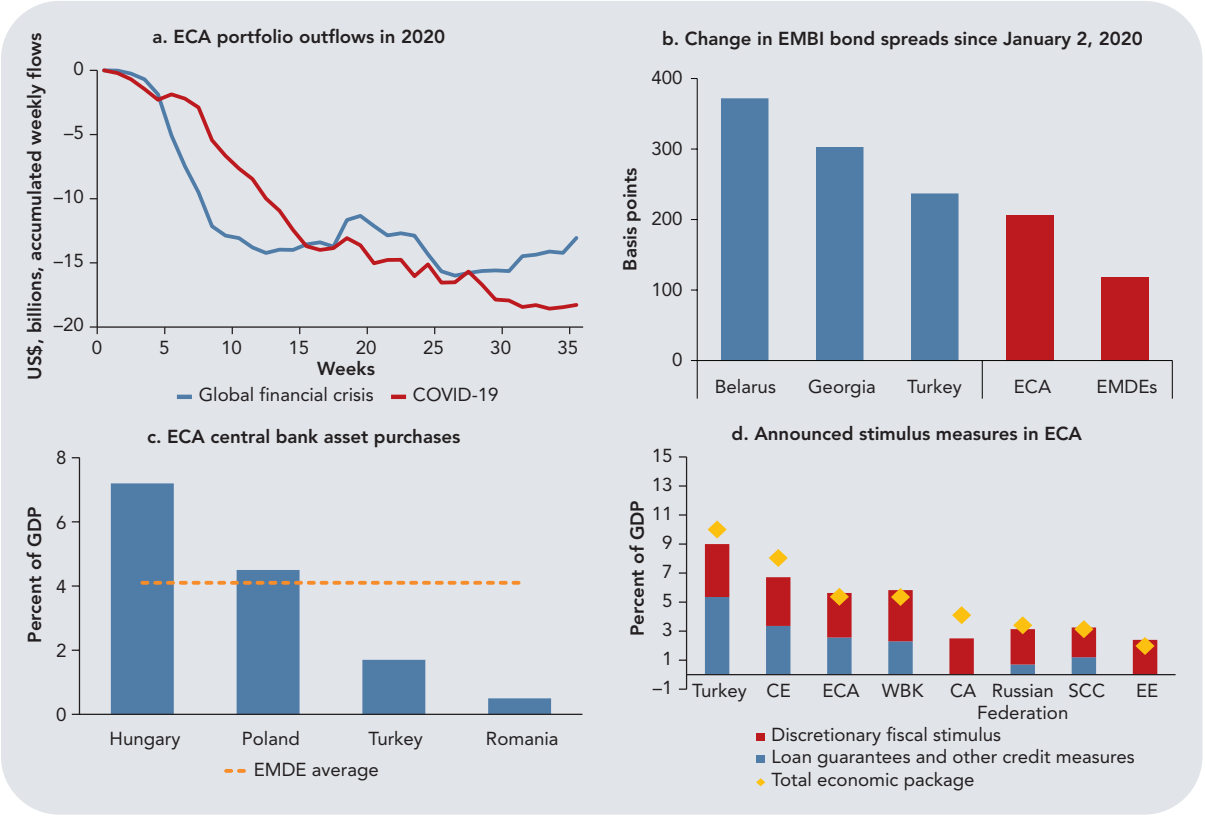
FIGURE B1.2.3 Change in mobility (driving) and speed of implementation of national lockdown



Source: Demirgüç-Kunt, Lokshin, and Torre 2020.

EMDEs in ECA have experienced substantial flight-to-safety outflows and a rise in bond spreads in 2020 (figure 1.5, panel A). Large capital outflows reignited currency depreciation and triggered reserve losses. Despite retreating somewhat since March, bond spreads remain elevated relative to the start of the year and in some cases have spiked due to geopolitical tensions or external financing pressures (figure 1.5, panel B). Borrowing costs have risen the most in economies with high levels of foreign currency–denominated debt or where nonresident investors account for a sizable share of the local bond market. Meanwhile, more than half of ECA's economies have been able to tap international sovereign bond markets this year, including Ukraine. Despite the sharp fall in imports, current account pressures were exacerbated by the collapse in exports amid supply-chain disruptions and falling external demand. Industrial commodity exporters have also grappled with the sharp fall in commodity exports and production, which

FIGURE 1.5 Financial market indicators and stimulus measures in ECA



Sources: Haver analytics; Institute of International Finance; International Monetary Fund; Organisation for Economic Co-operation and Development; World Bank; World Travel and Tourism Council.
Note: CA = Central Asia; CE = Central Europe; ECA = Europe and Central Asia; EE = Eastern Europe; EMBI = Emerging Market Bond Index; EMDEs = emerging markets and developing economies; GDP = gross domestic product; IMF = International Monetary Fund; SCC = South Caucasus; WBK = Western Balkans.
A. The dates for the start of each episode are as follows: COVID-19, January 24, 2020; global financial crisis, September 5, 2008. The sample for portfolio flows includes Hungary, Poland, Turkey, and Ukraine due to data availability. The last observation is September 25, 2020.
B. The EMBI bond spread refers to the J.P. Morgan Emerging Market Bond Index. The last observation is September 28, 2020.
C. Announced central bank asset purchase programs, expressed relative to nominal local-currency GDP in 2019. The ultimate size of asset purchase programs in Hungary, Poland, Romania, and Turkey will depend on market conditions; data for these countries reflect total assets purchased up to August 13, 2020.
D. Announced measures are as a share of 2019 nominal GDP and are derived from the IMF Policy Responses to COVID-19 and subject to change. Data are as of September 2020.

has weakened domestic currencies and generated an uptick in inflation. Despite the plunge in global oil prices, some commodity importers are facing growing external imbalances or financial pressures due to political or social unrest.

Most of the region's central banks have responded to deteriorating growth prospects through expansionary monetary policy, including unconventional policies such as asset purchases (figure 1.5, panel C). Central banks in several countries have intervened in foreign exchange markets to stabilize their currencies and mitigate volatility (Croatia, Kazakhstan, Kyrgyz Republic, Serbia, and Turkey), while others have tapped sovereign wealth funds to do so (Azerbaijan and Russia). Recent currency depreciation could put further upward pressure on inflation and reduce the scope for additional policy rate cuts, especially for countries with inflation near or above target ranges.

Fiscal support packages have been announced in nearly all ECA economies, with several governments receiving aid from official sources or reprioritizing spending to bolster health care systems, strengthen safety nets, support the private sector, and counter financial market disruptions (figure 1.5, panel D). Despite measures to protect jobs, unemployment claims and the number of registered unemployed workers have increased sharply (Bulgaria, Croatia, Poland, Russia, Turkey, and Ukraine). In energy-exporting economies, the ability to provide additional support has come under strain with oil prices below fiscal breakeven prices (Wheeler et al. 2020; World Bank 2020a). The effect may be compounded for countries that export energy and other commodities, such as iron ore (Russia), as well as those that import oil and export refined oil products (Belarus and Bulgaria). However, for countries such as the Kyrgyz Republic, Tajikistan, and Uzbekistan, an increase in gold prices may help offset price declines for other metals. Once economic activity begins to normalize, policy makers will need to be prudent in withdrawing the large-scale policy stimulus provided during the crisis without endangering the recovery (box 1.3).

In addition to the baseline growth forecast, table 1.1 reports a downside scenario for growth in ECA in 2021. The baseline projection of 3.3 percent for growth

TABLE 1.1 Europe and Central Asia growth assumptions summary

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

						Percentage point differences from June 2020 projections		Downside scenario for 2021 growth
	2017	2018	2019[e]	2020[f]	2021[f]	2020[f]	2021[f]	
EMDE ECA, GDP[a]	**4.1**	**3.3**	**2.2**	**−4.4**	**3.3**	**0.3**	**−0.3**	**1.1**
EMDE ECA, GDP excl. Turkey	3.1	3.5	2.7	−4.6	3.1	0.4	−0.1	1.2
Commodity exporters[b]	2.2	2.8	1.9	−4.7	2.8	0.4	−0.1	1.1
Commodity importers[c]	6.1	3.8	2.5	−4.2	3.8	0.1	−0.5	1.2
Central Europe and Baltic States[d]	5.0	4.7	4.1	−4.9	4.2	0.3	0.2	2.1
Western Balkans[e]	2.7	4.1	3.5	−4.8	3.5	−1.6	−1.1	2.3
Eastern Europe[f]	2.6	3.3	2.6	−4.7	−0.6	−1.1	−3.0	−1.3
South Caucasus[g]	2.0	2.7	3.6	−4.9	2.7	−1.8	−0.3	1.8
Central Asia[h]	4.3	4.5	4.9	−1.7	3.1	0.0	−0.6	1.5
Russian Federation	1.8	2.5	1.3	−5.0	2.8	1.0	0.1	1.0
Turkey	7.5	3.0	0.9	−3.8	4.0	0.0	−1.0	1.0
Poland	4.9	5.3	4.1	−3.9	3.5	0.3	0.7	0.2

Source: World Bank.
Note: World Bank assumptions are frequently updated based on new information and changing (global) circumstances. Consequently, the working assumptions 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 moment. Due to lack of reliable data of adequate quality, the World Bank is currently not publishing economic output, income, or growth data for Turkmenistan, and Turkmenistan is excluded from cross-country macroeconomic aggregates. e = estimate; ECA = Europe and Central Asia; EMDE = emerging market and developing economy; f = forecast; GDP = gross domestic product.
a. GDP and expenditure components are measured in 2010 prices and market exchange rates.
b. Includes Albania, Armenia, Azerbaijan, Kazakhstan, the Kyrgyz Republic, Kosovo, the Russian Federation, Tajikistan, Ukraine, and Uzbekistan.
c. Includes Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Moldova, Montenegro, North Macedonia, Poland, Romania, Serbia, and Turkey.
d. Includes Bulgaria, Croatia, Estonia, Hungary, Latvia, Lithuania, Poland, and Romania.
e. Includes Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia.
f. Includes Belarus, Moldova, and Ukraine.
g. Includes Armenia, Azerbaijan, and Georgia.
h. Includes Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan.

BOX 1.3 Fiscal policy and debt in the time of COVID-19

Nearly all emerging markets and developing economies (EMDEs) in Europe and Central Asia (ECA) have provided large-scale macroeconomic support to alleviate the economic impact of the pandemic. In the near term, government spending should continue to focus on preserving lives and livelihoods, as well as protecting the most vulnerable populations and viable firms. Once the pandemic abates and activity begins to normalize, countries will have to carefully unwind the large-scale policy stimulus provided during the crisis without endangering the recovery. The pandemic has also laid bare the urgency of ensuring sustainable, long-run growth and accelerated progress on structural reforms.

Nevertheless, the current context highlights critical challenges related to high debt levels, which have limited the space for an appropriate health and economic response. This box discusses the following in the context of ECA:

- The evolution of debt and fiscal risks from elevated debt
- The immediate fiscal policy response to COVID-19
- Ensuring fiscal sustainability while supporting the eventual recovery.

Debt in ECA: Evolution and risks. Prior to the global financial crisis, government debt in ECA was the lowest among the EMDE regions, at roughly 25 percent of gross domestic product (GDP) (figure B1.3.1, panel A). Although government debt has risen 12 percentage points across EMDEs since 2008, the increase in ECA was sharper, at over 16 percentage points—the second highest rise after the Middle East and North Africa. The steep increase in ECA reflected the 2014–16 collapse in oil prices, spillovers from the euro area debt crisis, and international sanctions following the escalation of geopolitical tensions and conflict. Although government debt levels were elevated prior to the COVID-19 pandemic, they were on a downward trajectory since 2016 amid shrinking fiscal deficits in Eastern Europe, robust economic growth in Central Europe, and adherence to fiscal rules in the Russian Federation (figure B1.3.1, panel B).

However, the fiscal response that has been needed to confront the COVID-19 crisis in ECA is expected to trigger a nearly 10 percentage point rise in government debt in 2021, to a record high of about 50 percent of GDP. Despite this increase, there is notable variation in ECA (table B1.3.1). Although parts of the region can shoulder the additional debt burden due to having adequate access to international financial markets, sufficient revenue capacity, or sizable buffers, the expected deterioration in government balance sheets highlights the need for steps to be taken now to ensure longer-run fiscal sustainability without undermining the COVID-19 response or eventual recovery. In some cases, however, policy makers may be forced into procyclical fiscal consolidation due to the collapse in revenues.

Elevated debt levels in the years prior to the pandemic have limited the available fiscal space and made the financial system more vulnerable to financial market stress (figure B1.3.1, panel C). Although average debt service costs are low due to exceptional global monetary policy accommodation, a sharp reassessment of investor sentiment could trigger a tightening of external financing conditions and increase debt service costs. This could further magnify pressures on ECA's public balance sheets and increase rollover risks. In some ECA economies, these risks are already materializing due to the dual shock of COVID-19 and social unrest or geopolitical tensions. Caution is also warranted where public and private balance sheets are intertwined, such as the case with state-owned enterprises, especially if adverse financing conditions trigger the realization of contingent liabilities (figure B1.3.1, panel D) (Bova et al. 2016; Feyen and Zuccardi 2019). Further pandemic-related disruptions to activity could also weaken businesses' ability to remain in operation and service their debt, while elevated

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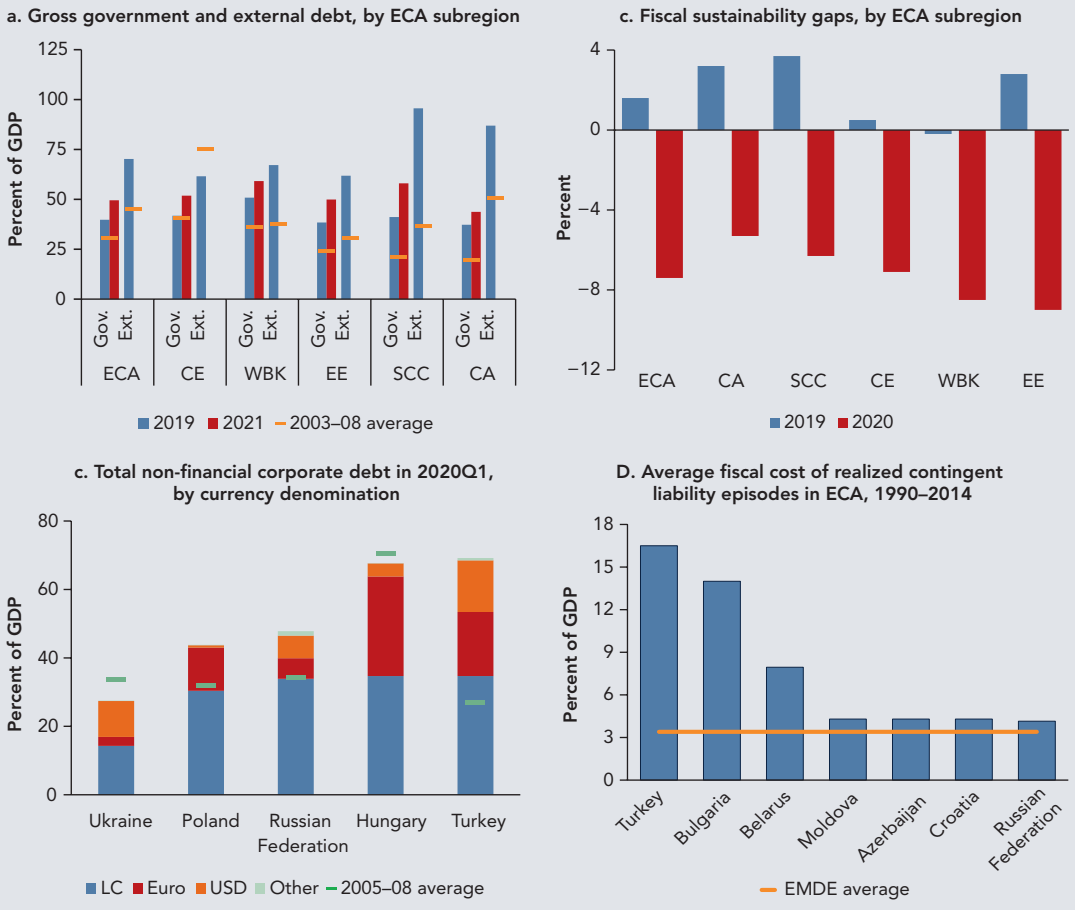
BOX 1.3 (continued)

FIGURE B1.3.1 Debt and fiscal sustainability



Sources: Bova et al. 2016; International Monetary Fund; Institute of International Finance; World Bank.
Note: CA = Central Asia; CE = Central Europe; ECA = Europe and Central Asia; EE = Eastern Europe; EMDE = emerging markets and developing economies; Ext = external; GDP = gross domestic product; Gov = government; LC = local currency; SCC = South Caucasus; WBK = Western Balkans.
A. The sample includes 23 economies. Forecasts for 2021 based on World Bank estimates.
B. Fiscal sustainability gaps are measured as the difference between the overall balance and the debt-stabilizing overall balance under current conditions. A negative (positive) bar indicates government debt is on a rising (falling) trajectory. Data for 2020 are World Bank staff estimates, as calculated in Kose et al. (2017), based on the April 2020 *Fiscal Monitor*. For Azerbaijan, the gap is assumed to remain unchanged since fiscal responses to COVID-19 are being financed primarily through additional transfers from the sovereign wealth fund.
C. The 2005–08 average reflects the average for total non-financial corporate debt.
D. Fiscal cost is measured as gross fiscal outlays and the change in the government financial position due to a contingent liability realization, as estimated by Bova et al. (2016). The average reflects the average over realized episodes. The data cover episodes from 1990 to 2014. Types of contingent liabilities include those that involved public sector bailouts for the financial sector, Small and médium-size enterprises, the private non-financial sector, public-private partnerships, and others, as defined by Bove et al. (2016). The number of contingent liability episodes realized are 3 for Turkey, 1 for Bulgaria, 2 for Belarus, 2 for Moldova, 2 for Azerbaijan, 3 for Croatia, and 2 for the Russian Federation.

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BOX 1.3 (continued)

TABLE B1.3.1 Government debt (% of GDP)

Government debt as a share of GDP	2019e	2020f	2021f
Albania	68.0	81.3	81.3
Armenia	53.5	63.8	63.6
Azerbaijan	18.9	19.6	20.0
Belarus	38.4	45.2	49.9
Bosnia and Herzegovina	33.1	38.0	38.2
Bulgaria	20.4	27.7	30.7
Croatia	73.2	86.4	83.2
Georgia	41.1	60.0	58.0
Kazakhstan	19.8	26.6	29.2
Kosovo	17.0	22.6	27.5
Kyrgyz Republic	54.1	64.2	64.6
Moldova	27.4	33.2	35.1
Montenegro	77.2	92.9	94.3
North Macedonia	48.8	59.1	59.8
Poland	46.0	54.4	56.0
Romania	37.6	45.1	47.7
Russian Federation	13.9	20.5	22.9
Serbia	52.9	59.6	58.5
Tajikistan	45.2	51.0	49.2
Turkey	32.5	40.3	40.6
Ukraine	50.4	62.0	58.9
Uzbekistan	29.3	34.7	38.3

risk aversion could raise interest rates for higher-risk borrowers and lead to cascading defaults across many economies. Substantial domestic currency depreciation could also present financing challenges for firms with high foreign currency–denominated debt. The recovery that follows would be markedly sluggish, hampered by severely impaired balance sheets, heightened financial market stress, and widespread bankruptcies. The resurgence of financial stress could further dent foreign direct investment and remittance inflows to the region. Even if the financial system avoids a crisis, the debt accumulated in response to the pandemic may weigh on growth in the long run.

Immediate fiscal response to COVID-19 in ECA. The fiscal policy support that has been announced in ECA already far exceeds that enacted during the 2008–09 global financial crisis, amounting to 3.1 percent of GDP in discretionary measures and 2.6 percent of GDP in loan guarantees and other liquidity measures. The amount of fiscal stimulus in ECA, on average, has been larger relative to other EMDE regions, albeit with wide variation within ECA. As a result of pandemic-related spending and decline in revenues, the fiscal balance of the average ECA economy is projected to fall from a modest surplus in 2019 to a wide deficit in 2020. The deterioration is particularly severe for oil-exporting economies amid the sharp fall in commodity prices. While the

(Continued next page)

BOX 1.3 (continued)

amount of support has been substantial, significant administrative challenges have likely hampered the ability to get support to where it is most urgently needed, including to small and medium-size enterprises (SMEs) and informal workers.

In Russia, policy makers have mobilized an economic support package of roughly 3.4 percent of GDP to help support households and businesses—while this package is lower than that in the average EMDE, it is comparable to other oil exporters. Authorities have also developed an economic recovery plan to help navigate the economy through reopening, as well as a contingency plan for retailers if a second wave of COVID-19 materializes. Measures in Turkey have amounted to about 10 percent of GDP and include increased health care spending, support for utility payments, and increased social protection. In Poland, an economic package of 9.4 percent of GDP will be aimed at boosting health care, expanding social protection coverage, supporting wages, and providing loan guarantees and credit extensions.

Economic packages have included support to vulnerable households, as well as to firms, particularly those in critical sectors or industries (table B1.3.2). Many countries have boosted health care spending (Armenia, Azerbaijan, Croatia, Georgia, Russia, Tajikistan, and Uzbekistan); provided tax payment deferrals, credits, or refunds (Azerbaijan, Albania, Croatia, Georgia, Russia, and Tajikistan); subsidized utility costs (Armenia, Georgia, and Montenegro) or postponed utility tariff increase (Tajikistan); offered vouchers or support for the tourism sector (Croatia, Georgia, and North Macedonia); and expanded social protection coverage (Armenia, Azerbaijan, Georgia, Kyrgyz Republic, Russia, Tajikistan, and Uzbekistan). Employment protection measures, including short-term work schemes or wage subsidies, have also been an important component of support packages (Armenia, Albania, Central Europe, Kazakhstan, North Macedonia, and Russia), with past experience suggesting that such measures were effective at providing income support and limiting job losses, as well as avoiding costly search and matching processes as the economy recovered (OECD 2020a). In addition to mobilizing external support, countries have also benefited from multilateral institutions' debt service suspension initiative.

Despite the considerable policy support, narrower fiscal space and tighter financing conditions highlight the challenges for EMDEs in ECA to confront the immediate health crisis head on, to protect jobs and workers, and to avoid procyclical fiscal policy, which could otherwise exacerbate the downturn (Loayza and Pennings 2020; Hevia and Neumeyer 2020). While restrictions on mobility persist, governments should focus on mitigating the damage from interruptions in household and corporate incomes (Blanchard 2020). In addition to mobilizing external aid, policy makers 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 can be delayed or suspended (IMF 2018; Herrera and Ouedraogo 2020).

Ensuring fiscal sustainability while supporting the eventual recovery. Once the initial crisis has passed, fiscal policies that bolster demand could help nurture the recovery in ECA, especially for countries with available fiscal space and affordable financing conditions. However, fiscal space in ECA will remain mostly constrained amid elevated debt levels; weakened revenue collections, particularly for economies dependent on tourism; exhausted policy buffers; or, in some EMDEs in Eastern Europe and Central Asia, limited access to international capital markets and significant financing needs. Should additional fiscal stimulus be needed, roughly half of the EMDEs in ECA could leverage their remaining fiscal buffers (Uzbekistan) or sovereign wealth funds (Azerbaijan, Kazakhstan, and Russia), or they could increase borrowing in light of low government debt levels (Bosnia and Herzegovina, Bulgaria, Kazakhstan, Kosovo,

(Continued next page)

BOX 1.3 (continued)

TABLE B1.3.2 Economic support packages

	Expenditure measures				Revenue measures			Other	
	Increased health spending	Support to firms/ SMEs/ sectors	Support to vulnerable population (low-income households; children/families; informal workers)	Employment/ job support	Tax cuts to households	Tax cuts to firms/ SMEs	Tax payment deferrals, credits, or refunds	Liquidity/ credit measures	Oil wealth fund
Albania	x	x	x	x			x	x	
Armenia	x	x	x	x				x	
Azerbaijan	x	x	x	x		x	x	x	x
Belarus	x		x				x		
Bosnia and Herzegovina	x	x	x		x	x	x	x	
Bulgaria	x	x	x	x			x	x	
Croatia	x	x		x		x	x	x	
Georgia	x	x	x		x		x	x	
Hungary	x	x	x	x		x	x	x	
Kazakhstan	x	x	x	x	x	x		x	x
Kosovo	x	x	x	x			x	x	
Kyrgyz Republic	x	x	x				x	x	
Moldova	x	x	x	x			x	x	
Montenegro		x	x	x			x	x	
North Macedonia	x	x	x	x				x	
Poland	x	x	x	x		x	x	x	
Romania	x	x	x	x	x	x	x	x	
Russian Federation	x	x	x	x		x	x	x	x
Serbia	x	x	x	x			x	x	
Tajikistan	x	x	x		x	x	x	x	
Turkey	x	x	x	x		x	x	x	
Ukraine	x	x	x	x			x		
Uzbekistan	x	x	x	x		x	x	x	

and Russia), or availability of external aid (Kyrgyz Republic). Countries such as Bulgaria, for instance, have recently taken advantage of low external financing conditions and relatively low levels of public debt to boost funding to tackle COVID-19.

For economies with less fiscal space, reallocating spending or delaying upcoming capital projects or programs (for example, public wage bill increases) may be necessary to relieve budget pressures and ensure continued access to public services, including health care and food banks. Additionally, such reallocation could provide room to scale up social safety nets, such as increased unemployment and sick leave benefits, as well as support to informal workers and low-income households, which could limit the damaging impact from the uptick in poverty.

For Central Europe, the sizable increase in EU structural funds over the next program period is expected to support the recovery and boost investment. The amount of funds to be dispersed over the program period of 2021–27 ranges from 10 percent of GDP (Hungary) to nearly 30 percent of GDP (Croatia). Historically, countries have been facing absorption capacity issues and currently only around 40 to 50 percent of their respective 2014-2020 allocations have been paid out to final beneficiaries. To improve absorption rates, these countries could strengthen administrative capacity, government effectiveness, and the control of corruption (Incaltarau, Pascariu, and Surubaru 2020; Moreno 2020). However, it is expected that absorption rates will increase significantly over the next three years as the approved projects will be

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BOX 1.3 (continued)

finalized. Although Central European countries are the direct recipients of EU structural funds, economies with strong trade and financial ties to the European Union, such as those in the Western Balkans, could also possibly benefit from positive spillovers. EU funds have been found to boost human capital in the Western Balkans through higher-education cooperation (Ajdarpašić and Qorraj 2020).

Given the limited fiscal space due to elevated debt levels, policy makers should ensure that additional stimulus measures yield high growth dividends or target vulnerable groups, such as low-income households, informal workers, or SMEs that lack adequate access to financing. However, the appropriate policy response will depend on country-specific characteristics. The timing and sequencing of additional stimulus measures should 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 pandemic-related restrictions are lifted (Blanchard 2020; Izvorski et al. 2020). Further increases in policy support 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—the latter of which could unlock additional external aid (IMF 2020; Koh and Yu 2019; Munoz and Olaberria 2019; Tandberg and Allen 2020).

Additional steps can be taken to bolster EMDE fiscal space and flatten the debt curve once the immediate crisis subsides. Countries 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. Sound policies with respect to infrastructure investment and improving governance, education, and public health might help countries seize the opportunity to become more integrated into global or regional value chains. Policy makers should also carefully assess the prolonged use of unconventional fiscal policy tools, such as extending exceptional liquidity and credit, and balance the use of such measures against the risk of generating financial system fragilities. The use of such measures could undermine stability if investor sentiment shifts and subsequently leads to domestic currency depreciation and rising inflation.

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 ECA's commodity exporters where these subsidies, on average, accounted for 6.6 percent of GDP in 2018 (Coady et al. 2017; Guénette 2020; IEA 2015; Stocker et al. 2018; World Bank 2020a; Wheeler et al. 2020). Reductions in energy subsidies could provide longer-run efficiency dividends by freeing resources to boost investment in green energy and technology. Government support packages could include spending on resilient infrastructure that reduces vulnerabilities to climate change, such as anti-drought technology, landscape and watershed management, ecosystem restoration, and sustainable management of forests.

in 2021 could be substantially lower, at 1.1 percent. The downside scenario measures the possible growth outcomes in response to negative shocks in 2021, with the range reflecting the uncertainty surrounding the duration of the coronavirus pandemic, the timeline of a potential vaccine and its distribution, and the timing of the eventual recovery. In the downside scenario, protracted outbreaks and pandemic-related restrictions are combined with delays to the vaccine or its distribution, which would push the eventual recovery to 2022. The overall outlook remains highly uncertain and will ultimately depend on which epidemiological scenario develops.

Trends in Europe and Central Asia—Major Economies and Subregions

Russian Federation

Output in Russia declined sharply in the first half of 2020 as lockdown measures hindered activity and industrial production shrank amid high compliance with OPEC+ oil production cuts and a collapse in oil prices (World Bank 2020b). The labor market has suffered deeply, with unemployment claims reaching a record high. Despite firming activity indicators in the third quarter, the central bank has continued to ease monetary policy. The policy interest rate has been cut to a record low of 4.25 percent.

Economic activity in Russia is expected to contract by 5 percent in 2020, reflecting the dual shock of the pandemic and the oil price plunge. The recession projected in 2020 is less severe than envisioned in June, reflecting slightly stronger-than-expected oil prices and economic activity. Support measures to buoy consumption and protect jobs are anticipated to be partly funded by the relaxation of the fiscal rule. The shortfall in government revenues from low oil prices is anticipated to be partly compensated by transfers from the National Wealth Fund, which was roughly 9 percent of GDP at the start of 2020.

The baseline recovery in Russia is projected to be modest in 2021, at 2.8 percent, reflecting a subdued outlook for commodity prices and sluggish investment growth. The recovery in 2021 could be far weaker, however, at 1 percent, if geopolitical tensions escalate or a second wave of COVID-19 materializes, which could dampen activity and commodity prices.

Turkey

After experiencing one of the largest outbreaks of COVID-19 in the world, with daily new cases peaking at around 5,000 per day in mid-April, Turkey saw a reduction to a rate of about 1,000 per day by mid-July. However, with a return to business-as-usual, cases are on a rising trend again. Economic indicators, including the manufacturing PMI and business confidence, point to recovery as the country emerges from lockdown. Tourist arrivals, which collapsed in the second quarter, remain very low.

The sharp contraction in tourism and goods trade, particularly for sectors deeply integrated in global value chains (GVCs), has renewed current account pressures in 2020. The Turkish lira has depreciated sharply in response, reaching a new low against the U.S. dollar. Substantial capital outflows have led to the steep drawdown in foreign exchange reserves to finance the current account deficit (World Bank 2020c). External financing conditions remain tight, with the EMBI bond spread almost double the level observed at the start of the year.

Turkey's economy is expected to shrink by 3.8 percent in 2020, reflecting a continued fall in investment as uncertainty persists, shrinking exports amid weak external demand, and a disruption in consumption due to social distancing and falling employment (World Bank 2020c). An economic support package of roughly 10 percent of GDP was announced in March, and includes an expansion of health care services, support to low-income households and pensioners, and

tax breaks for firms. The economy is projected to return to growth in 2021, to 4 percent, on the back of gradual improvement in domestic demand. The downside scenario for 2021 suggests that growth could be far more tepid, at 1 percent, which could reflect a renewal of substantial financial pressures or weaker-than-expected external demand. This could be further exacerbated by the prospect of new outbreaks of COVID-19 in Turkey and major economies. In light of the substantial headwinds to growth, prioritizing greater monetary policy discipline and exercising prudence in regulatory and supervisory responses to COVID-19 could help curb external imbalance and financial pressure over the forecast horizon (World Bank 2020c).

Central Europe and the Baltics

Activity in Central Europe has firmed following pandemic-related lockdowns, with improvements in industrial production and retail sales. Despite improvement in some cases, such as Croatia, the earlier collapse in exports and tourist arrivals has shown little sign of reversal. The subregion is experiencing widespread disruptions to activity through GVCs—more so than for the rest of ECA, given that manufacturing accounts for nearly one-fifth of gross value added, and 20 to 40 percent of the value added of exports is derived from foreign content. Reopening efforts have coincided with an uptick in daily new COVID-19 cases, which could force some countries to reintroduce restrictions. In this environment, the subregion's economy is forecast to contract by 4.9 percent in 2020, with consumption and investment hit particularly hard. Several central banks in the subregion have lowered policy rates, despite rising capacity constraints and already near-zero rates in some cases.

Output is envisioned to firm in 2021, to 4.2 percent, supported by the recovery in trade as activity rebounds in the euro area. The downside scenario, however, could see much weaker growth, at 2.1 percent, as the subregion faces the potential threats of a second wave of COVID-19 and the impact of a hard Brexit. The sizable increase in the European Union's structural funds to Central Europe as part of its COVID-19 response could support medium-term growth, but the boost could be tempered by low absorption rates (box 1.3).

Western Balkans

A new wave of COVID-19 infections at the start of the third quarter has delayed reopening efforts and forced governments to reintroduce previous mitigation measures. Activity is expected to shrink by 4.8 percent in 2020—a steeper recession than envisioned in June, in part due to the protracted weakness in tourism and recent emergence of social unrest over the handling of the pandemic. Central banks in the Western Balkans have cut policy interest rates this year to record lows to deal with the economic fallout of the COVID-19 pandemic (Albania, North Macedonia, and Serbia).

Growth is expected to recover gradually to 3.5 percent in 2021, assuming that consumer and business confidence is restored as the impact of COVID-19 fades, and that political instability eases (World Bank 2020d). If these risks re-emerge,

however, growth could be lower, at 2.3 percent, in the downside scenario. Although tourist dependent economies, particularly Albania and Montenegro but also Kosovo, are expected to experience a more robust rebound in activity relative to the subregion's other countries, the outcome could be much weaker if the downturn in tourism is prolonged. Rising fiscal liabilities in the subregion have reduced space for fiscal support and weakened the business climate. Government budgets will be further stretched by measures to counter the damaging economic effects of the COVID-19 outbreak. Despite these headwinds, EU membership talks have progressed for Albania and North Macedonia, which could raise growth and productivity by hastening reform momentum in these economies (World Bank 2020a; Rovo 2020).

South Caucasus

The rebound in the South Caucasus in the second half of 2020 is proving weaker than anticipated in June, as COVID-19 outbreaks forced a renewal or extension of mitigation measures that have restricted mobility. In Armenia, which has exceptionally high infection rates per capita, the decline in industrial production and construction has eased, but services, including retail sales, remain especially weak after sustaining sharp falls in the second quarter. The contraction in Georgia's mobility is normalizing and output is showing signs of easing on the back of fiscal support, sustained credit growth, and a tentative recovery in remittances. As in other subregions, tourism is not staged to make a recovery amid continuing restrictions on international tourists, which will weigh on output in 2020 due to its large share in GDP. Azerbaijan is facing the twin shocks of COVID-19 and the plunge in oil prices—the renewal of lockdown measures combined with earlier OPEC+ oil production cuts have dented activity in oil and non-oil sectors. The loss in remittances has exacerbated the fall in income and consumption. The decline in investment has also been steep amid rising uncertainty related to the pandemic and growing tensions with Armenia. Agricultural production in Azerbaijan has been dampened by the severe drought in the region.

The South Caucasus economy is expected to contract by 4.9 percent this year as the subregion faces prolonged headwinds from the pandemic and low commodity prices. Activity is projected to pick up to 2.7 percent in 2021, as the shocks related to the COVID-19 pandemic dissipate 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 downside scenario for growth in 2021 for the South Caucasus projects a much weaker recovery, at 1.8 percent, as activity could be dampened by protracted outbreaks of COVID-19, low tourist arrivals, subdued commodity prices, and heightened geopolitical tensions.

Eastern Europe

The rapid acceleration of COVID-19 cases and escalation of geopolitical tensions has dealt a severe blow to the outlook for Eastern Europe. Relatively more limited containment measures, combined with the slow implementation of such measures, have coincided with high rates of infection as a share of the population.

The combined shock of the pandemic and the recent eruption of political tensions is expected to result in a GDP contraction of 4.7 percent in 2020.

Geopolitical tensions escalated in Eastern Europe following elections in Belarus in early August, the outcome of which has triggered protests, social unrest, and the threat of new sanctions from the European Union. Further intensification of the political situation and deterioration in sentiment could generate capital outflows and put depreciation pressures on the currency, which could adversely affect the highly dollarized financial sector and erode foreign exchange reserves. Activity in Ukraine, the largest economy in the subregion, is projected to shrink in 2020, by 5.5 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 debt repayment obligations (World Bank 2019). Notwithstanding a modest recovery in Moldova and Ukraine, aggregate growth in the Eastern Europe subregion is expected to remain negative

TABLE 1.2 Europe and Central Asia country growth assumptions

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

	2017	2018	2019e	2020f	2021f	Percentage point differences from June 2020 projections 2020f	2021f	Downside scenario for 2021 growth
Albania	3.8	4.3	2.2	−8.4	5.0	−3.4	−3.8	3.0
Armenia	7.5	5.2	7.6	−6.3	4.6	−3.5	−0.3	3.1
Azerbaijan	0.2	1.5	2.2	−4.2	1.9	−1.6	−0.3	1.1
Belarus	2.5	3.1	1.2	−2.8	−5.5	1.2	−6.5	−6.4
Bosnia and Herzegovina[a]	3.2	3.7	2.6	−3.2	3.0	0.0	−0.4	1.5
Bulgaria	3.5	3.1	3.4	−5.1	3.9	1.1	−0.4	3.2
Croatia	3.1	2.7	2.9	−8.1	5.9	1.2	0.5	5.4
Georgia	4.8	4.8	5.1	−6.0	4.0	−1.2	0.0	3.0
Hungary	4.3	5.1	4.9	−5.0	4.5	0.0	0.0	1.5
Kazakhstan	4.1	4.1	4.5	−2.5	2.5	0.5	0.0	1.0
Kosovo	4.2	3.8	4.2	−8.8	3.7	−4.3	−1.5	1.7
Kyrgyz Republic	4.7	3.8	4.5	−5.5	4.8	−1.5	−0.8	3.0
Moldova	4.7	4.3	3.6	−5.2	3.5	−2.1	−0.5	1.5
Montenegro	4.7	5.1	3.6	−12.4	6.9	−6.8	2.1	4.8
North Macedonia	1.1	2.7	3.6	−4.1	3.6	−2.0	−0.3	2.6
Poland	4.9	5.3	4.1	−3.9	3.5	0.3	0.7	0.2
Romania	7.1	4.4	4.1	−5.7	4.9	0.0	−0.5	4.7
Russian Federation	1.8	2.5	1.3	−5.0	2.8	1.0	0.1	1.0
Serbia	2.0	4.4	4.2	−3.0	2.9	−0.5	−1.1	1.5
Tajikistan	7.6	7.3	7.5	1.6	3.7	3.6	0.0	1.6
Turkey	7.5	3.0	0.9	−3.8	4.0	0.0	−1.0	1.0
Ukraine	2.5	3.3	3.2	−5.5	1.5	−2.0	−1.5	1.0
Uzbekistan	4.5	5.4	5.6	0.6	4.8	−0.9	−1.8	2.9

Source: World Bank.
Note: GDP and expenditure components are measured in 2010 prices and market exchange rates, unless indicated otherwise. World Bank assumptions are frequently updated based new information and changing (global) circumstances. Consequently, the working assumptions presented here may differ from those contained in other World Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time. For additional information, see www.worldbank.org/gep.
e = estimate; f = forecast.
a. GDP growth rate at constant prices is based on the production approach.

in 2021, reflecting a deepening recession in Belarus due to heightened political tensions and the adverse impact from the gradual withdrawal of energy subsidies from Russia on refined oil exports. The downside scenario for 2021, at −1.3 percent, highlights the substantial headwinds Eastern Europe faces as widespread outbreaks and geopolitical tensions weigh on the outlook.

Central Asia

The rise in COVID-19 cases following the lifting of lockdown measures in May prompted governments to tighten or extend mobility restrictions throughout the third quarter. COVID-19 has deeply strained health care systems in Central Asia. The subregion ranks lowest in ECA in health care spending and the number of hospital beds per capita.

Recent indicators point to a sustained contraction in manufacturing and services activity amid a sharp fall in exports and ongoing lockdown measures. The steep decline in industrial production reflected earlier OPEC+ oil production cuts in Kazakhstan. After spiking in the first half of 2020, sovereign borrowing costs in foreign currency in Kazakhstan, Tajikistan, and Uzbekistan have fallen in tandem with easing external financing conditions; they remain elevated, however, relative to the start of the year.

The Central Asia subregional economy is forecast to contract by 1.7 percent in 2020 as it grapples with negative spillovers from the euro area, Russia, and China through trade, commodity, and remittance channels. In Kazakhstan and Uzbekistan, an appropriately substantial fiscal stimulus package helped moderate the slowdown in activity. Growth is expected to recover to 3.1 percent in 2021, supported by a modest rise in commodity prices and foreign direct investment (FDI) as the subregion deepens its integration with China's Belt and Road Initiative. In the downside scenario for 2021, weaker-than-expected external demand, commodity prices, or remittances could dampen the recovery, to 1.5 percent.

Risks to the Regional Outlook

Risks to the outlook are markedly tilted to the downside, with the possibility of GDP outcomes being worse than envisioned in the downside scenario. The near-term growth outlook for ECA is clouded by the sharp rise in uncertainty over the duration of the pandemic, which has generated social unrest in some countries, as well as heightened geopolitical tensions. An intensification of the spread of infections across the regional economies would worsen the outlook, while associated restrictive measures would 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 or from a disorderly Brexit process, could amplify the negative spillovers in economies with tightly linked trade ties to these economies, including through GVCs, as well as through commodity, financial, and remittance channels (EBRD 2018). A disorderly Brexit process could also have a negative impact on longer-term output and jobs in EU members in Central Europe, with potentially large spillovers

to the Western Balkans (IMF 2018). Regional weather patterns, including the severe drought that is affecting economies in Eastern Europe and the Western Balkans, also pose a downside risk to the forecasts.

Prior to the pandemic, some regional economies relied on short-term capital inflows to finance large current account deficits. COVID-19 has forced a sharp drawdown in foreign currency reserves, leaving economies more vulnerable to capital flight while also constraining the capacity of central banks to buffer the impact of further negative external shocks. A more protracted pandemic or a sharp reassessment of investor sentiment, triggered, for instance, over concerns of asset quality, could lead to cascading defaults and rising nonperforming loans. Despite exceptional liquidity support, balance sheet pressures in ECA have continued to rise in the wake of COVID-19, putting strain on the banking sector. Borrower assistance and prudential measures have intensified stress on banks that are undercapitalized or operate in countries with narrow fiscal space (Demirguc-Kunt, Pedraza, and Ruiz-Ortega 2020). Although it is unclear what overall impact these large-scale support measures will have over the forecast horizon, underlying vulnerabilities will need to be carefully monitored.

The pandemic also poses medium-term risks, particularly if GVC linkages are permanently damaged or extended school closures have a significant impact on learning, dropout rates, and human capital development (Shmis et al. 2020; World Bank 2020e). Economies that are deeply integrated into GVC linkages may also experience weaker productivity should companies reassess the existing production networks, or even reshore production, in the context of COVID-19 (Freund 2020; World Bank 2020f). Depending on the duration of the pandemic, FDI flows could fall substantially in 2020, which would most affect the Western Balkans and South Caucasus, the former of which reflects heavy reliance on FDI to finance large current account deficits (UNCTAD 2020; World Bank 2020d). Investment prospects, which were already weakening at the start of the year, have eroded further in response to the slowdown in capital expenditures.

The rise in geopolitical tensions in ECA also presents headwinds to growth. An escalation of political pressures in Belarus or renewed involvement of the region's largest economies in conflicts in Libya, the Eastern Mediterranean Sea, the Syrian Arab Republic, or Eastern Europe could trigger additional sanctions and generate substantial financial market pressures. A prolonged deterioration in investment sentiment—whether from uncertainty related to the pandemic or geopolitical tensions—could have material implications for ECA and erode the outlook (World Bank 2016).

A sharper fall in remittances could amplify the regional economic downturn. Remittance inflows to ECA are projected to fall by more than 25 percent in 2020, as measures to slow the spread of the virus have generated job losses in host countries and left many migrants and temporary workers idle or furloughed (World Bank 2020g; 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.

Long-Term Challenges and Policies

Once the health and economic crises caused by the COVID-19 pandemic are brought under control, policy efforts in ECA will need to address the steep fall in productivity growth over the past decade and focus on structural reforms that are essential to reignite long-term growth prospects. Strengthening governance and improving institutional quality could yield growth dividends and attract investment. Structural bottlenecks, including limited exposure to international competition and low innovation rates, continue to weigh on the business environment. Boosting investment in human capital and climate resilience will be crucial to raise living standards and foster inclusive and sustainable growth. To address the headwinds to long-run growth, a well-targeted reform agenda is critical to increase productivity growth, improve the investment climate, and foster digital development.

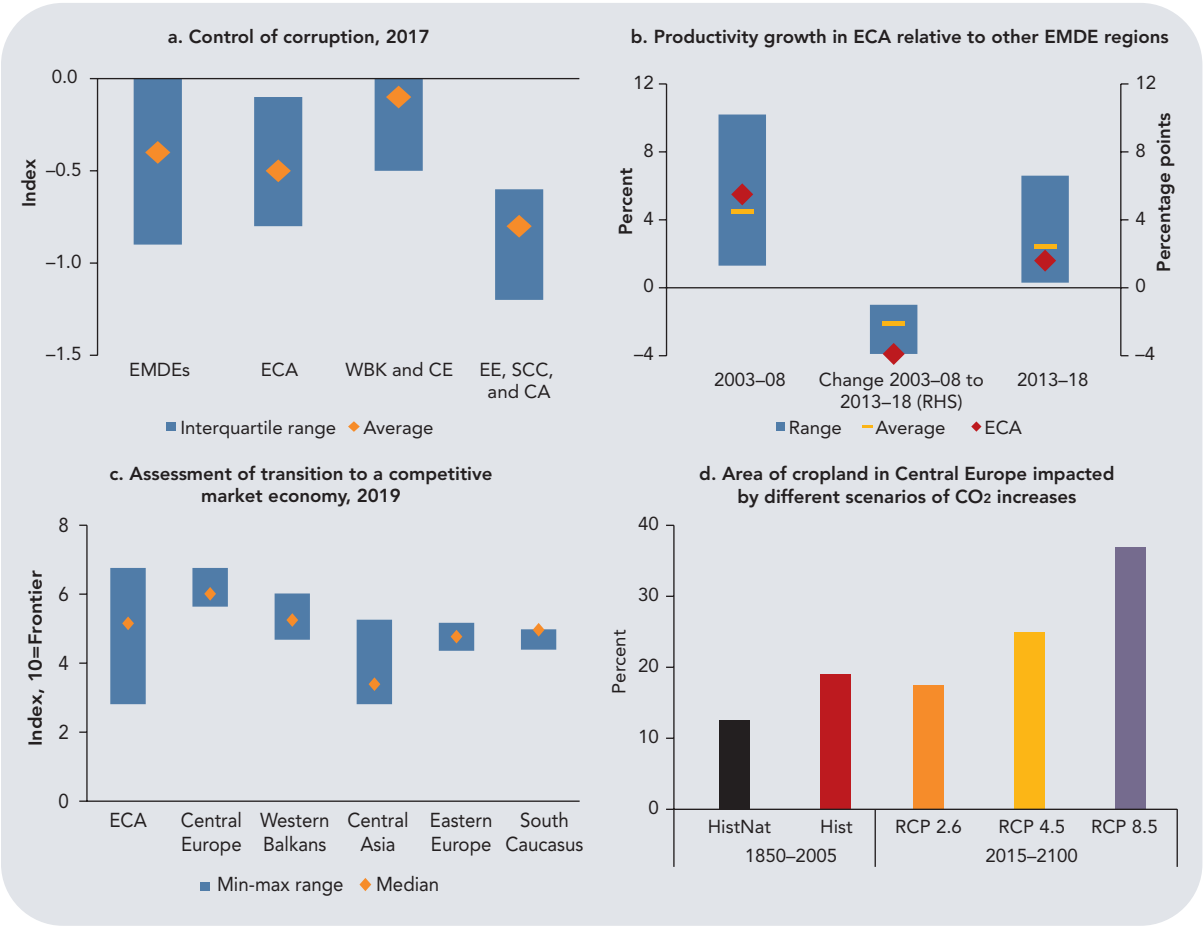
Facing Headwinds to Long-Term Growth: Strengthening Governance and Improving Productivity

Strengthening governance. Over the long term, institutional quality is one of the most important determinants of productivity growth. In ECA, productivity catch-up to advanced economies was particularly pronounced in Central Europe prior to the global financial crisis, reflecting the anchoring of structural and institutional reforms to the EU accession process (Rodríguez-Pose and Ketterer 2019). ECA continued to face governance challenges prior to the COVID-19 crisis, however, with over 75 percent of the countries below the global average in control of corruption in 2017, including almost all the economies of Central Europe, Eastern Europe, and the South Caucasus (figure 1.6, panel A) (Kaufmann, Kraay, and Mastruzzi 2010).

Structural reforms to improve governance can lead to sizable productivity gains, particularly in countries that are farthest from best practices (Acemoglu, Johnson, and Robinson 2005; Cusolito and Maloney 2018). Major governance and business reforms in EMDEs have been associated with higher growth rates in output, total factor productivity, and investment (Divanbeigi and Ramalho 2015; Hodge et al. 2011; World Bank 2018). The detrimental effects of corruption on firm productivity can be exacerbated by excess or complex regulation (Amin and Ulku 2019). Anticorruption campaigns, as well as reductions in the number of regulations and tax complexity, have helped some economies tackle corruption (IMF 2019).

Improving productivity. Even prior to the COVID-19 pandemic, labor productivity growth in ECA had declined markedly, falling to an average of 1.7 percent in 2013–18, the period following the global financial crisis, from 5.3 percent during 2003–08 (figure 1.6, panel B) (Dieppe, Alistair 2020). This slowdown was broad-based across the region, with post–global financial crisis productivity growth below long-term (1992–2018) averages in roughly two-thirds of the region's economies. About two-thirds of the region's productivity growth slowdown in recent years reflected a collapse in investment growth as conflict erupted in parts of the region, sanctions were imposed on Russia, political and economic shocks unfolded in Turkey, financial systems transformed after the euro area debt crisis, and the commodity price collapse hit commodity exporters (Arteta et al. 2019).

FIGURE 1.6 Factors affecting the long-term outlook



Sources: European Bank for Reconstruction and Development; Dieppe 2020; Hari et al. 2020; Kraay 2018; Penn World Table; The Conference Board; United Nations; World Bank.
A. The indicator reflects perceptions of the extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as "capture" of the state by elites and private interests, as measured by the Worldwide Governance Indicators. The index is on a scale of -2.5 (weak) to 2.5 (strong). The sample includes 23 ECA economies and 150 EMDEs. CA = Central Asia; CE = Central Europe; ECA = Europe and Central Asia; EE = Eastern Europe; EMDEs = emerging markets and developing economies; SCC = South Caucasus; WBK = Western Balkans.
B. Productivity is defined as real gross domestic producto (GDP) per worker (at 2010 market prices and exchange rates). Country group aggregates for a given year are calculated using constant 2010 U.S. dollar GDP weights. Data for multiyear spans show simple averages of the annual data. Blue bars show the range of average productivity across the six EMDE regions. Yellow dashes denote the average of the six EMDE regional aggregates. Red diamonds denote the simple average of ECA economies. The sample includes 21 ECA economies and 129 EMDEs. Refer to Dieppe (2020) for further details.
C. The figure shows the distance to the frontier for achieving a full transition to a competitive market economy, as measured by EBRD (2019). Economies with higher index levels are closer to the frontier, where scores range from 1 to 10, with 10 denoting the synthetic frontier. The sample includes 24 ECA economies.
D. The figure shows cropland area (in million hectares) affected by consecutive droughts under different experimental scenarios; refer to Hari et al. 2020.

The COVID-19 crisis is expected to exacerbate the slowdown in regional productivity (Shmis et al. 2020; Dieppe, Alistair 2020). The drop in FDI inflows to the region will hinder capital accumulation (UNCTAD 2020). Deep disruptions within the region's supply chains and a temporary collapse in travel and transport exports, as well as the effects of a large drop in energy prices, may make it difficult for firms to regain quickly the level of productivity they had prior to the pandemic (Dieppe, Alistair 2020). Many multinational enterprises have issued

profit warnings, which is expected to dampen reinvested earnings—an important source of FDI for ECA economies. At the same time, the pandemic is likely to result in long-term scarring of human capital development as laid off workers experience de-skilling and the education of millions of students is disrupted.

A well-targeted reform agenda is needed to reignite productivity growth, especially in light of the possible persistent economic effects of the pandemic. This could include initiatives to boost investment in physical and human capital, encourage female participation, and stimulate innovation in firms (IMF 2019). Reforms to boost private sector development and transition to competitive and inclusive markets are needed to attract private investment and capital flows to the region, particularly to economies outside the European Union (EBRD 2018; World Bank 2019).

Lack of exposure to international competition—including from non-tariff barriers and complex trade rules—as well as restrictive product market and services regulation, remain structural bottlenecks in the region, hindering the ability to attract domestic and foreign investment, particularly in Kazakhstan, Russia, and Ukraine (figure 1.6, panel C) (Shepotylo and Vakhitov 2015; World Bank 2016). Low innovation rates—which partly stem from weak competitiveness, inadequate control of corruption, and high presence of state-owned enterprises—continue to dampen the business environment and hinder investment in the region, particularly in the absence of progress on other reforms (EBRD 2018, 2019).

Public investment was also constrained over the past decade, as many governments faced a collapse in commodity revenues amid the sustained decline in commodity prices over 2011–16. The more recent downturn in oil prices, linked to the pandemic, provides a window of opportunity to put in place mechanisms that permanently eliminate costly and poorly targeted energy subsidies, including in Central Asia and Eastern Europe (World Bank 2020a). Fiscal savings generated by lower subsidies could instead fund productivity-enhancing investment in infrastructure or be directed toward medium-term measures that build climate resilience, such as investment in technology to improve agricultural productivity and increase food security during years of severe drought.

Setting the Groundwork for Future Growth: Boosting Education and Health

Boosting health and education systems is critical for raising human capital and productivity at the aggregate level. In some economies in ECA, particularly in Central Asia, inadequate investment in human capital has left a portion of the workforce poorly equipped for rapid technological change, even prior to the COVID-19 pandemic (Flabbi and Gatti 2018). Chapter 2 of this report illustrates this by presenting data on and analyzing two factors that are particularly important for the ECA region. First, the analysis focuses on quality-adjusted years of tertiary education, in addition to basic education. Second, health status is captured by including risk factors such as obesity, smoking, and heavy consumption of alcohol, all of which are prevalent in the region. This exercise highlights the importance of investing in tertiary education for many countries in the region, as

well as the importance of preventing risk factors for noncommunicable and infectious diseases in the aging societies of the region.

These findings are all the more relevant in light of COVID-19, which has led to severe schooling disruptions for nearly 90 million schoolchildren in the region. In previous economic crises, the number of out-of-school children doubled in some ECA countries, while income disparities increased as vulnerable groups faced higher rates of dropout and depressed skills development (Shmis et al. 2020). Extended school closures are expected to reduce the learning-adjusted years of schooling in ECA by third to a full year of schooling—the steepest among EMDE regions. This, combined with the de-skilling associated with prolonged unemployment, could lead to sizable future earnings losses (Azevedo et al. 2020; Fasih, Patrinos, and Shafiq 2020). The rise in food insecurity from disruptions to school feeding programs could also lower long-term productivity, as malnutrition early in life can permanently impair learning abilities.

Fostering Innovation and Inclusive Growth: Developing the Digital Framework

The COVID-19 crisis underscores the critical need for investment in digital skills and technology to facilitate teleworking and virtual learning, particularly for vulnerable households (Strusani, Davide and Houngbonon 2020). Policies that support the digital framework, such as increasing broadband access, could improve productivity growth by enabling innovation and reducing the costs of a range of business processes (OECD 2019). In recent years, Turkey has undergone a digital transformation by boosting research and development expenditures, increasing its capacity to absorb and utilize new technologies, and bolstering information technology skills.

Although internet access in ECA is the highest among the EMDE regions, one-quarter of the region's population still lacked connectivity in 2018. Additionally, access varies considerably, with broadband use in capital cities similar to levels observed in the euro area, while usage in rural areas is among the lowest in the world. In some Central Asian economies, only one-fifth of the population used the internet in 2017—less than the average for Sub-Saharan Africa. The digital divide impedes shared prosperity and constrains access to pathways out of poverty. These disparities will likely only worsen from COVID-19, as households without access lack opportunities for remote work and education.

Supporting the businesses and communities that have been most impacted by the pandemic is critical and could include measures that provide emergency broadband infrastructure for areas without access. In countries with widespread internet access, the ability to work and learn remotely has helped offset the adverse impact from mobility restrictions (World Bank 2020h). Internet access has also allowed some firms to recover a portion of the profits lost by the reduction in face-to-face interactions, by expanding their online business. In Moldova, for instance, online business activity has increased in one-third of firms, deliveries have risen in one-quarter of firms, and roughly one-fifth of enterprises have adjusted or introduced products or services due to COVID-19.

Improving connectivity can also be paired with policies that promote more widespread adoption of digital technologies, including in the delivery of financial and public sector services (Pazarbasioglu et al.2020). Technologies can bolster financial inclusion and boost productivity by encouraging innovation and improving private sector and government efficiency (Baldwin 2019). In economies with large informal sectors, more widespread adoption of digital technologies could also help expand tax bases through the fiscalization of informal sector transactions (World Bank 2019). Increasing small and medium-size enterprises' access to finance could help these firms increase their average size and reduce their reliance on retained earnings to fund investment, in turn supporting job creation (Ayyagari, Demirgüç-Kunt, and Maksimovic 2017; Ayyagari et al. 2016).

Safeguarding Productivity Growth: Investing in Green Technology and Mitigating Climate Risks

Major adverse events—such as climate or epidemiological disasters—can have large, sustained negative effects on productivity through dislocation of labor, tightening of credit, disruption of value chains, and decline in innovation (Dieppe 2020). As the world continues to grapple with the COVID-19 pandemic and its immediate health and economic effects, it will also be crucial to lay the foundation for building resilience and ensuring sustainable growth in the longer run (World Bank 2020h; Hammer, Stephen and Hallegatte 2020). Building resilience to the risks posed by climate change—including higher frequency of severe storms and droughts, rising sea levels, and lower crop yields—is critical in ECA given the region's large presence of agricultural exporters and numerous coastal populations (World Bank 2019). In addition, protecting lives is crucial, especially as the concentration of air particulates in many ECA countries is well above World Health Organization safety guidelines (World Bank 2020i).

The severe drought that is sweeping across Europe has been unprecedented in the past 250 years (figure 1.6, panel D) (Hari et al. 2020). Harvests of wheat and other grain crops are expected to plunge across the region this year, particularly in Central Europe, and water reservoirs have fallen to critical levels in parts of the South Caucasus. Concerns over food security and grain supply triggered export bans in about one-fourth of ECA's economies, which likely exacerbated the COVID-19 response due to the interconnectedness of the region's grain supply chain (OECD 2020b; OECD 2020c).

Droughts will continue to shape ECA's landscape. More than 80 percent of farmland is expected to be depleted from decreased rainfall in the coming decades (European Environmental Agency 2019). However, the COVID-19 crisis presents unique opportunities to support the eventual recovery and invest in greener technology to cultivate sustainable growth. Government support packages could include spending on resilient infrastructure that reduces vulnerabilities to climate change and provides jobs quickly, such as anti-drought technology, landscape and watershed management, ecosystem restoration, and sustainable management of forests (World Bank 2020h; Hallegatte, Rentschler, and Rozenberg 2019). Once the eventual recovery is underway, the prices of energy, water, and carbon should be assessed to ensure they are commensurate with the risk of adverse climate events.

Improving institutions and the business climate can also help increase the pace of recovery following an adverse event. Governments that have improved labor and product market flexibility, strengthened legal systems and property rights, fostered effective competition, and addressed inequality will have laid the foundations for more effective private sector adjustment to adverse events (Anbarci, Escaleras, and Register 2005). Appropriate policies and regulations with respect to finance, construction, and environmental protection can help reduce the effects of adverse events.

In ECA, some economies have begun to implement policies that promote sustainability, including green transport, such as improving public transportation and urban mobility (Armenia, Georgia, Moldova, and Ukraine) and modernizing railways (Azerbaijan, Belarus, and Moldova). Several economies have also implemented or scheduled carbon pricing tools (Central Europe, Kazakhstan, and Ukraine), made progress in reducing energy intensity (Poland), and harnessed technology to improve and modernize weather forecasting (Central Asia, Russia, and the Western Balkans).

Annex 1.1. Data and Forecast Conventions

The macroeconomic forecasts presented in this report are the result of an iterative process involving staff from the World Bank Prospects Group in the Equitable Growth, Finance, and Institutions Vice-Presidency; country teams; regional and country offices; and the Europe and Central Asia Chief Economist's office. This process incorporates data, macroeconometric models, and judgment.

Data

The data used to prepare the country forecasts come from a variety of sources. National income accounts, balance of payments, and fiscal data are from Haver Analytics; the World Bank's World Development Indicators; and the International Monetary Fund's (IMF's) World Economic Outlook, Balance of Payments Statistics, and International Financial Statistics. Population data and forecasts are from the United Nations' World Population Prospects. Country and lending group classifications are from the World Bank. In-house databases include commodity prices, data on previous forecast vintages, and country classifications. Other internal databases include high-frequency indicators—such as industrial production, consumer price indexes, housing prices, exchange rates, exports, imports, and stock market indexes—based on data from Bloomberg, Haver Analytics, the Organisation for Economic Co-operation and Development's analytical housing price indicators, the IMF's Balance of Payments Statistics, and the IMF's International Financial Statistics. Aggregate growth for the world and all subgroups of countries (such as regions and income groups) is calculated as the gross domestic product–weighted average (at 2010 prices) 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 assumptions are used as conditions for the first set of growth forecasts for emerging markets and developing economies, 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 economies. This process is followed by extensive discussions with World Bank country teams, which conduct continuous macroeconomic monitoring and dialogue with country authorities. Throughout the forecasting process, staff use macroeconometric models that allow the combination of judgment and consistency with model-based insights.

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2

COVID-19 and Human Capital

Investment in Human Capital: A Centerpiece of Post-Pandemic Recovery

Human capital is one of the most inalienable assets an individual can hold. Physical capital can be destroyed and financial capital confiscated, but human capital is tied to an individual as long as he or she is healthy. In this sense, human capital is the fundamental asset through which individuals become productive members of society and enable their countries to thrive.

COVID-19 has hit this valuable asset. Unlike natural disasters, whose toll on physical capital vastly exceeds its toll on human capital, the pandemic has left buildings, factories, and infrastructure untouched but significantly affected the health of millions of people and disrupted the education of hundreds of millions of children. Given the nature of its effects, governments should make investment in human capital a centerpiece of their recovery plans.

The urgency of this effort is underlined by the fact that human capital accumulation matters for development. Indeed, 10–30 percent of cross-country differences in gross domestic product (GDP) per capita can be attributed to differences in human capital (Hsieh and Klenow 2010). Differences in human capital have very long-run effects: differences in primary school enrollment in 1900 account for most of the difference in GDP per capita in 2000 (Glaeser and others 2004). Any gap in human capital accumulation that arises today because of the pandemic may have long-lasting effects, not only for countries but also for individuals, as shown by the long-term effects on education and health of children born during the 1918 flu pandemic (Almond 2006; Guimbeau, Menon, and Musacchio 2020).

Human capital can recover from the pandemic only if governments take decisive action, for two main reasons. First, part of the benefits from investment in human capital arise from interactions between people and other factors of production, and these social benefits are not usually internalized by individuals. Second, families and individuals may be willing to invest in human capital, but they may lack the liquidity to do so, especially because returns to investment take time to develop. By ensuring access to education and health services, governments allow families and individuals to overcome this constraint and allow the social benefits of human capital investment to be realized.

Before the pandemic, countries in Europe and Central Asia provided their citizens with relatively good basic education and health services; the region's citizens began their productive lives in a much better position than their peers in other regions of the world. This achievement may now be in jeopardy. COVID-19 has shown that infectious diseases can inflict enormous health costs in countries with large shares of seniors and that adult health risks such as obesity, smoking, and heavy drinking may increase the morbidity and mortality consequences of certain diseases. Health care systems will also have to be prepared for future outbreaks of infectious diseases.

The pandemic has highlighted that inequality in quality education can significantly increase during critical times. Remote learning that was necessitated by the pandemic has posed a challenge to both teachers, who may not have the skills to provide such learning, and students, some of whom lack access to the digital technology needed for remote learning. School closures can cause learning losses even when alternative modalities are provided. Such closures can be particularly detrimental for children in vulnerable households. Moreover, job markets today demand higher levels of human capital than they did in the past; so a strong foundation is increasingly important, as basic education will not be enough.

This chapter examines the state of human capital outcomes in the region and shows how the pandemic has affected them. The first section summarizes the pre-pandemic education and health outcomes in Europe and Central Asia that can provide guidance to policy makers on the specific human capital challenges the region faces. The following section illustrates the pandemic's impact on education and health in the region. Next, the chapter discusses policy options to improve human capital outcomes that have proven to be effective. The last section summarizes the chapter's main findings.

The State of Human Capital in Europe and Central Asia on the Eve of the Pandemic

Measuring education and health outcomes raises awareness of the importance of investing in human capital. Policy makers can promote investment in human capital only if they understand where the needs lie.

In 2018, the World Bank launched the Human Capital Project. One of its main components is the Human Capital Index (HCI) (World Bank 2018a). The HCI measures the amount of human capital a child born today can expect to have by age 18 given the risks of poor education and poor health that prevail in the

country in which she or he is born. The index is designed to highlight how improvements in current health and education outcomes shape the productivity of the next generation of workers.

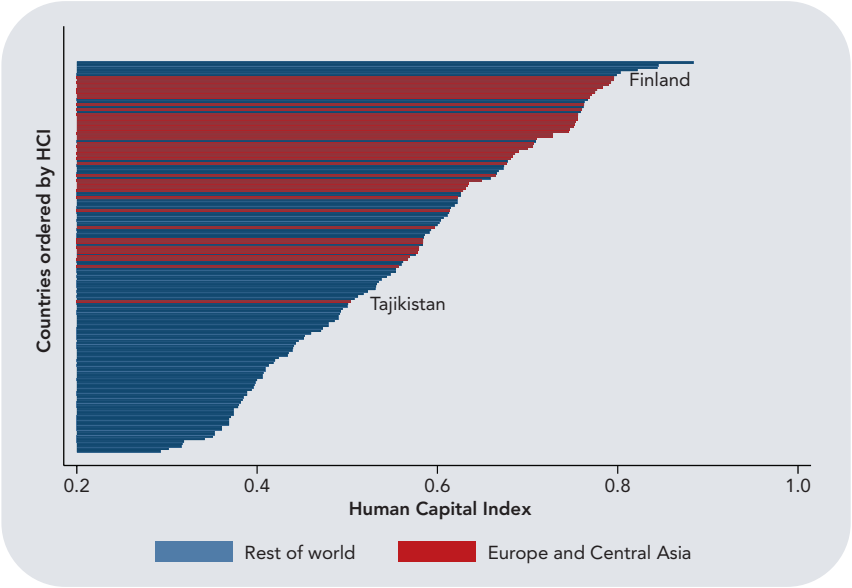
The HCI quantifies the trajectory from birth to adulthood by means of three components:

- a measure of whether children survive from birth to school age (age 5)
- a measure of expected years of basic education (primary and secondary), adjusted for quality
- two broad measures of health: child stunting rates and adult survival from age 15 to age 60.

The index is constructed so that a value of 1 represents the productivity in adulthood of a child born today if he or she enjoyed complete education and full health until age 18. Countries are measured with respect to this benchmark; the value of the index can thus be interpreted as a percentage of that productivity level.

The recent update of the HCI (World Bank 2020a) reveals that on the eve of the pandemic, individuals in the Europe and Central Asia region could achieve a high level of productivity during their adult lives, thanks to solid investment in human capital during their childhood and teenage years. Of the 48 countries in the region for which the HCI was calculated, 37 rank in the upper third of the world, and all but two—the Republic of North Macedonia and Tajikistan—are in the top half (figure 2.1). These findings are not surprising, given the relatively high incomes of countries in the region. Richer countries can invest more in human capital than poorer countries, and this investment improves countries' productivity in the long run.

FIGURE 2.1 The Europe and Central Asia region is among the world's top performers on the Human Capital Index, although variation within the region is significant



Source: World Bank Human Capital Index (HCI) 2020 database.

The relatively good positioning of the region in global terms hides significant within-region variation. On average, a child born in 2019 in Finland—the region's best performer—could expect to achieve 79 percent of the productivity of a fully educated adult in optimal health. In contrast, a child born in Tajikistan—the region's worst performer—could expect to achieve only 50 percent of that benchmark. Considerable differences also exist within countries across geographical regions and socioeconomic status quintiles—so much so that in some countries, the gaps between the top and bottom socioeconomic quintiles in child survival and expected years of school are greater than the gaps observed across countries; Turkey, Albania, and Moldova are examples (box 2.1). Romania has significant within-country geographical variation in its human capital because of lagging development in some regions and rural areas (Avitabile and others 2020).

Differences with respect to the full education or health benchmarks—together with the fact that even the region's best performers do not reach them—highlights the central role that increased human capital investment can play in improving citizens' welfare in the long term. Simulations using a long-term growth model illustrate that improving education and health outcomes could lead to significant increases in GDP per capita (box 2.2).

BOX 2.1 Differences in the Human Capital Index across socioeconomic quintiles

Countrywide averages mask significant differences within countries, particularly between richer and poorer households. The Socioeconomic Status–Human Capital Index (SES-HCI) was developed to measure such inequalities and help countries target interventions to build the human capital of the most disadvantaged households (D'Souza, Gatti, and Kraay 2019).

The SES-HCI is constructed using comparable cross-country data from Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and Health Equity and Financial Protection Indicators databases to measure child survival rates, stunting rates, enrollment rates, and student-level harmonized test score data, all disaggregated by quintiles of socioeconomic status. The resulting data set includes 88 country-year observations for 51 primarily low- and middle-income countries, including 8 countries in Europe and Central Asia (Albania, Armenia, Azerbaijan, Kazakhstan, the Kyrgyz Republic, Moldova, Tajikistan, and Turkey). The primary socioeconomic index is calculated using wealth and asset ownership; a robustness check using household income quintiles is performed as well.

Gaps in human capital outcomes across socioeconomic status quintiles within countries are large: One-third of the total variation in human capital outcomes reflects variation across these quintiles within countries. In Turkey, for instance, the difference between the highest and lowest socioeconomic status quintiles is almost equivalent to the difference in the average HCI between Finland and Tajikistan. In Azerbaijan the difference between the highest and lowest quintiles is considerably lower (figure B2.1.1).

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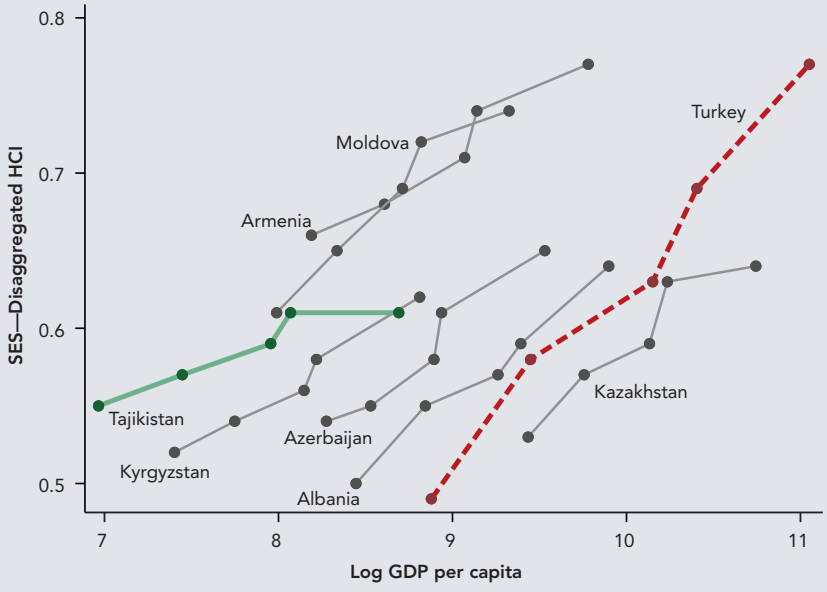
BOX 2.1 (continued)

FIGURE B2.1.1 Within countries, human capital outcomes are better the higher socioeconomic status is



Source: D'Souza, Gatti, and Kraay 2019.
Note: Per capita income in each quintile is approximated using the quintile share in income or consumption as reported in the PovcalNet database for the survey nearest to the SES-HCI data, together with GDP per capita as the mean. Points represent the income quintiles in each country. The solid green line (dashed red line) shows the country with the flattest (steepest) within-country gradient between the SES-HCI and log income per capita. Figures are estimated using the 2018 vintage of the HCI.

Human capital outcomes increase with income across countries at roughly the same rate as they do within countries across socioeconomic status quintiles. This finding is surprising, because it indicates that the sharing of income-related human capital risks is on average no better within countries (where in principle social protection programs might mitigate these risks) than it is between countries at different income levels. Across countries, gaps between the top and bottom quintiles in child survival and expected years of school are narrower in richer countries than in poorer countries, reflecting a tendency for outcomes in the poorest quintiles to increase more steeply with country-level average income across countries. In contrast, rich–poor gaps in test scores tend to be larger in richer countries with higher test scores. Over time, there is a weak tendency within countries for rich–poor gaps in the overall SES-HCI and its components to decline as average human capital outcomes improve.

BOX 2.2 What would happen if the Human Capital Index of Tajikistan, Turkey, and the Russian Federation rose to the level of Finland?

How much would a country gain in terms of growth if it had better human capital? The World Bank's Long-Term Growth Model (LTGM) (Loayza and Pennings 2018) is a spreadsheet-based tool that builds on the celebrated Solow-Swan growth model, adapting it to developing countries and emerging economies. An LTGM Human Capital extension (the LTGM-HC) allows for analysis of the effects of improvements in the components of the HCI on human capital growth rates.

In the LTGM-HC, human capital is embodied in different age cohorts. A policy change that affects the education and health of today's children will start to affect economic growth only when those children join the labor force, as young adults. The size of the eventual increase in human capital is larger for countries whose workforces currently have lower human capital. Growth rates in the LTGM also depend on other growth fundamentals, including investment (which evolves according to the International Monetary Fund's World Economic Outlook baseline projections) and total factor productivity growth (which follows historical or cross-country trends in the baseline).[a]

This analysis takes the education (quality and quantity) and health (adult survival rates and stunting) of today's children in Tajikistan, Turkey, and the Russian Federation to the levels of Finland (the highest-ranked country in Europe and Central Asia). Tajikistan was chosen because it has the lowest HCI in the region; Turkey and Russia were chosen because of their economic relevance.

Finland's children receive 13.7 expected years of schooling, a quality of education that is 85 percent of the best benchmark, and an adult survival rate at age 60 of 93 percent. Finland does not report stunting rates, in part because they are very low, so the targeted under-five not stunted rate is set to 100 percent (table B2.2.1).[b]

The largest effect on growth is in Tajikistan, which has the lowest current level of human capital. The higher HCI boosts average annual per capita growth by 0.51 percentage points over 2020–35 and increases GDP per capita in 2035 by 7.3 percent (figure B2.2.1). Better-quality education explains more than half of the increase in GDP per capita by 2035, more years of schooling explains about a third, and better health explains about 5

TABLE B2.2.1 Actual and target values of components of the Human Capital Index in Finland, Tajikistan, Turkey, and the Russian Federation

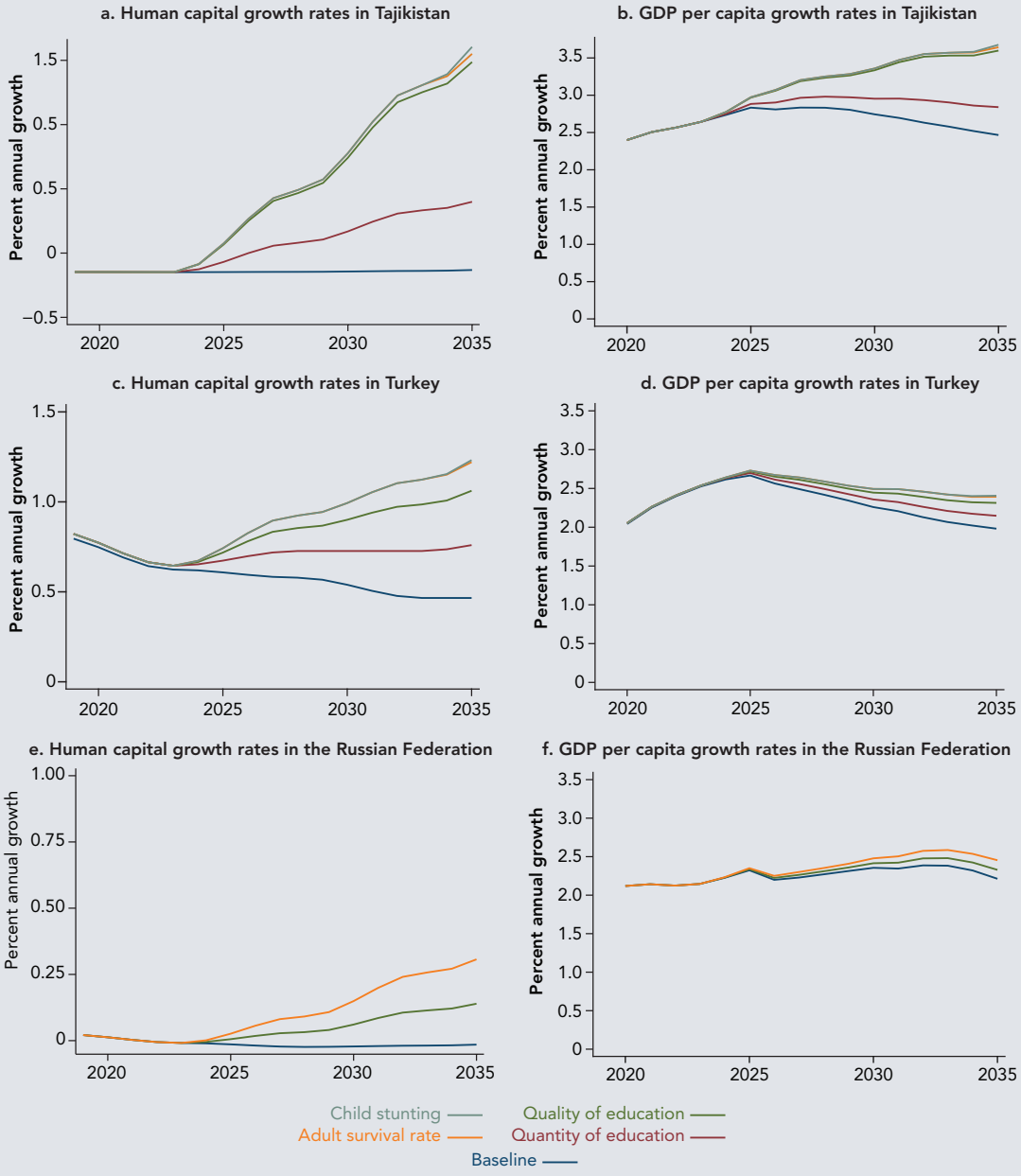
Component of the HCI	Finland (reference)	Tajikistan	Turkey	Russian Federation	Target
Expected years of education	13.7	10.9	12.1	13.7	13.7
Quality of education (percent of full potential)	85	62	76	80	85
Adult survival rate to age 60 (percent)	93	87	91	80	93
Children under five not stunted (percent)	—	82	94	—	100 (not in HCI for neither Russia nor Finland)
Overall HCI	0.79	0.50	0.65	0.68	

Note: — Not available.

(Continued next page)

BOX 2.2 (continued)

FIGURE B2.2.1 Raising the level of human capital in Tajikistan, Turkey, and the Russian Federation to the current level of Finland would affect both human capital measures and GDP growth



Sources: Calculations are based on the Long-Term Growth Model Human Capital.

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BOX 2.2 (continued)

percent. The business-as-usual baseline scenario projects slightly negative human capital growth and slowing GDP per capita growth after 2025. But the increase in the HCI to Finland's level boosts human capital growth by about 1.7 percentage points in 2035, increasing GDP per capita growth by about 1.2 percentage points, which more than offsets the declining growth rates after 2025 in the business-as-usual baseline scenario. The delayed effect reflects the time it takes for today's healthier and better-educated children to join the labor market.

The second-largest effect of a higher HCI on growth is in Turkey, where average annual per capita growth increases by 0.14 percentage points over 2020–35 and the level of GDP per capita in 2035 rises by 2.2 percent. Turkey's current workforce has much higher human capital than Tajikistan's, which is why the gains are smaller (though still large). Increased years of schooling is the most important factor, providing about 51 percent of the increase in GDP per capita in 2035. The quality of education provides about 46 percent of the extra GDP per capita; better health provides about 3 percent. In the business-as-usual baseline scenario, trend human capital and GDP per capita growth slow (the latter after 2025). With the policy shock, human capital growth accelerates to 1.1 percent by 2035, offsetting much of the projected decline in GDP per capita growth.

For the Russian Federation, boosting the HCI to that of Finland increases annual per capita growth by 0.09 percentage point over 2020–35, leaving GDP per capita higher by about 1.4 percent by 2035. Unlike Turkey and Tajikistan, the Russian Federation already has education scores close to the best in the world, so there is only a marginal growth impact from improving the quality of education (and none from increasing years of schooling). The vast majority of Russia's gains come through better health, as measured by adult survival rates, where Russia (at just 80 percent) and Tajikistan (87 percent) lag behind Turkey (91 percent).

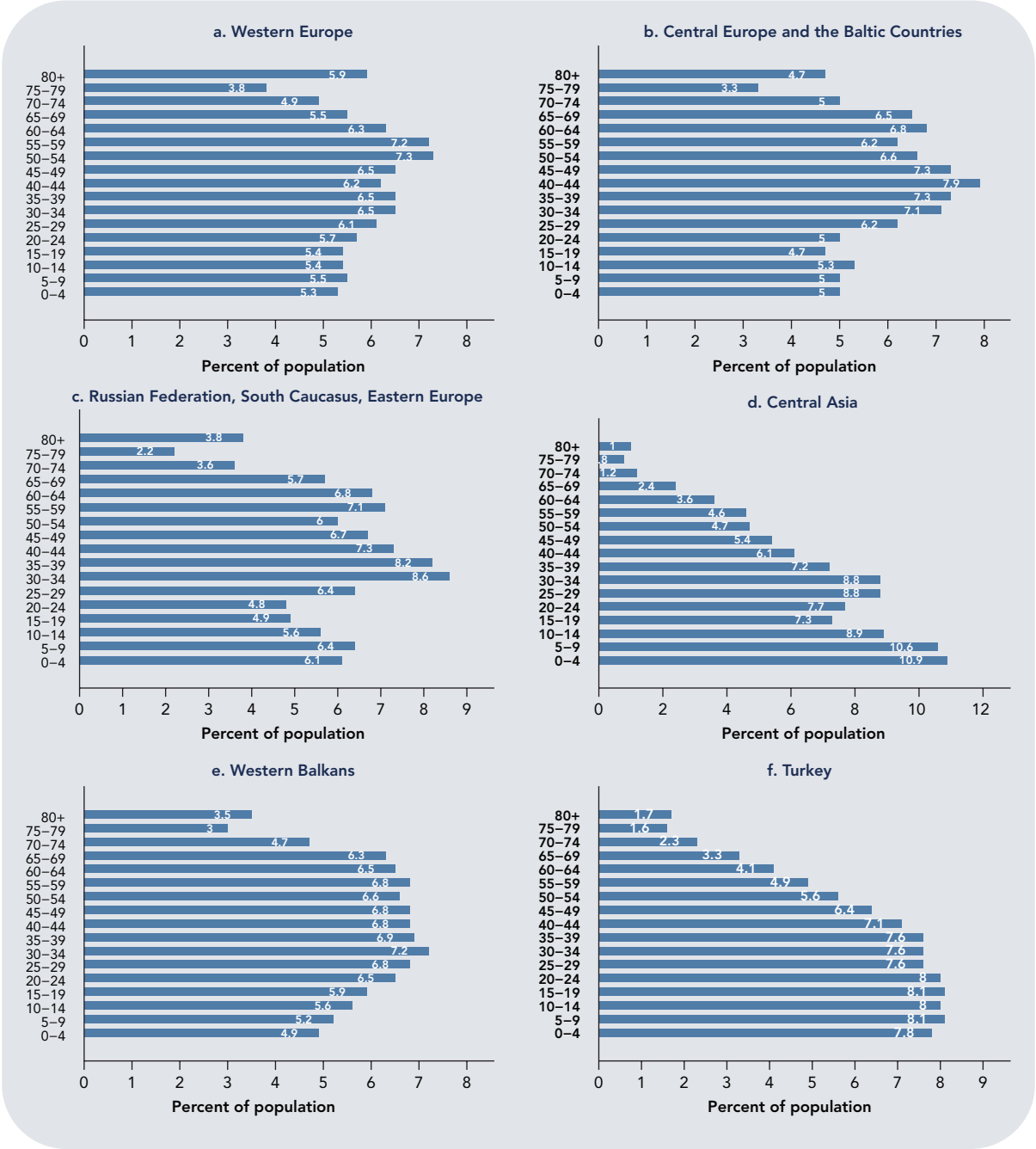
Notes:
a. Growth fundamentals to construct the baseline are calibrated using (a) the 2014 labor shares from the Penn World Tables (PWT) 9.0 (except for Tajikistan); (b) capital-to-output ratios for 2014 from the PWT 9.0 (except for Tajikistan); (c) depreciation rates for 2014 from the PWT 9.0; (d) TFP growth rates using the 75th percentile of upper-middle-income countries (for Russia), the 75th percentile of low-income countries (for Tajikistan), and the 20-year average from the PWT 9.0 for Turkey; and (e) population projections from the United Nations. Tajikistan uses an interpolated labor share of 60 percent and a steady-state capital-to-output ratio of 2, because of measurement issues. The LTGM-HC assumes a Mincer return to schooling of 12 percent.
b. Expected years of schooling are marginally higher in Russia than in Finland, so they were kept constant for simplicity.

The education and health challenges of countries in Europe and Central Asia are different from the challenges in other regions. Child mortality is very low across the region, except in isolated pockets of poverty in Central Asia. The region's basic education outcomes are relatively good by global standards, as are broad adult health outcomes, except in the eastern part of the region, where adult survival rates are particularly low given country income levels.

The HCI is useful for identifying the position of the region in the global context, but it may not provide enough information about the education and health investments that could be most impactful in Europe and Central Asia. In addition, given the HCI's focus on a restricted set of outcomes for which the region's performance is close to the ideal benchmark, the index lacks enough granularity to be used for policy recommendations in many countries in the region. The index also focuses mostly on outcomes before age 18, under the assumption that they contribute the most to the productivity of the next generation of workers. Given the age profile of the population, this focus is most appropriate for Central

Asia and Turkey, where younger people are particularly numerous and are expected to represent the bulk of the working-age population in the coming years (figure 2.2). In the remaining subregions, the share of young people is smaller; the working-age population of the next years will thus be composed of people who

FIGURE 2.2 Central Asia and Turkey have larger shares of young people than the rest of the region



Source: UN DESA 2019.

are already adults today. Young people may not necessarily be representative of the future productivity of workers in these subregions, emphasizing the importance of life-long learning as well as healthy, productive aging.

This section adds to the HCI by presenting data on and discussion of elements that are particularly important for the region. Instead of focusing only on basic education, the analysis incorporates information on quality-adjusted years of higher education. In proxying health status, it goes beyond health outcomes such as adult survival rate and child stunting, incorporating three adult health risk factors (obesity, smoking, and heavy drinking) that are particularly important in Europe and Central Asia. These additions are intended to provide a more granular description of pre-pandemic human capital in the region and facilitate a more focused policy discussion. Demirgüç-Kunt and Torre (2020) provide a more detailed analysis of the implication of these extensions to the HCI.

Better Higher Education for a Rapidly Changing Labor Market

The 2019 *World Development Report* highlights the changing nature of work across the globe. In high-income countries, which include most countries in Europe and Central Asia, having a good basic education will not be enough to be productively included in the labor market in the coming decades; productive workers will need good-quality higher education. Therefore, in addition to considering quality-adjusted years of basic education, it is important to consider a measure of quality-adjusted years of higher education (QAYH). Like learning-adjusted years of basic education, QAYH measures both quantity and quality.

The standard approach for estimating expected years of basic education uses the age-specific enrollment rates over all individuals age 4–18 as the main input. The nature of higher education requires a different treatment, for several reasons. First, there is no theoretical age at which higher education is expected to happen—the only requirement is to have completed basic education. Second, higher education is not always pursued full time; many students pursue degrees while working part time. Third, higher education degrees are not uniform in length; they vary across disciplines and across countries (per the Bologna Process, the norm in countries in the European Union is three years for initial degrees; a Russian bachelor's degree program is four years long).

This analysis uses the percentage of individuals with a higher education degree at age 30–34 as a measure of educational attainment. This age range was chosen because most people complete their education by this age. As the analysis is forward looking, the best estimate of the expected higher education level of a child born today is that of people who are today in the earliest age range for which education has been completed (that is, 30–34). Older age ranges may be more informative of the expected higher education level of previous generations. To express this measure of attainment in years of education, it is assumed that a university degree is equivalent to 3.5 years of higher education, in order to account for differences across disciplines and education systems. This assumption can be relaxed, and different numbers of years chosen, but the variability essentially comes from attainment rates.

Quality adjustment of higher education should be done primarily by measuring the quality of outputs, such as the skill proficiency of university graduates (just as harmonized test score results are used to measure the quality of learning among primary and high school students). However, measures of adult skill proficiency (from the Programme for the International Assessment of Adult Competencies [PIAAC] or Skills Towards Employability and Productivity [STEP] surveys, for example) are available only for a limited set of countries.[1] Using measures of quality of inputs—such as the quality of universities—has the advantage of wider data availability. In addition, measures of the quality of universities and adult skill proficiency correlate very well for countries for which both measures are available (Demirgüç-Kunt and Torre 2020).

Information from six university rankings—the Times Higher Education (THE) ranking; the Quacquarelly Symonds (QS) ranking; the Academic Ranking of World Universities (ARWU, also known as the Shanghai ranking); the Center for World University Rankings (CWUR); the U.S. News Global Universities Ranking; and the U-Multirank ranking (a nonnumeric, user-defined ranking)—was used to adjust the expected years of higher education by a measure of quality. These rankings, which are available for 400–1,000 universities in 45 countries in Europe and Central Asia, provide a numerical score (usually ranging from 0 to 100) for each university. Country-level ratings are calculated by averaging values for all universities in a country included in each ranking, providing six values for each country, one for each ranking. These values are then normalized and standardized, and the average across the six values is taken as the final aggregate higher education quality score. (Annex 2.1 provides detail on the calculation of the quality score.)

The quality wage premium implied by an increase from 0 to 100 in the aggregate quality score is estimated using data from the United States, in order to transform the quality measure into a quality-adjustment factor for higher education (see annex 2.1 for more details). This exercise indicates that a university degree from an institution with a score of 0 is equivalent to 79 percent of a university degree from an institution with a score of 100; the premium associated with full quality is 27 percent. This quality adjustment factor is then applied to the expected years of higher education (based on the levels of tertiary attainment) to produce a single value of the QAYH for each country. A value of 0 for the quality measure applies to countries that do not have any university present in any of the six rankings—the case only for Kosovo, the Kyrgyz Republic, Tajikistan, and Uzbekistan. This value implies that higher education graduates from these countries earn no additional premium for quality beyond the intrinsic value of a tertiary degree.[2]

The QAYH is an important and useful measure, although it is subject to several caveats. First, inclusion in some of these rankings is up to the individual university; not being present in the ranking does not mean that the university

1. For a comparison of output quality in tertiary education, see Loyalka and others (2019), who compare the computer science skills of computer science undergraduates in their last year in China, India, the Russian Federation, and the United States.
2. The wage premium of a tertiary degree for universities that have a theoretical score of 0 is still positive (representing 79 percent of a 100-score university, depending on the ranking used for the calculation), meaning that there is intrinsic value associated with a tertiary degree irrespective of its quality. Graduates from zero-score universities earn no additional premium for quality.

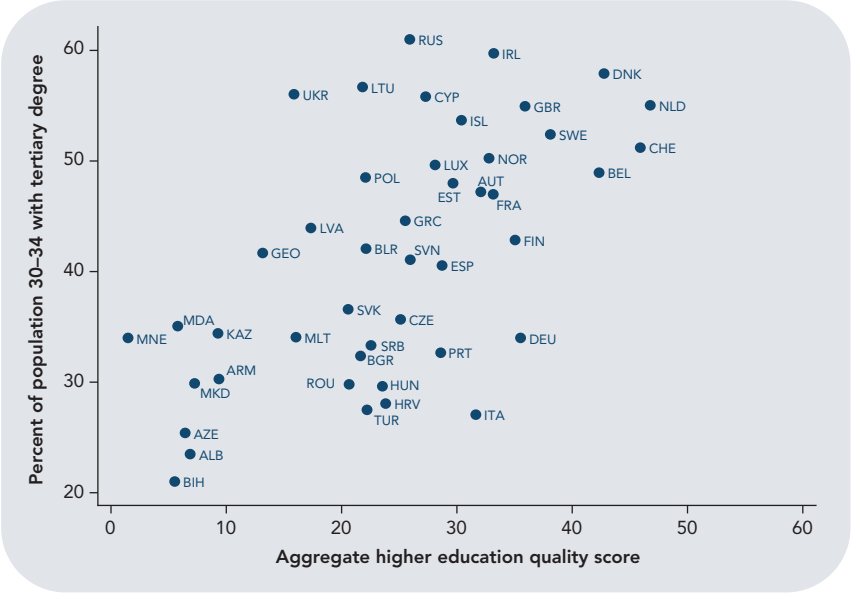
ranks so low that it does not show up. Second, attributing to a country the average quality of its universities ignores the distribution of students across universities. Third, the quality-adjustment factor was derived from the implied differences between the wages of graduates of a low-quality university and graduates of a high-quality university in the United States. This implied wage differential may be even larger when comparing a low-quality university in one country with a high-quality university in another. Interpretation of the results emerging from the use of this measure of the quality of higher education should take these limitations into account.

In general, countries with higher quality scores also have higher levels of attainment of higher education (figure 2.3). There are notable exceptions, however. For example, Italy has a high quality score but relatively low attainment and Ukraine has a low quality score but high attainment.

Combining both measures into the measure of QAYH reveals a positive association between this measure and income level (figure 2.4). Ukraine—with a QAYH of more than 1.5, similar to that of Western European countries, but a lower income level—is a notable outlier.

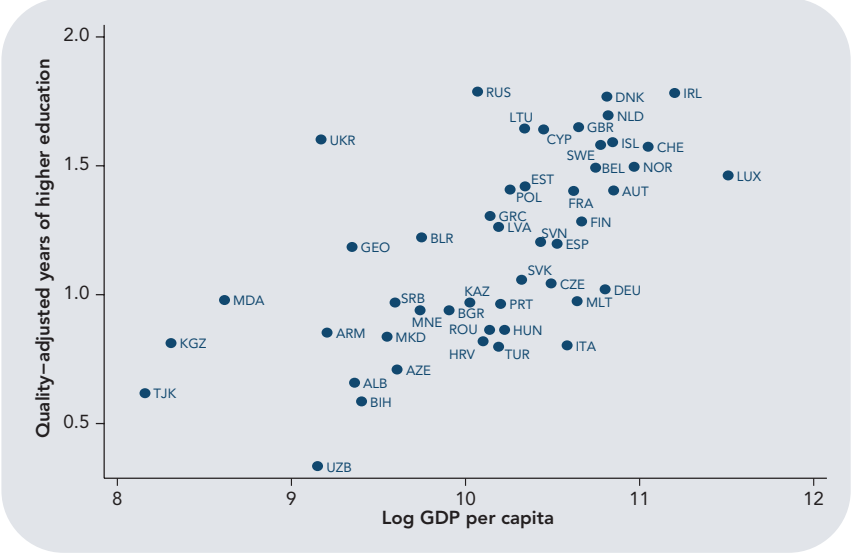
QAYH correlates positively with learning-adjusted years of basic education (figure 2.5). There is some dispersion, however. For instance, Croatia and Cyprus have similar levels of learning-adjusted years of basic education (10.4 and 10.9 respectively) but very different levels of QAYH (0.82 for Croatia and 1.64 for Cyprus). Georgia and Slovenia have similar levels of QAYH (about 1.2) but very different levels of learning-adjusted years of basic education (8.3 for Georgia and 11.4 for Slovenia).

FIGURE 2.3 Higher education quality and attainment are correlated in Europe and Central Asia



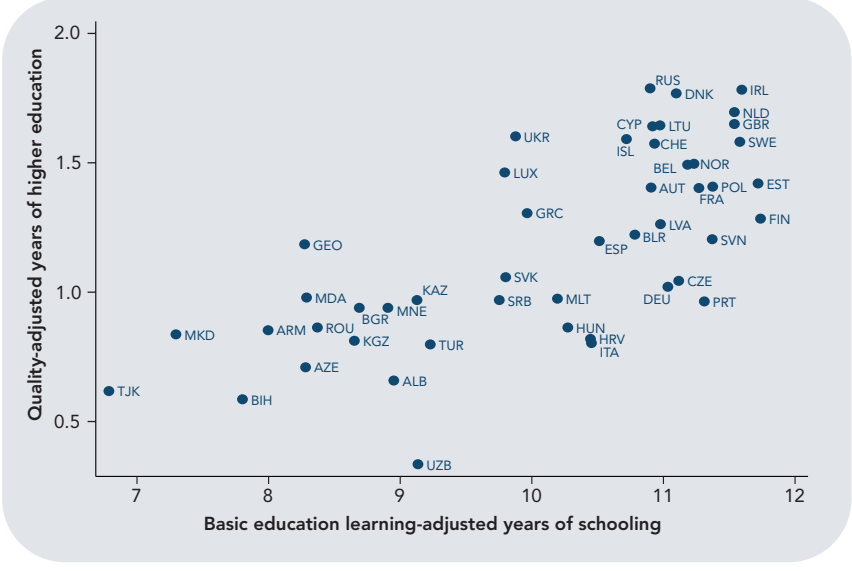
Sources: Attainment data were calculated from the European Union Statistics on Income and Living Conditions and household surveys.
Note: The standardized quality score for higher education was calculated in the following way: The quality scores coming from each of the six university rankings (the Times Higher Education, the Quacquarelly the Symonds, the Academic Ranking of World Universities, the Center for World University Rankings, the U.S. News Global Universities Ranking, and U-Multirank) were first standardized to a global mean of 0 and a standard deviation of 1 and then averaged for every country. This value was then rescaled to range from 0 to 100. Figure includes only countries with universities present in four university rankings. See Country Codes for country names.

FIGURE 2.4 Country income levels and quality-adjusted years of higher education are correlated in Europe and Central Asia



Source: World Bank calculations.
Note: See Country Codes for country names.

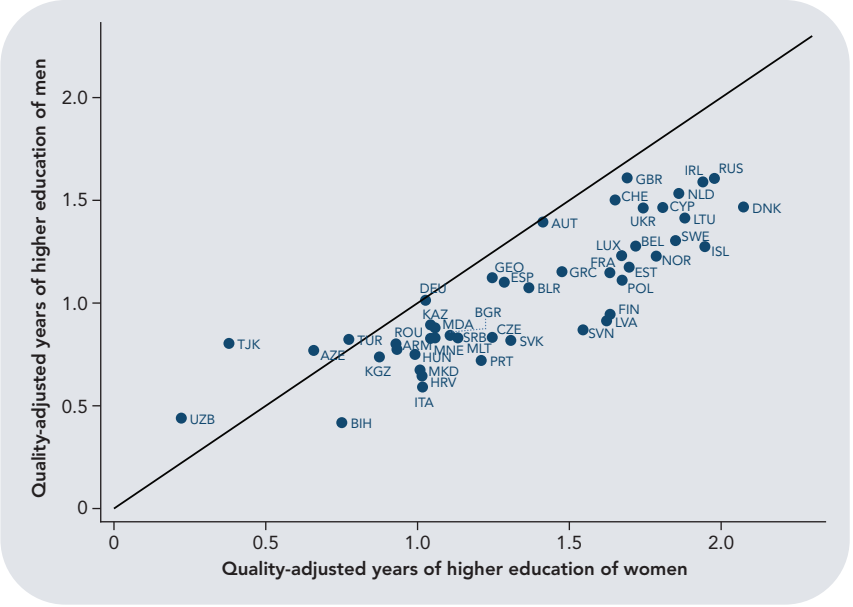
FIGURE 2.5 Learning- and quality-adjusted years of basic and higher education are correlated in Europe and Central Asia



Source: World Bank calculations.
Note: The quality adjustment of learning-adjusted years of schooling was done using 2018 scores on the Programme for International Student Assessment (PISA) or the latest available data. See Country Codes for country names.

QAYH is higher for women than for men in all countries in the region except Azerbaijan, Tajikistan, Turkey, and Uzbekistan (figure 2.6). The largest differences are in Finland and Latvia, where women have more than 0.66 QAYHs more than men. This finding is consistent with the pattern observed in basic education, where learning-adjusted years of schooling for girls are also higher than for boys almost everywhere in the region (World Bank 2020a). In this sense, attainment rates are lower for men than for women across all levels of education.

FIGURE 2.6 Quality-adjusted years of higher education are higher for women than men almost everywhere in Europe and Central Asia



Source: World Bank calculations.
Note: See Country Codes for country names.

Women's QAYH is generally higher than men's, but there is strong gender segregation in terms of the discipline studied. Women's presence in science, technology, engineering, and mathematics (STEM) majors is considerably lower than that of men (box 2.3). Holders of tertiary degrees in these disciplines tend to earn higher wages and are more likely to be employed. Therefore, the higher tertiary attainment rates by women may be offset by the lower relative productivity (as measured by wages) of the degrees they pursue.

Table 2.1 presents the values of QAYH for all countries in Europe and Central Asia for which information is available. The values are highest in the Russian Federation and Northern Europe and lowest in Central Asia, the South Caucasus, Turkey, and the Western Balkans (figure 2.7).

Adult Health Risk Factors as Additional Proxies for Health Status

The health component of the HCI seeks to measure the productivity losses associated with poor health that a child born today will face later in life as an adult. The global HCI calculates this component based on two variables: the child stunting rate and the adult survival rate (the chance that a 15-year-old lives to age 60). These variables are understood to be good proxies for unobserved latent health status in a global context. Their effects on productivity are measured by the returns to adult height.

Another approach would be to assume that good health means the absence of disease and bad health means the presence of disease. A low prevalence of health risk factors implies a lower disease burden; a high prevalence could imply a higher disease burden.

BOX 2.3 The gender gap in science, technology, engineering, and mathematics

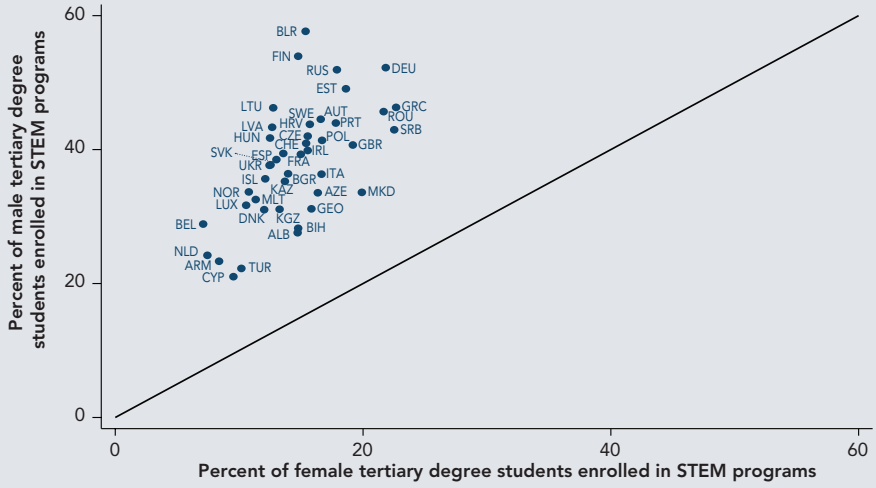
The percentage of women enrolling in tertiary degrees in STEM is considerably lower than that of men (figure B2.3.1). On average, about 25 percent of tertiary education students in Europe and Central Asia were enrolled in STEM degrees in 2017. Among male students, the share was 38 percent; among female students it was about 15 percent. In Belgium, men in STEM programs outnumber women by a factor of four (with shares of 29 percent for men and 7 percent for women); in Belarus, 58 percent of male tertiary students but just 15 percent of female students graduate with STEM degrees. The differences are smallest—although still large—in the Western Balkans, where the average rate of enrollment in STEM tertiary degrees is 33 percent for men and 18 percent for women.

Why are gender differences in fields of study relevant? Occupational segregation—the tendency of men to sort into high-paying occupations and women into low-paying occupations—explains a substantial part of the gender wage gap in middle- and high-income countries. In the United States, for instance, occupational differences explain a third of the gender wage gap (Blau and Kahn 2017). Because wages tend to be higher in STEM-related occupations, underrepresentation of women in these fields contributes directly to the gender wage gap.

In Europe and Central Asia, the underrepresentation of women in STEM tertiary degrees has been attributed primarily to differences in preferences and aspirations of girls and boys. Gender differences in performance on math and science high school tests in the region are small, but the probability that a high-performing boy enrolls in a STEM-related college degree is significantly higher than that of an equally high-performing girls (Muñoz Boudet and others 2019).

Several policy options could help women advance their participation in STEM. A first set of options is addressed at girls in middle and high school, where this bias starts to arise. Providing information and mentoring can change attitudes

FIGURE B2.3.1 The share of enrollment in STEM tertiary degrees is much higher for men than for women in Europe and Central Asia



Sources: Data from Eurostat, OECD, and UNESCO.
Note: Values are calculated for enrolled students, except for Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, the Kyrgyz Republic, and Ukraine, for which figures corresponds to the share of male and female graduates the previous year. STEM = science, technology, engineering, and mathematics. See Country Codes for country names.

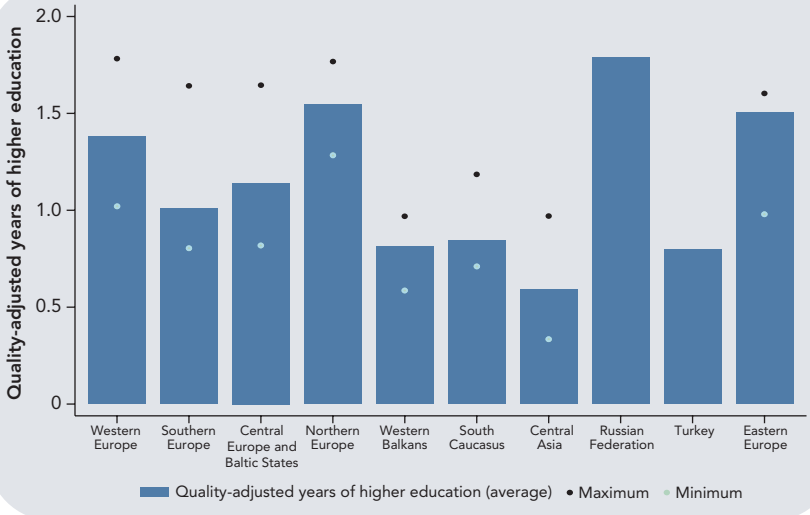
(Continued next page)

BOX 2.3 (continued)

and perceptions about STEM of both girls and their parents, who also influence their children's motivation and aspirations (Hammond and others, 2020). Conversations with women role models, even if just limited to one hour of duration, can have significant positive effects on girls' interest in STEM (Breda and others, 2020). Teacher stereotypes about the relationship between gender and math have been shown to have a significant effect on the academic choices of young girls (Carlana 2019), and therefore having female teachers in math and science can stimulate girls' enrollment in STEM courses (Lim and Meer, 2020). In tertiary education, mentorship by female faculty members and experts also influence the interest of young women in STEM fields. In this sense, university and professional associations of women can help this task by providing access to mentors and a network of peers (Hammond and others, 2020). Financial incentives can also help: results-based financial support has a positive effect on retention and completion of undergraduate degrees in engineering (Yang and Grauer, 2016).

Achieving gender parity in STEM degrees will not necessarily help reduce the gender gap if labor demand is not strong, however. The share of STEM graduates of either gender employed in STEM-related occupations is below 20 percent in many countries in the region, and most female STEM graduates end up in sales or teaching jobs (Muñoz Boudet and others 2019). Changing girls' professional aspirations should be one of many components of policy that aims to reduce the gender wage gap.

FIGURE 2.7 Central Asia, Turkey, Western Balkans, and South Caucasus can benefit significantly from improving their higher education



Source: World Bank calculations.

The risk factors that are relevant as indirect measures of latent health status depend on the types of disease prevalent in each context. In Europe and Central Asia, cardiovascular disease, followed by external causes (mainly alcohol-related road traffic injuries), explains most of the differences in adult life expectancy (Smith and Nguyen 2013). People with underlying cardiovascular conditions have a higher mortality rate from COVID-19 than people without them (Wu and McGoogan 2020; Zhou and others 2020). In view of these findings, this analysis

TABLE 2.1 Quality-adjusted years of higher education in Europe and Central Asia

Subregion/country	Learning-adjusted years of basic education	Share of population 30–34 with tertiary degree (percent)	Aggregate higher education quality score	Quality-adjusted years of higher education
Central Asia	8.8	21.3	2.5	0.59
Kazakhstan	9.1	34.4	9.3	0.97
Kyrgyz Republic	8.7	29.5	—	0.81
Tajikistan	6.8	22.4	—	0.62
Uzbekistan	9.1	12.1	—	0.34
Central Europe and Baltic countries	10.4	39.2	22.3	1.14
Bulgaria	8.7	32.4	21.6	0.94
Croatia	10.4	28.1	23.8	0.82
Czech Republic	11.1	35.7	25.1	1.04
Estonia	11.7	48.0	29.7	1.42
Hungary	10.3	29.6	23.5	0.86
Latvia	11.0	44.0	17.3	1.26
Lithuania	11.0	56.7	21.8	1.65
Poland	11.4	48.5	22.1	1.41
Romania	8.4	29.8	20.6	0.86
Slovak Republic	9.8	36.6	20.6	1.06
Slovenia	11.4	41.1	25.9	1.20
Eastern Europe	9.9	52.5	16.3	1.50
Belarus	10.8	42.1	22.1	1.22
Moldova	8.3	35.1	5.8	0.98
Ukraine	9.9	56.0	15.9	1.60
Northern Europe	11.4	51.2	37.3	1.54
Denmark	11.1	57.9	42.8	1.77
Finland	11.7	42.8	35.1	1.28
Iceland	10.7	53.7	30.4	1.59
Norway	11.2	50.2	32.8	1.50
Sweden	11.6	52.4	38.1	1.58
Russian Federation	10.9	61.0	25.9	1.79
South Caucasus	8.2	29.9	8.5	0.84
Armenia	8.0	30.3	9.4	0.85
Azerbaijan	8.3	25.4[a]	6.4	0.71
Georgia	8.3	41.7	13.1	1.19
Southern Europe	10.5	34.1	29.8	1.01
Cyprus	10.9	55.8	27.3	1.64
Greece	10.0	44.6	25.5	1.31
Italy	10.5	27.1	31.6	0.80
Malta	10.2	34.1	16.0	0.98
Portugal	11.3	32.7	28.5	0.96
Spain	10.5	40.6	28.7	1.20
Turkey	9.2	27.5	22.2	0.80
Western Balkans	8.8	28.5	13.3	0.81
Albania	9.0	23.5	6.9	0.66
Bosnia and Herzegovina	7.8	21.0	5.5	0.59
Kosovo	7.9	—	—	—
Montenegro	8.9	34.0	1.5	0.94
Republic of North Macedonia	7.3	29.9	7.3	0.84
Serbia	9.8	33.3	22.6	0.97
Western Europe	11.3	45.9	36.2	1.38
Austria	10.9	47.2	32.1	1.40
Belgium	11.2	48.9	42.3	1.49
France	11.3	47.0	33.1	1.40
Germany	11.0	34.0	35.5	1.02
Ireland	11.6	59.7	33.2	1.78
Luxembourg	9.8	49.7	28.1	1.46
Netherlands	11.5	55.0	46.8	1.70
Switzerland	10.9	51.2[b]	45.9	1.58
United Kingdom	11.5	55.0	35.9	1.65
Europe and Central Asia (country average)	10.1	40.3	23.0	1.18
Europe and Central Asia (population-weighted average)	10.4	42.4	26.2	1.25

Sources: Attainment data were calculated from the European Union Statistics on Income and Living Conditions and household surveys. Learning-adjusted years of basic education (LAYS) were obtained from the HCI database.
Note: For the average standardized quality score for higher education, the quality scores on each of the six university rankings (the Times Higher Education, the Quacquarelly Symonds, Academic Ranking of World Universities, the Center for World University Rankings, the U.S. News Global Universities Ranking, and U-Multirank) were first standardized to a global mean of 0 and a standard deviation of 1 and then averaged for every country. These values were then rescaled to range from 0 to 100. Countries that have no university in any of the six university rankings are assigned a score of 0 for the purpose of calculating the number of quality-adjusted years of higher education and subregional averages.
— Not available.
a. Based on population age 25 and older.
b. Based on population 25–34.

focuses on the prevalence of three health risk factors associated with cardiovascular disease: obesity, tobacco smoking, and heavy alcohol consumption. The higher the prevalence of these risk factors, the higher the probability of disease and the worse the health status. The prevalence of these risk factors increases the probability of suffering from noncommunicable diseases and increases the mortality and morbidity consequences of some infectious diseases, including COVID-19.

The impact on productivity of specific health conditions is difficult to estimate. There is more evidence on the productivity effects associated with the risk factors behind such health conditions. Annex 2.2 presents a literature review of the effects on productivity of obesity, tobacco smoking, and heavy drinking that suggest the presence of considerable negative effects of such factors on adult earnings.

Focusing only on risk factors has its limitations, as a mediating institutional factor lies between risk factors and morbidity: health care systems. The capacity of health care systems to manage the consequences of increased risk factors—and the diseases associated with them—ultimately determines whether that increased risk ends in increased morbidity and, eventually, mortality (box 2.4, on the preparedness for infectious disease outbreaks). Good health care systems strongly alleviate the morbidity and mortality consequences of the increased prevalence of risk factors. Accounting for the effects of health care systems would require including health outcome measures—such as the child stunting and adult survival rates used in the HCI—as additional proxies for latent health status. Highlighting adult health risk factors is nevertheless very important, because these factors provide policy makers with a clearer picture of the adult health challenges health care systems in the region may need to address.

Obesity

Obesity—defined as a having a Body Mass Index (BMI) of more than 30—significantly increases an individual's health risks.[3] It is associated with a wide range of noncommunicable diseases, such as diabetes, cardiovascular disease, and liver disease.

Evidence of the negative effect of obesity on wages is overwhelming, particularly for women. Estimates of the wage differential between nonobese (BMI < 30) and obese (BMI > 30) people range between 0 and 20 percent. The median of the studies surveyed implies a productivity loss of 9.9 percent (see table A2.2.2, in annex 2.2).

Figure 2.8 shows the relationship between the percentage of adults whose BMI exceeds 30 and the income levels of the countries in the region for which information is available. A clear negative correlation is evident for middle- and high-income countries: The higher the country's average income, the lower the share of obese adults in the population. However, the poorest countries in the region—the Kyrgyz Republic and Tajikistan—have relatively small shares of obese adults. The lack of additional data points precludes estimating the relationship between obesity and income at lower income levels, although an inverted *U*-shape relationship between obesity and income is a possibility.

3. The BMI is calculated by dividing a person's weight (in kilograms) by the square of the person's height (in meters).

BOX 2.4 Pandemic preparedness: How well were countries in Europe and Central Asia prepared for infectious disease outbreaks before COVID-19?

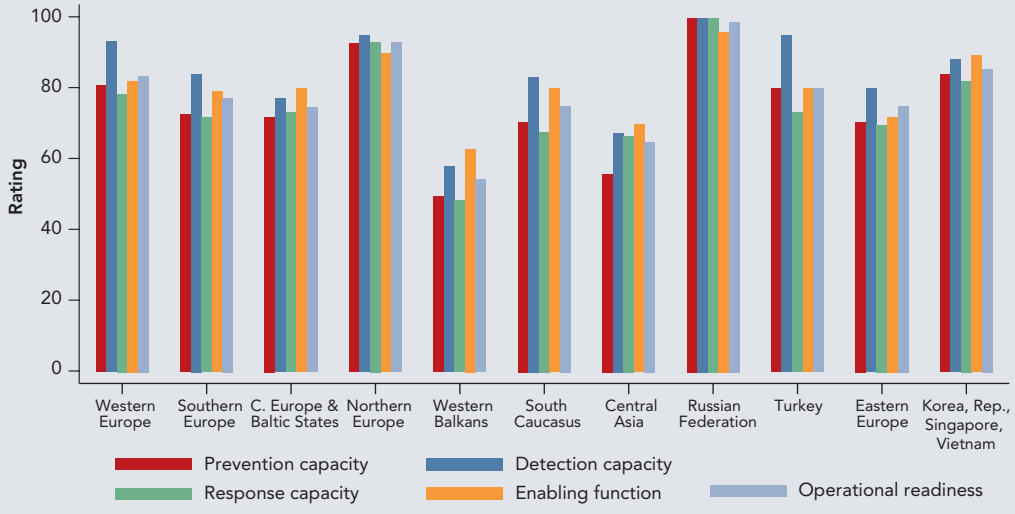
When a novel coronavirus was detected in Wuhan, China in late 2019, many countries started dusting off their pandemic preparedness plans. In early 2020, specialists from the World Health Organization (WHO) published an assessment of countries' capacity to prevent, detect, and respond to public health risks like infectious disease outbreaks (Kandel and others 2020). Using self-reported data on compliance with international health regulations, the authors developed five indices, measuring prevention capacity, detection capacity, response capacity, enabling function (resources and coordination capacity), and operational readiness. Each index ranges from 0 to 100.

Figure B.2.4.1 plots the results for Europe and Central Asia (by subregion) and the average for three East Asian countries (the Republic of Korea, Singapore, and Vietnam), as a benchmark, based on the latest available information. The lowest values are in Central Asia and the Western Balkans, the highest values are in Northern Europe and the Russian Federation, and the remaining subregions are somewhere in between. In every subregion, ratings for prevention and response capacities were lowest, ratings for detecti`on capacities highest, and ratings for enabling function and operational readiness in between.

The values for the three East Asian countries are similar to those of Northern Europe and higher than most of the other subregions in Europe and Central Asia. All three countries were hit by coronavirus-like outbreaks in recent years (SARS in 2002/03 and MERS in 2015). These experiences helped them prepare for future outbreaks, putting them in a better position than many European countries (Bali and others 2020). These countries were among the most successful in containing their local COVID-19 outbreaks.

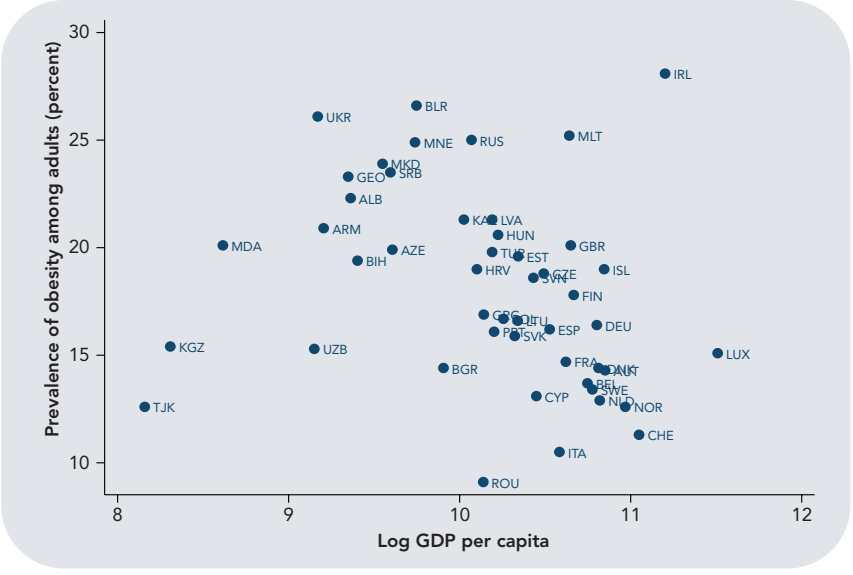
The data used for this exercise are self-reported by countries. Evidence from joint external evaluation tools suggests that self-reported and independently verified data correlate strongly, although participation in external evaluation is voluntary.

FIGURE B2.4.1 Pandemic preparedness varied widely within Europe and Central Asia before COVID-19



Sources: Bank calculations based on Kandel and others (2020) using data from the 2019 International Health Regulations State Party Annual Reporting (SPAR) or latest available year.
Note: See Kandel and others (2020) for methodology and index definition.

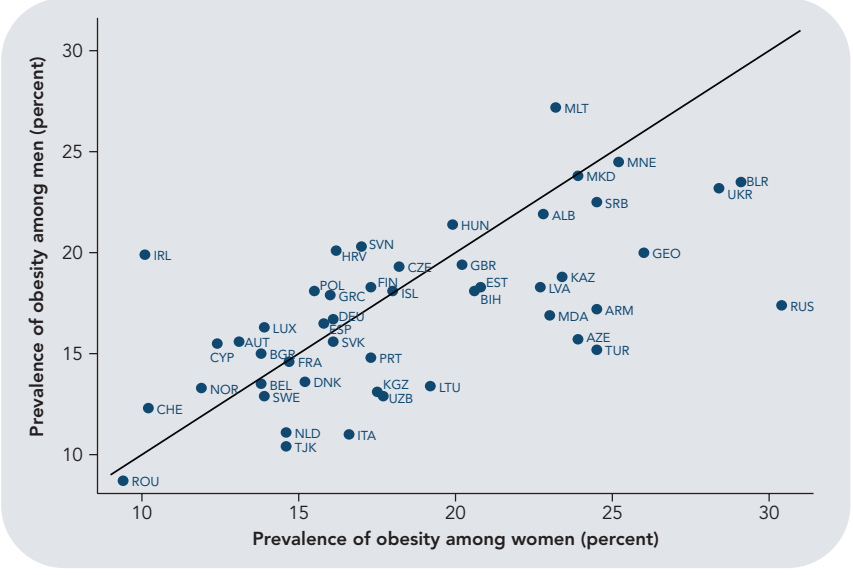
FIGURE 2.8 Obesity rates in Europe and Central Asia are highest in upper-middle-income countries



Sources: Obesity rates are from the Health Equity and Financial Protection Indicators, the 2014 European Health Interview Survey, and the World Health Organization. GDP per capita values are from World Bank's World Development Indicators.
Note: See Country Codes for country names.

Obesity is particularly prevalent among adult women in the east of the region, where the countries with the lowest income levels are located. It is considerably more prevalent among women than men in all the former Soviet republics (figure 2.9). In the Russian Federation, for instance, 30.4 percent of adult women and 17.4 percent of adult men are obese. In Central and Western Europe, the differences between the obesity rates of men and women are smaller, with the prevalence slightly higher among men.

FIGURE 2.9 Gender differences in obesity are greatest in the eastern part of the region, where the prevalence is much higher among women



Sources: Obesity rates are from the Health Equity and Financial Protection Indicators, the 2014 European Health Interview Survey, and World Health Organization data.
Note: See Country Codes for country names.

Smoking

Tobacco use is associated with an increased prevalence of cancer, cardiovascular disease, and chronic respiratory disease. Systematic evidence shows that smokers have a lower life expectancy because of noncommunicable diseases (Holla 2014). A few studies look at the impact of smoking on workplace absences and forgone earnings caused by hospitalization (Ross, Trung, and Phu 2007; Tsai and others 2005). The bulk of the literature looks at the effect on earnings, identifying a significant negative association. The median of the studies surveyed in table A2.2.2, in annex 2.2, indicates a negative effect of smoking on earnings of about 9.5 percentage points, conditional on individual characteristics. This figure means that current smokers (defined as people who are daily or occasional smokers) have earnings that are 9.6 percent lower than nonsmokers, once differences in individual characteristics (such as age, gender, and education) are taken into account.

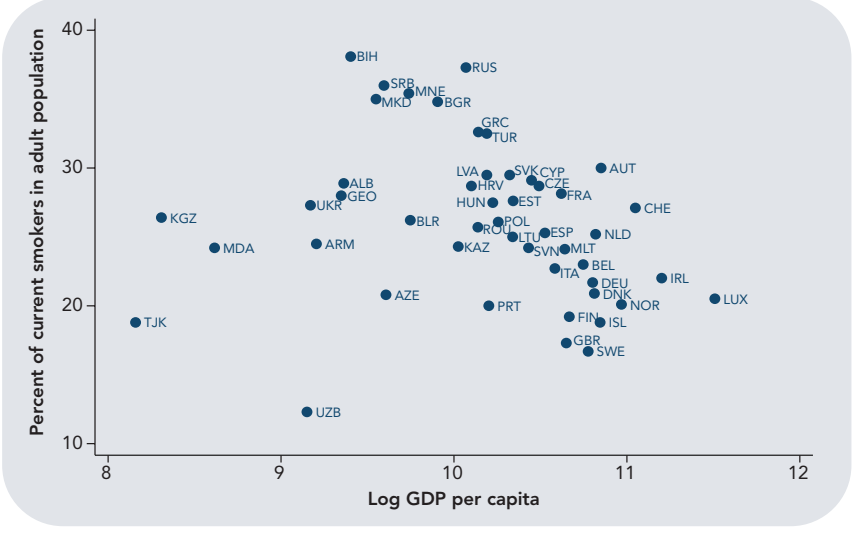
Figure 2.10 shows the prevalence of smoking among adults in Europe and Central Asia. As in the case of obesity, there appears to be a negative relationship between the adult smoking rate and country income level for high-income countries. For middle- and low-income countries, the relationship is positive or flat.

The difference between the smoking rates of men and women is stark: In no country in the region do women smoke more than men. In some countries—particularly countries in the South Caucasus—the gender gap is close to 40 percentage points. Gender differences for smoking are smallest in the Nordic countries (figure 2.11).

Heavy alcohol consumption

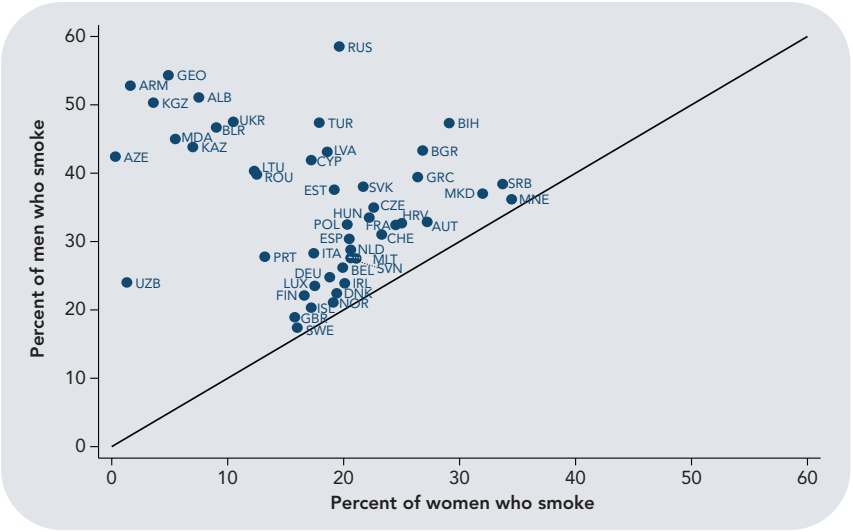
Moderate consumption of alcohol may be beneficial for health, as it may increase the level of "good" cholesterol. But excessive alcohol consumption increases the

FIGURE 2.10 Smoking rates in Europe and Central Asia are highest in upper-middle-income countries



Sources: Smoking rates are from the 2014 European Health Interview Survey and the World Health Organization. GDP per capita values are from World Bank's World Development Indicators.
Note: See Country Codes for country names.

FIGURE 2.11 **Men in Europe and Central Asia are more likely to smoke than women, particularly in the South Caucasus and Central Asia**



Sources: Smoking rates are from the 2014 European Health Interview Survey and the World Health Organization.
Note: See Country Codes for country names.

likelihood of heart and liver disease (Holla 2014), and the intoxicating effect can increase the risk of morbidity and mortality from traffic accidents.

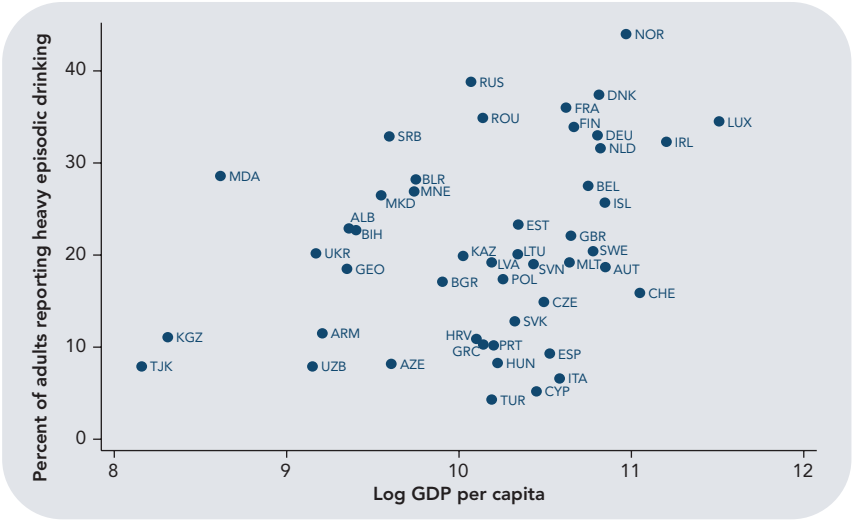
Only a few studies examine the direct impact of alcohol consumption on productivity (see table A2.2.3, in annex 2.2). Among the studies reviewed, the median effect finds that heavy drinkers—the definition of which is not consistent across all studies—earn 20 percent less than nondrinkers, after accounting for individual characteristics. This figure may underestimate the overall productivity effect, for two reasons. First, there is some evidence of a wage premium for moderate alcohol consumption, so the difference between heavy drinkers and moderate drinkers is probably greater than that between heavy drinkers and nondrinkers. Second, the estimates do not take into account the additional effect from mortality related to traffic accidents (which affects both drinkers and nondrinkers).

The correlation between country income and the prevalence of heavy episodic drinking (defined as consumption of more than 60 grams of alcohol in one episode at least once in the past month) among adults in Europe and Central Asia appears to be positive, although dispersion is high (figure 2.12). Cultural norms seem to play an important role: Countries with a large share of Muslims have very low rates of heavy episodic drinking, irrespective of their income level, as Islam forbids alcohol consumption. Turkey, a predominantly Muslim country, and the Russian Federation, a predominantly Christian Orthodox country, have similar income levels, but the prevalence of heavy episodic drinking among adults according to WHO statistics is 4.3 percent in Turkey and 38.8 percent in Russia—almost 10 times higher.

The rate of heavy episodic drinking is considerably higher among men than among women (figure 2.13), although the two rates are correlated.

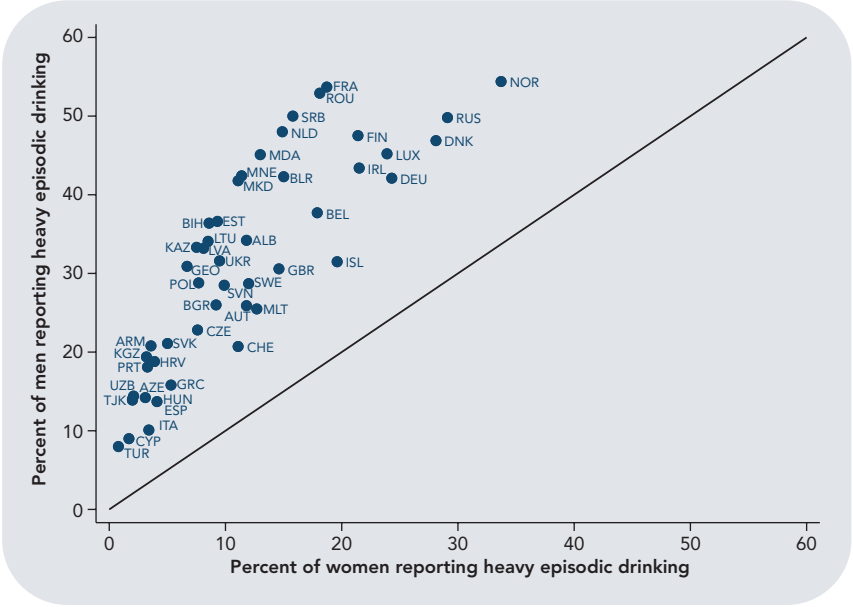
Table 2.2 presents the prevalence of the three health risk factors (obesity, smoking, and heavy drinking) among the adult population and the outcomes

FIGURE 2.12 **Heavy episodic drinking in Europe and Central Asia shows significant dispersion by income**



Sources: Heavy episodic drinking rates are from the 2014 European Health Interview Survey and the World Health Organization. GDP per capita values are from World Bank's World Development Indicators.
Note: See Country Codes for country names.

FIGURE 2.13 **Heavy episodic drinking in Europe and Central Asia is much more prevalent among men than women**



Sources: Data are from the 2014 European Health Interview Survey and the World Health Organization.
Note: See Country Codes for country names.

variables of child stunting and adult survival rates, to provide a more complete picture of the latent health status of countries in the region. The overall prevalence of the three health risk factors is high in Eastern Europe, the Russian Federation and the Western Balkans (figure 2.14). These risk factors are less prevalent in Central Asia, the South Caucasus and Southern Europe.

TABLE 2.2 Prevalence of health risk factors and health outcomes in Europe and Central Asia (percent)

Subregion/country	Obese adult population	Heavy episodic drinkers	Current smokers	Adult survival rate	Children under 5 not stunted
Central Asia	16.6	11.5	17.8	85.9	88.9
Kazakhstan	21.3	19.9	24.3	84.5	92.0
Kyrgyz Republic	15.4	11.1	26.4	84.9	88.2
Tajikistan	12.6	7.9	18.8	87.1	82.5
Uzbekistan	15.3	7.9	12.3	86.6	89.2
Central Europe and Baltic Countries	15.9	19.3	27.3	89.0	—
Bulgaria	14.4	17.1	34.8	86.6	93.0
Croatia	19.0	10.9	28.7	91.7	—
Czech Republic	18.8	14.9	28.7	92.2	—
Estonia	19.6	23.3	27.6	89.7	—
Hungary	20.6	8.3	27.5	88.0	—
Latvia	21.3	19.2	29.5	84.4	—
Lithuania	16.6	20.1	25.0	84.4	—
Poland	16.7	17.4	26.1	89.4	—
Romania	9.1	34.9	25.7	87.8	—
Slovak Republic	15.9	12.8	29.5	89.8	—
Slovenia	18.6	19.0	24.2	93.5	—
Eastern Europe	25.8	22.0	26.9	82.2	—
Belarus	26.6	28.2	26.2	85.3	93.6
Moldova	20.1	28.6	24.2	83.6	—
Ukraine	26.1	20.2	27.3	81.5	—
Northern Europe	14.4	31.5	18.8	94.1	—
Denmark	14.4	37.4	20.9	93.2	—
Finland	17.8	33.9	19.2	93.0	—
Iceland	19.0	25.7	18.8	95.5	—
Norway	12.6	44.0	20.1	94.5	—
Sweden	13.4	20.4	16.7	95.0	—
Russian Federation	25.0	38.8	30.3	80.4	—
South Caucasus	20.8	11.1	23.1	87.6	—
Armenia	20.9	11.5	24.5	88.6	90.6
Azerbaijan	19.9	8.2	20.8	88.2	82.2
Georgia	23.3	18.5	28.0	85.3	—
Southern Europe	13.6	8.2	24.3	94.7	—
Cyprus	13.1	5.2	29.1	95.2	—
Greece	16.9	10.3	32.6	93.3	—
Italy	10.5	6.6	22.7	95.3	—
Malta	25.2	19.2	24.1	95.1	—
Portugal	16.1	10.2	20.0	93.3	—
Spain	16.2	9.3	25.3	94.6	—
Turkey	19.8	4.3	32.5	91.1	94.0
Western Balkans	22.5	27.9	35.0	90.6	92.4
Albania	22.3	22.9	28.9	92.9	88.7
Bosnia and Herzegovina	19.4	22.7	38.1	91.4	91.1
Kosovo	—	—	—	90.6	—
Montenegro	24.9	26.9	35.4	90.6	90.6
Republic of North Macedonia	23.9	26.5	35.0	90.9	95.1
Serbia	23.5	32.9	36.0	89.3	94.0
Western Europe	16.5	29.7	23.0	93.3	—
Austria	14.3	18.7	30.0	93.7	—
Belgium	13.7	27.5	23.0	93.1	—
Germany	14.7	36.0	28.3	92.6	—
France	16.4	33.0	21.7	93.1	—
Ireland	28.1	32.3	22.0	94.4	—
Luxembourg	15.1	34.5	20.5	94.2	—
Netherlands	12.9	31.6	25.2	94.6	—
Switzerland	11.3	15.9	27.1	95.4	—
United Kingdom	20.1	22.1	17.3	93.3	—
Europe and Central Asia (country average)	18.0	21.1	25.9	90.4	90.3
Europe and Central Asia (population-weighted average)	18.4	22.5	25.6	89.4	91.4

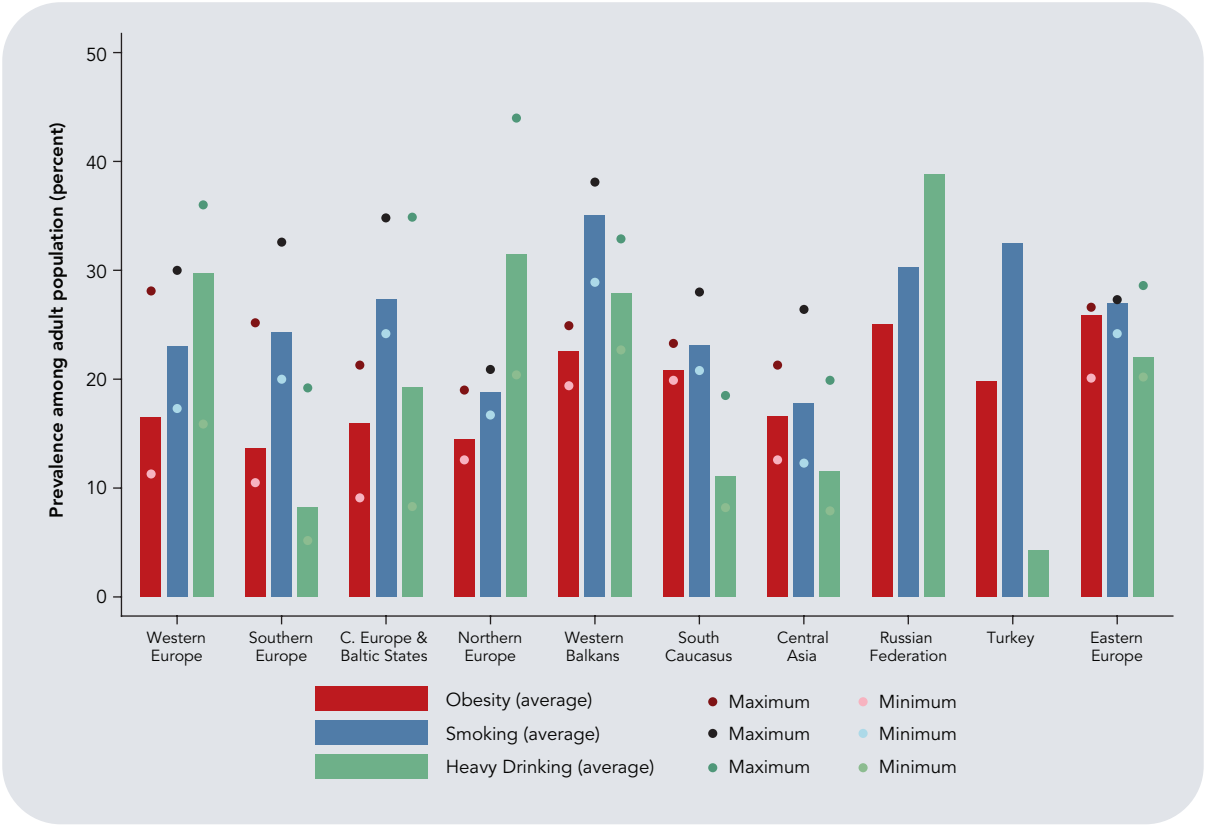
Source: Data on obesity, smoking, and alcohol consumption are from the European Health Interview Survey, Health Equity and Financial Protection Indicators, and the World Health Organization. The average share of children not stunted in Europe and Central Asia is calculated based on countries for which data are available only.

Note:

— Not available.

a. Includes consumption of smokeless tobacco.

FIGURE 2.14 **The prevalence of health risk factors is high in Eastern Europe, the Russian Federation, and the Western Balkans**



Sources: World Bank calculation, based on data from the 2014 European Health Interview Survey and the World Health Organization.

The prevalence of heavy drinking is high in Northern Europe, but adult survival rates are also high. The health care systems of these countries—and of other high-income countries—appear to significantly buffer the consequences of these risk factors.

Impact of the COVID-19 Pandemic on Health and Education Outcomes in Europe and Central Asia

The COVID-19 pandemic took Europe and Central Asia mostly by surprise. In recent years, countries in East Asia and Sub-Saharan Africa saw outbreaks of highly contagious infectious diseases, including SARS, MERS, and Ebola. As a result of their experience with those epidemics, public health systems in some East Asian countries reacted quickly, swiftly containing the disease (see box 2.4).

In contrast, the last infectious disease to severely hit Europe and Central Asia was the 1918 "Spanish flu." Subsequent flu pandemics (in 1957–59, 1967–68, and 2009) and the ongoing HIV / AIDS pandemic had a comparatively limited impact in the region. Before the pandemic, the burden of disease in the region fell heavily on noncommunicable diseases. Health care systems had been gradually adapting

to that burden of disease; preparedness for infectious diseases outbreaks was not a priority (Nacoti and others 2020).

The sudden change in the disease environment had enormous consequences. The best health care systems in the region were overwhelmed in a matter of weeks, if not days. Unable to treat the growing number of COVID-19 cases, governments adopted strict nonpharmaceutical interventions to mitigate the spread of the disease. These interventions brought social and economic activity to a standstill. Of the 48 countries in the region, 44 closed their entire education system, from pre-primary schools to higher education institutions. Eventually, 90 percent of countries in the region imposed a full lockdown, restricting mobility and ordering the closure of nonessential businesses (only Belarus, Sweden, and Turkmenistan did not implement full lockdowns). Nonpharmaceutical interventions were effective in stopping the initial spread of COVID-19: after peaking in April and May, the number of infections receded in most of the region. Relaxation of the containment measures led to an increase in cases over the summer, however. Earlier interventions appear to have reduced both the number of cases and the number of deaths from the disease (Demirgüç-Kunt, Lokshin, and Torre 2020). As of September 10, 2020, at least 222,906 people in Europe and Central Asia are estimated to have died from COVID-19.[4] This number, which represents deaths officially registered as caused by COVID-19, underestimates the actual death toll, given that excess mortality in March and April 2020 was considerably higher than that of any other episode in recent history in the region (Vestergaard and others 2020).

The cost of the pandemic in human lives is evident immediately. The effects on human capital—in particular of younger generations—will reveal themselves only in the medium to long run. Depending on an individual's stage in life, the impact of the pandemic on the human capital accumulation process may come through different channels and have a differential impact (World Bank 2020a).

The COVID-19 pandemic will affect human capital outcomes of the younger generations through two channels. The first is the direct effect stemming from the disease itself. Evidence from the 1918 flu pandemic indicates that cohorts of children exposed in utero to the disease showed worse health and education outcomes several years later (Almond 2006; Guimbeau, Menon, and Musacchio 2020). There is recent evidence that COVID-19 infections could negatively affect pregnant mothers and may lead to premature births (Savasi and others 2020), although it is still too early to draw conclusions in this respect. The second channel is the indirect effect stemming from the societal disruption associated with the pandemic. The wide range of nonpharmaceutical interventions implemented to contain the spread of COVID-19 disrupted the provision of education and health services (World Bank 2020a). They also had dramatic effects on economic activity, increasing the poverty risk for millions of households (Mahler and others 2020). In Europe and Central Asia, lockdowns were associated with an immediate average decrease in economic activity of 10 percent (Demirgüç-Kunt, Lokshin, and Torre 2020). Both the disruption in service delivery and the economic recession will have significant effect on human capital outcomes (table 2.3).

4. The number of deaths by COVID-19 in emerging market and development economies (EMDEs) in ECA was 45,491, while in the remaining countries the number of deaths was 177,415.

TABLE 2.3 Impact of COVID-19 on education and health outcomes in Europe and Central Asia

Subregion/country	COVID-19 mortality rate (deaths per million as of September 10, 2020)	WHO capacity rating[a]	Impact on basic education					Impact on child mortality			
			Number of days schools closed	Learning-adjusted years of schooling (LAYS)	Change in LAYS, by scenario (Azevedo and others 2020)			Probability of survival to age 5	Change in probability of survival to age 5, by scenario (Roberton and others 2020)		
				Baseline	Optimistic	Intermediate	Pessimistic	Baseline	Optimistic	Intermediate	Pessimistic
Central Asia	50.4	2.3	104	8.8	–0.3	–0.6	–0.9	0.980	–0.001	–0.002	–0.006
Kazakhstan	103.9	3	108	9.1	–0.3	–0.6	–1.0	0.990	–0.001	–0.001	–0.003
Kyrgyz Republic	162.6	2	108	8.7	–0.4	–0.6	–0.9	0.981	–0.001	–0.002	–0.005
Tajikistan	7.4	2	74	6.8	–0.3	–0.5	–0.7	0.965	–0.002	–0.003	–0.008
Uzbekistan	11.0	2	108	9.1	–0.3	–0.6	–0.8	0.979	–0.001	–0.002	–0.007
Central Europe and Baltic countries	83.6	4.0	84	10.4	–0.3	–0.7	–1.1	0.995	—	—	—
Bulgaria	101.0	4	118	8.7	–0.3	–0.6	–1.0	0.993	!	—	—
Croatia	50.2	4	56	10.4	–0.2	–0.6	–1.0	0.995	—	—	—
Czech Republic	41.5	4	112	11.1	–0.2	–0.7	–1.1	0.997	—	—	—
Estonia	48.2	4	76	11.7	–0.2	–0.7	–1.1	0.997	—	—	—
Hungary	65.0	4	83	10.3	–0.3	–0.7	–1.1	0.996	—	—	—
Latvia	18.6	4	111	11.0	–0.3	–0.7	–1.1	0.996	—	—	—
Lithuania	31.6	5	81	11.0	–0.3	–0.7	–1.1	0.996	—	—	—
Poland	56.7	4	74	11.4	–0.3	–0.7	–1.1	0.996	—	—	—
Romania	208.9	4	83	8.4	–0.3	–0.6	–1.0	0.993	—	—	—
Slovak Republic	6.8	4	78	9.8	–0.2	–0.6	–1.0	0.994	—	—	—
Slovenia	63.0	5	63	11.4	–0.3	–0.7	–1.2	0.998	—	—	—
Eastern Europe	82.0	2.2	74	9.9	–0.4	–0.6	–0.9	0.992	0	–0.001	–0.002
Belarus	76.8	3	0	10.8	–0.4	–0.7	–1.1	0.997	0	0	–0.001
Moldova	271.7	3	112	8.3	–0.3	–0.6	–0.8	0.984	–0.001	–0.003	–0.007
Ukraine	68.1	2	87	9.9	–0.4	–0.6	–0.9	0.991	0	–0.001	–0.002
Northern Europe	262.2	5	33	11.4	–0.2	–0.7	–1.1	0.997	—	—	—
Denmark	108.4	5	38	11.1	–0.2	–0.7	–1.1	0.996	—	—	—
Finland	60.8	5	62	11.7	–0.2	–0.7	–1.1	0.998	—	—	—
Iceland	29.3	5	70	10.7	–0.2	–0.6	–1.1	0.998	—	—	—
Norway	48.7	5	59	11.2	–0.2	–0.6	–1.1	0.997	—	—	—
Sweden	578.5	5	0	11.6	–0.3	–0.7	–1.2	0.997	—	—	—
Russian Federation	123.3	4	101	10.9	–0.3	–0.7	–1.0	0.993	—	—	—
South Caucasus	88.0	3	114	8.2	–0.3	–0.6	–0.9	0.983	0	–0.001	–0.003
Armenia	305.4	3	80	8.0	–0.3	–0.6	–0.9	0.988	0	–0.001	–0.003
Azerbaijan	54.7	3	121	8.3	–0.3	–0.6	–0.9	0.978	–0.001	–0.001	–0.003
Georgia	4.8	3	122	8.3	–0.3	–0.6	–0.9	0.990	0	–0.001	–0.001

(Continued next page)

TABLE 2.3 (continued)

Subregion/country	COVID-19 mortality rate (deaths per million as of September 10, 2020)	WHO capacity rating[a]	Impact on basic education					Impact on child mortality			
			Number of days schools closed	Learning-adjusted years of schooling (LAYS)	Change in LAYS, by scenario (Azevedo and others 2020)			Probability of survival to age 5	Change in probability of survival to age 5, by scenario (Roberton and others 2020)		
				Baseline	Optimistic	Intermediate	Pessimistic	Baseline	Optimistic	Intermediate	Pessimistic
Southern Europe	519.5	4.9	93	10.5	–0.3	–0.7	–1.1	0.997	–	–	–
Cyprus	24.0	4	73	10.9	–0.2	–0.6	–1.1	0.998	–	–	–
Greece	28.1	4	60	10.0	–0.3	–0.7	–1.1	0.996	–	–	–
Italy	588.4	5	119	10.5	–0.3	–0.7	–1.1	0.997	–	–	–
Malta	31.7	4	107	10.2	–0.2	–0.7	–1.1	–	–	–	–
Portugal	181.3	5	73	11.3	–0.2	–0.7	–1.1	0.996	–	–	–
Spain	635.2	5	71	10.5	–0.2	–0.6	–1.1	0.997	–	–	–
Turkey	81.1	4	108	9.2	–0.3	–0.6	–0.9	0.989	0	–0.001	–0.002
Western Balkans	171.7	2.8	105	8.7	–0.4	–0.6	–1.0	0.992	0	0	–0.001
Albania	111.9	3	85	9.0	–0.4	–0.7	–1.0	0.991	0	0	—0.002
Bosnia and Herzegovina	205.7	2	107	7.8	–0.3	–0.5	–0.9	0.994	—	—	—
Kosovo	297.0	—	111	7.9	–0.3	–0.6	–0.9	0.985	—	—	—
Montenegro	181.5	3	110	8.9	–0.3	–0.6	–1.0	0.997	—	—	—
Republic of North Macedonia	302.9	3	114	7.3	–0.3	–0.6	–0.9	0.990	0	0	—0.003
Serbia	107.0	3	108	9.8	–0.4	–0.7	–1.0	0.994	0	0	—0.001
Western Europe	380.6	4.7	62	11.3	–0.2	–0.6	–1.1	0.996	—	—	—
Austria	82.9	4	64	10.9	–0.2	–0.7	–1.1	0.996	—	—	—
Belgium	855.7	5	64	11.2	–0.3	–0.7	–1.1	0.996	—	—	—
France	471.8	4	56	11.3	–0.3	–0.7	–1.2	0.996	—	—	—
Germany	111.5	5	56	11.0	–0.2	–0.6	–1.1	0.996	—	—	—
Ireland	360.7	4	111	11.6	–0.3	–0.7	–1.1	0.996	—	—	—
Luxembourg	198.1	4	78	9.8	–0.2	–0.6	–1.1	0.998	—	—	—
Netherlands	364.0	5	56	11.5	–0.2	–0.6	–1.1	0.996	—	—	—
Switzerland	200.4	5	62	10.9	–0.2	–0.6	–1.1	0.996	—	—	—
United Kingdom	612.7	5	71	11.5	–0.2	–0.6	–1.1	0.996	—	—	—
ECA (country average)	178.4	4.1	84	10.4	–0.3	–0.6	–1.0	0.993	–0.001	–0.001	–0.003
ECA (population-weighted average)	243.3	3.9	83	10.1	–0.3	–0.6	–1.0	0.993	–0.001	–0.001	–0.003

Source: Data on COVID-19 mortality are from Our World In Data. Data on WHO capacity rating are from the World Health Organization's Strategic Preparedness and Response Plan database. Data on school closures are from the World Bank Education GP COVID-19 Dashboard. Data on the impact on basic education were calculated using the simulation tool of Azevedo and others (2020), version 5 using HCI 2020 numbers. Data on the impact on child mortality were calculated using the results from Roberton and others (2020).

Note:

— Not available.

a. The WHO capacity rating ranges from 1 (lowest capacity to respond to a public health emergency) to 5 (highest capacity to respond to a public health emergency).

Beyond its impact on younger generations, the pandemic will also affect the human capital outcomes of people who are adults today. Mortality from COVID-19 is concentrated among people 60 and older, but the virus can reduce the long-term health status of infected adults. Evidence from previous coronavirus-like illnesses shows that lung damage may persist for years (Das and others 2017; Zhang and others 2020). Early evidence reveals that even mild cases of COVID-19 sometimes result in lung damage (Meng and others 2020). Apart from its effect on health, the societal disruption and increased unemployment the pandemic has caused may affect the productivity of the human capital of people currently in the labor market. The longer the economic recession lasts, the more likely it is that acquired human capital will depreciate (World Bank 2020a).

Education Impacts

In March 2020, almost all countries in the region closed their entire education systems, in an effort to increase social distancing and prevent the spread of the disease. Among the countries that did so, the number of school days lost ranged from 38 (in Denmark) to about 120 (in Azerbaijan, Georgia, and Italy) (see table 3.1). Schools in the region had been closed during severe seasonal influenza outbreaks, as well as during the 2009 H1N1 pandemic. Epidemiological evidence showed that school closings helped reduce transmission (Litvinova and others 2019).

Evidence on whether this measure is as effective in the case of COVID-19 is very mixed (Esposito and Principi 2020). One study shows that school closure had little to no effect on the spread of COVID-19 (Flaxman and others 2020). Another shows that it had the largest effect of any nonpharmaceutical intervention implemented (Brauner and others 2020).

Whatever the effect of school closure on the spread of the disease, there is consensus that school closures will entail a learning loss for children and young adults currently enrolled in school. Evidence from the 1916 polio pandemic (Meyers and Thomasson 2017); World War II (Ichino and Winter-Ebmer 2004); and various natural disasters (Andrabi, Daniels and Das 2020; Ceyhan and Ceyhan 2007; Sacerdote 2012; Thamtanajit 2020) shows that interrupting normal schooling has long-lasting impacts. School closures affect learning in two ways, according to Azevedo and others (2020). First, students learn less content when schools are closed. Second, disengaging from the school system is associated with a depreciation of previously acquired learning, as evidence of learning loss on disadvantaged groups during regular summer holidays shows (Cooper and others 1996; Alexander, Pitcock, and Boulay 2016). Beyond school closures, the severe economic recession associated with the pandemic may increase dropout, exacerbating the learning loss of younger cohorts.

Governments and educational institutions are working hard to mitigate the impact of school closures by offering remote learning. The level of preparedness for doing so was very uneven across countries; in some cases, it amounted to emergency remote teaching (Hodges and others 2020).

Evidence of the effectiveness of remote learning in basic education is scarce and mixed at best (Azevedo and others 2020), so the effect of these mitigation

efforts is unclear. What is becoming evident, however, is that remote learning is considerably more unequal than in-person learning, as household characteristics—such as access to the Internet and to information technology (IT) equipment and the availability of household members to support learning activities—play important roles. Evidence from the United Kingdom shows that children from better-off families spent 30 percent more time on home learning than children from poorer families during school closure in March–May 2020 (Andrew and others 2020). Evidence from Green (2020) suggests that differences in home learning may have been even larger, with substantial inequality across regions and social groups. The pandemic may thus end up not only reducing average learning scores but also making them more unequal. The advantage that girls in Europe and Central Asia have with respect to boys in terms of educational outcomes may be reduced if girls have to take up more housework than boys and therefore dedicate less time to education; boys may fall farther behind if their dropout rates increase. Students with special needs are likely to suffer, as remote modalities may not be feasible in all cases.

Azevedo and others (2020) created a tool for simulating learning loss in basic education. It takes into account the effects associated with the length of school closures, dropouts as a result of the recession, and mitigation efforts of governments to estimate the number of learning-adjusted years of schooling under three scenarios (see table 3.1). Their optimistic scenario assumes short school closures (three months) and effective mitigation efforts by the government that compensate for 20–60 percent of the counterfactual learning loss had no mitigation been in place. The intermediate scenario assumes a longer school closure (up to five months) and less effective mitigation (mitigating 10–45 percent of the learning loss). The pessimistic scenario contemplates a very extended school closure (7 out of 10 months of a normal school year) and ineffective mitigation efforts (mitigation of just 5–15 percent of the counterfactual learning loss). The optimistic scenario corresponds to a situation in which disruption in schooling is restricted to what happened at the end of the 2019/20 school year, with normal schooling resuming in the fall of 2020. Any disruption in schooling that extends to the 2020/21 school year would likely move countries from the optimistic to the intermediate scenario.

Table 3.1 presents the results of the simulations Under the optimistic and intermediate scenarios, the learning loss would be similar across all countries in the region: 0.2–0.4 learning-adjusted years of schooling. Under the pessimistic scenario, the learning loss would be up to 1.2 learning-adjusted years of schooling. In absolute terms, learning losses would be larger in countries with a higher level of baseline years of schooling. Within the framework of this simulation analysis, the reason for this result is straightforward. In countries with better education systems, the learning gains for every year of school are larger than in countries with worse education systems. Therefore, in learnings terms, the disruption of schooling is more costly in countries with better-performing systems than in countries with worse-performing ones. Countries with strong education systems will hence need strong support in order to recover from the impact of the pandemic, particularly if it persists.

Azevedo and others (2020) also simulate the effect of schooling disruption on learning inequality. Estimates by the World Bank's Europe and Central Asia Education Global Practice using the same simulation tool show that assuming differentiated effectiveness of remote learning modalities (25 percent effective for the poorest students, 50 percent effective for average students, and 75 percent effective for the richest students), the reading achievement gap between the richest quintile and the poorest quintile of students is expected to increase by 8–30 percentage points in Central Asia, 11–18 percentage points in the South Caucasus, 11 percent in the Western Balkans, and 9 percentage points in Central Europe.

The impact of the disruption on tertiary education is more difficult to simulate, because estimates of the learning acquired during a normal academic year are scarce. Higher education institutions in almost every country in the region have moved to online teaching (Arnhold and others 2020). The factors that affect basic education outcomes—namely, access to IT equipment, an Internet connection, a proper workspace from which to study or teach, and appropriate training and content for an online medium—therefore also apply to higher education.

The switch to full-time online education may also deter high school graduates from enrolling at universities. In deferring enrollment, some of these students may end up dropping out of (or failing to enroll in) tertiary education. Institutions that normally enroll large numbers of foreign students may lose substantial revenues if enrollment declines.

The pandemic-driven economic recession can also have negative effects on students graduating from universities. Evidence from Canada shows that students who graduated from college during a recession suffered persistent earnings declines for at least a decade, mostly because of worse labor market opportunities that entrenched initial inequalities (Oreopoulos, von Wachter, and Heisz 2012).

The effect of recessions on dropout among tertiary education students is not clear. On the one hand, a decrease in household income might prevent families from supporting adult children. On the other hand, a recession reduces the opportunity cost of attending university, particularly in places with high unemployment rates. An analysis of college dropout in Italy during the 2008–09 recession finds that the two effects netted out and that no change in dropout was observed (Adamopolou and Tanzi 2017).

Health Impacts

Beyond its immediate effects, the pandemic can affect long-term health outcomes. These long-term effects may have reduce the productivity of both individual workers and countries.[5] Estimates of the impact of air pollution on worker productivity—which, like COVID-19, may reduce lung function—suggest that workers performing physical tasks (Graff Zivin and Neidell 2012) and cognitive tasks (Chang and others 2019) are equally affected.

5. Serological studies estimate that 5–10 percent of the population was infected in the first wave of the pandemic in the worst-hit countries. See reports from Spain (Pollán and others 2020), England (Public Health England 2020b), and the canton of Geneva (Hôpitaux Universitaires de Genève 2020).

The disruption in the provision of health services during the pandemic may also have long-term repercussions on health. During the 2014–15 Ebola outbreak in West Africa, substantial reductions in healthcare utilization were reported in affected areas, including reductions in maternal delivery care, admissions for malaria, and vaccination coverage, all of which are associated with increased morbidity and mortality and reduced expected life expectancy (Elston and others 2017). During the 2003 SARS epidemic, outpatient visits in Taiwan, China decreased by more than 30 percent, and the decline persisted for several months (Bennett, Chiang, and Malani 2015).

A similar pattern of decrease in healthcare utilization appears to be emerging in the COVID-19 pandemic in Europe. The United Kingdom's syndromic surveillance system reveals that consultations to general practitioners for a wide range of conditions other than COVID-19 have been consistently under baseline levels—in some cases down 50 percent—since March 2020 (Public Health England 2020). In early May 2020, the French government reported that consultations with specialist doctors were down 51 percent from the same period the previous year and visits to general practitioners were down 25 percent (Santé Publique France 2020a).

The disruption of healthcare services is particularly concerning for child and maternal health. If immunizations are not provided after the pandemic, decreases could leave cohorts of children without full immunization. Overall, Europe and Central Asia has very good indicators on child and maternal health, but the poorer countries in the region may be affected if disruption is severe.

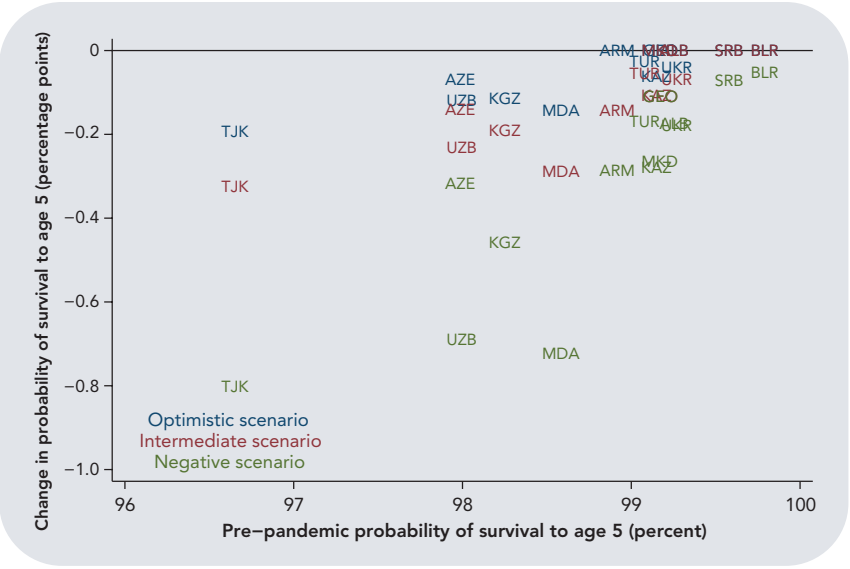
Roberton and others (2020) simulate three scenarios for increases in child and maternal mortality associated with the disruption in healthcare provision caused by the pandemic. In the optimistic scenario, supply of and demand for health services are assumed to fall by about 5 percent. The intermediate scenario assumes a decrease of about 10 percent. The pessimistic scenario assumes a decline of about 25 percent), driven also by disruptions outside the health system (such as mobility restrictions).

The authors transform the simulated values of child mortality into the probability of survival to age 5—assuming that the disruption lasts six months. Figure 2.15 shows the differences with respect to the baseline (pre-pandemic) scenario for 14 countries in the region. The declines range from 0 to 0.8 percentage points. The standard deviation of the probability of survival to age five is about 0.6 percentage points. The changes associated with the disruption of health services are therefore not to be underestimated, particularly for the worst-hit countries, such as the Kyrgyz Republic, Moldova, Tajikistan, and Uzbekistan.

These simulations do not take into account behavioral changes that may emerge after the pandemic, which could potentially mitigate some of the negative effects associated with healthcare disruption. Evidence from the 2009 H1N1 pandemic in Mexico, for example, shows a persistent decrease in cases of diarrhea among young children in the worst-hit areas, an effect possibly driven by changes in hygiene practices (Agüero and Beleche 2017).

Disruption of healthcare provision can also adversely affect adult health. An analysis of health outcomes in Taiwan, China after the 2003 SARS outbreak finds that decreased healthcare utilization during the pandemic was associated with

FIGURE 2.15 The disruption of health services as a result of the pandemic may increase child mortality



Source: World Bank calculations based on simulations of Roberton and others (2020).
Note: See Country Codes for country names.

an increase in mortality from diabetes mellitus and cerebrovascular diseases (Wang and others 2012). Estimates of this effect for the COVID-19 pandemic are not yet available, but it is likely that the pandemic will adversely affect adult health (if, for instance, regular preventive screenings for noncommunicable diseases are skipped or postponed for too long).

The recession and the societal disruption caused by the pandemic and its containment measures will also affect health. If food insecurity grows, an increase in child stunting—which is still significant in some areas of Central Asia—may occur, as evidence from past famines shows (Alderman, Hoddinott, and Kinsey 2006; Dercon and Porter 2014). Infant and child mortality in poorer countries can also increase as the result of sharp economic downturns (Baird, Friedman, and Schady 2011; Friedman and Schady 2013; Maruthappu and others 2017). An extensive review by Catalano and others (2011) suggests that although recessions and economic decline may not affect adult mortality, they may have a negative effect on mental health. Stuckler and others (2011) show that the 2008–09 Great Recession was associated with increases in suicides and road traffic fatalities across Europe, although overall mortality remained broadly stable.

The strict lockdown and social distancing measures implemented to contain COVID-19 can have significant effects on mental health (Alradhawi and others 2020). An ongoing survey on mental health during the pandemic in France shows that anxiety was particularly high at the beginning of the outbreak (Santé Publique France 2020b).[6] Figures from a similar survey for the United States show that depression and anxiety have been on the rise (Healthline 2020).

6. The survey also found that consumption of alcohol and tobacco did not vary much as a result of the pandemic, although a quarter of respondents reported having gained weight.

Another consequence of confining families indoors is the increase in domestic violence and abuse. Children are particularly vulnerable, because closure of schools both increases pressure in homes and removes the checks-and-balances that come from children's regular interaction with adults outside the home. Women are also vulnerable to abuse, and there is evidence of an increase in gender-based violence during the COVID-19 lockdown (Pérez-Vincent and others 2020).

Improving Investments in Human Capital

Countries in Europe and Central Asia can increase their citizens' human capital by implementing policies that have been proven to be effective in achieving that goal. This section discusses education and health policies that are priorities for countries in the region, given the analysis in the previous sections and the need to address the challenges of a post-COVID-19 world.

Effective Policies for Improving Education

The typical country in Europe and Central Asia would realize significant gains in productivity by improving its basic and tertiary education. To achieve this goal, it is crucial for countries in the region to (a) modernize basic education, in order to provide a strong foundation; (b) improve the quality and relevance of postsecondary education; (c) and address the equity gaps that persist at both levels. All policy initiatives will have to be mindful of the post-pandemic context, in which remote learning will play a much more important role even after the current pandemic ceases to be a major public health concern (box 2.5).

The first challenge that needs to be addressed is ensuring that all students have the IT tools and connectivity they need to effectively engage in remote learning. The second challenge is improving the quality of remote learning. Teachers and principals need to be trained and provided with the resources they need to make the best use of remote modalities and ensure that students learn. The third challenge is preventing remote learning from becoming a source of inequality in educational outcomes.

Modernizing the basic education system to provide a strong foundation

Countries around the world have made significant progress in improving basic literacy over the past few decades. Indicators of basic education outcomes are relatively good in most countries in Europe and Central Asia. Some countries still show persistent deficiencies, however, particularly on the quality dimension. As the figures on learning-adjusted years of schooling show, subregions where improvements in the quality of basic education are particularly necessary include Central Asia (Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan); the South Caucasus (especially Azerbaijan and Georgia); the Western Balkans (especially Albania, Bosnia and Herzegovina, Kosovo, Montenegro, and the Republic of North Macedonia); and Bulgaria, Moldova, and Romania.

BOX 2.5 Policy priorities to mitigate the effects of COVID-19 on learning

School closures and an abrupt shift to distance learning—via radio, TV, or the Internet—during the early stages of the COVID-19 pandemic will have an impact on students' learning across the region. In basic education, the loss can be equivalent to up to one year of schooling, as the simulations presented in the section on the impacts on the pandemic on human capital outcomes show.

As schools gradually reopen, countries will need to implement policies to mitigate and eventually remediate this learning loss. Priorities for managing the continuity of education in the immediate post-pandemic include the following:

1. *Prepare learners.* Educational systems needs to bring students back to school. Financial and nonfinancial incentives can be deployed to maximize reenrollment and attendance as schools reopen. Students about to enter the labor market will require guidance and counseling.
2. *Make schools safe and inclusive.* Schools will have to follow health protocols in order to lower their risks of becoming the source of group infections. Systems should plan for mixed or blended education, given the potential for localized recurrences of COVID-19 outbreaks.
3. *Equip classrooms for learning.* To plan for learning recovery, education systems need to assess students' post-COVID learning level. Based on these assessments, they should plan to implement large-scale remedial programs and to integrate plans for teaching essential missed material with plans for resuming progress through the curriculum. A modified school calendar could help students catch up. For instance, systems could consider running summer and winter remedial programs, either for all students or for students whose learning suffered most during the closures.
4. *Support teachers.* Teachers will require professional development and guidance in several areas, including guidance on curriculum prioritization and training on assessing learning lags, teaching at the right level, identifying and supporting at-risk students, and mastering digital skills. Because these demands come on top of the many challenges systems already face, preparation for teachers needs to begin now. More autonomy and early detection will help reduce teacher burnout.
5. *Improve management.* It is crucial to allocate adequate financing to support recovery needs, especially for disadvantaged students. Systems will also need to deal with disruptions to student assessment systems. One example is the need to adjust high-stakes examinations for the 2019/20 and 2020/21 school years.

Source: Adapted from World Bank 2020b.

In basic education, promoting innovations in teaching and learning and emphasizing basic and socioemotional skills (such as communications, problem solving, personal management, and social skills) should be priorities. Evidence suggests that the quality of teaching and the learning environment are by far the most salient influences on the cognitive, socioemotional, and behavioral outcomes of schooling, regardless of student gender or background. International research indicates that what matters most is good-quality teachers and teaching, supported by strategic professional development for teachers and policies that

attract high-ability individuals and prepare, support, and motivate them to become high-performing teachers (Chetty, Friedman, and Rockoff 2014; Hanushek and Rivkin 2010). Evidence shows that teacher training is most effective when it is practical, classroom-based, continuous, and specific to the topics each teacher teaches (Popova, Evans, and Arancibia 2016). Teacher credentials have been shown to have a small effect on learning (for references, see World Bank 2018c). Motivating teachers is important, but incentives should be context specific: Where teachers can take straightforward actions to improve learning—like showing up to work in places where teacher absenteeism is a problem—financial incentives have proven to be effective. When the actions required to improve student learning are less evident, nonfinancial incentives may also be important (World Bank 2018c).[7] Teachers also need to be provided with formative assessment tools so they can better understand students' mastery of skills and teach accordingly.

Training for remote learning will have to be a fundamental feature of any teacher training initiative in the post-COVID context. As classes transitioned to remote modalities in early 2020, a large share of teachers –57 percent, according to a survey in the United States—reported not being prepared to facilitate remote learning (World Education Blog 2020). Many teachers lack the required digital skills to use online digital technologies (World Bank 2020b). Initial experience by countries suggests that several training formats are possible, including instructional videos, online courses, virtual coaching, and peer-support programs (Wilichowski and Cobo 2020). Training is essential, because evidence from the only large-scale full-time distance learning experience in past years—virtual charter schools in the United States, which had more than 300,000 students enrolled by 2019—suggests that its poor academic performance is linked to the unsuitable pedagogy used by teachers, which relied extensively on self-directed, independent study (McAleavy and Gorgen 2020).

Another important area of investment is early childhood education, which a substantial body of research shows to have long-term benefits. On average, children who attend preschool stay in school nearly a year longer and are more likely to be employed in high-skill jobs. High-quality interventions in the early years have a high cost–benefit ratio and can deliver annual returns of about 13 percent on investment (García and others 2016). The main remote learning modalities for children in preprimary education are television and radio, as young children require more audiovisual stimulation than older students (World Bank 2020d).

Good-quality early childhood education programs are effective, but providing them can be challenging. Effective interventions for children under the age of three may require a high teacher-to-student ratio, which can be difficult to achieve in resource-constrained environments (World Bank 2018c). Low-quality early childhood education can actually make learning outcomes worse (Bouguen and others 2013; Rosero and Oosterbeek 2011).

7. The World Bank's Education Global Practice has developed SABER (Systems Approach for Better Education Results), a diagnostic tool that allows users to compare countries' educational systems in different areas, including teaching policies (SABER-Teachers). See https://saber.worldbank.org.

Upgrading learning environments and facilities is another avenue for improving educational outcomes in basic education. The physical characteristics of learning spaces have a significant impact on educational progress (Barrett and others 2015). It has been estimated to explain about 16 percent of the variation in student learning (World Bank 2018c). As many as half of the school principals surveyed for the 2018 Programme for International Student Assessment (PISA) reported that students did not have an effective online learning support platform available (Moreno and Gortazar 2020). Given that remote modalities will be more common in education, it is critical that investment be channeled to creating remote learning environments if they do not exist and ensuring that students and teachers have access to them. Introducing blended learning, which combines remote and face-to-face modalities, and using digital platforms during traditional classroom instruction may ease the transition when school closures are implemented.

Providing IT equipment and connectivity to students and teachers is critical. School infrastructure will need to be upgraded. Only about 30 percent of primary schools in Europe can be classified as highly digitally equipped and connected, with shares of less than 10 percent in Cyprus, Greece, and Turkey (Deloitte and European Commission 2019). If not supported with e-content, pedagogical considerations, and in-service teacher training, IT infrastructure will remain underused (Parandekar and Yayla 2019).

Public-private partnerships are an innovative way to finance investments in physical infrastructure in education. Such partnerships bring the public and private sectors together to complement each other's strengths in the financing and provision of education services (Patrinos, Barrera-Osorio, and Guaqueta 2009; Baum and others 2014).[8]

Another fundamental area for improvement is the management of educational institutions. Good school management is associated with better educational outcomes. The quality of management varies widely within countries (Bloom and others 2015). An important input of management is information systems. Institutionalizing tracer studies supplemented with a longitudinal data system to track individual students through their education cycles and employment paths can provide insights that can inform policy. Abdul-Hamid (2017) highlights the value of such systems in the United States and the Republic of Korea. Collecting and using data can help link the curriculum, teaching practices, and the needs of the labor market. Turkey uses such a system to track and ensure the benefits of education for all groups, including refugees (Abdul-Hamid, Mayrhofer, and Reyes 2019).

8. This type of financing has been applied to (a) improve the quality of education management and pedagogy, through concessions for the delivery of education services (school management and teaching); (b) strengthen equity in access, through blended models and demand-side financing schemes such as school vouchers; and (c) address infrastructure and services, through charter schools in the United States and academies in the United Kingdom (Fryer 2014).

Improving the relevance, sustainability, and quality of postsecondary education

Tertiary education attainment and quality in Europe and Central Asia are high by global standards. The picture varies within the region, however, as the figures in table 2.1 show. In some former Soviet republics, attainment is high but quality is average; in some countries in the Western Balkans and Central Asia, attainment and quality are low. Improving postsecondary education is critical in Central Asia (Kazakhstan, the Kyrgyz Republic, Tajikistan, and Uzbekistan); the South Caucasus (especially Azerbaijan and Georgia); the Western Balkans (especially Albania, Bosnia and Herzegovina, Kosovo, Montenegro, and the Republic of North Macedonia); and Bulgaria, Romania, and Turkey. For some of these countries, improving higher education can also be an effective way to retain their high-skilled labor forces in the face of sustained out-migration (see the fall 2019 *ECA Economic Update*, on migration and brain drain).

Countries with low tertiary attainment rates could look to community colleges as an example of institutions that have increased access to higher education in Canada, Germany, and the United States. Not all jobs require four or five years of higher education; where it is needed, many students can spend two years at a community college before transferring to a four-year college, saving a significant amount of money on tuition. An extensive review of the evidence from the United States shows that community colleges increase aggregate educational attainment and are associated with higher wages, even by students who do not complete their degrees (Kane and Rouse 1999). Many community colleges also provide professional and short-term certificates in fields that are in high demand, including information technology, electronics, accounting, and banking. These certificates and diplomas are also associated with higher earnings, particularly for women (Jepsen, Troske, and Coomes 2014) and can yield high returns on investment in the short term (Carnevale, Martin, and Der Werf 2019).

In a context of increased reliance on remote learning, some institutions may be tempted to provide such short-term programs in a full-time, distance learning fashion. Evidence from Massive Online Open Courses (MOOCs) shows extremely high dropout rates, exceeding 90 percent in the case of MOOCs offered by Harvard and MIT (Reich and Ruipérez-Valiente 2019). In Europe and Central Asia, only 5 percent of students who enroll in MOOCs complete the program (Parandekar and Yayla 2019). Moreover, performance on online courses (relative to face-to-face courses) is worse for students from disadvantaged backgrounds (Xu and Jaggars 2014). Policies that move to full-time online education, especially for tertiary non-university degrees, must therefore be very mindful of the potential consequences on equity in attainment.

Several types of interventions can help improve the quality of tertiary education. Curricular and pedagogical innovations that emphasize problem solving and independent study, rather than the traditional mode of learning centered on memorization, are crucial (Salmi 2019). Pedagogical innovations may include computer-assisted learning, development of personal communication and problem-solving skills, collaborative learning, interactive lectures, writing-to-learn strategies, and classroom experiments (Hannan, English, and Sliver 1999; Hoyt

and McGoldrick 2012). There is evidence that such innovations improve learning. For example, evidence shows that classroom experiments improve learning in undergraduate economics courses, particularly if they are supplemented by technology (Ball, Eckel, and Rojas 2006) or students write reports on the experiments (Cartwright and Stepanova 2012). Studies also show that, compared with standard classroom lectures, cooperative learning significantly improves academic performance (Marburger 2005; Yamarik 2007). Like in-person learning, learning online requires interactivity to be fruitful (Wang and others 2009).

Pedagogical innovations lead to improved learning, but innovations impose costs on teachers, who must adapt the new strategies to implement them effectively (Allgood, Walstad, and Siegfried 2015). Integrating teacher training and alternative pedagogical approaches in graduate curriculum could be a less expensive way to equip future teachers with the necessary tools and inculcate teaching excellence in them. It could be achieved by building teaching requirements into graduate training programs, which currently focus primarily on research. Candidates need to be given ample time and resources to cultivate their teaching skills as they conduct research. The United Kingdom requires doctoral candidates to obtain a teaching certificate as part of their graduate study (Salmi 2019).

Improvements in the learning environment can also help improve learning in higher education. Several studies show that as class size increases, academically weak students are likely to drop out (Becker and Powers 2001) and learning outcomes drop (Arias and Walker 2004; Kokkelenberg, Dillon, and Christy 2008). The infrastructure investments required to reduce class sizes in higher academic institutions could be expensive and require political commitment from all stakeholders.

The recruitment and promotion of teaching faculty at institutions of higher learning have significant implications for the quality of education and learning outcomes. The quality of teachers is often correlated with the nature of employment contracts. Recruitment of part-time or non–tenure track faculty is far less rigorous than the recruitment of full-time, tenure-track faculty. The use of part-time or non–tenure track faculty has been found to have diverse effects on college graduation rates (Ehrenberg and Zhang 2005). The negative effects of poor teacher quality and learning outcomes fade over time, however (Carrell and West 2010). It is important to direct resources toward hiring higher-quality teachers and incentivizing performance with merit-based promotions and tenure systems and performance-based financial awards. Evidence indicates that performance-based incentives for college instructors improve learning outcomes (Brownback and Sadoff 2020).

Another aspect of higher education that countries need to address is alignment with international standards. The transition to the three-year bachelor's plus two-year master's scheme fostered by the Bologna Process has been shown to increase demand for higher education, particularly among students from poor socioeconomic backgrounds who perform well, as Cappellari and Lucifora 2009 show in Italy and Cardoso and others (2008) show in Portugal. It is key that countries continue their alignment with this process. Twinning programs between universities in different countries can also help improve quality.

Curriculum revision, pedagogical innovations, and teacher hiring will not produce the desired outcomes unless they are supplemented by targeted policies aimed at improving the governance of academic institutions, however. Indeed, Aghion and others (2010) find that governance is the most important determinant of the performance of tertiary education institutions. Autonomy in the design and administration of academic programs and management of resources is key (Salmi 2019).

Any investment in post-secondary education has to recognize the importance that lifelong learning will have in the coming decades. As the population in the region ages, investment will need to be made in the education of people who have already finished their formal education, in order to help support productive aging. Rapid technological change will mean that people will need to learn how to learn, relearn, unlearn, and learn again (Patrinos 2020). Tertiary education institutions are key in this effort, as they have been at the leading edge in creating innovative, nondegree programs for adults (World Bank 2003). Providing learning opportunities for adults is not enough if the demand for them is not there, however. Innovative financing mechanisms to stimulate lifelong learning are required. Income-contingent loans and individual learning accounts are two options that have been implemented in some high-income countries (Findeisen and Sachs 2016; Oosterbeek and Patrinos 2009).[9]

Providing opportunities to close equity gaps

Inequality in access to quality education is a problem at the basic and higher education levels in several countries in Europe and Central Asia. The good news is that educational outcomes are very similar for girls and boys, although girls have a slight advantage. Countries should ensure that parity is achieved by helping boys reduce the small disadvantage they have.

Education outcomes do vary across socioeconomic quintiles (as discussed in box 2.1) and also across geography. Equity gaps in education need to be addressed in Belarus, Bulgaria, Croatia, Moldova, Romania, the Russian Federation, Serbia, and Ukraine in Central and Eastern Europe; Kazakhstan, Tajikistan, and Uzbekistan in Central Asia; and Georgia and Turkey. Most children in Europe and Central Asia are enrolled in school, but the quality of education received by children of disadvantaged socioeconomic background is poor. Ensuring quality in basic education for all children should be a priority, particularly in a context in which remote learning will be more prevalent, as it has the potential to widen the gap between disadvantaged and non-disadvantaged students.

Interventions to reduce inequality can be at the teacher and school levels. Within the classroom, helping teachers teach to the level of each student, by grouping children by ability or better diagnosing students' levels of learning, has proven effective (World Bank 2018c). At the school level, improvements in school management can make a difference (Fryer 2017), but policy makers should be cautious when decentralizing school management to disadvantaged communities,

9. An income-contingent loan requires the borrower to start paying back the loan only once he or she reaches a certain income level. An individual learning account set aside a base amount of resources for an individual to use for his or her learning.

which may lack the capacity to monitor the quality of learning (World Bank 2018c). Interventions that reduce the digital gap may be critical, as blended classrooms (classrooms that combine online and in-person classes) become more common. One-laptop-per child initiatives have shown no effect on academic achievement in traditional classroom settings, but they have been found to increase access to and the use of home computers (Cristia and others 2017). In the new context, such programs can become an important tool to give all students equal access to education.

A crucial stage at which inequality may arise is the transition from basic to higher education. Barriers to access to higher education may be financial or nonfinancial. The most important financial barriers include liquidity constraints. Nonfinancial barriers include inadequate academic preparation, lack of knowledge about career options, and lack of prerequisites.

Financial aid is one of the most effective interventions for reducing inequality of access to tertiary education, as the enrollment decisions of disadvantaged groups are highly sensitive to costs. Financial aid can take the form of universal grants, merit-based grants, need-based grants, or loans. The evidence on the effects of universal grants on enrollment and learning outcomes is limited. There is, however, evidence on the effects of other grants and loans. In the case of need-based grants, larger grants and grants that involve early commitments in high school (for example, in grade 10) tend to have the greatest effects (Herbaut and Geven 2019). The evidence on merit-based grants is mixed. Unless they are designed to guarantee access to financial aid for disadvantaged groups, merit-based grants are likely to exacerbate inequality. Eligibility based purely on merit is likely correlated with students' socioeconomic backgrounds. Student loans seem to be efficient in improving access to tertiary education. Marx and Turner (2019) show that loans increased access in the United States. Solis (2017) shows that loans conditional on college admission test scores induced large increases in the probability of college enrollment among students from low-income families in Chile.

Lack of academic preparation is one the most important nonfinancial constraints disadvantaged students face in accessing tertiary education. Two types of academic interventions have been used to address this barrier: college remediation courses and high school tutoring. The evidence on the effectiveness of college remediation courses is mixed, at best. An evaluation of Ohio's remediation program finds positive effects of the program on college persistence and the likelihood of completing a bachelor's degree (Bettinger and Long 2009), but much of the rest of the literature on college remediation finds no or negative impacts (Martorell and McFarlin 2011; Scott-Clayton and Rodriguez 2015). The evidence on the impact of high school tutoring on improving access to higher education shows that such programs increase enrollment in longer degrees (four-year colleges) but do not affect overall enrollment in the United States (Avery 2013). Remediation interventions targeting students from disadvantaged backgrounds are also more efficiently used in high school, before students reach higher education institutions. They may be particularly important for cohorts affected by school closures during the COVID-19 pandemic.

Another nonfinancial barrier to tertiary attainment disadvantaged students face is the lack of knowledge about career options and academic requirements.

Structured academic and career advising offers the necessary guidance and helps students graduate from higher education on time. Tutoring is most effective when tutors use student data to help them make informed decisions about how to focus their work. Peer-to-peer or peer-led tutoring has been shown to help students bridge knowledge gaps (Darnell and others 2012). Like tutoring, mentoring and coaching can have positive effects on student persistence and completion. Unlike tutoring, which focuses on bridging specific subject area knowledge gaps, the mentoring model represents wrap-around support for a student's entire collegiate journey. An impact evaluation of a coaching program in the United States shows that students who were randomly assigned to a coach were more likely to persist during the treatment period and more likely to be attending university one year after the coaching ended (Bettinger and Baker 2014). Learning communities—defined as groups of students sharing courses and learning activities, together with additional support—have also been shown to improve performance and reduce dropout among underprepared students (Xu and others 2018). Such multidimensional support programs may be particularly useful if remote learning modalities become more prevalent.

For particularly disadvantaged minorities—such as the Roma in most of Eastern Europe—a more holistic approach may be required, combining different interventions, particularly in basic education. Similar approaches may be required for children with disability. Beyond improvements in access, increasing instructional hours provides opportunities for disadvantaged students to receive a more multifaceted education. Extending school hours provides more opportunities for extra learning and extracurricular activities. Evidence suggests that disadvantaged students benefit the most from increases in student learning time (Farbman 2015; Gromada and Shewbridge 2016; Rivkin and Schiman 2015). Summer programs have been shown to help low-performing students perform better in the sciences (Knox, Moynihan, and Markowitz 2003).

Effective Policies for Improving Health

Countries in Europe and Central Asia face sizable productivity losses associated with the prevalence of risk factors that lead to noncommunicable diseases and may increase morbidity from certain infectious diseases like COVID-19. These losses occur in a context of an aging population and despite an overall good health environment and limited equity gaps. Nevertheless, vulnerable groups still lag in health outcomes, particularly outcomes related to child and maternal health.

In a world where infectious disease outbreaks may become more common, pandemic preparedness is an important priority (box 2.6). Three other policy areas are also critical for improving health outcomes in the region: (a) preventing risk factors that increase the prevalence of noncommunicable diseases and increase morbidity and mortality from certain infectious diseases; (b) providing better and more efficient care for an aging population, to promote active and productive aging; and (c) reducing equity gaps in early childhood development, maternal, and men's health.

BOX 2.6 Preparing health systems for future pandemics

An evidence-based, comprehensive, adequately resourced surveillance strategy is critical to prevent and prepare for future pandemics. Most countries in the region have some form of surveillance strategies, but in the lower-middle-income countries of the region these strategies may be not comprehensive, not regularly updated, or not appropriately resourced.

The Joint External Evaluation Tool—the policy and institutional framework for preparedness developed by the World Health Organization—can help countries prepare a proper evaluation. The main elements of a national surveillance strategy include the following:

- Developing a risk assessment and response plan, including building capacities for the national and subnational modeling/forecasting of epidemics (including the identification of hotspots) and estimating prevention and preparedness requirements in terms of financing; infrastructure; human resources for health; and equipment, drugs, and health supplies.
- Investing in preparedness for detecting and treating cases, reinforcing governance and oversight, building local diagnostic capacity, and strengthening systems for treatment and infection control. Efforts should include (a) enhancing disease detection capacities and mobilizing surge response capacity through trained and well-equipped frontline health workers and (b) building systems for real-time community-based disease surveillance and citizen engagement.
- Designing public health measures to prevent the spread of the disease in the community (quarantining, social distancing, handwashing, limiting travel and trade, and eventually vaccinating) and establishing contingency plans to maintain essential services and supplies. These measures, which should be embedded in reimagined primary healthcare systems, should highlight the needs of vulnerable populations.

Integrating Disaster Risk Management (DRM) systems in response to health crises is also important. DRM systems, which are usually geared toward responding to natural and climate disasters, need to incorporate public health aspects. A priority should be collecting, collating, and analyzing urban and DRM geospatial data and making these analytics available to health stakeholders to help them anticipate and mitigate future epidemics. Also, data collection efforts and analysis should help understand populations and behaviors at particular risks in order to better balance general with targeted measures in policy responses.

The impact of these efforts will be limited if citizens do not trust the public health system (Khemani, Chaudhary, and Scot 2020). Pandemics and major health crises can disrupt the provision of health services (as discussed in the previous section). Part of this disruption comes from a drop in healthcare utilization, as people choose not to visit clinics or health institutions because of fear of infection or general mistrust. It is important that communities—particularly vulnerable ones, such as communities of migrants and ethnic minorities—have confidence in the health system to prevent such disruption.

Evidence from two policy experiments in the context of the Ebola outbreak (Christensen and others 2020) shows that improving social accountability—by establishing community monitoring, motivating health care workers, and providing nonfinancial awards—before the epidemic resulted in increased healthcare utilization during the outbreak as well as lower mortality. In addition, by making symptomatic people reach out to the health system and make their case known, these interventions reduced the reproduction rate of the disease and helped control the outbreak, as containment measures could be applied more effectively (Pronyk and others 2016). Trust in public health systems thus makes them more effective in combatting infectious disease outbreaks.

Source: Adapted from World Bank 2020b.

Reducing health risk factors

The prevalence of health risk factors is alarming in many countries in Europe and Central Asia. In the Russian Federation, Moldova, Ukraine, and the Western Balkans, prevalence rates for obesity, smoking, and heavy drinking exceed 20 percent of the adult population (see table 2.2).

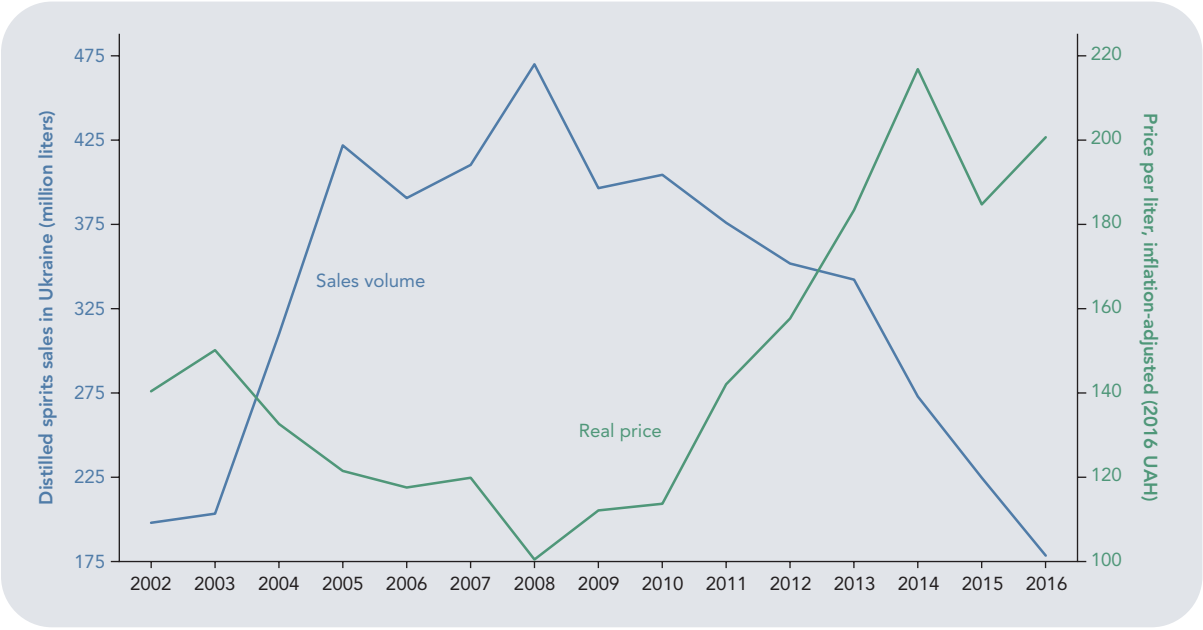
The policies that are most effective at reducing these risk factors raise the prices of critical items. Hundreds of studies document the impacts of taxes and prices on consumption of manufactured cigarettes. In high-income countries, every 10 percent increase in prices reduces consumption by 4 percent; in low- and middle-income countries, consumption drops by about 5 percent. Disadvantaged socioeconomic groups tend to display the highest responsiveness to price increases while also reaping the most significant health benefits from the tax increase, as their consumption levels tend to be higher. The reduction in smoking associated with tax increases is accounted almost equally by reductions in the number of people smoking and the number of cigarettes smoked by people who continue to smoke (Chaloupka, Straif, and Leon 2011; Chaloupka, Powell, and Warner 2019). Simulations also show that although the first-order effect of raising taxes on tobacco disproportionally affects the poor, this negative effect is offset by higher long-term gains from reduced medical expenditures and additional years of productive life. Overall, tobacco tax increases appear to be pro-poor and welfare improving for a large share of the population in several countries in Europe and Central Asia (Fuchs Tarlovsky, Gonzalez Icaza, and Paz 2019).

Several countries in the region have made significant progress in reducing tobacco and consumption by increasing taxation. Turkey significantly reduced tobacco consumption between 2003 and 2013 by increasing tobacco tax rates. Higher per capita income weakened tobacco control efforts, however, and cigarette sales started increasing again in 2013 (Cetinkaya and Marquez 2017).

The Russian Federation has been raising taxes on tobacco since 2010. Together with other population-level policies, these regular increases may have contributed to a decline in the prevalence of smoking among adults of about 9 percentage points between 2009 and 2016 (Sakharova, Antonov, and Salagay 2017). Other countries that have raised taxes on tobacco include Azerbaijan, Kazakhstan, and Montenegro. Despite these increases, cigarettes remain much more affordable in Eastern Europe and Central Asia than in Western and Northern Europe.

Demand for alcoholic beverages appears to be even more responsive to prices than demand for tobacco. Taxation levels in most countries are far lower for alcohol than tobacco. A 10 percent increase in the price of alcohol has been documented to decrease consumption by 5.1–7.7 percent in high-income countries and 6.4 percent in low- and middle-income countries. Consumption of distilled liquor appears to be more price responsive than consumption of other alcoholic beverages (Chaloupka, Powell, and Warner 2019). In Ukraine, a doubling of the inflation-adjusted price of distilled liquor between 2008 and 2016 was associated with a 63 percent drop in sales (figure 2.16). In high-income countries, heavy drinkers appear to respond less than light and moderate drinkers to price increases (Wagenaar, Salois, and Komro 2009). In settings with high levels of informal production and consumption of alcohol, it may be better to attempt to

FIGURE 2.16 An increase in the price of distilled liquor was associated with a decrease in liquor sales in Ukraine



Source: Chaloupka, Powell, and Warner 2019.

formalize (and tax) a larger share of alcohol production and consumption rather than simply increasing the tax level (Anderson, Chisholm, and Fuhr 2009).

Limited alcohol consumption has not been shown to have adverse effects on health; the health risk is associated with episodic heavy drinking and sustained moderate drinking. Accordingly, in many countries, only excessive alcohol consumption is perceived as a problem. Public health advocates need to be able to frame alcohol consumption as a population-wide issue, in order to push for higher alcohol taxes (Zatonski, Hawkins, and McKee 2018; Katikireddi, Bond, and Hilton 2014).

Other effective population-level efforts are interventions that make tobacco and alcohol less available or ban their advertising. Effective policies include smoking bans in workplaces and public places, enforcement of drunk driving legislation, and regulation of advertising of tobacco and alcohol products. Although such interventions are difficult to evaluate directly (because of the lack of a control group and potentially long delays between interventions and effects), modeled evidence suggests that they are generally more cost-effective than individual-level interventions (Ajay, Watkins, and Prabhakaran 2017).

Improving diets and reducing obesity as a risk factor for noncommunicable diseases require a different approach than efforts to reduce tobacco and alcohol consumption. Behaviors that may have the greatest impacts on health (such as consumption of fruits and vegetables) may also be the most difficult and expensive to change. A practical approach is to consider the contribution of the risk and how easy it is to address.

Two strategies stand out as yielding high returns to investment: reducing the intake of excessive sodium (salt) and artificial trans fats (Ajay, Watkins, and Prabhakaran 2017). Both require efforts by governments and the food industry to gradually reduce the salt and fat content of processed food, including by banning use, particularly of trans fats. Several countries in Europe and Central Asia have already banned trans fats. Denmark did so in 2003, followed in 2008 by Switzerland, Austria, Iceland, Hungary, Slovenia, and Norway.

There is less consensus on other population- and individual-level approaches to improving diets and physical activity levels, highlighting the need for further research. One area of research is taxes on sugar-sweetened beverages, which several countries, including France, Hungary, Mexico, Saudi Arabia, and the United Arab Emirates, have adopted in recent years. Their experiences provide promising evidence of the impact of taxes on sales of such beverages. A micro-simulation of the implementation of a tax on sugar-sweetened beverages in Kazakhstan shows that it would be largely progressive, as lower-income deciles would benefit more than higher-income ones (Fuchs Tarlovsky, Mandeville, and Alonso-Soria 2020). Evidence on the impact of this type of taxes on obesity is still based largely on modeling rather than data, however. Further research is needed to understand the impacts of these taxes.

Policy initiatives aimed at reducing the prevalence of obesity among adults should anyways take into account the fact that, in many cases, obesity starts in childhood (Reilly and Kelly 2011). Therefore it is important that countries pay special attention to child obesity, which is widespread in the region and which the health care systems are still facing challenges to adapt to (WHO 2019).

In almost all countries in the region, the prevalence of smoking and heavy drinking is significantly higher among men than women. Despite the gender gap, most policy interventions lack a gender angle.[10] This failure is particularly worrisome in Europe and Central Asia, because alcohol consumption has been shown to have been an important driver of the increase in adult mortality, particularly for men, in transition economies during the 1990s (Brainerd and Cutler 2005). An important area for research is understanding whether gender-specific interventions—such as information campaigns aimed at men—can help reduce the prevalence of risk factors and the associated gender gap.

Providing better and more efficient care to promote active and productive aging

Most countries in the region have aging populations (Bussolo, Koettl, and Sinnott 2015). By 2040, 28 percent of the population of Western Europe and 25 percent of the population of Central and Eastern European will be over 65, according to the United Nations. In Turkey, 20 percent of the population will be over 65. Central Asia will be the only region with a relatively small share of people over 65, at 10 percent.[11]

10. The "review of reviews" on alcohol policy interventions by Fitzgerald and others (2016) finds that only 8 percent of the 63 systematic reviews consistently provide information on baseline participation by gender for every individual study in the review.
11. For a discussion of the consequences of this demographic change on migration, see the fall 2019 *ECA Economic Update*.)

Most countries in the region are not well prepared to ensure active and productive aging of their populations. Extending the productive lives of older people by improving their health is key to compensating for the higher health costs associated with an aging population. An effective approach to containing health costs is to foster the independence and autonomy of older people.

Lubitz and others (2003) find that individuals in the United States who were in a nursing home at age 70 had much higher cumulative health expenditures over their lifetime than did individuals who were independent at that age. One of the most cost-effective interventions is the affordable provision of medications to lower blood pressure and cholesterol to older patients who need them. Requiring patients to cost-share on such essential medications is a false economy that leads to low adherence to treatment and increases the risk of acute episodes, such as heart attacks and strokes. It pushes patients to the more complicated stages of cardiovascular disease, which are more difficult and expensive to treat, and has important (negative) impacts on productivity (Baicker and Goldman 2011). Policies that reduce the number of patients in high-cost institutions—such as hospitals and nursing homes—and allow older people to continue to be productive are effective at containing costs and ensuring healthier aging of the population.

The challenges the region's health care systems are facing in light of the aging population are combined with broader, more comprehensive challenges faced by the increased relevance of noncommunicable diseases. The model that countries use to deliver care has a profound impact on the population's health as well as the financial sustainability of the health care system. Ideally, health services should be managed and delivered in an integrated way, so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, rehabilitation, and palliative care services that respond to their needs throughout their lives. Rather than being centered solely on disease, care needs to be person-centered—that is, it should consider a person's many health needs and the social determinants of those needs. The location of services (geographic and type of facility) should balance accessibility and cost. Care should be delivered at the primary care level or on an outpatient basis whenever possible, leaving hospitals to focus on acute complex care. Integrated care requires high levels of coordination—between providers at different levels of care; between providers for individual patients; and between health, social, and elderly care services. Some countries in the region have started to explore ways to integrate different aspects of health care, but challenges remain (box 2.7).

A patient-centered model cannot, however, overlook the challenges posed by infectious disease outbreaks. The COVID-19 pandemic has shown the enormous death toll infectious diseases can have in countries with large shares of elderly people. For this type of outbreak, community-level interventions are needed (Nacoti and others 2020). Key to these efforts is the development of a solid surveillance strategy that integrates several data sources, taking into account the geographical and social determinants of disease prevalence across communities.

Long-term care—an umbrella term for a range of services that aim to support people whose physical or mental condition prevents them from carrying out everyday tasks—will also have to adapt to the new context. Deaths of nursing home residents account for as much as 47 percent of the total number of COVID-19

BOX 2.7 Integrating noncommunicable disease prevention and treatment at the primary care level in Turkey

Turkey scaled up a successful pilot of its family medicine model for primary care in 2010. Under the model, primary care services are delivered at Family Medicine Centers (FMCs) by family medicine practitioners and support staff. As of December 31, 2018, Turkey had 26,252 FMCs, each covering about 3,000 people on average. Family medicine physicians and other clinical staff operate under performance-based contracts with a negative incentive, in which up to 20 percent of the provider's payment is withheld if performance targets for maternal and child health, including vaccinations, are not met.

In addition to the FMCs, community health centers deliver community and public health services, including environmental, reproductive, child, and adolescent health services; communicable disease management and control; and cancer screening. Healthy Living Centers were introduced to complement and strengthen the FMC model. They conduct follow-up activities with patients referred by FMCs and carry out population screening programs to identify and stratify the population for specific diseases (especially noncommunicable diseases [NCDs]) so that the system can be proactive and plan for NCD management.

The FMC model has made significant progress. The new challenge is to improve coverage of NCD prevention, screening, diagnosis, and curative services. On the financing side, performance-based contracts at the primary care level include maternal and child health indicators, but NCD prevention is not yet linked to the contracts. Improving the horizontal and vertical coordination of care is essential. In particular, the family medicine system needs to increasingly function as a gatekeeper for secondary- and tertiary-level care, the e-health system needs to include "disease management platforms" that integrate patient information between the three levels of care, and practitioners need to use standard clinical pathways to deal with NCDs.

Source: Sumer, Shear, and Yener 2019.

deaths in a cross-section of 26 high-income countries (Comas-Herrera and others 2020), highlighting the inadequacy of such structures (at least in their current format) for an environment in which infectious diseases outbreaks are more common than they once were. Independent living arrangements for the elderly as well as health care provision that does not require in-person contact, such as telemedicine, may become more important.

Any policy initiative will have to deal with the fact that, in many countries in Europe and Central Asia, family members are the sole providers of long-term care services. In many countries, hospitals substitute for unavailable formal long-term care facilities. The use of hospital beds for residential instead of acute care results in excessive medicalization of older people and puts unsustainable financial pressure on the health system (Bussolo, Koettl, and Sinnott 2015).

Closing gaps in child, maternal, and men's health

Child stunting rates are high in Tajikistan, Turkmenistan, and the Kyrgyz Republic; levels in Armenia and Kazakhstan are also worrisome. In the Western Balkans—notably Kosovo, the Republic of North Macedonia, and Serbia—and Moldova, child stunting primarily affects the most disadvantaged groups. Equity gaps are also evident in other maternal and child health outcomes, such as

immunization and access to a doctor during delivery. These gaps may have grown during the pandemic, as a result of disruption of health services, as discussed in the previous section. Policymakers will therefore have to renew their efforts in this area.

Children's health, nutrition, and education needs during the preschool years (ages three to five) are generally well incorporated into government policies. But the need for nurturing, stimulation, and early learning between birth and age three is often a policy blind spot. Routine preventive health care includes vaccinations and growth monitoring, but many countries lack clearly articulated, intersectoral policies to support disadvantaged parents in stimulating and nurturing their children. Rolling out early childhood intervention at scale faces many challenges, including lack of clarity over how to implement multisectoral interventions for which no single ministry or entity is responsible (Black and others 2017).

Early childhood programs that foster the capacity of parents and caregivers to provide adequate nurturing, stimulation, and learning to children from birth to age three have tremendous potential to improve children's cognitive and socioemotional skills. A meta-analysis of such parenting programs finds that they increased scores on short-term measures of psychosocial development, motor development, and cognitive development. Long-term gains varied by intervention and context (Britto and others 2017). Two studies conducted in Jamaica find that stimulation of stunted children during their early years led to long-term gains in cognition, educational achievement, employment, and adult earnings, as well as to reductions in violent behavior 20 years after the program ended (Walker and others 2011; Gertler and others 2014). Nutrition interventions at an early age have been estimated to have a benefit–cost ratio of 15:1 and a rate of return of 17 percent (Galasso and others 2016). Early childhood parenting and stimulation programs appear to have the greatest impact on the most disadvantaged children, including children who are among the poorest and children who are stunted or have lower developmental outcomes. And programs appear to be more effective in younger children.

For successful integration of these interventions into health services, one policy option is well-child checkups. These checkups should include a holistic range of developmental services, including vaccinations; monitoring and counseling on nutrition; and evaluation of developmental milestones for motor, cognitive, linguistic, and socioemotional development. Well-child visits should support parents and caregivers in developing responsive "serve and return" relationships with their children, one of the most fundamental drivers of children's ability to thrive (Center on the Developing Child at Harvard University 2020).[12] High-quality well-child checkups give health care providers many opportunities to identify children with developmental delays and disabilities, which can facilitate earlier referrals to assessments, support, and treatment.

Another critical gap that needs to be closed is between men and women's health. Women have better health outcomes than men in all countries in the region. The gap is particularly large in the former Soviet republics. In the Russian

12. "Serve and return" relationships are relationships between children and adults that are responsive and attentive—relationships that include much back-and-forth interaction. An example is a situation in which a child gestures or cries and the adult responds with eye contact, words, or a hug.

Federation, for instance, the probability of a 15-year-old reaching 60 is 72 percent for a boy and 89 percent for a girl, a difference of 17 percentage points. The same difference is found between boys and girls in Ukraine; in Belarus, Georgia, and Moldova, the gap is about 14 percentage points. This gender gap is not unique to the Europe and Central Asia region—it was recently documented in the United States in the context of "deaths of despair," many of which are caused by alcoholism and drugs (Case and Deaton 2020).

The fact that the adult mortality rate is considerably higher for men than for women may go beyond health: There is evidence that a decrease in life expectancy can change the educational choices of young cohorts, eventually leading to a decrease in years of schooling (Oster, Shoulson, and Dorsey 2013; Evans, Garthwaite, and Moore 2016). Although the gender gap in mortality narrowed in the last decade, it remains very large. Policies to reduce it will have to be multidimensional, as its drivers can be social and economic (Scutchfield and Keck 2017).

Conclusion

Human capital is fundamental for economic development: No society can progress if the education and health of its people are poor. Educated and healthy citizens are more productive, helping their countries flourish; differences in human capital explain much of the differences in income levels across countries and over time.

COVID-19 has hit human capital directly. School closures have deprived children and young adults from meaningful learning, and the disease has killed or sickened millions of people. Recovery from the pandemic will require strong investment in human capital.

Governments have an important role to play in promoting this investment, as individuals and families may underinvest in human capital, because they may not be able to obtain the necessary financing or because they underestimate the returns to investing, which are not evident in the short run and may arise only at the aggregate social level.

Measurement of human capital is fundamental for any investment to be effective; having a pre-pandemic benchmark as a reference is important because it can identify where investments are most needed. In 2018, the World Bank launched the Human Capital Index (HCI), an index designed to highlight how improvements in current health and education outcomes shape the productivity of the next generation of workers. This report presents a more complete picture of the pre-pandemic human capital in countries in Europe and Central Asia by providing data on and analysis of additional dimensions that are relevant for the region.

The analysis of education builds on the same components as the global HCI, which considers only basic education, by including a measure of quality-adjusted years of higher education. The analysis of health extends the global HCI component, which uses child stunting and the adult survival rate as proxies for health status, by adding three adult health risk factors: obesity, smoking, and heavy drinking.

Several findings emerge from this analysis. Good indicators of basic education are correlated with good indicators of higher education, suggesting the continued importance of improving fundamentals. The correlation is not perfect, however: in some cases, relatively poor outcomes in basic education can be compensated for by better outcomes in higher education, particularly when attainment and quality in postsecondary education are good.

Data also reveal that the gender gap in basic education, even if small, is in favor of girls. Women outperform men in higher education in most countries. Women's representation in STEM fields of study is considerably lower than that of men, however.

The analysis provides a picture of the productivity losses that emerge from the prevalence of adult health risk factors that increase the morbidity and mortality consequences of noncommunicable diseases and certain infectious diseases, including COVID-19. People who are obese are on average about 10 percent less productive than people who are not, according to the academic literature. Obesity is particularly prevalent in middle-income countries in the region; it is lower for countries with high and low income levels, suggesting the presence of an inverted *U*-shape relationship between obesity and income. In all of the former Soviet republics, obesity is much more prevalent among woman than among men. In Central and Western Europe, the gender differences are smaller and, if anything, the prevalence of obesity is slightly higher among men.

Smoking is associated with a productivity loss similar to that of obesity—about 10 percent. Its prevalence also seems to display an inverted *U*-shape relationship with income. Here the gender differences are stark: in all countries in the region, men smoke more than women, and in some—particularly in the South Caucasus—the gender gap in smoking rates is close to 40 percentage points. Gender differences are smallest in the Nordic countries.

Heavy drinking is associated with productivity losses of up to 20 percent. It is positively associated with a country's income level, although the dispersion is wide. Culture plays a role: countries with large Muslim populations have very low rates of heavy drinking, irrespective of their income level. Heavy drinking is also considerably more prevalent among men than women in all countries, although the two are positively correlated. The sizable gender gap that exists for smoking and heavy drinking is reflected in differences in adult survival rates. In some countries in the eastern part of the region, the probability of a 15-year-old living to 60 is almost 20 percentage points lower for a boy than for a girl.

The pre-pandemic HCI for Europe and Central Asia indicated that people born in the region could expect to be productive members of society, based on the health and basic education they received. Nevertheless, incorporating tertiary education and health risk factors to this analysis inevitably raises the bar and emphasizes the need to focus on these additional issues. Furthermore, the COVID-19 pandemic poses a risk to these achievements, making further investments in human capital a centerpiece of recovery plans.

Simulations show that pandemic-driven school closures could entail a learning loss equivalent to between a third and a full year of schooling in the region. This loss stems from the inadequacy of remote learning modalities in substituting for in-person classes and from the inherent loss caused by disengaging from the

school system. The learning loss is also expected to widen inequalities, as students from disadvantaged backgrounds learn less than other students, because of lack of connectivity and more limited household support.

COVID-19 itself has caused the deaths of more than 200,000 people in the region. But its effects on health go beyond immediate increases in mortality. People who overcome the disease may suffer long-term damage to their health, and disruption of health services during the pandemic can have a negative impact on the treatment of noncommunicable diseases and on child and maternal health. In countries in the region where child mortality is relatively high, simulations show that the probability of survival to age 5 can drop up to 1 percentage point as a result of decreases in both demand for and supply of healthcare services during the pandemic.

Policies to improve investments in human capital will need to be mindful of the priorities identified in this chapter and by the new challenges emerging in the post-pandemic context. First, improving education will require modernizing the foundations of the education system. Priorities should include promoting innovations in teaching and learning, emphasizing basic skills, investing in early childhood education, upgrading learning environments and facilities, and improving management of educational institutions. Policy initiative will also have to take into account the challenges posed by an increased need to rely on remote learning modalities. Investments in connectivity—in both households and educational institutions—and training of students and teachers are fundamental to ensure quality learning and avoid widening equity gaps.

Second, improving the relevance, sustainability, and quality of postsecondary education is fundamental. Countries with low tertiary attainment rates could look to community colleges as an example of institutions that increase access to higher education. For improving the quality of postsecondary education, curricular and pedagogical innovations that emphasize problem solving and independent study, rather than the traditional mode of learning centered on memorization, are crucial. Changing teaching faculty recruitment and promotion practices in higher education institutions may be necessary; performance-based incentives for college instructors have been shown to improve learning outcomes. All of these interventions need to be supplemented by targeted policies aimed at improving the governance of academic institutions.

Third, inequality in access to quality education is a problem at the basic and higher education levels in several countries in the region; gaps in expected schooling between the top and bottom quintiles, particularly for the basic education quality indicators, are large and can expect to grow wider in a context of increased reliance on remote learning modalities. A variety of interventions can be used to close inequality gaps in education. Financial aid has proven to be one of the most effective interventions to reduce inequality in access to tertiary education, as the enrollment decisions of disadvantaged groups are highly sensitive to costs. For particularly disadvantaged minorities—such as the Roma in most of Eastern Europe—a more holistic approach may be required, combining various interventions, particularly in basic education.

Gender gaps in education are relatively small in the region but still need to be addressed. In terms of educational attainment, men need to catch up in basic and

higher education, as women outperform them in both levels. In higher education, however, women are significantly less likely to study STEM fields. This choice has important implications, as holders of tertiary degrees in STEM fields tend to participate more in the labor market and earn higher wages. Policies to close the gap in boys' performance in basic and higher education and girls' professional aspirations are an important component of achieving gender parity.

Several findings can help direct efforts to improve health. Improving pandemic preparedness is fundamental in a world where infectious disease outbreaks are more common than expected. First, emphasis should be placed on preventing health risk factors that are associated with increased morbidity and mortality from noncommunicable and certain infectious diseases. The most effective policies are ones that raise the prices of critical items, including cigarettes and alcoholic beverages, consumption of which has been shown to be highly responsive to price changes. Improving diets and reducing obesity requires a somewhat different approach. Concerted efforts by governments and the food industry are needed to gradually reduce the salt and fat content of processed foods.

Second, health policies should provide better and more efficient care for older adults, in order to promote active and productive aging. Keeping people healthy, active, and productive late into their lives is particularly important given the region's aging labor force. Ideally, health services should be managed and delivered in an integrated way, so that they become person-centered—that is, consider a person's many health needs and the social determinants of those needs. This approach should also be flexible enough to incorporate community-level interventions, which are critical to contain the spread of infectious diseases, as the implementation of nonpharmaceutical interventions during the COVID-19 pandemic has shown.

Third, health policies need to close equity gaps in child and maternal health, which persist in some countries in the region. Children's needs in health and education in the preschool years (ages three to five) are generally well incorporated into government policies, but most countries could do better in early childhood development (birth to three). An overarching priority of all health policies should be to address the stark gender gap in mortality and morbidity, in which men's health outcomes are systematically worse than women's across much of the region.

Both education and health policies should be mindful of the challenges of maintaining the quality of service delivery as coverage increases, as poor-quality service delivery is the key reason why service coverage does not necessarily translate into better outcomes (Filmer and Wagstaff 2020). Scaling up successful interventions is difficult, because implementation and political economy issues can arise as programs grow and general equilibrium effects **can** reduce some impacts (Cull and McKenzie 2020).

Fourth, governments should recognize that improvements in human capital can take a long time to mature. In the short run, individuals will be effectively more productive only if they are employed. Countries therefore need to ensure that job opportunities are provided. In the long run, a more educated and healthy population will stimulate growth.

Many knowledge gaps remain. For example, little is known about the implications of gender differences in health risk factors or whether gender-specific

policies are more effective than population-level interventions. Conditional cash transfer programs have been shown to improve human capital outcomes in the short run (Ozler 2020), but whether these effects persist in the long run remains unclear. Research is also needed on how payment schemes shape service provider incentives and how to get their design and implementation right. And more needs to be understood about the benefits and constraints of private or public provision of education and health services. In all of these areas, researchers and policy makers could join forces to determine what is needed to increase the human capital of their fellow citizens and prepare them for productive lives in the post-pandemic world.

Annex 2.1. Estimation of Quality-Adjusted Years of Higher Education

The main variable used in this report to assess tertiary education is a quality-adjusted measure of years of higher education. Calculating this variable requires two inputs: a measure of expected years of higher education and a measure of the quality of higher education. The basic structure of the main outcome variable—called quality-adjusted years of higher education (QAYH)—is the following:

$$QAYH_c = EYH_c \times QA_c \quad \text{(A2.1.1)}$$

where EYH_c represents the expected years of higher education of country c, and QA_c represents the average quality of higher education in country c, which has a maximum value of 1 and a minimum value of m. The minimum is greater than 0 on the assumption that even very low-quality higher education has some value, even if minimal. *QAYH* is expressed in years of higher education of maximum quality.

Higher education can be adjusted for quality by measuring the quality of outputs (for instance, the skill proficiency of university graduates) or the quality of inputs (for instance, the quality of universities). The first approach is equivalent to the way quality is measured for basic education (by means of harmonized test scores). Measures of adult skill proficiency are available for only a limited set of countries, however. Because quality measures of universities are more widely available, the second approach is adopted.

Expected years of higher education

The standard approach for estimating expected years of basic education uses the age-specific enrollment rates over all ages in the 4–18 age range as the main input. The nature of higher education requires a different treatment, for several reasons.

First, there is no theoretical age at which higher education is expected to happen. Second, higher education is not always carried out full time; many students combine their studies with part-time employment. Third, the number of years required to obtain a higher education degrees varies across disciplines and across countries (the norm in EU countries, after implementation of the Bologna Process, is for initial degrees to take three years; in the Russian Federation, a bachelor's degrees take four years).

The approach adopted in this report uses the percentage of individuals with a higher education degree at age 30–34 as the measure of educational attainment. To express it in years of education, a university degree is assumed to be equivalent to 3.5 years of higher education, to account for differences across disciplines and educational systems. The calculation of expected years of higher education (*EYH*) is straightforward:

$$EYH_c = Tertiary\ attainment_c^{(age\ 30\text{-}34)} \times 3.5 \quad \text{(A2.1.2)}$$

where *Tertiary attainment* corresponds to the share of individuals 30–34 in country c who hold a tertiary degree.

Quality adjustment of higher education attainment

The quality of higher education is calculated under the assumption that a high-quality degree is a degree that makes its holders more productive in the labor market—the working assumption of the broad literature on the effects of college quality on earnings in the United States. Standard ordinary least squares (OLS) estimates of the impact of college quality (usually measured by the average Scholastic Aptitude Test [SAT] score of admitted students) on earnings show that there is a positive and significant association between them. Given the existence of a selection process into college—high school students decide which colleges to apply to—these estimates may suffer from a substantial selection bias.

To address this issue, the literature has followed two approaches. The first is a "selection-on-observables" approach, in which the decision to apply to a given type of college is modeled based on observable variables, such as net college costs or high school grade point average (Brewer, Eide, and Ehrenberg 1999; Andrews, Li, and Lovenheim 2016). This approach confirms that the quality of college education has a positive and significant effect on earnings.

The second is a "selection-on-unobservables" approach, in which, rather than modeling college choice, the researcher compares the outcomes of students who were admitted to the same set of colleges but chose to go to different ones (Dale and Krueger 2002, 2014). This approach is a "self-revelation" method, because it assumes that the set of students admitted to a given college share the same "unobservable" characteristics. This method shows that, for the average student, there is no significant effect of college quality on earnings. The effect is significant for minority students and those from poor backgrounds, however.

The quality-adjustment factor in this study is calculated in the following way:

$$QA_c = m \times e^{\beta \times Q_c} \qquad \text{(A2.1.3)}$$

where m corresponds to the productivity of a tertiary degree coming from a "zero-quality" institution; Q corresponds to the average quality score of universities in country c, ranging from 0 to 100; β is a productivity-adjustment factor that transforms the quality score into productivity units; and m is scaled in a way that quality adjustment (QA_c) equals 1 if Q_c equals 100.

The measure of quality corresponds to the information collected by global university rankings. These rankings, published by private, for-profit companies, have grown in number over the years. They are usually based on an underlying score that is usually a weighted average of scores on different aspects of higher education (the volume and quality of research, research influence, the quality of teaching, international outlook, links to industry). These rankings do not include all higher education institutions (universities need to send their information, usually at a cost, to the publishers), and they use different methodologies.

The analysis relies on a combination of several of these rankings, including scores from the Times Higher Education (THE) ranking; the Quacquarelly Symonds (QS) ranking; the Academic Ranking of World Universities (ARWU, also known as the Shanghai ranking); the Center for World University Rankings (CWUR); the U.S. News Global Universities Ranking; and the U-Multirank ranking (a nonnumeric, user-defined ranking). These rankings contain information

on 400–1,000 universities in 45 countries in Europe and Central Asia. A country-level average is generated by averaging the scores for all the universities in a given country included in each ranking, yielding six values for each country (one for each ranking source). For each country, the final quality-adjustment factor is the average of the six values of *QA* calculated.

University rankings

Table A.1 describes the six university rankings used in this analysis. The CWUR includes the largest number of universities (2,000); the ARWU/Shanghai includes the smallest number (1,000). The rankings include 385–1,040 higher education institutions in Europe and Central Asia. The total number of countries covered ranges from 63 to 98; the number of countries in Europe and Central Asia ranges from 32 to 43. Five of the six rankings (the Times Higher Education, QS, ARWU, CWUR, and U.S. News rankings) have scores that (theoretically) range from 0 to 100, although no institution included in any of the rankings has a score of 0. The U-Multirank is a nonnumeric, multidimensional, user-defined ranking. Numeric values (ranging from 0 to 100) are imputed to the letter-based scores assigned. The CWUR has the highest minimum score (65.8) and the lowest dispersion (5.07). The ARWU/Shanghai score is reported only for the world's top 1,000 universities.

The six rankings include subcomponents on the quality of research, faculty performance, and reputation. An alternative score can be estimated as the simple average of the scores of those subcomponents. This score—the research, teaching, and citations (RTC) quality score—captures the quality of the subcomponents that are common to all the rankings. This calculation is not possible for the CWUR and U.S. News rankings, which do not publish the scores on the subcomponents.

The correlation between these rankings is very high. Partial correlations across the rankings for a subset of 98 U.S. universities included in the six rankings range from 0.64 to 0.97. Partial correlations across the country averages for the 56 countries that have at least one university present in all six rankings are also high, ranging from 0.61 to 0.91.

A score of 0 is given to a country that is not present in the ranking (except for the CWUR ranking, for which a value of 60 is used, given that the minimum score recorded in that ranking is 66.5), in order to create an aggregate quality score that combines the information from the six rankings. The scores for each ranking are then normalized to have a mean of 0 and a standard deviation of 1. The overall score is used for the THE, QS, CWUR, U.S. News, and U-Multirank rankings; the RTC score is used for the ARWU. The simple average of the six standardized scores is then rescaled to a 0–100 range for presentational purposes.

This procedure ranks countries in terms of the average quality of their universities, ignoring the distribution of students across universities. Given that this information is not available at a global scale, the simple average is used.

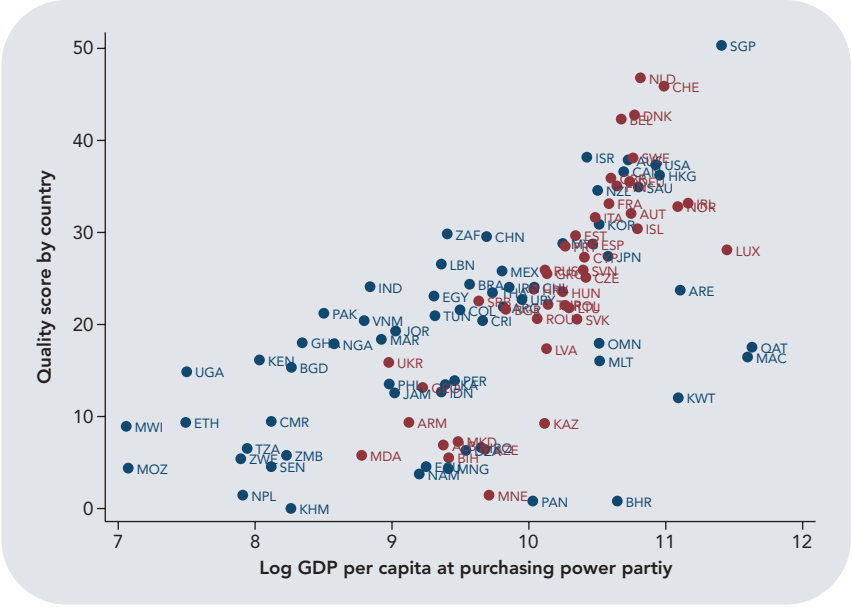
Figure A2.1.1 plots the values of the aggregate quality score by country and income level. Only countries that are present in at least one of the six rankings are included. The correlation between income level and the aggregate quality score is particularly steep for Europe and Central Asia.

TABLE A2.1.1 Descriptions of six systems of university ranking

Item	Times Higher Education (THE)	Quacquarelly Symmonds (QS)	Academic Ranking of World Universities (ARWU)[a]	Center for World University Rankings (CWUR)[b]	U.S. News Global Universities Ranking	U-Multirank (UMR)[c]
Number of universities included	1,397	1,021	1,000	2,000	1,500	1,666
Of which in ECA	540	418	385	708	556	1,041
Number of countries	91	85	63	98	81	92
Of which in ECA	37	35	32	36	36	43
Ranking components covered						
Research/ innovation on outputs	✓	✓	✓	✓	✓	✓
Faculty performance	✓	✓	✓	✓	✓	✓
Internationalization	✓	✓			✓	✓
Reputation	✓	✓	✓	✓	✓	
STEM focus			✓			
Overall score						
Global mean	34.57	29.90	37.00	71.64	42.45	59.27
Dispersion	17.07	19.75	12.71	5.07	16.28	14.41
Range	16.4–95.4	10.7–100	26–100	65.8–100	15.5–100	16.7–100
Research, Teaching, and Citations score[d]						
Global mean	33.43	30.83	20.96	n.a.	n.a.	63.56
Dispersion	17.45	20.00	9.82	n.a.	n.a.	16.54
Range	9.3–96.4	10.7–99.9	8.2–92.7	n.a.	n.a.	20–100

Note: ECA = Europe and Central Asia; STEM = science, technology, engineering, and mathematics.
a. The overall score for the ARWU ranking is published only for the top 100 universities. For the remaining institutions, only the individual subcomponents are published.
b. The CWUR publishes only the overall score, not the subcomponent scores.
c. The UMR provides a letter-based, not a numeric, score. To estimate a numeric equivalent, the following scale was used: A = 100; B = 75; C = 50, D =2 5, E = 0. The overall score represents the average of the numeric score of all the UMR categories (teaching and learning, research, knowledge transfer, international orientation, and regional engagement).
d. The Research, Teaching, and Citations score is composed of the simple average of the components of research, faculty performance, and reputation.

FIGURE A2.1.1 The aggregate quality score of universities is correlated with country income level



Note: Only countries present in at least one of the six rankings are included. Red points indicate countries in Europe and Central Asia. See Country Codes for country names.

Estimation of the quality-adjustment factor

A cohort-college-level data set for 323 U.S. colleges is used to estimate the productivity effect of university quality (parameters β and m in equation A2.1.3). Focusing on the U.S. data allows us to control for parental income, one of the key drivers of individual income. The data set comes from the *Mobility Report Cards* constructed by Chetty and others (2017), which combines college and administrative data that link the parental and post-college earnings of about 28.1 million students born between 1980 and 1991 for 2,463 colleges. The data set consists of cohort-college observations—that is, observations of the average characteristics of students born in a given year who studied at a given college. For each observation, the data set includes the students' average annual earnings in 2014 and the average parental earnings when the cohort was 15–19. The data set also includes a series of college-level variables, such as the average attendance costs, instructional expenditure, and percentage of students in each type of major. This data set is matched with the six university rankings. Among U.S. higher education institutions, 323 are present in at least one of the rankings, and 98 are present in all six.

The simple OLS regression estimated is the following:

$$\log(earnings)_{b,g,c}^{2014} = \alpha_g + \beta_g Q_c + \gamma_{1,g} \log(pearnings)_{b,g,c} + \gamma_{2,g} age_b + \gamma_{3,g} pct\_STEM_c + \varepsilon_{b,g,c} \quad \text{(A2.1.4)}$$

where the dependent variable is the annual average log earnings in 2014 of the cohort born in year b of gender g that went to college c. The main regressor of interest is Q, the quality measure based on the six rankings for college c. Coefficient β is the productivity effect of quality; it is used as the quality-adjustment factor in equation (A2.1.3). Other regressors are the log parental earnings of the cohort born in year b of gender g that went to college c when the individuals were

15–19; the age of cohort b in 2014; and percentage of STEM majors in college c in year 2000 (included to control for the STEM wage premium). Standard errors are clustered at the college level.

Table A2.1.2 presents the results for the aggregate quality score derived from the combination of the six rankings, shown for the sample of universities that are present in at least one of the rankings (323 universities in total) and for the common sample of 98 universities that are present in all the rankings. Table A2.1.3 summarizes the values of β and m (the implied productivity of a "zero-quality" institution) that arise from the results of the OLS estimations of equation (A2.1.4), focusing only on values that refer to both genders.

The analysis uses the values estimated from the use of the aggregate quality score in the extended sample (table A2.1.3, column 10). These values can be understood as conservative estimates of the productivity effects of quality, as the estimates from the sample of universities present in the six rankings (table A2.1.3, column 11) imply a larger effect. The parameters are derived from the implied differences in the wages of graduates of a low-quality university compared with

TABLE A2.1.2 Ordinary least squares estimates of aggregate quality scores of universities

Variable	Dependent variable: Log annual earnings in 2014					
	Full sample			Common sample		
	Both genders	Men	Women	Both genders	Men	Women
Aggregate quality score	0.0024*** (0.004)	0.0031*** (0.0004)	0.0016*** (0.0004)	0.0044*** (0.0009)	0.0052*** (0.0010)	0.0036*** (0.0008)
Log parental earnings	0.2986*** (0.0136)	0.3142*** (0.0150)	0.2646*** (0.0134)	0.3202*** (0.0248)	0.3597*** (0.0283)	0.2543*** (0.0225)
Age	0.1074*** (0.0013)	0.1237*** (0.0014)	0.0894*** (0.0013)	0.1157*** (0.0023)	0.1295*** (0.0024)	0.0979*** (0.0022)
Percent STEM majors in college	0.0058*** (0.0005)	0.0053*** (0.0005)	0.0049*** (0.0006)	0.0046*** (0.0008)	0.0043*** (0.0008)	0.0032*** (0.0010)
Constant	3.8250*** (0.1679)	3.2798*** (0.1881)	4.6636*** (0.1606)	3.2758*** (0.3061)	2.4979*** (0.3469)	4.5139*** (0.2707)
Observations	3,784	3,689	3,738	1,159	1,159	1,156
Number of colleges	323	315	321	98	98	98

Note: The common sample is composed of universities that are present in all six rankings. Clustered standard errors at the college level are in parentheses. STEM = science, technology, engineering, and mathematics.
*** $p < 0.01$.

TABLE A2.1.3 Parameters of the quality-adjustment factor used to assess universities

	THE		QS		ARWU	CWUR	U.S. News	U-Multirank		Aggregate quality score (overall)	
Parameter	Overall (1)	RTC (2)	Overall (3)	RTC (4)	RTC (5)	Overall (6)	Overall (7)	Overall (8)	RTC (9)	All sample (10)	Common (11)
β	0.0032	0.0031	0.0027	0.0024	0.0045	0.0073	0.0019	0.0040	0.0032	0.0024	0.0044
m	0.726	0.733	0.763	0.787	0.638	0.747	0.826	0.668	0.728	0.787	0.647

Note: THE = Times Higher Education; QS = Quacquarelly Symonds; ARWU = Academic Ranking of World Universities; CWUR = Center for World University Rankings; RTC = research, teaching, and citations.

those of a high-quality university in the United States. This implied wage differential may be even higher when comparing a low-quality university in a given country with a high-quality university in another country. Interpretation of the results emerging from the use of this quality-adjustment factor needs to take these limitations into account.

Quality-adjusted years of higher education

Based on the estimates of the previous paragraphs, the detailed calculation formula for the quality-adjusted years of higher education (*QAYH*) is as follows:

$$QAYH_c = Tertiary\ attainment_c^{age\ 30-34} \times 3.5 \times 0.787 \times e^{0.0024 \times Q_c} \quad \text{(A2.1.5)}$$

where *Q* is the aggregate quality score for higher education for country c. There is a positive association between quality-adjusted years of higher education and income level (see figure 2.4).

Annex 2.2. Estimates of the Effect of Adult Health Risk Factors on Productivity

This annex reports conditional estimates of the effect on log earnings of obesity (table A2.2.1), smoking (table A2.2.2), and drinking (table A2.2.3). The characteristics controlled for may differ across studies, but they always include age, gender, and education.

TABLE A2.2.1 Results of studies on effect of obesity on productivity (measured by log earnings)

Study	Estimate			Comment	Source in paper
	Low	High	Average		
Averett and Korenman (1996)	−0.03	−0.15	−0.09	Coefficients compare obese people (body mass index [BMI] > 30) and people of ideal weight (BMI 20–25). Low estimate is for men; sample is from 1988; high estimate is for women; sample is from 1981.	Table 4
Cawley, Grabka, and Lillard (2005)	0	−0.1986	−0.0993	Coefficients compare obese people (BMI > 30) and people of ideal weight (BMI 20–25). Low estimate is for men in the United States (not significantly different from zero); high estimate is for women in the United States.	Table 2
Lundborg, Nysted, and Rooth (2007)	−0.058	−0.074	−0.066	Coefficients compare obese people (BMI > 30) and non-obese people (BMI < 30); high estimate includes health status as control.	Table 9
Brunello and D'Hombres (2007)	−0.04	−0.105	−0.0725	Regression is linear specification with BMI as independent variable. Coefficients are multiplied by 5 to simulate a change from BMI 25 to BMI 30. Low estimate is for women, controlling for occupation and sector; high estimate is for men, not controlling for occupation and sector.	Table 3
Kline and Tobias (2008)	−0.0685	−0.153	−0.1108	Regression is nonlinear specification with BMI as independent variable. Low estimate corresponds to expected change between BMI 25 and BMI 30 for women; high estimate corresponds to same change for men.	Table IV
Lundborg, Nysted, and Rooth (2010)	−0.072	−0.153	−0.1125	Coefficients compare obese people (BMI > 30) and people of ideal weight (BMI 20–25). Low estimate is for specification controlling for noncognitive skills; high estimate is for specification not controlling for any skill.	Table 4.1, columns C, D, E
Bockerman and others (2019)	0	−0.355	−0.1775	Regression is linear specification with BMI as independent variable. Coefficients are multiplied by 5 to simulate a change from BMI 25 to BMI 30. Low estimate corresponds to genetic instrumental variable 97 SNP (not significantly different from zero). High estimate corresponds to genetic instrumental variable 32 SNP.	Table 1
Median			−0.0993		

TABLE A2.2.2 Results of studies on effect of smoking on productivity (measured by log earnings)

Paper	Estimate			Comments	Source in paper
	Low	High	Average		
Levine, Gustafson, and Velenchik (1997)	−0.04	−0.08	−0.06	Coefficients compare smokers (more than 1 cigarette a day) and nonsmokers. Low estimate is for 1984; high estimate is for 1991.	Table 4
Van Ours (2004)	−0.085	−0.119	−0.102	Coefficients compare smokers and nonsmokers. Low estimate is for average smokers; high estimate is for consumption of twice the average smoker.	Table 10
Auld (2005)	−0.083	−0.268	−0.1755	Coefficients compare smokers and nonsmokers. Low estimate treats smoking as exogenous; high estimate treats smoking as endogenous.	Table 2
Grafova and Stafford (2009)	−0.076	−0.102	−0.089	Coefficient compare persistent smokers and people who never smoked. Low estimate is for 1986; high estimate is for 2001.	Table 7
Lokshin and Beegle (2011)	−0.19	−0.23	−0.21	Coefficient corresponds to (causal) difference in earnings of current smokers and nonsmokers. Low estimate is for LIV specification; high estimate is for two-stage least squares specification.	Table 2 and page 227
Bondzie (2016)	−0.043	−0.069	−0.056	Matching estimates of differences between smokers and nonsmokers. Low estimate corresponds to kernel average treatment on treated (ATT); high estimate corresponds to nearest-neighbor ATT.	Table 5
Median			−0.096		

TABLE A2.2.3 Results of studies on effect of heavy drinking on productivity (measured by log earnings)

Paper	Estimate			Comments	Source in paper
	Low	High	Average		
Mullahy and Sindelar (1993)	−0.163	−0.176	−0.1695	Coefficients compare people diagnosed with alcoholism and people not diagnosed with alcoholism. Low estimate is for people ever diagnosed with alcoholism; high estimate is for people diagnosed with alcoholism in past year.	Table 3, all observations
Hamilton and Hamilton (1997)	−0.254	−0.758	−0.506	Coefficients correspond to decomposition of wage differences attributed to differences in returns to characteristics of heavy drinkers (people who consume eight or more drinks on one or more days in the previous week) and nondrinkers. Low estimate is for wider definition of heavy drinker.	Table 4 and page 148
Zarkin and others (1998)	0.082	−0.021	0.0305	Coefficients compare heavy drinkers (people who consumed more than 94 drinks in past 30 days for men, 48 drinks for women) and nondrinkers. Low estimate is for men; high estimate is for women.	Table 2
Barrett (2002)	−0.08	−0.19	−0.135	Low estimate compares heavy drinkers (people who consumed eight or more drinks on one or more days the previous week) and nondrinkers. High estimate is for heavy drinkers versus moderate drinkers.	Table 4
Sloan and Grossman (2011)	0	−0.459	−0.2295	Coefficient compares heavy drinkers (people who consume more than 12 drinks a week) and nondrinkers. Low estimate is for whites and women of all races (not significantly different from zero); high estimate is for black men.	Table 2
Bockerman, Hyytinen, and Maczulskij (2017)	−0.18	−0.424	−0.302	Coefficient corresponds compares heavy drinkers (men who consume more than 280 grams of alcohol and women who consume more than 190) and moderate drinkers (men who consume less than 280 grams of alcohol a week and women who consume less than 190). Low estimate is for twin differences in monozygotic twins; high estimate is for twin differences in dizygotic twins.	Table V
Median			−0.1995		

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PART II

Selected Country Pages

ALBANIA

Table 1	2019
Population, million	2.9
GDP, current US$ billion	15.3
GDP per capita, current US$	5324.6
School enrollment, primary (%gross)[a]	107.0
Life expectancy at birth, years[a]	78.5

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

Albania's economy was hit hard, first by an earthquake in November 2019 and then the COVID-19 pandemic. Employment and GDP are expected to fall significantly, while external and fiscal balances deteriorate. Authorities reacted to counter the crisis, providing credit guarantee lines and increasing social transfers. Nevertheless, poverty is expected to increase in 2020. The extent of the crisis will become apparent in 2021 as EU economies recover and the pandemic subsides. Some relief will arrive as reconstruction from the earthquake resumes.

Key conditions and challenges

Albania's economic performance in recent years benefited from reform progress and some large investments in renewable energy. However, despite robust average GDP growth of 3.4 percent in 2015-2018, the economy remains highly vulnerable to foreign demand shocks and natural hazards, such as the 2019 earthquake. With SMEs representing more than 90 percent of private firms, the business environment is fragile, with limited access to finance, poor market integration and low product sophistication. Limited fiscal space resulting from weak revenue generation and high government debt, has prevented the country from narrowing infrastructure gaps and investing in human capital.

Despite the COVID-19 impact, the banking sector remains liquid and well-capitalized, supported by the borrower relief and prudential measures taken by the Central Bank. However, the uncertain economic recovery and increasing number of distressed borrowers highlight potential spillover risks to the banking sector.

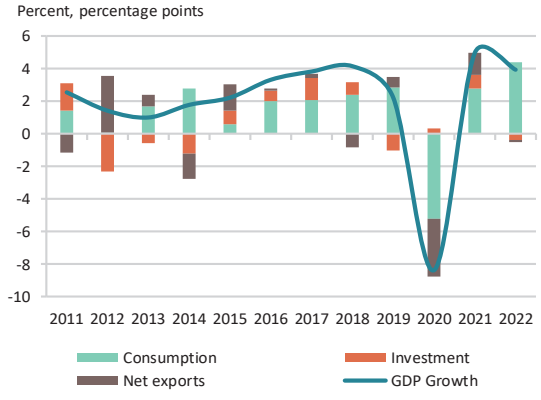
Recession in the EU (Albania's main trading partner and FDI and remittances source), supply chain disruptions, travel limitations and social distancing measures, are taking a heavy toll on key economic sectors, including tourism and manufacturing.

As of September, GDP is projected to fall by 8.4 percent in 2020, but the course and duration of the pandemic and its impacts remain uncertain. The crisis is increasing poverty through increased unemployment. A persisting pandemic and a delayed vaccine could require a longer period of social distancing and prevent a recovery of services and manufacturing, pushing more businesses into bankruptcy and delaying the recovery in employment. As macroeconomic policy is geared towards the protection of firms and the vulnerable, it needs to be balanced against affordability, even in the short run. The normalization of the global economy will have a significant impact on the shape of the recovery.

Recent developments

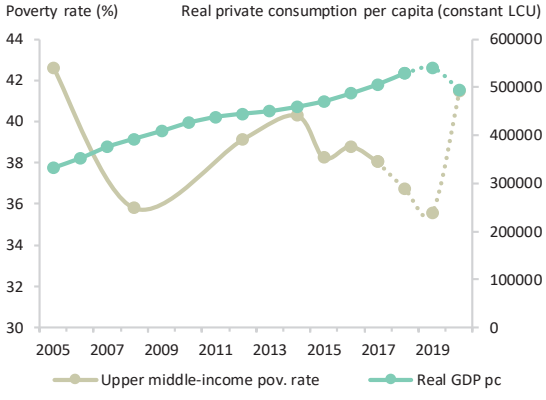
Growth slowed to 2.2 percent in 2019 as a drought slashed hydropower production and a devastating earthquake hit Albania in November 2019. As the country started the reconstruction phase, the COVID-19 pandemic forced it to lock down key economic sectors. Business closures, scaled back operations and disruptions in supply chains hurt manufacturing. The tourism season—a key growth driver—has been dismal. Consumption and investment decisions have been delayed. As a result, Albania's GDP is expected to contract by 8.4 percent in 2020. The slowdown in labor-intensive sectors has increased unemployment to 11.9 percent in Q2 of 2020, up from 11.5 percent in Q2 of 2019. Albanian authorities introduced wage subsidies, increased social spending, enacted a

FIGURE 1 Albania / Real GDP growth and contributions to real GDP growth



Sources: INSTAT and World Bank.

FIGURE 2 Albania / Poverty rate and GDP per capita, percent



Source: World Bank. Notes: see Table 2.

temporary moratorium on loan installments, and offered credit guarantees to ease salary payments and working capital. Still, many informal workers and entrepreneurs face severe economic stress. Despite these measures, poverty (the percentage of the population living with less than US$5.5 per person per day in 2011 PPP) is expected to increase by around 5 percentage points.

The current account deficit is expected to rise to about 11.9 percent of GDP in 2020. Reduced tourist inflows, declining textile processing orders and lower oil prices are expected to drive a decline of exports by 37 percent.

Albania's fiscal position is expected to deteriorate in 2020 as the overall deficit surges to a projected 8.5 percent of GDP in 2020. The decline in economic activity is expected to reduce the tax revenue-to-GDP ratio from 25.7 percent in 2019 to 24.1 percent in 2020. The higher fiscal deficit will cause Albania's public debt to increase to an expected 81.4 percent of GDP in 2020.

Outlook

Assuming containment of the pandemic by end-2020, GDP is forecast to recover by 5 percent in 2021 as exports, consumption and investment partially rebound. Further reconstruction from the earthquake should also boost growth, in line with experience from similar disasters in developing economies. Under this baseline recovery scenario, the economy would still be 10.7 percent smaller than under the World Bank's pre-COVID-19 projection for 2021. In the years following, private consumption will play an increasingly important role in growth. Private and public investment will also contribute to growth to the extent that the government continues to implement reforms to improve the business environment and invests in infrastructure. At the sectoral level, services, led by tourism, and construction are expected to be key growth drivers.

The current account deficit is expected to reduce to 11 percent of GDP in 2021 and further decline to 8 percent in line with the pre-crisis trends, driven by projected improvements in the trade balance. Service exports, including tourism and fast-expanding business-process operations should narrow the trade deficit over the medium term. Import growth will be high at 12.8 percent in 2021, as infrastructure investment speeds up. FDI inflows including in tourism, energy, and manufacturing are projected to finance most of the current-account deficit over the projection period.

With economic activity picking up, revenues are projected to recover to 27.6 percent of GDP by 2022-2025. Albania's public debt is projected to gradually decline over the medium term, in line with the authorities' commitment to strengthening fiscal sustainability. The employment outlook is largely dependent on the recovery of the services sectors and the amounts invested in reconstruction.

TABLE 2 Albania / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	3.8	4.3	2.2	-8.4	5.0	3.9
Private Consumption	2.3	3.5	3.3	-8.0	4.7	5.2
Government Consumption	2.9	-1.1	3.8	7.1	-5.3	5.1
Gross Fixed Capital Investment	5.5	2.9	-4.1	1.6	3.1	-1.5
Exports, Goods and Services	13.0	2.9	6.1	-37.0	28.0	5.8
Imports, Goods and Services	8.1	3.8	2.7	-19.0	12.4	4.0
Real GDP growth, at constant factor prices	3.9	4.6	1.9	-8.3	5.0	3.9
Agriculture	0.8	0.9	1.1	1.2	1.7	1.5
Industry	1.9	9.1	-0.4	0.0	6.9	5.0
Services	6.1	3.9	3.2	-15.6	5.4	4.4
Inflation (Consumer Price Index)	2.0	2.1	1.4	2.0	2.5	2.8
Current Account Balance (% of GDP)	-7.5	-6.7	-7.6	-11.9	-10.1	-8.7
Net Foreign Direct Investment (% of GDP)	8.6	8.0	7.6	5.9	6.2	6.8
Fiscal Balance (% of GDP)	-2.0	-1.8	-1.9	-8.5	-5.6	-3.4
Debt (% of GDP)	71.9	69.6	68.0	81.3	81.3	79.3
Primary Balance (% of GDP)	0.0	0.4	0.2	-5.9	-2.8	-0.8
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a]		36.7	35.6	41.5		

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2017-HBS. Data adjusted with original 2011PPP factor. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.

ARMENIA

Table 1	2019
Population, million	2.9
GDP, current US$ billion	13.7
GDP per capita, current US$	4655.3
International poverty rate ($19)[a]	1.4
Lower middle-income poverty rate ($3.2)[a]	9.4
Upper middle-income poverty rate ($5.5)[a]	42.5
Gini index[a]	34.4
School enrollment, primary (% gross)[b]	92.7
Life expectancy at birth, years[b]	74.9

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), calculated by the revised 2011PPP conversion factor.
(b) Most recent WDI value (2018).

Armenia has been hit hard by the COVID-19 pandemic. The country has among the highest infection rates in ECA, its economy is projected to contract by 6.3 percent and the poverty rate (at the upper-middle income poverty line) is projected to increase by 4.8 percentage points in 2020. Recovery will be slow, with output not expected to recover to pre-COVID levels until at least 2022, and subject to severe downside risks, particularly from a further pick-up in COVID-19 infections.

Recent developments

Armenia has been hit hard by the COVID-19 pandemic. The country registered the first infection on March 1, with the disease spreading rapidly thereafter, prompting tightening restrictions and eventually a full lockdown in April. Restrictions began to be eased in May, even as the infection rate remained elevated, which coincided with a subsequent surge in infections. Infection and fatality rates have declined since July, as implementation of control measures was tightened; however, these rates remain among the highest in the ECA region.

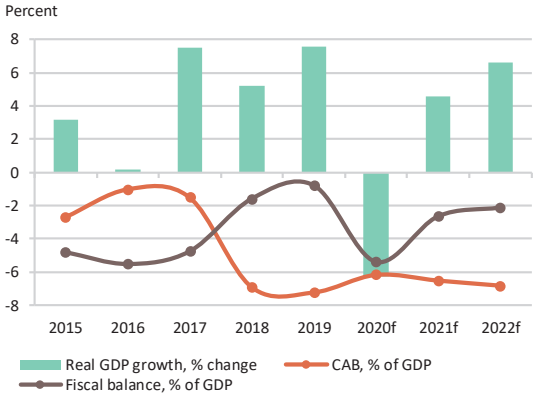
The economic impact of the pandemic has been severe. Following a strong start in the first two months of 2020 when the economy grew by 9.2 percent yoy, growth turned negative in March as businesses were forced to close and remittances and tourist arrivals dried up. A gradual recovery started in May; however, the spike in infections dented the revival. By mid-year, the economy had contracted by 5.7 percent yoy, driven by a sharp contraction of private consumption (8.9 percent yoy) and investment (30.7 percent yoy), only partially offset by higher government spending and import compression. On the supply side, construction and services were most affected, with financial and ICT sectors remaining more resilient due to their greater reliance on digital technologies. Agricultural output grew by 1.8 percent yoy in the first half of 2020 and a low base in 2019 pushed growth in mining to 21.7 percent yoy.

Inflation remains subdued, averaging 0.8 percent in the year to August, reflecting deflation in food and world oil prices and lower aggregate demand. In response, the Board of the Central Bank of Armenia (CBA) cut the policy rate four times in 2020, by a cumulative 125 basis point to 4.25 percent, its lowest level since 2006.

The government launched several economic and social measures to mitigate the pandemic at an estimated cost of around 2.3 percent of GDP and pushing current spending in the first seven months of 2020 up by 19 percent yoy. Capital spending increased by 62 percent, but from a low base in 2019 and it remains below budgeted levels reflecting persistent challenges in public investment management. Revenues fell by 6 percent yoy resulting in a deficit of around 1.7 percent of projected annual GDP in the year-to-July. Stepped up domestic and external borrowing financed the deficit and pushed public debt to approximately 60 percent of GDP, with the government invoking an escape clause in the fiscal rule allowing to increase debt during crises.

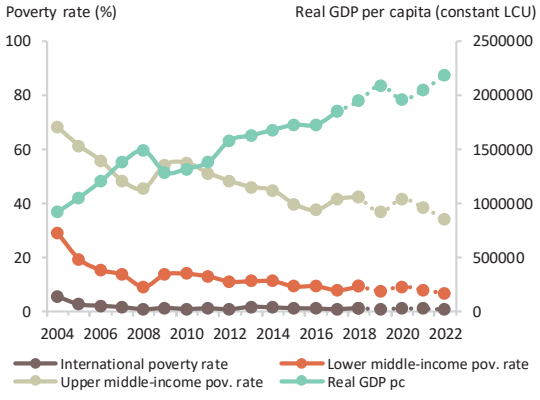
The current account deficit is estimated to have narrowed but remains elevated. The goods trade deficit improved by 21 percent yoy in the year to July, as imports contracted by 13.7 percent yoy offsetting the 6.4 percent yoy decline in exports. The smaller trade deficit offset the decline in the services and income accounts, as tourism arrivals were suspended and money transfers from abroad declined (15 percent yoy). Despite slowing FDI inflows, support from IFIs financed the deficit and kept reserves at about five months of imports as of July 2020.

FIGURE 1 Armenia / GDP growth, fiscal and current account balances



Sources: Statistical Committee of Armenia; Central Bank of Armenia; World Bank staff projections.

FIGURE 2 Armenia / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see table 2.

After depreciating by 5.5 percent in March, following the initial COVID-19 related shock, the Armenian dram recovered in April and has remained largely stable since.
The financial sector entered the pandemic with strong capital and liquidity levels. As a result, banks were able to offer moratoria on debt servicing to borrowers while continuing to extend credit. Credit expanded by 17 percent yoy as of end-July. Deposits growth, at 11 percent yoy, also remained healthy. While declining, 50 percent of the loan portfolio and 53 percent of deposits remain in foreign currency.

Outlook

In the baseline scenario, the economy is projected to contract by 6.3 percent in 2020, before rebounding by 4.6 percent in 2021. Output is projected to recover to pre-COVID levels only in 2022. This assumes that Armenia will continue to experience community transmission until mid-2021, but COVID-19 infections will remain largely stable and no further lockdowns are expected. This, in turn, implies that economic activity is not expected to fall to levels observed in the second quarter of 2020, but the recovery will be muted until mid-2021. Post mid-2021, if access to a vaccine is in place and global trade and investment flows get restored, economic activity will normalize for the rest of the year and going into 2022.
The economic contraction in 2020 is expected to cause a sharp increase in unemployment. The upper-middle income poverty rate could increase by 4.8 percentage points.
Inflation will remain muted and converge to CBA's 4 percent target gradually. After narrowing in 2020 due to import compression, the current account balance is projected to widen in 2021 and 2022 as recovering demand translates into faster imports growth.
The rise in the budget deficit to 5.4 percent of GDP, coupled with the decline in GDP is expected to push public debt up by 10 pp to 63 percent of GDP in 2020. The government's 2021-2023 Medium-Term Expenditure Framework, prepared in July 2020, envisages a strong fiscal consolidation bringing the deficit below 2 percent of GDP by 2023. This corresponds to a gradual decline in the debt to GDP ratio, consistent with the fiscal rule.

Risks and challenges

Risks are firmly on the downside, particularly from a potential pick-up in COVID-19 infections in the upcoming winter, from the lack or delay of availability of vaccines in 2021 and flare up of tensions with Azerbaijan. In this downside growth scenario, the economy will contract further in 2020 with a slower rebound in 2021 (around 3 percent), which will postpone the recovery of output to pre-COVID levels to 2023. Also, weaker-than-expected recovery in Armenia's economic partners, including Russia, and prolonged regional tensions could derail the recovery.
Domestically, governance gaps such as justice reform, low productivity, and weak connectivity result in limited integration and undiversified trade patterns. In addition, declining and aging population, low formal employment, spatial disparities and skills mismatches add to the challenges. The government has started to tackle a number of these issues but ensuring continued progress on reforms remains critical.

TABLE 2 Armenia / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	7.5	5.2	7.6	-6.3	4.6	6.6
Private Consumption	12.4	7.5	10.3	-9.1	5.9	7.6
Government Consumption	-2.1	-3.0	12.5	5.9	2.9	3.0
Gross Fixed Capital Investment	9.7	4.8	4.4	-16.8	8.1	10.9
Exports, Goods and Services	18.7	2.9	13.2	-12.7	5.3	7.7
Imports, Goods and Services	24.6	12.9	7.8	-15.1	7.8	9.3
Real GDP growth, at constant factor prices	7.3	4.9	7.6	-6.3	4.6	6.6
Agriculture	-5.1	-6.9	-2.6	1.7	2.5	3.5
Industry	9.0	3.7	7.1	-2.4	4.6	5.7
Services	10.6	9.0	10.4	-9.9	5.1	7.8
Inflation (Consumer Price Index)	1.0	2.5	1.4	1.3	2.9	3.5
Current Account Balance (% of GDP)	-1.5	-6.9	-7.2	-6.2	-6.5	-6.8
Net Foreign Direct Investment (% of GDP)	1.9	2.0	2.9	1.0	2.3	2.6
Fiscal Balance (% of GDP)	-4.8	-1.6	-0.8	-5.4	-2.7	-2.1
Debt (% of GDP)	58.9	55.7	53.5	63.8	63.6	61.6
Primary Balance (% of GDP)	-2.6	0.7	1.6	-2.7	-0.6	-0.1
International poverty rate ($1.9 in 2011 PPP)[a]	0.9	1.4	1.1	1.4	1.2	1.0
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a]	8.1	9.4	7.7	9.3	8.0	6.7
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a]	41.5	42.5	37.0	41.8	38.7	34.3

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2018-ILCS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022. Projection using neutral distribution (2018) with pass-through = 0.87 based on GDP per capita in constant LCU. The trends in international poverty (revised 2011 PPP) and national poverty diverge because of methodological differences in the aggregates and the position of the poverty line.

AZERBAIJAN

Table 1	2019
Population, million	10.0
GDP, current US$ billion	48.0
GDP per capita, current US$	4813.7
School enrollment, primary (% gross)[a]	99.7
Life expectancy at birth, years[a]	72.9

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

Azerbaijan's economy contracted sharply in the first half of 2020, hit by the COVID-19 pandemic and a fall in oil production under OPEC+ quotas. The economy is forecast to shrink by 4.2 percent in 2020, absent a further surge in infections and restrictions, while the poverty rate is expected to rise. The economy will gradually rebound in 2021-22, returning to pre-COVID-19 levels only by the end of 2022. Downside risks dominate, particularly should a more severe outbreak continue into 2021.

Key conditions and challenges

Azerbaijan is an upper-middle income country, rich in oil and natural gas resources. It faces systemic macroeconomic and governance challenges that have yielded lackluster economic performance and periods of macroeconomic instability in recent years. Exploitation of its hydrocarbon deposits propelled the economy and helped reduce the poverty since 2000s. However, structural challenges, such as a significant state footprint, a small and fragile financial sector, as well as overall governance issues and weak institutions, prevent the emergence of a vibrant private sector. A rural-urban gap persists, informality is large, and a considerable part of the population is socially and economically vulnerable. The country's human capital indicators lag regional and income peers. Recent escalation of tensions with Armenia additionally weigh on the economic outlook.

The COVID-19 pandemic and a fall in oil prices, with subsequent oil production cuts under the OPEC+ quota arrangements, have severely impacted Azerbaijan. Its economy is expected to contract by 4.2 percent in 2020. The services, retail trade and tourism in particular, have been severely impacted by the restrictions. As a result, the poverty rate is expected to increase, driven primarily by households that experienced unemployment and income loss in the affected sectors. A strong fiscal reserve buffer provides some flexibility to mitigate the impact of the crisis.

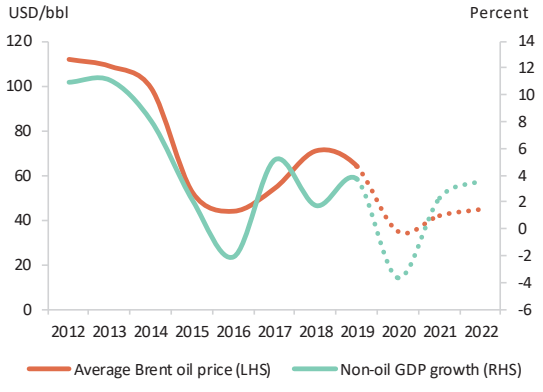
Recent developments

Azerbaijan has been severely impacted by the COVID-19 pandemic, recording its first case on February 28. The country initiated a nationwide lockdown on March 23. The first wave of mitigation measures kept infections under control but subsequent easing of the restrictions in May led to an exponential resurgence of cases. This prompted the second round of restrictions, covering major urban areas, that significantly slowed the infection spread. As a result, the quarantine regime was eased gradually from mid-August.

The two lockdowns, together with a fall in oil production, induced a 2.7 percent contraction in GDP in the first half of 2020. On the supply side, services were impacted the most, particularly retail, hospitality, and construction. A drought slashed agricultural output growth. Oil production fell, as the country adhered to the reduced OPEC+ production quota. On the demand side, as incomes fell and sentiments deteriorated, both consumption and investment plummeted.

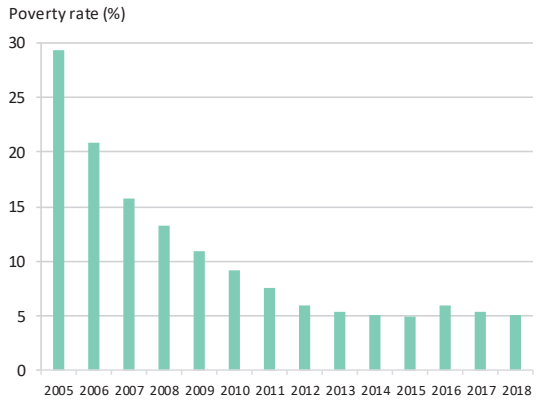
Hydrocarbon exports plunged by 25 percent in the first half of 2020, reducing the trade surplus by 10 percent year-on-year. A sharp fall in oil prices in March also spurred pressures on the exchange rate.

FIGURE 1 Azerbaijan / Non-oil GDP growth and oil price



Sources: State Statistical Committee and World Bank staff estimates.

FIGURE 2 Azerbaijan / Poverty headcount rate at the national poverty line



Source: State Statistical Committee. Note: World Bank has not reviewed the official national poverty rates for 2013-17.

Increased foreign exchange sales by the State Oil Fund (SOFAZ) helped maintain the manat at 1.7 AZN/USD. The exchange rate pressures have subsided since, with cumulative reserves of the central bank and SOFAZ stabilizing at more than 90 percent of GDP, despite a decline in SOFAZ assets.

Weak domestic demand and a stable exchange rate kept annual CPI inflation low at 3.1 percent in the first half of 2020. This enabled the Central Bank of Azerbaijan (CBA) to reduce the policy rate twice in 2020, to 6.75 percent in July.

The consolidated fiscal deficit increased to 1.5 percent of GDP in the first half of 2020, from a surplus of 9 percent of GDP in the same period of 2019, reflecting a steep contraction of oil revenues and higher spending to accommodate increased healthcare spending and to finance an anti-crisis fiscal stimulus (over 3 percent of GDP). The package included measures to support firms in the formal sector and transfers to households and enterprises in the informal sector. The 2020 budget was subsequently adjusted, using the escape clause under the fiscal rule, enabling additional transfers from SOFAZ.

Credit to economy fell by 5 percent in the first half of 2020, reflecting the closure of four troubled banks and the steep decline in economic activity, while the CBA introduced a number of forbearance measures to reduce stress on the financial sector.

Outlook

Azerbaijan's economy is projected to contract by 4.2 percent in 2020, reflecting a broad-based decline in both energy and non-energy activity. The pace of recovery is forecast to be gradual, with the economy expected to recover to the pre-COVID-19 output levels the earliest by end-2022.

Adherence to a reduced OPEC+ quota is forecast to lead to a 5 percent drop in energy sector output in 2020. The non-energy sector will likely shrink by 3.6 percent, reflecting depressed service sector and slower agriculture growth due to the drought. On the expenditure side, aggregate demand is expected to remain weakened, while real household incomes decline and corporate sector financial constraints stay acute.

Growth is estimated to recover to 1.9 percent in 2021, as the remaining supply disruptions are projected to be phased out, restoring the pre-pandemic oil production and growth in service sectors. Growth would further accelerate to 2.8 percent in 2022, as economic activity gradually returns to normalcy.

In line with the gradual pace of recovery and subdued demand, CPI inflation is forecast to remain below the CBA target of 4±2 percent in the medium-term.

The current account balance is projected to record a small deficit in 2020, driven by lower oil exports. Financial account pressures could subside by end-2020, and overall balance of payments is expected to record a 1.4 percent deficit in 2020. In the medium-term, as oil prices recover, external balance would turn back to surplus.

Plummeting oil revenues and a surge in spending could widen the fiscal deficit to 7.5 percent of GDP in 2020, which will be largely financed by the increased transfers from SOFAZ. In the medium-term, the balance is estimated to return to a surplus, as revenues recover gradually and fiscal measures to counter the COVID-19 are phased out.

Azerbaijan's outlook is subject to significant downside risks. The pandemic evolution around the globe and a pace of recovery in energy markets, regional tensions, as well as economic activity in major trade partners are key risks to watch in the medium-term.

Economic growth could be as low as -4.9 percent in 2020 and recovery to the pre-COVID-19 output levels could be prolonged beyond 2023 if the COVID-19 spread is not contained by early-2021 and the government needs to enact another strict lockdown, and if the recent flare up in regional tensions is prolonged.

The long-term impact on poverty and inequality will depend on the severity and duration of the pandemic. The longer the duration of the pandemic, the deeper and wider the negative impact on households' welfare and poverty.

TABLE 2 Azerbaijan / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	0.2	1.5	2.2	-4.2	1.9	2.8
Private Consumption	2.7	3.0	3.8	-5.2	1.3	2.2
Government Consumption	1.2	1.5	7.9	4.5	4.7	4.6
Gross Fixed Capital Investment	-2.4	-0.2	-3.1	-14.9	2.1	4.2
Exports, Goods and Services	-0.9	1.0	1.5	-6.4	1.6	2.1
Imports, Goods and Services	0.2	1.5	2.2	-10.5	1.5	1.7
Real GDP growth, at constant factor prices	0.0	1.5	2.2	-4.2	1.9	2.8
Agriculture	4.2	4.6	7.3	1.5	2.5	3.2
Industry	-3.5	-0.7	0.4	-4.4	1.7	1.7
Services	6.5	5.1	4.3	-5.0	2.2	4.8
Inflation (Consumer Price Index)	12.9	1.9	2.9	3.3	2.9	2.8
Current Account Balance (% of GDP)	4.1	12.8	9.1	-0.7	1.6	4.7
Net Foreign Direct Investment (% of GDP)	0.7	-1.7	-2.9	1.4	1.4	1.2
Fiscal Balance (% of GDP)	-1.6	5.6	9.0	-7.5	-3.4	1.7
Debt (% of GDP)	22.7	18.9	18.9	19.6	20.0	20.6
Primary Balance (% of GDP)	-1.0	6.8	9.8	-6.7	-2.7	2.3

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.

BELARUS

Table 1	2019
Population, million	9.4
GDP, current US$ billion	63.5
GDP per capita, current US$	6757.4
Lower middle-income poverty rate ($3.2)[a]	0.0
Upper middle-income poverty rate ($5.5)[a]	0.4
Gini index[a]	25.2
School enrollment, primary (%gross)[b]	100.5
Life expectancy at birth, years[b]	74.2

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), 2011PPPs.
(b) Most recent WDI value (2018).

Political turmoil following elections in August has added to economic headwinds from the global COVID-19 shock. Accordingly, the economic recession is expected to deepen in 2021, amidst a sharp contraction in domestic demand. Substantial fiscal needs and external financing pressures will remain in the medium-term, reflecting the withdrawal of implicit energy subsidies from Russia and large debt amortizations. Key risks include continued political instability amidst a dollarized banking system and persistent structural bottlenecks.

Recent developments

The global COVID-19 shock, tensions with Russia on oil supply terms, and lower global energy prices dragged on growth in the first half of 2020 with the economy contracting by 1.7 percent y/y. Overall, merchandise exports suffered a 17.1 percent y/y contraction in H1 amidst a dramatic fall in oil product exports (of 61.8 and 42.6 percent in US$ terms and physical volumes respectively). However, strong pre-election growth in real wages (averaging 8 percent y/y) helped support consumer spending and, coupled with the lack of broad-based lockdown measures, partially offset the negative contribution from net exports and prevented a deeper downturn.

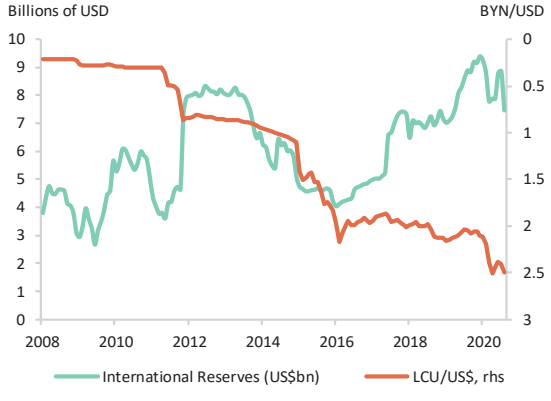
Falling remittances, a weaker Russian ruble, and domestic political tensions led to a 26 percent nominal BYN depreciation vis-à-vis the US$ between January-August (9 percent in the three weeks following elections on August 9). Banking liquidity pressures have increased as deposit withdrawals have accelerated. The volume of FX deposits declined by 6 percent m/m in August, while net demand for FX by households reached US$621mn, a threefold increase relative to July. To avoid additional currency pressures, the National Bank has suspended till October its overnight loans and started to provide liquidity support through regular auctions. FX reserves (including gold) have declined by 20 percent since the beginning of the year, and by 15 percent (US$1.4bn) in August, to US$7.5bn (less than 3 months of imports).

Consolidated budget revenues dropped by 14.1 percent in real terms, driven by a plunge in profit tax revenues (50.1 percent) and customs duties (40 percent). Real expenditures rose 11 percent on higher capex and capital transfers, as well as increased spending on wages. Accordingly, in H1 2020 the general government deficit reached 3.4 percent of GDP (net of quasi-fiscal expenditures) vs. a 3.9 percent surplus a year ago. Public and publicly guaranteed debt amounted to 43.3 percent of GDP in H1 2020, almost all FX-denominated.

Despite lower exports, significant import compression (reflecting lower energy inputs from Russia) contributed to a small trade surplus in Q2. External financing needs during 2020 have been only partially alleviated by the US$1.25bn Eurobond issuance and restructuring of loan terms for the Astravets nuclear power plant that occurred by mid-year. Belarus still has debt obligations to repay of about US$ 1.1 bn of external debt by December, with 45 percent of it due to Russia. Sovereign risk spreads have increased in the post-election period but remain well below levels seen in previous crises.

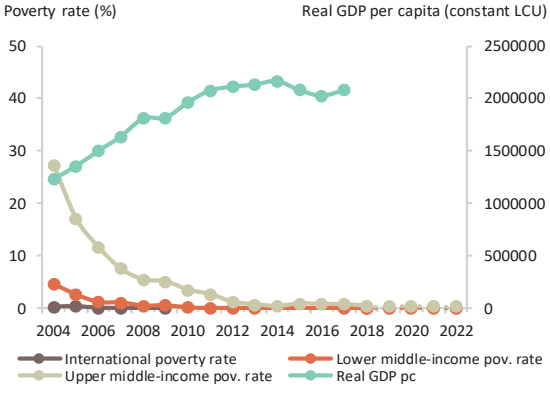
Real household incomes continued to grow in H1 2020 – by 5.4 percent y/y – on account of higher real wages and pensions. The national poverty rate, having risen during 2014-2017, fell by 0.3 percentage points in 2018, and continued its downward trend in 2019, to reach 4.7 percent in Q1 2020. PPP $5.5/day poverty fell to 0.44 percent in 2018 and remained stable in 2019.

FIGURE 1 Belarus / FX Reserves and Currency Trends



Sources: Belstat, National Bank of Belarus, World Bank.

FIGURE 2 Belarus / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

Outlook

The economy is expected to contract by 2.8 percent in 2020, reflecting the drag from COVID-19 and headwinds from increased political tensions. The recession is expected to deepen in 2021, reflecting a significant retrenchment in household spending and investment demand due to heightened uncertainty, and the lack of fiscal and monetary policy space to support the economy. Long-standing structural challenges related to the dominance of low-productivity SOEs, the high degree of dollarization, and external vulnerabilities are expected to weigh on the recovery thereafter.

The outlook assumes fiscal consolidation; this is necessary to prevent twin fiscal and current account deficits – reflecting the impact of the withdrawal of implicit Russian energy subsidies ("tax maneuver" to be completed in 2024) – from widening to unsustainable levels and to contain financing pressures related to large debt repayments coming due. In 2021, total FX debt service and repayment will amount to about US$3.2 bn, including US$2.4 bn of external debt, out of which 70 percent is due to Russia and China.

The recession will negatively affect household welfare, unless targeted cash transfers are expanded, as other support instruments would be constrained by limited fiscal space. Measured at the US$5.5/day threshold, the welfare impact is projected to be small, with poverty rates increasing by 0.1pp in 2020. Impacts will be more significant at higher poverty thresholds: the last recession of 2015-2016 was associated with a 2 percentage points increase in the national poverty rate, and a 15 percentage points increase in the share of population below the minimum consumption budget.

Risks and challenges

Downside risks are high particularly on the domestic front. Political instability, if it persists, poses risks to macroeconomic stability amidst elevated external financing needs, limited fiscal and FX buffers and uncertain market funding conditions, and a highly dollarized banking sector. Additional pressures on sectoral output and the budget could arise if major strikes occur at strategic SOEs such as petrochemical companies and a potash exporter. Nearly half of value-added in the economy is generated by the private sector, and a sustained deterioration in investor sentiment could lead to protracted economic stagnation, especially if more dynamic private companies in the export-oriented IT sector relocate to neighboring countries or transit trade is rerouted. FX-denominated loans on corporate balance sheets account for almost half of the total bank lending stock and a prolonged recession and currency pressures could pose risks to banking asset quality.

More broadly, by delaying productivity-enhancing structural reforms and not diversifying, Belarus has kept its trade and economy tied to energy-intensive, inefficient SOEs, and to Russia, increasing vulnerability to commodity shocks and developments in CIS trading partners. Stimulating longer term growth, ensuring a strong recovery from the COVID-19 shock and adjusting to the "tax maneuver" will require supply-side reforms that lift productivity and competitiveness. Public financial reforms are also critical to anchor fiscal sustainability, including through SOE reforms, rationalization of the large public sector wage bill and tax expenditure reform.

TABLE 2 Belarus / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	2.5	3.1	1.2	-2.8	-5.5	0.2
Private Consumption	4.7	7.9	4.6	-2.8	-4.2	2.5
Government Consumption	-0.9	-0.4	0.4	0.8	-2.6	-1.4
Gross Fixed Capital Investment	5.5	4.4	5.6	-8.2	-10.5	-3.5
Exports, Goods and Services	7.5	3.8	0.3	-13.5	-7.5	3.8
Imports, Goods and Services	11.1	7.3	5.2	-15.0	-8.0	4.5
Real GDP growth, at constant factor prices	2.5	3.2	1.3	-2.9	-5.4	0.2
Agriculture	4.4	-3.4	3.0	3.3	2.8	3.1
Industry	3.6	5.2	1.4	-5.0	-6.7	3.8
Services	1.4	2.9	0.9	-2.4	-5.8	-3.0
Inflation (Consumer Price Index)	6.0	4.9	5.6	6.9	6.2	5.1
Current Account Balance (% of GDP)	-1.7	0.0	-1.8	-1.0	-0.7	-1.1
Net Foreign Direct Investment (% of GDP)	2.3	2.4	2.0	0.0	0.0	0.0
Fiscal Balance (% of GDP)	3.0	4.0	2.5	-4.9	-2.0	-1.1
Debt (% of GDP)	47.2	42.5	38.4	45.2	49.9	49.1
Primary Balance (% of GDP)	4.9	5.9	4.2	-3.2	0.1	1.2
Lower middle-income poverty rate ($3.2 in 2011 PPP) [a,b]	0.0	0.0	0.0	0.0	0.0	0.0
Upper middle-income poverty rate ($5.5 in 2011 PPP) [a,b]	0.8	0.4	0.4	0.5	0.4	0.4

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2018-HHS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(b) Projection using neutral distribution (2018) with pass-through = 0.7 based on GDP per capita in constant LCU.

BOSNIA AND HERZEGOVINA

Table 1	2019
Population, million	3.5
GDP, current US$ billion	20.1
GDP per capita, current US$	5725.8
Life expectancy at birth, years[a]	77.3

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

Growth is estimated in 2020 at -3.2 percent due to COVID-19. As the world recovers from the unprecedented crisis and with the implementation of the Economic Reform package, growth is expected to return in 2021. The ongoing crisis highlights the need to accelerate implementation of reforms. Translating growth into improvements in labor markets will be important for reducing poverty. A prolonged pandemic and political disagreements continue to remain the main risks for growth.

Recent developments

The COVID-19 pandemic and containment measures shape the most recent developments. In the first quarter of 2020 growth was positive reaching 2.0 percent. As lockdown measures were introduced, the economy faced a sudden stop in the second quarter and started to trend downward entering negative territory. Domestic and external demand dropped, with declines in consumption and investments. The slowdown in consumption affected domestic demand while both exports and imports have declined by 14.8 percent and 17.3 percent respectively year to date (January-July 2020). Unemployment was already high at 15.7 percent in 2019 and the crises has in all likelihood led to an increase in unemployment.

In the second quarter of the year, the BiH economy entered into deflation, with a consumer price index decrease by 0.6 percent year to date (January-June 2020). The biggest driver of the decrease was energy.

In 2020, a fiscal deficit of -4.2 percent of GDP is expected, down from an estimated surplus of 0.8 percent in 2019. In 2019, revenues are estimated to have risen mainly due to stronger collection of indirect taxes, while expenditures rose mainly as a result of higher spending on public wages, goods and services and social benefits. Capital spending increased in 2019 mainly due to investments in roads infrastructure. The current account deficit is estimated to have narrowed slightly in Q1 2020 as imports declined more than exports (driven by a large decline of transport and travel services). FDI increased compared to last two quarters of 2019. Total public debt in 2020 Q2 is estimated at 37 percent of GDP, consisting largely of concessional debt, while the total external debt is estimated at 70.9 percent of GDP.

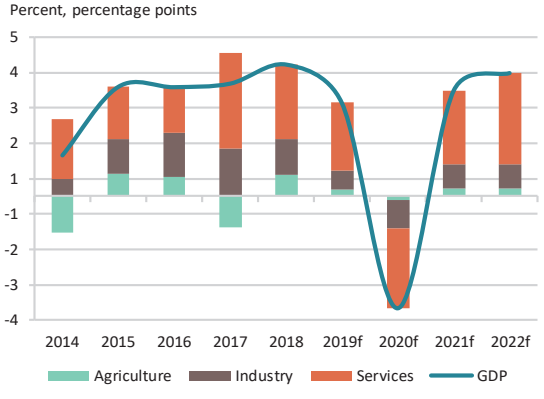
The latest available poverty data using the national poverty line is for 2015 and was estimated at 16 percent, very close to the 15 percent poverty rate estimated for 2011. Higher pensions and social assistance contributed to improve the welfare of the less well-off, while labor incomes had a small poverty-increasing effect.

The financial sector is broadly stable. On average, banks are sufficiently capitalized, liquid, but losing profitability. NPLs reached 6.7 percent in Q2 up by 10bp from Q1, but still appear sufficiently provisioned for by most banks. Profitability declined in Q2 2020 with an average return on equity at 7.3 compared with 10.4 at the end of Q4 2019. Capital to assets reached 12.6 percent down from 12.8 percent at the end of 2019. Capital buffers are within regulatory requirements.

Outlook

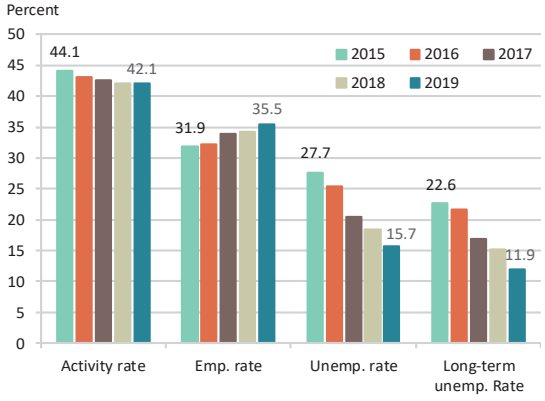
Growth is projected at -3.2 percent in 2020. The authorities are implementing some second-round measures (more testing, COVID drive-in testing centres, COVID-19 hospitals) to contain the outbreak in order to avoid a new lockdown.

FIGURE 1 Bosnia and Herzegovina / Real GDP growth and contributions to real GDP growth



Sources: BHAS, World Bank staff estimate.

FIGURE 2 Bosnia and Herzegovina / Labor market indicators, 2015-2019



Sources: LFS 2015-2019 report, World Bank staff calculations.

In addition, a guarantee fund for credit lines for small business is in its finalization phase. A comprehensive program of second round measures will be implemented in combination with the previous Socio-Economic Program (SEP). As the situation improves and SEP implementation accelerates, investments are expected to increase and a moderate rise in exports is expected. Consumption will continue to drive growth, resulting in stronger growth in imports. Remittances will decline in 2020 but are likely to increase again and stabilize at 8 percent of GDP in the medium term and, together with progress on reforms, will underpin a gradual pickup in consumption and finance a significant part of the trade deficit.

Monetary policy anchored to the Euro will continue to support local currency stability. In addition, safe-guarding the banking sector will be important. The creation of the guarantee fund as announced intends to ensure necessary liquidity and to underpin a credit line via the development bank to support affected businesses. As BiH does not have access to international markets, support from IFIs will continue to be critical. BiH's fiscal deficit is expected to return to surplus over the medium term as the economy recovers and revenue collection increases from both direct and indirect taxes as presented in entities medium-term budget framework documents. A stronger push on the capital investment program after COVID-19 will be needed and better targeting and higher coverage of social assistance programs will need to remain a high priority for the authorities' SEP.

The COVID-19 crisis has negatively affected employment. According to official estimates based on administrative data, the number of people in paid employment decreased 2.7 percent y-o-y in June. Sectors with a relatively large share of employment (e.g., retail, manufacturing, transportation, and accommodation) were among the most affected. Lower employment and labor income in the most affected sectors will negatively affect household welfare and poverty. The decrease in remittances due to the COVID-19 crisis may also affect household's welfare through lower non-labor incomes. Some social assistance programs were not sufficiently targeted before the pandemic and coverage was low, particularly among the less well-off. Estimations show that many of those who could become impoverished due to COVID-19 were not covered by social protection programs before the crisis. As growth recovers, improvements in labor market participation and employment will remain key for growth to translate into poverty reduction.

Risks and challenges

The immediate challenge for BiH will be to implement a second set of measures to control COVID-19 and to recover from the slowdown that affected the economy in Q2. Addressing persistent unemployment and minimizing layoffs in the private sector will be a key challenge during and after the unfolding crisis.

Forthcoming local elections are adding additional pressures and redirecting the focus away from the pandemic. Slow implementation of structural reforms together with the ongoing crisis will weigh heavily on the economy's ability to accelerate. On the fiscal side the tax burden will remain high, and if not addressed this may delay expected improvement in growth performance. Fiscal risks (pensions, arrears, SOE liabilities) are also mounting.

The economic recovery and long term growth are also negatively affected by both the challenging political environment and rapid loss of human capital to emigration.

TABLE 2 Bosnia and Herzegovina / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	3.2	3.3	2.9	-3.2	3.0	3.5
Private Consumption	0.8	2.4	2.8	-3.2	3.0	3.5
Government Consumption	1.5	0.9	2.6	0.5	4.6	3.0
Gross Fixed Capital Investment	6.9	7.5	2.9	-25.9	3.9	8.5
Exports, Goods and Services	11.8	5.9	-0.3	-7.0	0.7	1.5
Imports, Goods and Services	7.7	3.2	0.2	-12.0	2.0	3.0
Real GDP growth, at constant factor prices	3.2	3.7	2.6	-3.2	3.0	3.5
Agriculture	-11.3	9.1	2.9	-1.5	2.9	2.9
Industry	5.0	3.8	1.9	-3.0	2.6	2.6
Services	4.1	3.2	2.9	-3.4	3.2	3.9
Inflation (Consumer Price Index)	1.2	1.4	1.2	0.4	1.0	1.2
Current Account Balance (% of GDP)	-4.2	-3.7	-3.6	-4.1	-3.8	-2.8
Net Foreign Direct Investment (% of GDP)	2.0	2.2	2.9	2.0	3.4	3.6
Fiscal Balance (% of GDP)	1.8	2.2	0.8	-4.2	-0.4	0.8
Debt (% of GDP)	38.1	36.5	34.6	40.3	39.6	39.0
Primary Balance (% of GDP)	2.6	3.6	1.7	-2.9	1.0	1.7

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.

BULGARIA

Table 1	2019
Population, million	7.0
GDP, current US$ billion	67.9
GDP per capita, current US$	9732.1
International poverty rate ($19)[a]	1.4
Lower middle-income poverty rate ($3.2)[a]	3.3
Upper middle-income poverty rate ($5.5)[a]	7.9
Gini index[a]	40.4
School enrollment, primary (% gross)[b]	89.3
Life expectancy at birth, years[b]	75.0

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2017), 2011PPPs.
(b) WDI for School enrollment (2017); Life expectancy (2018).

Bulgaria's growth projection for 2020 has been revised upward on better-than-expected outturns of leading indicators and upward revision of eurozone projections. Limited uptake of fiscal response measures may impede the speed of recovery, however. The COVID-19 crisis has exposed the dual need for reform and investment in a number of public domains, yet upcoming elections in the spring of 2021 suggest major reforms are unlikely before mid-2021. Poverty is expected to increase due to the GDP contraction and job losses.

Recent developments

So far, the negative impact of the COVID-19 crisis on the Bulgarian economy has turned out milder than projected. Preliminary data shows that GDP shrank 4.2% y/y in H1 – the sixth smallest contraction in the EU. Whereas industrial production and construction showed signs of recovery in June compared with April-May, y/y declines were still registered. Retail trade continued to decline at double-digit rates y/y in June, likely due to changed consumer behaviour and the marked decline in tourism, as few tourists visited the country. As a result of the COVID-19 shock, both exports and imports declined substantially in April-May but showed visible signs of recovery in June.

The impact on the labour market has been relatively contained to date. The unemployment rate in Q2 grew moderately to 5.9%, up 1.7pp y/y largely due to a smaller -than-expected output contraction and a government's 60% salary subsidy program for distressed businesses. The biggest job losses occurred in manufacturing, tourism and trade.

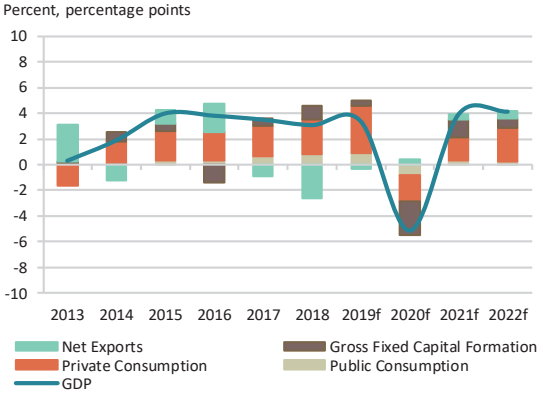
The country entered the crisis with a strong fiscal position - public debt at 20% of GDP, a budget surplus, and a fiscal reserve of some 9% of GDP. The fiscal surplus was maintained in Jan-Aug 2020, reaching 1.3% of the government-projected GDP, on account of conservative planning of revenues, retention of expenditures, and slow implementation of fiscal response measures, which, however, may hamper the recovery of the economy. In mid-Sep, the country re-entered the international bond market for the first time since 2016 and placed successfully EUR 1.25bn of 10yr bonds and 1.25bn of 30yr bonds at average yields of 0.389% and 1.476%, respectively. The proceeds will be used to finance the projected deficit.

In early July, the country joined the waiting room for the eurozone, the ERM 2, and the European Banking Union (EBU), after fulfilling a list of prior commitments over the last two years. Membership to the EBU will become effective from the beginning of Oct. 2020.

Rapid response household surveys mirror the moderate changes in employment and unemployment with roughly 91% of individuals who were employed prior to the COVID-19 crisis continuing to be employed in June. Of these, 84% worked the same hours or more and 76% earned the same or more. The individuals who reported earning less were more likely to be from middle-income households, higher educated, male, and in the 35-50 age range. Despite limited labor market impacts, more than a third of households reported finding it harder to make ends meet compared with pre-COVID-19. Poorer households, and those with less educated or female household heads were more likely to report issues with making ends meet compounded by inadequate savings and coping mechanisms.

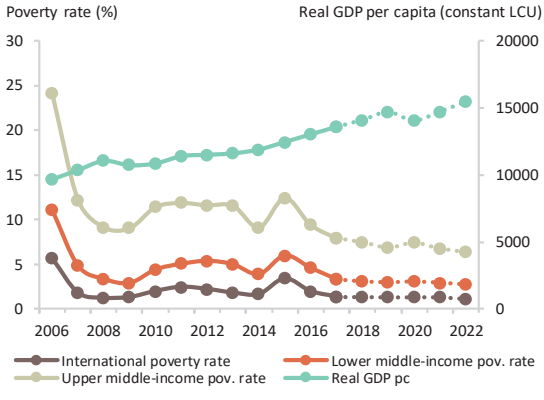
Poverty at the US $5.5 per day line is expected to increase between 2019 and 2020, reversing a previous trend of sustained, albeit slowing, decreases in poverty since 2016 on rapid growth and favorable labor market conditions.

FIGURE 1 Bulgaria / Real GDP growth and contributions to real GDP growth



Sources: World Bank, Bulgarian National Statistical Institute.

FIGURE 2 Bulgaria / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

Outlook

High-frequency indicators suggest that while the Q2 contraction of the economy may have turned out milder than expected, the Q3 recovery appears to have started more slowly. Limited uptake of fiscal response measures may also contribute to a bumpier recovery this year. Our baseline GDP growth forecast has been revised up to -5.1% in 2020, but risks remain tilted the downside.

Both private and public investment are likely to decline substantially in 2020 as private investors remain wary of the recovery prospects, while public investment projects are postponed in an attempt to contain the fiscal deficit. Meanwhile, EU funds for public investment under the anti-crisis Recovery and Resilience Facility are to start being absorbed no earlier than 2021.

Thanks to a good starting position, the fiscal deficit in 2020 will remain relatively contained at 4.1% of GDP, which will increase public debt up to 27.7% of GDP. The COVID-19 crisis has exposed the dual need for reform and investment in key public spheres such as health care and education. Unless reform efforts are urgently directed towards these and other public sectors, the latter will be increasingly unable to provide services up to expected standards.

Poverty is projected to decline in 2021 as the Bulgarian economy and the economies of main trading partners recover. The recovery in the labor market is likely to be uneven, with a lengthier recovery for individuals in less secure job types. The slow uptake of the government's proposed fiscal package to retain and hire employees and provide support for individuals in non-standard work contracts is likely to further prolong the recovery. Similarly, individuals in vulnerable households may not readily see incomes returned to pre-COVID-19 levels, compounded by concerns surrounding the coverage and adequacy of existing social security systems and the limited uptake of new social measure.

Risks and challenges

Risks to the outlook continue to stem primarily from the uncertainties around the COVID-19 pandemic and its development both domestically and globally. Although the government has declared it would make every effort to avoid a second large-scale lockdown in the country due to its detrimental effect on business activity, certain branches of the economy (such as sports, culture, hotels and restaurants, entertainment, retail trade, etc.) may experience steeper declines in the autumn-winter period if COVID-19 cases resume their growth. In that case, less stringent measures such as the temporary closure of certain in-door facilities are likely to be imposed, while people voluntarily refrain from consumption of such services on fears of contagion.

The ongoing social unrest in the country also adds to the uncertainties. Daily street protests in major cities requesting the resignation of the government and the Chief Prosecutor on the grounds of corruption and state capture have been ongoing for more than two months. The government has responded with the resignation of several ministers and a proposal for summoning a Grand National Assembly for amendments to the Constitution, but protest rallies have continued. The unrest is likely to escalate with the approach of next general elections in the spring of 2021.

TABLE 2 Bulgaria / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	3.5	3.1	3.4	-5.1	3.9	4.1
Private Consumption	3.8	4.4	5.8	-3.2	2.8	4.0
Government Consumption	4.3	5.3	5.5	-5.1	1.9	1.6
Gross Fixed Capital Investment	3.2	5.4	2.2	-13.8	7.8	4.3
Exports, Goods and Services	5.8	1.7	1.9	-12.9	8.6	4.8
Imports, Goods and Services	7.4	5.7	2.4	-13.4	7.8	4.0
Real GDP growth, at constant factor prices	3.5	3.1	3.4	-5.1	3.9	4.1
Agriculture	9.0	-2.0	3.6	-0.5	0.5	1.0
Industry	3.5	-1.1	2.7	-4.9	4.2	4.1
Services	3.2	4.8	3.6	-5.4	4.1	4.3
Inflation (Consumer Price Index)	2.1	2.8	3.1	2.0	2.3	2.0
Current Account Balance (% of GDP)	3.5	1.4	4.0	3.3	3.7	3.9
Net Foreign Direct Investment (% of GDP)	3.1	1.8	1.8	0.4	1.7	2.1
Fiscal Balance (% of GDP)	0.8	0.1	-1.0	-4.1	-3.0	-2.2
Debt (% of GDP)	25.3	22.3	20.4	27.7	30.7	32.2
Primary Balance (% of GDP)	1.6	0.8	-0.4	-3.5	-2.0	-1.1
International poverty rate ($1.9 in 2011 PPP)[a,b]	1.4	1.4	1.3	1.3	1.3	1.1
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a,b]	3.3	3.1	3.0	3.1	2.9	2.7
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]	7.9	7.5	6.9	7.4	6.8	6.4

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.

(a) Calculations based on ECAPOV harmonization, using 2017-EU-SILC. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.
(b) Projection using neutral distribution (2017) with pass-through = 0.87 based on GDP per capita in constant LCU.

CROATIA

Table 1	2019
Population, million	4.1
GDP, current US$ billion	60.4
GDP per capita, current US$	14861.6
International poverty rate ($19)[a]	0.6
Lower middle-income poverty rate ($3.2)[a]	1.1
Upper middle-income poverty rate ($5.5)[a]	3.6
Gini index[a]	30.4
School enrollment, primary (% gross)[b]	96.5
Life expectancy at birth, years[b]	78.1

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2017), 2011PPPs.
(b) WDI for School enrollment (2017); Life expectancy (2018)

Economic activity in Croatia is expected to contract strongly in 2020 as a result of the COVID-19 crisis. Together with the large government stimulus this will have significant fiscal consequences, with public debt surging to about 87 percent of GDP by the end of the year. Forecasted output contraction and job losses are expected to lead to an increase in poverty in 2020. A gradual recovery is under way and should gain momentum in 2021.

Key conditions and challenges

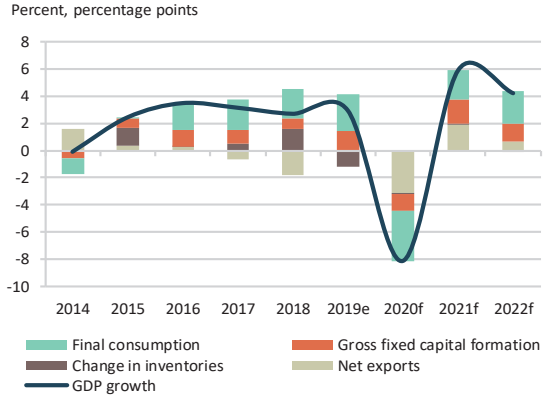
Prior to the COVID-19 crisis, Croatia recorded a steady but relatively slow economic growth of close to 3 percent. Convergence to EU income average remained elusive. Attaining higher growth rates was constrained by structural rigidities and strong reliance on less innovative activities, with lower value added and limited backward and forward linkages. As a result, only in 2019 did the economy reach its pre-global financial crisis level of output. To unlock productivity growth and foster human and capital accumulation, Croatia will need to step up its efforts to address long standing issues, including public sector governance, business environment, education outcomes, and unfavorable demographic trends, and support the diversification of the economy towards more knowledge-based sectors.

A severe economic recession triggered by the COVID-19 pandemic is reversing the income gains, poverty reduction and fiscal sustainability that Croatia achieved during the last five years. In addition, the March earthquake in Zagreb and its surroundings has put strain on functioning of public institutions. It has also caused large damages that will take years to recover. While it is expected for the crisis to be short-lived and recovery to gain momentum in 2021, there remains a high level of uncertainty and risks are tilted to the downside. Further global worsening of the pandemic cannot be excluded, which might require the re-imposition of stringent social distancing measures. While in 2020 Croatia has provided a large fiscal stimulus, the resulting debt level of close to 87 percent of GDP (up from 73.2 percent of GDP at the end of 2019) provides important challenges for the government to support growth without compromising fiscal sustainability. On the positive side, the crisis can provide an opportunity to revisit Croatia's growth model and focus on policies to increase resilience to exogenous shocks and raise growth potential. Furthermore, Next Generation EU, the new EU temporary recovery instrument, if used adequately and efficiently, could support the country's investments and policy reforms enabling it to emerge stronger from the crisis.

Recent developments

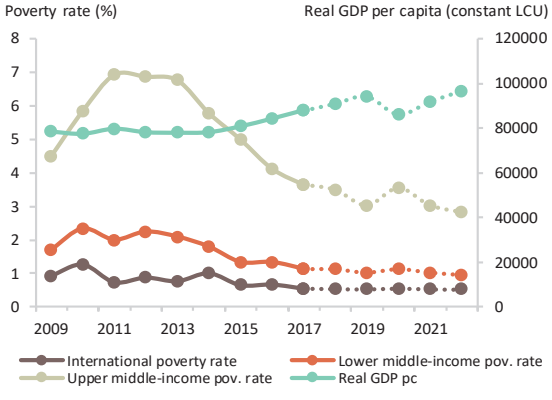
In the first half of 2020, Croatia's real GDP decreased by 7.8 percent, reflecting primarily a record decline in the second quarter (-15.1%). The largest negative contribution to growth came from external demand, amid wide-spread travel bans that affected Croatia's large tourism sector and ancillary activities. Domestic demand also contracted significantly, with government consumption being the only demand side component to grow. On the supply side, activities linked to tourism and transport were hit the most. The government introduced significant support measures to help mitigate the economic

FIGURE 1 Croatia / Real GDP growth and contributions to real GDP growth



Sources: CROSTAT, World Bank.

FIGURE 2 Croatia / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

and social impacts of the crisis. Registered unemployment rate increased to around 9 percent in the second quarter of 2020 (2 percentage points up compared to the second quarter 2019). Some support to real disposable incomes also came from lower inflation, which in the second quarter of 2020 moved into negative territory (-0.3 percent), primarily reflecting falling oil prices. The Central Bank managed to keep the exchange rate stable despite strong depreciation pressures and provided the necessary liquidity to financial markets. In July 2020, Croatia joined the Exchange Rate Mechanism (ERM II), one of the key steps in the process for the adoption of the euro. Fiscal stimulus measures, together with falling economic activity have taken a heavy toll on government finances. Central government deficit in the first six months of 2020 reached the highest level on record.

A Rapid Household Assessment of COVID -19 impacts indicated that low-wage earners are more likely to be affected by the crisis than those in the top income brackets. In addition, 26 percent of households experienced more difficulties in earning enough income to meet basic needs in June than in the pre-COVID-19 period. The same proportion of households reported a decline in income. Poverty is estimated to rise from 3.0 percent in 2019 to 3.6 percent in 2020 – amounting to approximately 20,000 additional Croatian living on less than $5.5 a day at 2011 PPP prices.

Outlook

Real GDP in Croatia is expected to decline by 8.1 percent this year, largely due to the country's strong reliance on tourism, the sector most affected by the crisis. Although easing of border restrictions since June has significantly helped the tourism sector, it is still going to bear the brunt of the impact with more than 40 percent decline in export revenues compared to 2019. In addition, adverse economic developments in Croatia's main trading partners are expected to weigh heavily on exports of goods. Personal consumption and investment are also expected to record a severe decline. Given fiscal expansion and falling economic activity, in 2020 Croatia is expected to register a fiscal deficit of close to 7 percent of GDP. This will temporarily reverse the downward trajectory of government debt which could by the end of the year reach almost 87 percent of GDP. Under the assumption of the pandemic being gradually brought under control, real GDP's upward trend could resume in 2021 with a strong rebound in tourism revenues. This will also result in recovery of the current account balance, that is expected to record a surplus after a temporary deficit in 2020. Furthermore, a recovery of investments will be supported by inflow of EU funds as well as by acceleration of the reconstruction after earthquake. Economic recovery and the discontinuation of fiscal stimulus measures is expected to put the public debt back on a downward path.

The crisis will affect working poor households, who have been disproportionately affected by unemployment. Low savings rate among these households limit their ability to mitigate the impacts of income loss on consumption. Even among those with savings, more than two-thirds would run out of savings within the next six months. In addition, a decline in international remittances is expected to negatively affect income of recipients at home. The current safety net programs may not be sufficient to offset households' total welfare losses given their limited financial space.

TABLE 2 Croatia / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	3.1	2.7	2.9	-8.1	5.9	4.2
Private Consumption	3.1	3.2	3.5	-7.6	2.8	3.3
Government Consumption	2.2	1.3	3.3	2.7	2.3	2.5
Gross Fixed Capital Investment	5.1	4.1	7.1	-5.9	8.4	6.0
Exports, Goods and Services	6.8	3.7	4.6	-28.0	26.0	13.4
Imports, Goods and Services	8.4	7.5	4.8	-21.6	19.1	11.4
Real GDP growth, at constant factor prices	2.6	2.2	2.7	-8.1	5.9	4.2
Agriculture	-2.5	2.2	1.2	2.0	2.0	2.0
Industry	1.8	0.4	2.3	-6.6	4.1	4.6
Services	3.1	2.8	2.9	-9.2	6.8	4.2
Inflation (Consumer Price Index)	1.1	1.5	0.8	0.0	0.9	1.7
Current Account Balance (% of GDP)	3.5	1.8	2.8	-1.8	0.4	1.1
Net Foreign Direct Investment (% of GDP)	2.3	1.6	1.9	1.0	1.1	1.2
Fiscal Balance (% of GDP)	0.8	0.2	0.4	-6.5	-3.1	-2.0
Debt (% of GDP)	77.8	74.7	73.2	86.4	83.2	80.2
Primary Balance (% of GDP)	3.5	2.5	2.6	-4.1	-0.7	0.3
International poverty rate ($1.9 in 2011 PPP)[a,b]	0.6	0.5	0.5	0.6	0.5	0.5
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a,b]	1.1	1.1	1.0	1.1	1.0	0.9
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]	3.6	3.5	3.0	3.6	3.0	2.8

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2017-EU-SILC. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.
(b) Projection using neutral distribution (2017) with pass-through = 0.87 based on GDP per capita in constant LCU.

GEORGIA

Table 1	2019
Population, million	3.7
GDP, current US$ billion	17.7
GDP per capita, current US$	4786.4
International poverty rate ($19)[a]	4.5
Lower middle-income poverty rate ($3.2)[a]	15.5
Upper middle-income poverty rate ($5.5)[a]	42.5
Gini index[a]	36.4
School enrollment, primary (% gross)[b]	98.6
Life expectancy at birth, years[b]	73.6

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), 2011PPPs.
(b) Most recent WDI value (2018).

Georgia has thus far been successful in containing the spread of COVID-19 infections, but the economy has been hit hard by restrictions on mobility and collapse in external demand. The economy is projected to contract in 2020 by 6 percent, before an uncertain and gradual recovery in 2021 and 2022. A dollarized economy adds to the challenges of managing the shock. The shock is projected to increase poverty by as much as 2.8 percentage points in 2020.

Recent developments

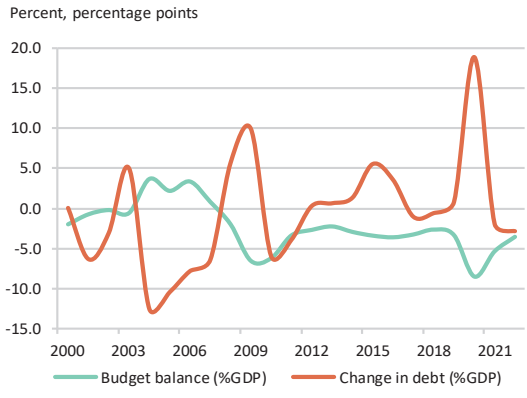
Georgian authorities successfully contained the spread of the COVID19, reacting swiftly and introducing stringent measures including border closures and lockdowns in March. The initial economic shock was severe, with the economy contracting 16.6 percent year-on-year (yoy) in April. With the infections being brought under control, restrictions were gradually loosened, and the economy started to recover, with real GDP contraction improving to 5.5 percent yoy by July 2020. Acceleration of government social spending, robust credit growth and resilient remittance inflows also added to the recovery. Nevertheless, most sectors remain in contractionary territory, except mining, and sewage and water supply. The impact on jobs has been severe. More than one-third of the employed were unable to work at the height of the restrictions. By early June, half of the people who stopped going to work had returned to their jobs. Still, more than 8 percent of jobs were lost in the second quarter while wages fell 11 percent yoy in real terms.

Inflation increased to 7 percent by end-2019, well above the central bank's target of 3 percent, on account of higher excises on tobacco in 2019 and a weaker lari. In response to the higher policy rate, inflation retreated in early 2020; however, the exchange rate overshot in March 2020 as the pandemic spread, and together with supply chain disruptions pushed inflation back to 6.9 percent in April. The recovery of the lari as well as year-on-year decline in global oil prices helped to bring inflation down to 4.8 percent in August. Given the severity of the demand shock created by COVID-19 and the downward pressure on inflation, the National Bank of Georgia (NBG) has gradually lowered its policy rate by 100 basis points since April 2020 to 8 percent.

The current account deficit deteriorated to 11 percent of GDP in the first quarter of 2020, almost doubling over the previous year, in response to a sharp drop in tourism proceeds and remittances. The current account is likely to have improved in the second quarter with more resilient-than-expected remittances, and a sharper contraction in imports compared to exports. On the financing side, net FDI and portfolio inflows underperformed compared to 2019. However, substantial public borrowing fully financed the deficit and allowed for strong reserve accumulation, despite more frequent interventions by NBG to stabilize the lari.

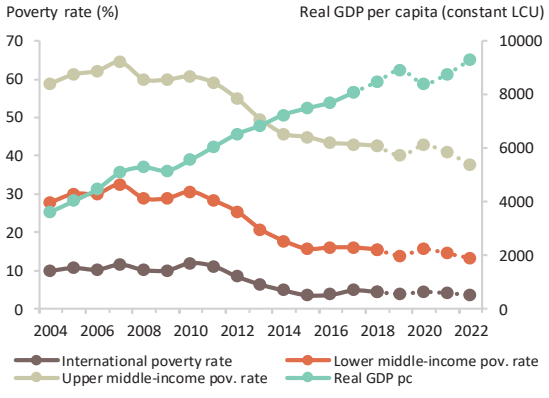
The fiscal deficit expanded with rising social spending and a decline in revenue collections. Tax revenues declined by 3.2 percent yoy in January-July. The government's fiscal stimulus package, estimated at 5.5 percent of GDP, pushed government consumption up by 18.4 percent yoy. Capital spending continues to recover following the COVID-19 related restrictions. The deficit in the year-to July reached 3.9 percent of GDP. Public debt, as of end-July, was up 29 percent yoy (to around US$8.2 billion or 50 percent of GDP). COVID19-related support from IFIs fully covered the fiscal needs.

FIGURE 1 Georgia / Budget Balance and Change in Debt (% of GDP)



Sources: Ministry of Finance of Georgia and WB staff estimates.

FIGURE 2 Georgia / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see table 2.

Outlook

The economy is projected to contract by 6 percent in 2020, with severe welfare impacts; poverty could go up by 2.8 percentage points (pp) (using the USD 3.20 PPP 2011 international poverty line) or by 4.6 pp using the national poverty line in 2020. This translates to as many as 160,000 Georgians becoming impoverished. In addition, over 400,000 could suffer downward mobility.

The fiscal stimulus, containing acceleration of capital spending, tax deferrals, accelerated VAT refunds and sector support for most affected businesses, as well as higher social spending, will continue to support the recovery in the rest of 2020. This is expected to push the fiscal deficit to around 8.5 percent of GDP in 2020 and public debt to 60 percent of GDP.

The external deficit is also expected to remain wide as suspended tourist arrivals and lower exports and remittances are only partially offset by shrinking imports. Robust support from IFIs is expected to ensure that the deficit is fully financed, and foreign exchange reserves remain at comfortable levels.

The pace of recovery beyond 2020 is contingent on the duration of the pandemic, the availability and distribution of a vaccine, and restoration of international trade and investment flows. A baseline scenario in which a second wave of infections does not materialize would see gradual economic recovery, with growth recovering to 4 percent in 2021 and 6 percent in 2022. Even so, real GDP under this scenario would be around 10 percent lower in 2022 than projected pre-COVID. The fiscal deficit in the baseline is expected to gradually decline to levels prescribed by the fiscal rule (3 percent of GDP). The current account deficit as a share of GDP is projected to similarly fall by almost half by 2022.

Risks and challenges

The key risk to the outlook is a more prolonged and severe COVID-19 outbreak that could lead to further restrictions. The rate of spread of infections has accelerated, albeit from a low base, in early September with certain restrictions re-introduced such as on large gatherings. If extended, this could lead to a contraction of about 7 percent in 2020 and a slower recovery, with output returning to pre-COVID levels only in 2023. In addition, a prolonged outbreak could adversely impact external balances, through impact on tourism (over 7 percent of GDP), exports and commodity prices. This, in turn, poses risks to macro-financial stability given high dollarization, unhedged balance sheets and a gross external debt in excess of 100 percent of GDP. The repayment of the Eurobond in 2021 creates some refinancing risk in case financial market conditions tighten further. Access to concessional financing from international finance institutions partly mitigates the risks.

Beyond the COVID-19 pandemic, substantial quasi-fiscal risks emanate from Georgia's state-owned enterprises and power purchasing agreements which provide state guarantees for the purchase of excess electricity from power generators. However, the institutional (through a stronger fiscal risk unit and Fiscal Risk Statement accompanying the Budget) and regulatory capacity (including the ongoing SOE governance reform agenda) to deal with these fiscal risks is increasing.

TABLE 2 Georgia / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.8	4.8	5.1	-6.0	4.0	6.0
Private Consumption	7.4	5.8	3.8	-7.0	2.5	4.3
Government Consumption	1.1	1.6	9.3	-8.4	10.0	-4.6
Gross Fixed Capital Investment	3.4	1.9	2.3	-12.4	13.8	7.6
Exports, Goods and Services	11.7	10.1	10.7	-37.9	34.2	20.5
Imports, Goods and Services	8.1	10.3	6.8	-33.5	28.8	12.2
Real GDP growth, at constant factor prices	4.7	5.2	5.0	-5.9	4.1	5.9
Agriculture	-7.7	13.8	0.0	1.0	3.0	3.0
Industry	4.4	0.2	3.0	0.0	3.0	3.0
Services	6.3	5.8	6.1	-8.3	4.6	7.1
Inflation (Consumer Price Index)	6.0	2.6	5.0	5.3	4.0	3.0
Current Account Balance (% of GDP)	-8.1	-6.8	-5.0	-10.7	-8.0	-6.9
Net Foreign Direct Investment (% of GDP)	10.4	5.3	5.7	2.5	5.4	6.0
Fiscal Balance (% of GDP)	-3.2	-2.6	-3.3	-8.5	-5.3	-3.5
Debt (% of GDP)	41.6	41.4	42.6	59.8	57.3	55.1
Primary Balance (% of GDP)	-2.1	-1.5	-2.1	-7.2	-3.1	-1.3
International poverty rate ($1.9 in 2011 PPP)[a,b]	5.0	4.5	3.9	4.5	4.2	3.6
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a,b]	16.1	15.5	13.9	15.7	14.5	13.2
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]	43.0	42.5	40.0	42.8	40.9	37.6

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2018-HIS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(b) Calculations based on ECAPOV harmonization, using 2018-HIS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.

KAZAKHSTAN

Table 1	2019
Population, million	18.5
GDP, current US$ billion	180.2
GDP per capita, current US$	97312
School enrollment, primary (% gross)[a]	104.4
Life expectancy at birth, years[a]	73.2

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) WDI for School enrollment (2019); Life expectancy (2018)

The economy contracted by 3.0 percent in January-August of 2020 due to declining domestic demand brought by COVID-19. Supply disruptions and the currency depreciation pushed up inflation. In the best-case scenario for 2020, the poverty rate is likely to rise to 8.5 percent; in the worst case, it may increase to as much as 12.7 percent. Growth is likely to recover moderately in 2021 as disruptions associated with the pandemic dissipate and external demand picks up. The economy remains vulnerable to the course of the pandemic that could affect businesses and restrain employment.

Key conditions and challenges

Kazakhstan has made impressive progress since independence in reducing poverty and building a middle class. Rapid growth resulted from the harnessing of abundant hydrocarbon resources, strong global demand for commodities, and expansion of domestic demand. In less than two decades, GDP per capita increased eightfold, with the country currently accounting for nearly two-thirds of Central Asia's GDP with a quarter of the population.

The global economic slowdown and internal structural weakness have challenged the sustainability of Kazakhstan's growth model. Sluggish productivity growth, excessive state involvement in the economy, and increased dependence on commodities have been the main contributors to the weak economic performance. The COVID-19 pandemic further reinforced the urgent need for reforms to reverse the declining growth capacity.

To support a resilient and sustainable economic recovery, Kazakhstan needs to promote important reforms. First diversifying economic base through improving competitiveness of its non-extractive sectors and continuing reforms in the financial sector. Second, limiting the dominance of large SOEs in the economy, strengthening competition, and reducing the government role in deciding the allocation of resources that distorts the environment for the private sector. Third, strengthening public sector institutions and reinforcing the rule of law to attract much-needed investment

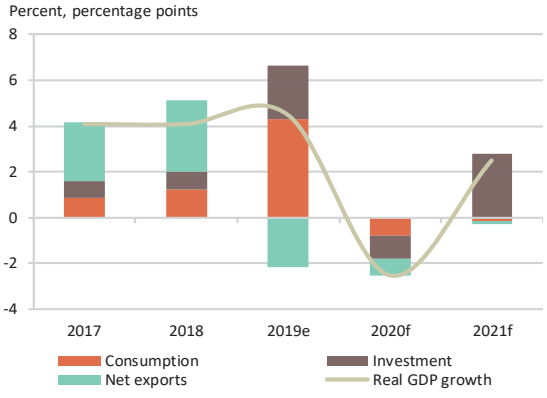
Recent developments

The nationwide lockdown over COVID-19 and the precipitous fall in oil prices have been the double hits to the economy. GDP fell by 3.0 percent in January-August of the year, reflecting the stringency of the restrictions that depressed economic activity. Consumer demand is likely to have shrank notably as retail trade fell by 11.7 percent. Investment dropped by 5.2 percent, while exports have fallen amid weak global context. On the supply side, the contraction has been concentrated in the sectors most affected by the lockdown – hospitality, retail, travel and leisure.

Despite weakened exports, lower imports and repatriation of profits helped shift the current account into a surplus of 0.3 percent of GDP in the first half of the year. The surplus of the current account helped increase central bank FX reserves to $35.4 billion in August from $29 billion in December 2019. Falling oil prices led the tenge to lose about 15 percent of its value against the US dollar in mid-March. However, following the pickup in oil prices and interventions by the NBK, the tenge regained a third of its earlier losses.

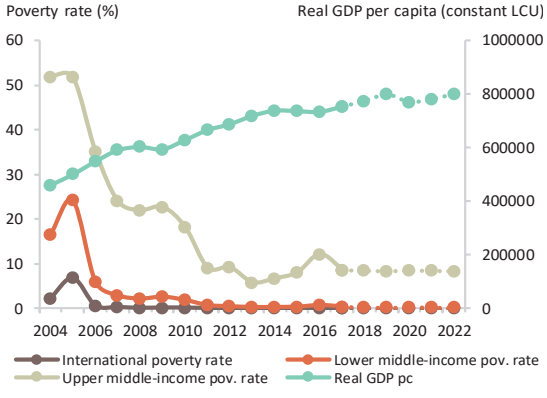
The authorities swiftly responded to the pandemic with a fiscal stimulus, scaling up spending on social assistance and support to SMEs. The budget spending increased by an estimated 5.3 percent of GDP to 26.7 percent in January-June. To make up for the non-oil

FIGURE 1 Kazakhstan / Real GDP growth and contributions to real GDP growth



Sources: Statistical Office of Kazakhstan; World Bank staff estimates.

FIGURE 2 Kazakhstan / Actual and projected poverty rates and real GDP per capita



Source: World Bank staff estimates. Notes: see table 2.

revenue shortfall, the Oil Fund reserves were deployed, which helped to limit the deficit increase. The deficit rose to 2.9 percent of GDP from a near balance a year earlier, whereas the non-oil deficit surged to 15.1 percent, reflecting the increasing reliance on oil revenues. Public debt moved slightly up to 22.1 percent of GDP.

Inflation rose to 7.0 percent y-o-y in August from a 5.4 percent in December of 2019, above the National Bank (NBK) 4–6 percent target range. Higher food prices, which grew by 10.9 percent in August y-o-y, contributed the most to the increase in inflation. Despite higher inflation, concerns over declining economic activity led the NBK to cut its policy rate by 50 bps. to a 9.0 percent in July.

So far, the banking system is weathering the crisis relatively well, thanks to improved balance sheets after a series of bailouts before. Despite falling economic activity, banks sustained profits due, in part, to active lending. While growth in retail credit remained robust, corporate lending has begun to recover. The ratio of nonperforming loans (NPLs) rose to 9 percent in July from 8.1 percent in December 2019. However, higher insolvency risks, notably of micro and small businesses, after a slow resumption of activity, could stress further the banks' loan portfolios and lead to higher NPLs. The pressure on the financial sector may further increase if firms' leverage increases further while business prospects remain sluggish after the tax deferral measures expire and liquidity support is reduced.

The official unemployment rate edged up to 5.0 percent in July from a pre-pandemic 4.8 percent, however, actual joblessness rate is likely be much sharper for self-employed and part time workers. The crisis is likely hurt disproportionally the poor and the vulnerable as employment contraction amplifies the burden of falling incomes. The share of people living on less than $5.5 a day is expected to increase to at least 8.5 percent in 2020 in the most optimistic scenario. However, if the impact on the population follows a similar pattern to previous downturns, poverty may rise to as much as 12.7 percent due to concentrated

Outlook

This year Kazakhstan is facing a sharp decline in economic activity and an increase in unemployment and poverty, despite the substantial fiscal response.

Conditional on the course of the COVID-19, we project real GDP to contract by 2.5 percent in 2020. The prospect of economic recovery in 2021 is, nonetheless, confronted by uncertainty over the pandemic, global demand for oil, and structural challenges. Growth could recover to a point within 2.0-3.0 percent range and could return to its pre-pandemic level only by 2022, translating into a gradual reduction in poverty rate.

Inflationary pressure is expected to persist this year and abate gradually through 2021, remaining above the NBK's target range.

The current account is likely to move into a deficit in 2020, as the OPEC+ agreement on oil exports remains in force and imports begin to recover. The pressure on the external balance will diminish as exports and the price for oil gradually improves and the fiscal stimulus wanes.

The authorities target a narrower fiscal deficit in 2021, reflecting the recovery of the economy and the lapse of pandemic-related spending. The nonoil deficit is projected to decline to nearly 9.0 percent of GDP in 2021 but remain above the mid-term target of 6 percent. Government debt is likely to rise to a still moderate 30 percent of GDP over the medium term but remain sustainable.

The risk of additional COVID-19 outbreaks and subsequent restrictions cannot be ruled out. Further mobility restrictions could increase business defaults and stress to the banking sector. The pressure on the financial sector may increase if firms' leverage grows further layoffs as firms might not be able to offset the costs of retaining jobs. This could squeeze incomes of a large portion of low-skilled workers, contributing to a higher poverty rate.

TABLE 2 Kazakhstan / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.1	4.1	4.5	-2.5	2.5	3.4
Private Consumption	1.5	5.3	5.8	-4.7	3.4	4.1
Government Consumption	1.9	-14.0	15.5	18.6	-16.7	0.7
Gross Fixed Capital Investment	4.0	4.6	11.9	-2.5	2.4	3.3
Exports, Goods and Services	6.4	11.5	2.2	-5.4	2.7	2.9
Imports, Goods and Services	-1.4	3.2	11.6	-2.4	3.4	3.1
Real GDP growth, at constant factor prices	3.9	4.1	4.5	-2.4	2.6	3.4
Agriculture	3.2	3.2	0.9	2.6	2.4	2.6
Industry	6.3	4.1	3.8	-1.5	2.9	3.3
Services	2.5	4.2	5.3	-3.5	2.5	3.5
Inflation (Consumer Price Index)	7.4	6.2	5.3	7.7	6.2	5.4
Current Account Balance (% of GDP)	-3.1	0.0	-3.6	-3.1	-1.9	-1.5
Net Foreign Direct Investment (% of GDP)	2.3	2.8	3.2	2.3	2.8	5.4
Fiscal Balance (% of GDP)	-2.5	-1.1	-1.5	-4.1	-3.8	-2.0
Debt (% of GDP)	20.1	20.7	19.8	26.6	29.2	29.5
Primary Balance (% of GDP)	-1.6	-0.2	-0.5	-3.0	-2.9	-0.9
International poverty rate ($1.9 in 2011 PPP) [a,b]		0.0	0.0	0.0	0.0	0.0
Lower middle-income poverty rate ($3.2 in 2011 PPP) [a,b]		0.4	0.3	0.4	0.4	0.3
Upper middle-income poverty rate ($5.5 in 2011 PPP) [a,b]		8.5	8.4	8.5	8.4	8.4

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.

(a) Calculations based on ECAPOV harmonization, using 2011-HBS and 2017-HBS. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.
(b) Projection using annualized elasticity (2011-2017) with pass-through = 0.87 based on GDP per capita in constant LCU.

KOSOVO

Table 1	2019
Population, million	1.80
GDP, current US$ billion	8.4
GDP per capita, current US$	4649.2
Life expectancy at birth, years[a]	72.2

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

Kosovo's economy is expected to contract by 8.8 percent in 2020. The COVID-19 pandemic caused a decline in service exports, and reduced investment and consumption. The government responded quickly by providing support to firms and workers; nevertheless, employment is expected to fall and poverty to increase. Increasing remittances should mitigate the impact of the contraction. The recovery is expected to be slower than projected earlier, as the pandemic is lasting longer than expected, hindering growth in 2021.

Key conditions and challenges

Kosovo grew at an average of 4.1 percent over the last 5 years. Despite this strong performance, only 30 percent of the working age population had a job and 18 percent of the population was living with less than US$5.5 per person per day (in 2011 PPP) in 2019. Kosovo's growth model is largely consumption-based, with a significant reliance on diaspora financing. Private investment added to growth in recent years, but was mostly concentrated in trade and construction industries, with limited productivity spillovers. Poor education and health outcomes limit the contribution of human capital to inclusive growth. As a largely service-based economy, Kosovo was particularly vulnerable to the COVID-19 shock.

The duration of the pandemic, and hence the magnitude of the economic and social consequences, remains highly uncertain. Growth will be significantly hindered by the COVID-19 pandemic. To cushion the impact of the recession, the government should continue investing in effective health management of the pandemic, accelerate implementation of public projects with IFI financing, improve effectiveness of social protection and prioritize limited fiscal space to support private sector jobs.

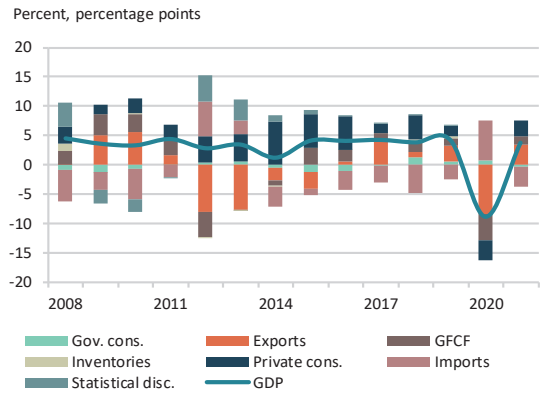
To support a resilient recovery in the medium-term, Kosovo should invest in human capital, increase public spending effectiveness and address regulatory gaps to support private sector development.

Recent developments

In 2019, growth reached 4.2 percent, driven by higher consumption, strong service exports, and higher investment. However, key indicators available at end-August 2020 suggest a strong decline in economic activity. The economy is projected to contract by 8.8 percent in 2020. The contraction is primarily driven by declining service exports due to limited diaspora visits, lower private consumption against lower disposable income, and constrained private investment due to heightened uncertainty. This is also reflected in an unprecedented drop in goods imports. Higher base metal exports and remittances cushioned the impact of the pandemic. With some delay, the government implemented emergency support measures for households and firms. The financial sector has managed to withstand the impact of the contraction, with the stock of deposits and loans increasing y-o-y by 12.7 percent and 6.7 percent, respectively, until July 2020. NPLs remain low at 2.5 percent for the same period, reflecting also the impact of CBK measures (debt moratorium and restructuring guide).

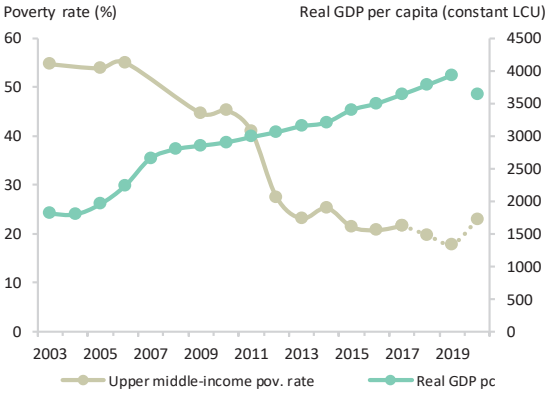
Consumer price inflation reached 2.6 percent in 2019 but decelerated to an average of 0.6 percent y-o-y by August 2020, reflecting a deceleration in food price inflation, lower transport costs due to lower oil prices, and lower domestic

FIGURE 1 Kosovo / Real GDP growth and contributions to real GDP growth



Sources: Kosovo agency of statistics and World Bank staff calculations.

FIGURE 2 Kosovo / Actual and projected poverty rates and real GDP per capita



Source: World Bank.

demand. Inflationary pressures picked up after the easing of containment measures in June 2020 but entered a deflationary path in July and August. CPI inflation is projected to average 0.5 percent y-o-y in 2020.

The current account deficit will deteriorate to 7.2 percent of GDP in 2020. Goods exports are projected to increase by almost 10 percent in 2020 on account of increasing nickel exports. However, against a relatively small share of goods exports, total exports are projected to drop by over 30 percent in 2020 driven by a contraction in service exports as a result of lower diaspora visits at their peak season (June-August). Imports of goods have declined by 9 percent until July 2020 and are expected to close the year at -12 percent. FDI inflows increased by 3.4 percent y-o-y by June 2020 thanks to investment in energy and mining in the first two months of the year, but real estate FDI inflows declined by 18.2 percent for the same period. Net FDI increased by 64 percent by June 2020 due to lower dividend repatriation. Remittance inflows increased by 9.8 percent y-o-y at end-July 2020.

The overall budget deficit is expected to reach 9.5 percent of GDP driven by a decline in public revenues (13.4 percent), higher current expenditure in response to the crisis, and the contraction in GDP. Public and publicly guaranteed debt is expected to stand at 22.6 percent of GDP by end-2020. The government had to relax the application of fiscal rules to respond to the crisis.

Labor force participation stood at 38.8 percent of the working age population (WAP) in Q1 2020 (before COVID containment measures were implemented), similar to Q1 2019. The employment rate has been largely constant since 2017, at 28-29 percent of the WAP, suggesting that growth was not accompanied by significant job creation. The COVID-19 crisis is expected to reduce employment and, despite the measures adopted by the government to protect jobs and incomes, poverty is expected to increase by around 5 pp. A Business Pulse Survey (BPS) conducted in Kosovo by the World Bank showed that most businesses reported reduced working hours, unpaid leave, and 12 percent of firms surveyed had laid off at least one worker in April.

Outlook

The outlook remains uncertain, both globally and regionally. Following a marked contraction in 2020, a modest recovery of 3.7 percent is expected in 2021. A recovery in 2021 and 2022 will depend on a rebound in EU growth and the successful containment of the pandemic until vaccines are available and accessible. The level of international travel restrictions – especially with Germany and Switzerland – and the financial sector response to a prolonged pandemic are additional determinants of the recovery path. The outlook is also associated with upside risks, including an effective delivery of the Government-announced economic recovery plan, and an increase in investment contingent on the implementation schedule of the recent economic normalization agreement between Kosovo and Serbia. Economic growth is projected to reach 4.9 percent in 2022.

TABLE 2 Kosovo / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.2	3.8	4.2	-8.8	3.7	4.9
Private Consumption	1.8	4.8	2.1	-3.9	3.0	5.0
Government Consumption	-0.6	8.9	3.6	5.0	-2.1	-0.3
Gross Fixed Capital Investment	5.7	6.1	4.6	-16.3	5.0	3.8
Exports, Goods and Services	16.8	3.8	10.5	-30.0	16.5	17.1
Imports, Goods and Services	5.4	9.0	4.6	-12.1	6.3	8.3
Inflation (Consumer Price Index)	1.5	1.1	2.7	0.5	0.6	1.2
Current Account Balance (% of GDP)	-5.4	-7.6	-5.5	-7.2	-5.8	-5.3
Net Foreign Direct Investment (% of GDP)	3.3	3.4	2.8	3.7	4.6	4.6
Fiscal Balance (% of GDP)	-1.2	-2.8	-2.9	-9.5	-6.7	-4.6
Debt (% of GDP)	15.5	16.3	17.0	22.6	27.3	29.6
Primary Balance (% of GDP)	-0.9	-2.5	-2.5	-9.0	-6.1	-3.8
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a]		19.7	17.9	22.9		

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2017-HBS. Data adjusted with original 2011PPP factor. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.

KYRGYZ REPUBLIC

Table 1	2019
Population, million	6.4
GDP, current US$ billion	8.5
GDP per capita, current US$	1328.2
School enrollment, primary (% gross)[a]	107.6
Life expectancy at birth, years[a]	71.4

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

Real GDP contracted by 5.9 percent in January-August 2020 on account of the COVID-19 outbreak. External trade shrank significantly and the fiscal position worsened. With the impact of the coronavirus likely to remain sizable in the second half, GDP is projected to decline by 5.5 percent. Health and economic shocks are driving poverty up. Growth is expected to rebound in 2021-22, assuming the pandemic is brought under control and external demand improves. Risks to the outlook include a second wave of the coronavirus and a delay in access to vaccine.

Recent developments

The Kyrgyz Republic is among the countries hard-hit by the global COVID-19 outbreak. The government undertook immediate measures to contain the spread of the coronavirus to save lives, including temporary shut-down of businesses, closure of borders and mobility restrictions, leading to a deep economic crisis. To address health, social, poverty and economic impacts of the pandemic, the government adopted two anti-crisis plans supported by international partners.

Real GDP contracted by 5.9 percent in January-August 2020, year-on-year. All sectors of the economy registered negative growth except for gold production and agriculture. Major disruptions were in wholesale and retail trade, public catering, consumer services, transportation and construction. With border closures, including with China, external trade fell by 22 percent in January-June 2020, year-on-year. Hit by lower remittances (down 13 percent year-on-year) and domestic demand, imports fell by more than 30 percent. Exports rose by 2 percent, thanks to higher gold exports. As a result, trade deficit declined to 22.2 percent of GDP from 32.7 percent a year ago.

Lower revenues and higher expenditures to ameliorate the pandemic led to a deteriorating fiscal position. Revenues fell compounded by the lockdown. To alleviate the impact, businesses were granted tax payments postpone. On the other hand, expenditures increased owing to additional health and social assistance spending. As a result, the deficit soared to 7.4 percent of GDP in the first half of 2020 from 0.3 percent a year ago and public debt increased to 62 percent of GDP as of end-June from 54 percent in December 2019. The fiscal deficit is expected to remain high at 7.1 percent of GDP in 2020.

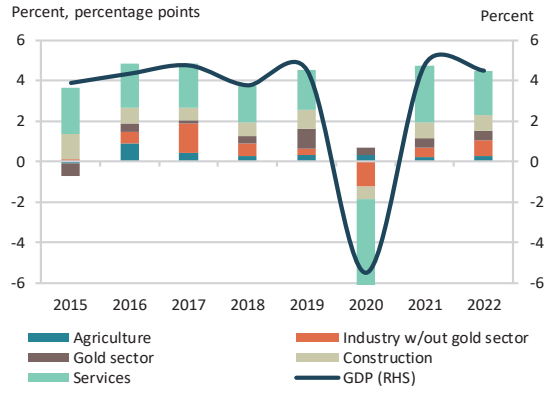
The pass-through from the exchange rate depreciation led to a jump in inflation. The 12-month rate of inflation peaked at 8.6 percent in April 2020, up from 3.1 percent in December 2019. A sharp depreciation of the som in March was a contributing factor. With the som regaining some of its value since then, inflation moderated to 5 percent by August 2020. To maintain exchange rate stability, the central bank sold $210 million in forex reserves in the first half of the year. However, gross official reserves remain at an adequate level of 3.9 months of imports, with the central bank purchasing locally produced gold.

The economic, health and social shocks are driving poverty up. With lower labor earnings, reduced remittances, job losses, and higher food prices, poverty rate may increase by 5.8 percentage points in 2020 compared to 2019. Majority of the population remain vulnerable to poverty. With clustering just above the poverty line, the number of poor people is expected to increase and will require social assistance.

Outlook

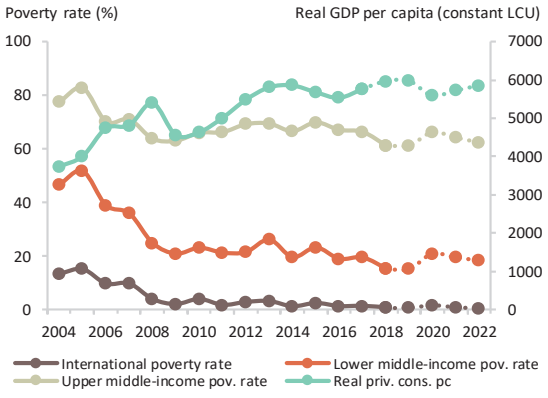
The coronavirus has weakened the macroeconomic outlook. With the pandemic

FIGURE 1 Kyrgyz Republic / Real GDP growth and contributions to real GDP growth



Sources: Kyrgyz authorities; WB staff calculations.

FIGURE 2 Kyrgyz Republic / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see table 2.

likely to continue to impact businesses in the remainder of the year, our baseline scenario projects a decline in real GDP of 5.5 percent in 2020. Growth is forecast to rebound to 4.8 percent in 2021 as domestic activity recovers with likely vaccine availability and as external demand and trading conditions improve. Growth is projected to slow to its long-term average of 4.5 percent in 2022. With the stabilization of the exchange rate, inflation is expected to be within the range of 5-6 percent. The current account deficit is projected to widen to about 12 percent of GDP in 2020 reflecting lower non-gold exports and reduced remittance inflows. However, with export growth recovering, it is expected to narrow to around 9 percent of GDP in 2021-22.

Over the medium term, the authorities target the fiscal deficit to decline to 3 percent of GDP. Fiscal consolidation would require measures to expand the tax base, roll back the pandemic-related expenditures, streamline non-priority purchases, and reduce the wage bill as a share of GDP.

The level of uncertainty underlying our baseline scenario is substantial. Under a downside scenario, which assumes a second wave of the coronavirus in November as some health experts predict, real GDP is expected to contract by 8 percent in 2020, with the current account and fiscal deficits deteriorating to around 14 percent and 8 percent of GDP, respectively.

The poverty rate is projected to remain high in 2021-2022, since households will continue to face the impact of coronavirus. An increase in number of the poor families will create pressure on the social assistance system. Social transfers will continue to play a critical role in supporting the poor and vulnerable population. Provision of temporary financial support for the unemployed and poor families with children as well as the expansion of the coverage of social protection measures will be crucial to help the population in managing the shock.

Risks and challenges

Key risks for 2020-2021 include a second wave of the COVID-19 and delays in access to a vaccine. If these materialize, the government will have to reintroduce restrictions on economic activities and physical movements. Given the already weakened state of economy, this will likely lead to an even harder adverse impact on welfare than the first wave. Political instability could be triggered by the parliamentary elections outcomes in October 2020.

Over the medium term, economic performance will continue to be vulnerable to developments in its major trading partners. A slowdown in Russia or Kazakhstan could negatively impact the economy through remittances and trade.

The failure to meet quality and phytosanitary standards and technical regulations remains a hindrance to trade, especially within the Eurasian Economic Union. Stricter sanitary and phytosanitary standards need to be met, and laboratories should be internationally accredited and better linked to exporters. Enhancing trade facilitation is critical as only 12.2 percent of its commitments to the WTO's Trade Facilitation Agreement (TFA) was implemented. Improving regional connectivity is important for stronger growth in output, exports, and jobs.

TABLE 2 Kyrgyz Republic / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.7	3.8	4.5	-5.5	4.8	4.5
Private Consumption	6.3	5.0	1.6	-5.2	3.5	3.4
Government Consumption	1.3	1.3	0.5	2.4	0.6	0.4
Gross Fixed Capital Investment	9.2	6.9	2.3	-16.8	12.5	10.9
Exports, Goods and Services	6.1	-2.7	19.8	-5.0	5.3	7.3
Imports, Goods and Services	7.4	7.4	2.9	-11.5	7.4	8.5
Real GDP growth, at constant factor prices	3.8	3.4	5.1	-5.5	4.8	4.5
Agriculture	2.2	2.6	2.6	2.0	2.2	2.2
Industry	8.6	6.6	15.8	-9.3	8.9	8.4
Services	3.3	2.7	2.7	-9.9	5.2	4.6
Inflation (Consumer Price Index)	3.2	1.5	1.1	5.7	5.4	5.0
Current Account Balance (% of GDP)	-6.3	-12.1	-9.9	-11.7	-9.5	-9.2
Net Foreign Direct Investment (% of GDP)	2.9	1.7	2.5	3.0	6.1	5.7
Fiscal Balance (% of GDP)	-4.7	-1.6	-0.6	-7.1	-4.1	-3.0
Debt (% of GDP)	58.8	54.7	54.1	64.2	64.6	63.6
Primary Balance (% of GDP)	-3.6	-0.5	0.6	-5.8	-2.4	-1.3
International poverty rate ($1.9 in 2011 PPP) [a,b]			0.8	1.7	1.1	0.6
Lower middle-income poverty rate ($3.2 in 2011 PPP) [a,b]			15.3	21.1	19.6	18.7
Upper middle-income poverty rate ($5.5 in 2011 PPP) [a,b]			61.1	66.2	64.2	62.3

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2013-KIHS and 2018-KIHS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(b) Projection using average elasticity (2013-2018) with pass-through = 0.87 based on private consumption per capita in constant LCU.

MOLDOVA

Table 1	2019
Population, million	3.5
GDP, current US$ billion	12.0
GDP per capita, current US$	3395.4
International poverty rate ($19)[a]	0.0
Lower middle-income poverty rate ($3.2)[a]	0.9
Upper middle-income poverty rate ($5.5)[a]	12.8
Gini index[a]	25.7
School enrollment, primary (%gross)[b]	90.6
Life expectancy at birth, years[b]	71.8

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), 2011PPPs.
(b) Most recent WDI value (2018).

COVID-19 has drastically deteriorated the outlook for Moldovan economy with a significant recession expected in 2020. The combination of declining taxes and increased discretionary spending (including for 2020 Presidential elections) would help mitigate the impact of the crisis. Beyond 2020, the high uncertainty on the duration of the pandemic and on its economic and social ramifications could further constrain firms, workers and households, hampering the recovery. If downside risks materialize, reduced fiscal space may limit the capacity for further countercyclical measures.

Key conditions and challenges

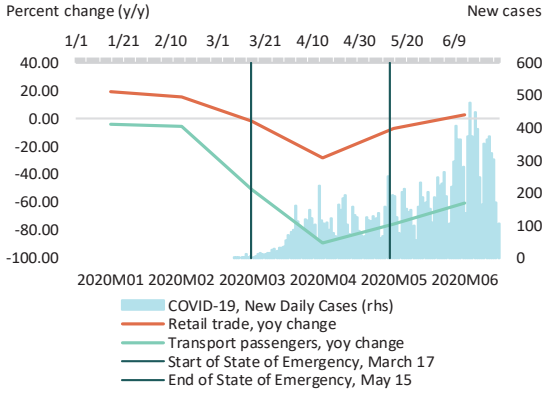
Despite a solid economic growth and poverty reduction over the last decade, Moldova has fallen short of its aspiration to achieve faster convergence towards EU income levels. Moreover, the economic model continues to be reliant on remittances-financed consumption growth. Declining productivity growth resulting from deep structural and governance weaknesses constitutes a key challenge. State enterprises have a significant footprint and markedly lower productivity than the private sector, while the business environment, anticompetitive regulations, and taxes distort private initiatives. The bank fraud of 2014 uncovered deep weaknesses in the financial sector.

COVID-19 has brought to the fore the limits of an economic model reliant on remittances and consumption growth, exacerbating the impact of the crisis. The combination of the global recession, disruptions in global and domestic supply chains, measures to flatten the contagion curve, financial and investment risk aversion, among other, are taking a heavy toll on the key components of aggregate demand. While the medium-term growth prospects remain positive, a sustained recovery hinges on the containment of the pandemic and on a more favorable external environment. A new wave of restrictions imposed in the country and in the main trading partners may further reduce consumer and business confidence leading to even lower remittances and exports. On the fiscal side, with headwinds before elections, the 2020 budget envisages an ambitious fiscal stimulus in response to COVID-19. This stimulus however might not be sufficient to stabilize the economy if downside risk materializes. Domestic risk lies on political instability in the runup to the 2020 Presidential elections, institutional weaknesses, and political constraints to implement reforms of the judiciary and the regulatory environment. Fragile economic conditions and low productivity levels are exacerbated by high footprint of the state in the economy, shrinking fiscal space, low financial intermediation and governance challenges. Additionally, as shown by the ongoing drought episode, the economy is highly vulnerable to extreme weather.

Recent developments

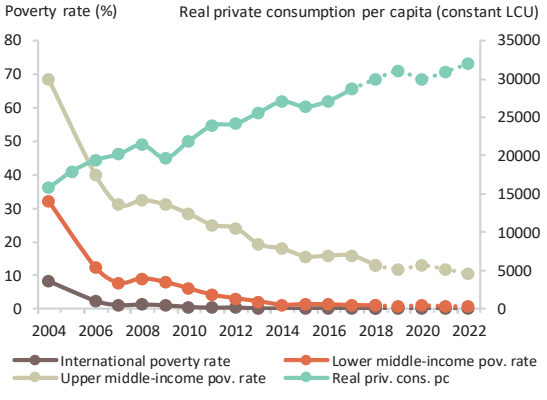
Following subdued growth at end year 2019 and exacerbated by the outbreak of the COVID-19, country's GDP dropped in Q2 2020 by 14 percent, y-o-y. This was driven primarily by a contraction in households' consumption and investments on the demand side. Current account deficit stood at 7.6 percent of GDP in 2020 Q1, mostly financed by debt instruments, reserve assets by National Bank, private deposits and FDIs. On the supply side, the lockdown measures have halted industrial production and trade activities while a severe drought has impacted agriculture.

FIGURE 1 Moldova / High-Frequency Data



Source: World Bank.

FIGURE 2 Moldova / Actual and projected poverty rates and real private consumption per capita



Source: World Bank. Notes: see Table 2.

Annual inflation rate remains within the National Bank's policy range of 5.0 percent ± 1.5. The policy rate was further cut by 0.25 percentage points to 2.75 percent in September 2020, and reserve requirements were reduced to increase credit to private sector. In July, credits increased by 13.8% yoy, while the NPL ratio increased marginally to 8.8%. The banking system is well capitalized and liquid.

The fiscal stance has deteriorated due to a decline in revenues by almost 3 percent and increase in spending by 3.4 percent, mostly wages and transfers, while public investment was cut by almost 13 percent. Health sector and social protection amounted to about 50 percent of total spending as of July 2020. With mounting financing needs, the public and publicly guaranteed debt increased from 27.4 percent of GDP in 2019 to 33.2 percent in 2020.

The labor market conditions have been heavily affected by COVID-19 with a decline in most sectors resulting in a 9 percent drop in employment in the first half of 2020 compared to the same period of 2019. The COVID-19 have also had an impact on household income, in the first half of 2020, compared to the same period of 2019, as twice as many individuals reported to be with a job but not working (either unpaid leave or technical unemployment).

Outlook

Weaker economic growth in the EU combined with the effects of the lockdown is expected to lead to significant economic contraction in 2020. While uncertainty remains, key components of aggregate demand are expected to suffer significant declines. Assuming no additional restrictive measures domestically and more favorable external conditions in the region, a slow upturn of the economy is envisaged starting in late 2020/early 2021.

In the medium term, growth is expected to stabilize below potential as uncertainty weighs in on economic activity. The current account deficit is projected to remain higher than historical averages as external demand and remittances remain subdued. Falling disposable income, large output gap, low energy prices along with moderate appreciation, will outweigh the bad agricultural yield and accommodative fiscal and monetary inflationary pressures. Fiscal deficits are also expected to remain higher than historical averages in the 2020-21. Poverty is expected to increase as households grapple with the effects of the COVID-19 including loss of employment and earnings, a reduction in remittances receipts and the return of the most vulnerable migrants due to worsening economic situation abroad. The scaling up and modification of social interventions, including through increased support to vulnerable groups and extension of unemployment benefit coverage to returning migrant workers and former informal sector workers, is likely to temper the effects of the crisis on poverty. Social protection might need to be enhanced over the medium term to minimize the residual effects of the COVID-19.

TABLE 2 Moldova / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.7	4.3	3.6	-5.2	3.5	3.7
Private Consumption	5.4	4.5	3.2	-3.8	2.8	3.1
Government Consumption	1.1	-0.2	-0.5	1.5	0.0	0.0
Gross Fixed Capital Investment	8.0	14.5	12.9	-12.3	7.5	8.4
Exports, Goods and Services	10.9	7.2	7.3	-8.4	6.3	7.1
Imports, Goods and Services	11.0	9.7	6.7	-7.0	5.0	6.0
Real GDP growth, at constant factor prices	4.2	4.4	3.9	-5.2	3.4	3.6
Agriculture	8.6	2.6	-2.3	-14.0	1.5	1.8
Industry	3.8	8.3	7.1	-6.1	5.3	5.4
Services	3.4	3.3	4.1	-2.9	3.0	3.2
Inflation (Consumer Price Index)	6.6	3.1	4.7	4.1	4.4	5.0
Current Account Balance (% of GDP)	-5.7	-10.6	-9.7	-10.0	-9.8	-9.0
Net Foreign Direct Investment (% of GDP)	1.5	2.4	4.5	1.3	3.3	3.5
Fiscal Balance (% of GDP)	-0.6	-0.8	-1.4	-5.4	-2.4	-2.0
Debt (% of GDP)	32.7	30.1	27.4	33.2	35.1	36.2
Primary Balance (% of GDP)	0.5	0.0	-0.7	-4.6	-1.6	-1.2
International poverty rate ($1.9 in 2011 PPP)[a,b,c]	0.1	0.0	0.0	0.0	0.0	0.0
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a,b,c]	1.0	0.9	0.8	0.9	0.8	0.7
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b,c]	15.8	12.8	11.8	12.8	11.8	10.6

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.

(a) Calculations based on ECAPOV harmonization, using 2018-HBS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(b) Projection using neutral distribution (2018) with pass-through = 0.7 based on private consumption per capita in constant LCU.
(c) Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.

MONTENEGRO

Table 1	2019
Population, million	0.6
GDP, current US$ billion	5.5
GDP per capita, current US$	8833.4
School enrollment, primary (%gross)[a]	100.0
Life expectancy at birth, years[a]	76.8

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

The COVID-19 crisis has again exposed Montenegro's vulnerability to external shocks, including its limited fiscal buffers. The economy is projected to contract by about 12 percent in 2020, the deepest recession in decades. The crisis has reversed the employment gains and poverty reduction in recent years though crisis mitigation measures have prevented even worse impacts. Public debt is expected to surge to new highs. The economy is projected to rebound in 2021, but GDP will not fully recover before 2022.

Key conditions and challenges

Benefiting from economic transformation after independence and the EU accession process, economic activity in Montenegro has been solid, yet with significant boom and bust periods over the last two decades. With unilateral euroization, Montenegro relies on fiscal policy and structural reforms to respond to the economic fluctuations.

Montenegro opened all the EU negotiation chapters, but shortcomings in the rule of law are impeding further progress. The latter reflect a key development constraint: the lack of a private sector level playing field due to, among other, weak institutions to safeguard competition and anti-corruption.

Montenegro entered 2020 with record high employment and average GDP growth of 4 percent in the last five years. Yet, much of growth was driven by import-dependent consumption and investment (including debt-financed public motorway construction), which increased external imbalances, largely financed by net FDI. Despite fiscal consolidation in recent years, public debt reached 77 percent of GDP in 2019.

The COVID-crisis is exposing and exacerbating Montenegro's vulnerabilities: growth is estimated to contract by 12.4 percent in 2020, driven by a slump in tourism exports which will also widen the current account deficit (CAD). The fiscal deficit is projected to increase to 11.7 percent of GDP, requiring post-crisis fiscal adjustments. The widening deficit is assumed to be financed by drawing-down deposits and public debt, estimated to soar to 93 percent of GDP. These macro vulnerabilities translate into significant micro vulnerabilities with fewer jobs, declining income, rising poverty, and social impacts on children and families.

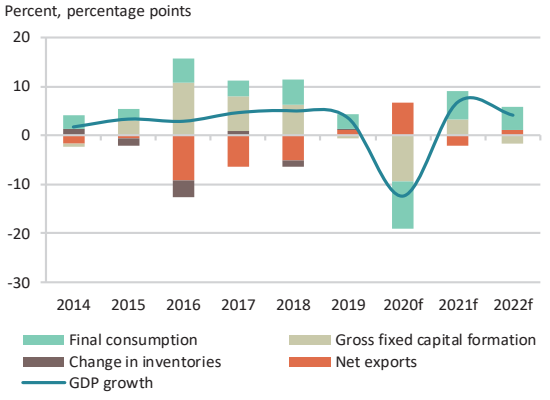
Strong fiscal management, independent and accountable state institutions, an independent and efficient judiciary, and a merit-based public sector administration are fundamental to increase Montenegro's resilience to shocks. They would enable more inclusive, private-sector led growth and efficient service delivery to citizens.

Recent developments

Montenegro is facing the deepest recession in decades, driven primarily by a sharp decline in tourism which accounts for almost a quarter of GDP. Tourism receipts in 2020 are estimated at 25 percent of the 2019 level. Available high-frequency indicators suggest only a sluggish recovery in June, as both retail trade and industrial production contracted by 22 percent y-o-y, while foreign tourist overnight stays were at only 3 percent of last year.

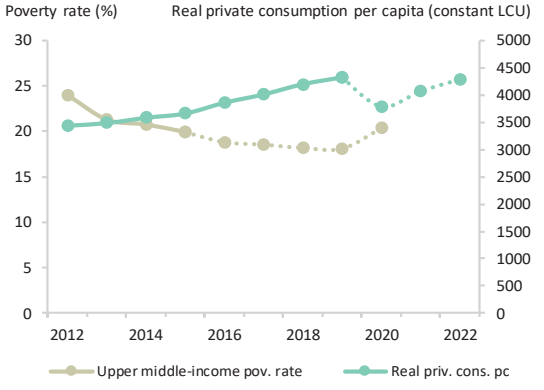
The crisis has wiped out the employment gains in recent years. Administrative data show a decline of 8 percent y-o-y by June. All sectors registered declining employment. Wage subsidy and one-off cash

FIGURE 1 Montenegro / Real GDP growth and contributions to real GDP growth



Sources: MONSTAT, World Bank.

FIGURE 2 Montenegro / Actual and projected poverty rates and real private consumption per capita



Source: World Bank. Notes: see Table 2.

transfers helped to avoid larger layoffs and increases in poverty for now, though these measures are likely to miss informal workers. Poverty is estimated to increase to 20.4 percent in 2020.

The financial sector has been resilient so far. In response to the crisis, the Central Bank introduced loan repayment moratoria, loans restructuring, and lowered reserve requirements. By July, lending grew by 6 percent, while deposits fell by 3.5 percent. In June, non-performing loans (NPLs) remained at 5.6 percent of total loans, and the capital adequacy ratio was at a healthy 19.6 percent. By July, banks' net profits declined by almost 50 percent, reflecting a decline in economic activity and corporate profitability which may also lead to rising NPLs in the future.

Imports are falling fast, but the loss of tourism revenue is widening the CAD. By June, exports and imports of goods and services contracted by 32 and 19 percent, respectively. In the same period, net FDI declined by 9 percent, with debt and deposit draw-down financing the rest of the CAD. International reserves covered 6 months of merchandise imports.

By July, central government revenues declined by 12 percent y-o-y, while central government expenditures increased by 11 percent y-o-y. Before the elections, the Parliament adopted amendments to the Pension law, resulting in additional fiscal costs over the medium term. Given the large fiscal imbalances and worsening financial market conditions amid the global recession, Montenegro may need to adjust public spending.

Outlook

The uncertainty is high, and Montenegro faces both fiscal and external risks. The outlook depends heavily on the COVID-19 pandemic developments. Assuming new waves of COVID-19 outbreaks will be restricted to the upcoming winter and spring, Montenegro's economy is expected to rebound strongly in 2021 with an estimated GDP growth of 6.9 percent, driven by a recovery of tourism receipts from the very low 2020 base. The total output loss due to the crisis is projected to be fully recovered only in 2022 when the economy is projected to grow 4.2 percent. The anticipated tourism recovery will support export and consumption growth. The expected completion of the construction of the priority section of the motorway in 2021 is projected to push investment in that year but attenuate total investment in 2022. External imbalances are expected to remain elevated in 2021, but the finalization of the import-dependent motorway section and stronger exports led by the tourism recovery are projected to reduce the current account deficit to 11 percent of GDP in 2022. The crisis has derailed Montenegro from its debt reduction path. The large fiscal deficit is projected to push public debt to peak at 94 percent of GDP in 2021 and decline to 90 percent of GDP in 2022. Sound macroeconomic policy is needed to place Montenegro on a firm debt reduction trajectory.

The outlook on employment is also highly uncertain and depends on the recovery of labor-intensive sectors. The speed of recovery of low-skill jobs will partly determine how fast poor and vulnerable households can regain their income. Addressing long-standing job challenges is critical for robust welfare improvements.

TABLE 2 Montenegro / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.7	5.1	3.6	-12.4	6.9	4.2
Private Consumption	3.9	4.6	2.9	-12.5	7.5	5.5
Government Consumption	-1.4	6.3	2.1	6.6	-3.2	-0.6
Gross Fixed Capital Investment	18.7	14.7	-1.5	-21.0	8.0	-3.9
Exports, Goods and Services	1.8	6.9	6.4	-45.0	55.0	9.5
Imports, Goods and Services	8.4	9.2	2.2	-32.0	27.5	3.9
Real GDP growth, at constant factor prices	4.7	5.1	3.6	-12.4	6.9	4.2
Agriculture	-3.1	3.3	2.3	-1.0	1.3	1.3
Industry	9.7	15.3	0.2	-9.0	5.0	1.0
Services	4.3	2.2	4.9	-14.8	8.4	5.6
Inflation (Consumer Price Index)	2.4	2.6	0.4	-0.2	1.5	1.4
Current Account Balance (% of GDP)	-16.1	-17.1	-15.2	-16.8	-13.8	-11.0
Net Foreign Direct Investment (% of GDP)	11.3	6.9	7.0	4.5	6.5	6.5
Fiscal Balance (% of GDP)	-5.7	-4.6	-3.0	-11.7	-5.2	-1.6
Debt (% of GDP)	64.2	70.1	77.2	92.9	94.3	89.7
Primary Balance (% of GDP)	-3.3	-2.4	-0.8	-9.2	-2.4	0.9
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]	18.5	18.2	18.1	20.4		

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2012-SILC-C and 2015-SILC-C. Actual data: 2015. Nowcast: 2016-2019. Forecast are from 2020 to 2022.
(b) Projection for 2017-2018 using point-to-point elasticity (2012-2015) with pass-through = 0.4 based on private consumption per capita in constant LCU and estimated impacts of fiscal consolidation in 2017, for 2019-2020 based on nowcasting and simulation of poverty impacts and policy responses.

NORTH MACEDONIA

Table 1	2019
Population, million	2.1
GDP, current US$ billion	12.7
GDP per capita, current US$	6082.5
School enrollment, primary (%gross)[a]	97.1
Life expectancy at birth, years[a]	75.7

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) WDI for School enrollment (2017); Life expectancy (2018).

The pandemic hit the economy hard: a lockdown, disrupted supply chains, and a prolonged adverse epidemiological situation further downgraded an already dim outlook. Government support programs alleviated somewhat the impact on workers and firms, but fiscal space narrowed amid debt levels approaching 60 percent of GDP. The near-term outlook is positive with increasing downside risks. While economic and social measures to remedy the crisis will take priority, fiscal, competition, environmental and governance reforms are needed for recovery and EU accession.

Key conditions and challenges

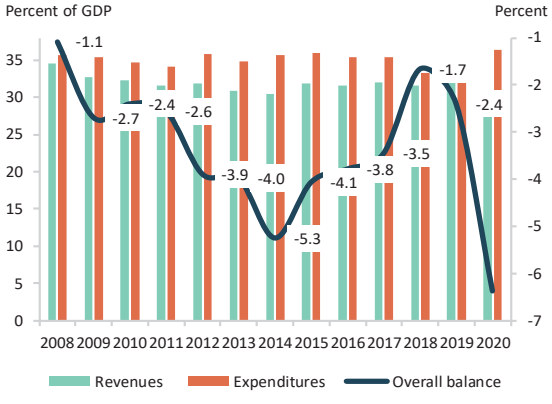
Despite rising foreign trade and investment, improved business environment and sustained macroeconomic stability since the global crisis, North Macedonia's economic growth has been lower than in peer countries, and 17 percent of Macedonians (using the US$5.5/day at 2011 PPP line) were projected to still live in poverty in 2019 despite the decreasing trend since 2009. Moreover, a large share of the non-poor population remained at risk of falling into poverty if hit by a shock, such as the current COVID-19 crisis. Weak education and workforce skills persistently undermined human capital which, together with total factor productivity, has been the lowest in the Western Balkans. Only 50 percent of working-age Macedonians is employed, while low birth rates and emigration are shrinking the workforce. In terms of governance, the country trails peers in categories such as political stability, voice and accountability, rule of law, and control of corruption. Finally, the current economic model, generous in public support for growth through subsidies and broad tax exemptions, is not sustainable. Though countercyclical fiscal policies helped growth and employment, the COVID-19 crisis depleted fiscal buffers. Meanwhile, environmental threats like air pollution and natural hazards are jeopardizing the well-being of the population.

While after the 2020 recession, growth is projected for 2021, there is still a lot of uncertainty on the duration of the pandemic and its impacts. The containment phase has not finished, and a longer period of social distancing policies will have an impact on households' income and health expenditures. On the economic front, disrupted supply chains and lower domestic and external demand would lead to further layoffs and increase in poverty, stretching further tight public finances. Tightening risk premia is expected as public debt increases above 60 percent of GDP. On the upside, the launch of EU accession negotiations and the political stability after the July elections may provide an impetus for structural reforms that would boost productivity and strengthen investors' confidence.

Recent developments

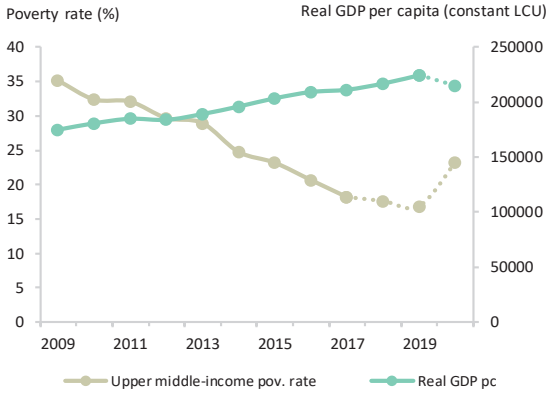
The robust growth of 2019 was swiftly reversed by mid-2020 as the pandemic unfolded. The growth declined by 6.4 percent by June: manufacturing dropped by 16.1 percent y-o-y, with only a handful of sectors observing growth. Trade, tourism and transport, the main drivers of growth over the past several years, dropped by 12.3 percent y-o-y. Private construction decline was offset by public investment in roads. Agriculture and ICT observed a robust growth. On the demand side, gross investments and private consumption fell sharply, while exports declined by one-third, almost entirely explained by FDI-related

FIGURE 1 North Macedonia / Fiscal performance



Source: World Bank based on MOF.

FIGURE 2 North Macedonia / Actual and projected poverty rates and GDP per capita



Source: World Bank. Notes: see Table 2.

exports. The accompanying decline in imports alleviated the pressure on the current account deficit which remained largely unchanged compared to 2019. Despite government support to cushion the crisis impact on the labor market, by June 17,690 people lost their jobs. The unemployment rate, at 16.7 percent, increased for the first time since end-2011.

The banking sector liquidity ratio in Q2 increased due to the central bank measures. Credit continued growing at 6.6 percent y-o-y by June, on account of both household and firm credits supported by strong deposit growth and crisis-support programs. Non-performing loans remained unchanged at 4.6 percent given the reclassification moratorium until December. The banking sector remained well capitalized (capital adequacy ratio at 16.5 percent) despite bankruptcy of one bank in August 2020. Inflation remained low at 0.5 percent y-o-y by mid-2020, reflecting the subdued output.

The fiscal deficit tripled to 4.7 percent of GDP by July. The drop in VAT and excise revenues of over 14 percent y-o-y was cushioned somewhat by social contributions increase as Government subsidized employment. Spending increased by more than 10 percent y-o-y, as health expenditures and subsidy schemes, aimed at employment retention, surged. Spending on wages and pensions also increased, while capital spending declined by one-third. The Government was able to secure financing for mitigating COVID-19 crisis and refinance due payments. The PPG debt increased to 59.5 percent of GDP in June 2020.

Outlook

The economy is facing a recession of 4.1 percent in 2020; the biggest drop since 2001. The demand contraction and supply chains disruptions caused by the prolonged pandemic and containment measures have been worse than anticipated. Unemployment is set to grow despite government support schemes, while private investment has been severely affected as investors struggle with demand losses and liquidity shortages.. Services continued to be affected by travel bans. In the absence of a government response, the combined effect of lower labor incomes and remittances would increase poverty to pre-2015 levels to approximately 23 percent in 2020 and many of those falling into poverty were not benefiting from any social protection programs before the pandemic. Support programs introduced by the government will likely alleviate the poverty impact of the crisis. Over the medium term, growth is expected to return as the outbreak loses force. Political stability after the general elections and the launch of the EU accession negotiations should boost reforms and investor confidence so that once the crisis is over, growth rebounds faster. In this scenario of a gradual recovery, growth in 2021 is expected to reach 3.6 percent, as restored consumer and investor confidence pushes up personal consumption, private investment, and exports. Setting public finances back on a sustainable path will be needed over the medium term, reprioritizing spending for longer-term recovery, and boosting revenues through cutting back on exemptions. On the structural side, while mitigating the near-term crisis impact, addressing low and declining human capital, weak competition policy and judiciary, declining productivity and rising migration will be critical.

TABLE 2 North Macedonia / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	1.1	2.7	3.6	-4.1	3.6	3.5
Private Consumption	1.8	2.2	6.0	-3.1	3.7	3.2
Government Consumption	-2.6	4.1	2.3	5.0	3.6	1.2
Gross Fixed Capital Investment	-8.0	-9.9	-5.1	-4.4	8.0	8.2
Exports, Goods and Services	8.3	22.1	2.5	-6.0	6.2	7.2
Imports, Goods and Services	5.2	17.4	1.2	-3.0	6.4	6.5
Real GDP growth, at constant factor prices	-0.7	3.5	3.3	-4.1	3.6	3.5
Agriculture	-13.5	8.6	3.8	0.5	2.7	2.5
Industry	-1.0	-0.6	4.3	-1.5	5.7	4.9
Services	1.1	4.5	2.8	-5.6	2.9	3.0
Inflation (Consumer Price Index)	1.4	1.5	0.8	0.5	1.7	2.0
Current Account Balance (% of GDP)	-0.8	-0.1	-2.8	-2.9	-3.0	-2.3
Net Foreign Direct Investment (% of GDP)	1.8	5.6	2.6	1.2	4.2	4.4
Fiscal Balance (% of GDP)	-2.8	-1.1	-2.1	-6.1	-3.5	-2.4
Fiscal Balance with Pub. Ent. for State Road (% of GDP)	-3.5	-1.7	-2.4	-6.4	-3.9	-2.5
Debt (% of GDP)	47.6	48.6	48.8	59.1	59.8	59.2
Primary Balance (% of GDP)	-2.1	-0.5	-1.2	-5.1	-2.6	-1.2
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]		17.6	16.9	23.3		

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.

(a) Calculations based on ECAPOV harmonization, using 2017-SILC-C. Actual data: 2017. 2018-2019 nowcast uses real GDP growth.
(b) 2020 estimation uses scenario analysis for 2 quarters of income shocks, differentiated by sector of activity. Simulations do not incorporate government response measures. Data adjusted with original 2011PPP factor

POLAND

Table 1	2019
Population, million	38.0
GDP, current US$ billion	591.7
GDP per capita, current US$	15581.7
International poverty rate ($19)[a]	0.4
Lower middle-income poverty rate ($3.2)[a]	0.6
Upper middle-income poverty rate ($5.5)[a]	1.4
Gini index[a]	29.7
School enrollment, primary (% gross)[b]	100.0
Life expectancy at birth, years[b]	77.6

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2017), 2011PPPs.
(b) WDI for School enrollment (2017); Life expectancy (2018)

The COVID-19 pandemic and containment measures have pushed the Polish economy in recession; however, it remained one of the most resilient economies. Higher public spending only partially offset falling consumption and investment. To mitigate the impact on firms and employment a sizeable economic package was implemented, significantly narrowing fiscal space. Despite this, the impact on households is expected to be considerable feeding through to higher poverty rates. The key challenge over the short-term is ensuring a robust economic recovery.

Key conditions and challenges

The Polish economy has entered the COVID-19 crisis from a position of strength, having proved to be one of the more resilient economies in the region in previous crises. The economy grew uninterruptedly for the past 28 years, moving to high-income status in less than 15 years. Prudent macroeconomic policies, EU investment funds, a sound financial sector, and better access to long-term credit supported growth and poverty reduction. Rising wages and social programs ("Family 500+", "13th pension") supported consumption-led growth until early 2020. With an improving business environment Poland has integrated well into global value chains (GVC). Higher private investment, an improved innovation ecosystem, and further GVC upgrading can support higher productivity and growth.

Mitigating the impact of the COVID-19 pandemic and setting the basis for a sustained, inclusive and green recovery, while ensuring public debt sustainability are the key challenges in the short-term. The response to the COVID crisis has significantly narrowed fiscal space. Increased spending efficiency is needed to rebuild fiscal buffers and to prepare for fiscal pressures arising from the demographic change. Over the medium-term a key challenge is a tight labor market worsened by the aging population. Strengthening institutions at national and subnational levels and higher efficiency of public administration are needed for sustained, inclusive growth, and for narrowing of regional disparities.

A second wave of the COVID-19 pandemic would threaten the recovery, affect supply chains, depress investor sentiment and consumer demand. In such a downside scenario the economic, social and fiscal impacts would be more severe.

Recent developments

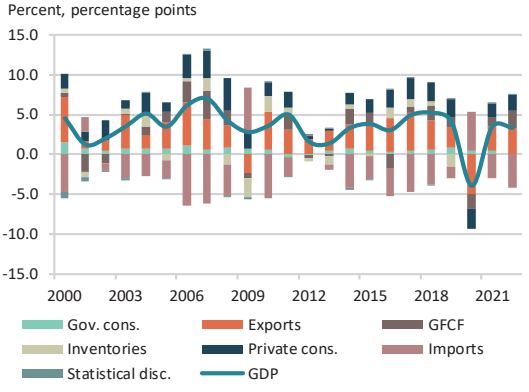
The economy recorded its first recession since 1991, as COVD-19-related supply and demand shocks dragged GDP down by 0.4 and 8.9 percent quarter-on-quarter in Q1 and Q2 of 2020, respectively. Poland performed better however than most EU countries, with output contracting 3.2 percent in the first half of the year, compared with a 6.7 percent average decline in the EU27.

Household expenditure and investment plummeted 10.8 percent and 11.4 percent, while countercyclical government spending contributed less than 1 percent to the quarterly growth in the second quarter.

Disruption to international trade and transport caused by the crisis, containment measures, and lower external demand in key EU exports markets caused both exports and imports to decline.

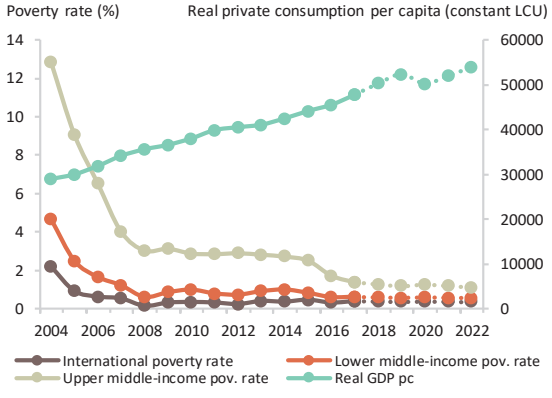
Industrial output was affected by disruptions to GVCs, declining 13.1 percent in the second quarter. Lockdown measures and restrictions to mobility contributed to a collapse of in transportation and storage

FIGURE 1 Poland / Real GDP growth and contributions to real GDP growth



Source: MFMod, World Bank.

FIGURE 2 Poland / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

(-18.2 percent) and in trade and repairs (-12.2 percent).
The government announced a stimulus package to mitigate the impact of lower global and domestic demand, prevent a sharper increase in unemployment by subsidizing salaries and support domestic enterprises via loans, tax reliefs and deferrals among others. The support measures helped to protect jobs; however, on account of the lockdown and restrictions to economic activity an estimated 30 percent of workers saw declines in salaries and hours worked in May, while by July the registered unemployment rate increased by 0.9 pp. year-on-year to 6.1 percent.
Furthermore, the large economic package resulted in a widening of the government deficit, which is expected to reach nearly 7 percent of GDP in 2020. Tax deferrals and falling economic activity have undermined tax revenues, which have declined more than 6.5 percent year-on-year in the first half of 2020.
Inflation declined to 2.9 percent year-on-year in August, from a peak of 4.7 percent in February 2020, primarily on account of lower international fuel prices and lower food price inflation. Meanwhile higher electricity tariffs and a record low reference interest rate prevented a sharper decline in inflation.

Outlook

Easing in restrictions to economic activity and mobility together with the economic package being implemented by the government and an incipient recovery in key trade and economic partners are expected to help contain GDP contraction to 3.9 percent in 2020 and set the stage for a moderate recovery over the next couple of years (average 3.5 percent).
Nevertheless, output is not expected to recover to pre-crisis level before 2022. A key assumption for this baseline is that the pandemic is contained, and a vaccine is rolled-out over the course of 2021.
While household incomes were supported by additional support measures during the outbreak, rapid assessments show that lower-wage workers are more likely to report reductions in hours worked and incomes early in the crisis and were also less likely to be covered by protective leave policies. Income declines in July relative to February 2020 were reported by 30% of households, feeding through to more limited purchasing power and slower recovery. Although social assistance will continue to protect the poorest households, poor working households are financially vulnerable to a reduction in hours worked and job loss due to COVID-19 and the deteriorating economic climate. Therefore, the share of the population at risk of poverty is expected to increase and to remain elevated into 2021.
A moderate recovery in economic activity and import demand from Poland's main trading partners, is expected to engender a recovery in exports and support a rebound in the industrial sector.
The sizeable economic package designed by the Polish government to support both the supply and demand side of the economy by providing liquidity to affected companies, granting tax reliefs and deferrals among other measures is expected to support private investment. Poland could receive nearly 1.4 percent of the 2018 GDP annually in national allocations from the Next Generation EU, and an additional 0.3 percent of GDP annually in Just transition funds, which could help support a recovery in investments, both public and private, as more than 80 percent of the Next Generation EU will be used to support public investment and key structural reforms. Gradual improvements in business and consumer sentiment, pent-up demand and the moderate recovery in key EU economic partners are expected to support a recovery in private investment and FDI.

TABLE 2 Poland / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.9	5.3	4.1	-3.9	3.5	3.4
Private Consumption	4.5	4.2	3.9	-4.3	3.1	3.6
Government Consumption	2.9	3.7	4.9	2.7	2.2	0.3
Gross Fixed Capital Investment	4.0	9.4	7.2	-9.1	6.2	10.9
Exports, Goods and Services	9.5	7.0	4.7	-9.3	6.1	6.2
Imports, Goods and Services	9.8	7.6	2.7	-9.7	6.3	8.5
Real GDP growth, at constant factor prices	4.8	5.3	4.1	-3.9	3.5	3.3
Agriculture	2.5	-9.0	-0.4	-4.0	1.5	1.0
Industry	2.5	5.2	4.2	-4.1	3.0	3.2
Services	6.1	5.8	4.1	-3.8	3.8	3.5
Inflation (Consumer Price Index)	2.0	1.6	2.3	3.3	2.4	3.0
Current Account Balance (% of GDP)	0.1	-1.0	0.4	1.0	1.1	-0.7
Net Foreign Direct Investment (% of GDP)	-1.4	-2.5	-2.2	-0.5	-1.1	-1.1
Fiscal Balance (% of GDP)	-1.5	-0.2	-0.7	-6.9	-5.2	-4.0
Debt (% of GDP)	50.6	48.8	46.0	54.4	56.0	55.8
Primary Balance (% of GDP)	0.1	1.2	0.7	-5.9	-3.9	-2.5
International poverty rate ($1.9 in 2011 PPP) [a,b]	0.4	0.4	0.4	0.4	0.4	0.4
Lower middle-income poverty rate ($3.2 in 2011 PPP) [a,b]	0.6	0.6	0.6	0.6	0.6	0.6
Upper middle-income poverty rate ($5.5 in 2011 PPP) [a,b]	1.4	1.3	1.2	1.3	1.2	1.1

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2007-EU-SILC and 2017-EU-SILC. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.
(b) Projection using point-to-point elasticity (2007-2017) with pass-through = 1based on GDP per capita in constant LCU.

ROMANIA

Table 1	2019
Population, million	19.3
GDP, current US$ billion	249.6
GDP per capita, current US$	12902.7
International poverty rate ($19)[a]	3.3
Lower middle-income poverty rate ($3.2)[a]	6.5
Upper middle-income poverty rate ($5.5)[a]	13.0
Gini index[a]	36.2
School enrollment, primary (% gross)[b]	85.2
Life expectancy at birth, years[b]	75.4

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2017), 2011PPPs.
(b) WDI for School enrollment (2017); Life expectancy (2018)

The protracted COVID-19 pandemic has seriously affected Romania's economic activity and household incomes in the short-run. A proactive but constrained fiscal response supported firms to retain employees and fed into household incomes. The economy is expected to shrink by 5.7 percent in 2020, on the back of a slow recovery of manufacturing and a poor agricultural year. Poverty is anticipated to increase, as the impacts of COVID-19 affect domestic income sources, and lead to contractions in remittances, while drought affects farmers.

Recent developments

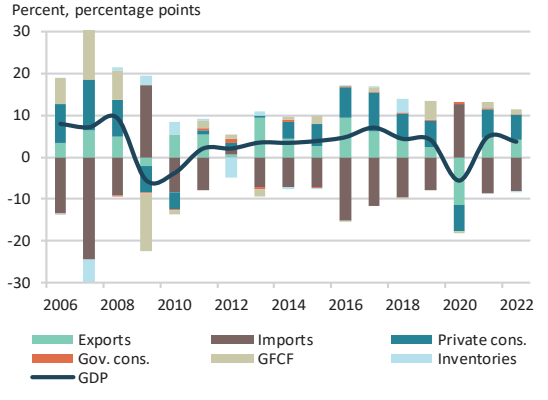
The economy contracted by 4.7 percent in H1 of 2020, driven by a decline of 10.5 percent in Q2. On the demand side, exports of goods and services fell by 15.1 percent in H1 of 2020, as European trading partners were significantly affected by the crisis. Imports contracted less than exports (down 9.4 percent), leading to a 21 percent increase in the trade deficit in H1. The weakening of external demand from Europe alongside pandemic related restrictions caused industry to contract by 14.1 percent in H1. Turnover in trade and services decreased by 17 percent in H1, but high-frequency indicators point to a relatively quick rebound.

The sharp decline in output led to deteriorating labor market conditions, with deeper effects noted for younger workers and women: job vacancies fell between Q1 and Q2 2020 while the unemployment rate increased to 5.4 percent in July from 4.1 percent in February. Job and household income losses were stemmed by the technical unemployment relief program, which covered 1.3 million beneficiaries during the state of emergency at a cost of approximately Euro 370 million (0.2 percent of GDP).

Rapid household assessments of COVID-19 impacts show a substantial rise in the share of the population at risk of poverty in April 2020, as income generating opportunities for the working poor and near-poor declined and nearly a third of households reported income drops. As temporarily inactive workers returned to employment between April and July, the share of households reporting lower incomes relative to the pre-COVID-19 period has declined to just under 20 percent, with income impacts being felt across better and worse-off households.

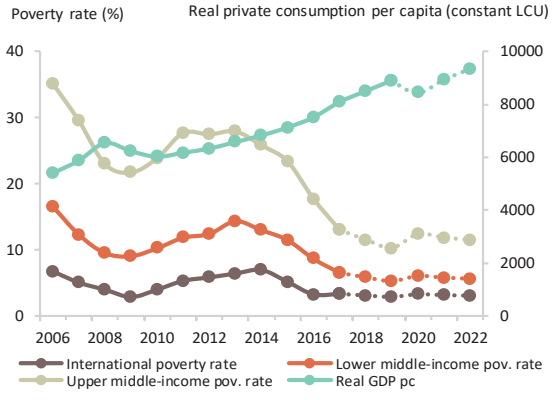
The fiscal deficit widened to 4.2 percent of GDP in H1 of 2020 reflecting lower revenues and higher expenditures due to COVID-19. Pro-cyclical fiscal policies since 2016 limited the fiscal space available to counter the crisis; as a result, Romania's COVID-19 related expenditures of Euro 5 billion (2.4 percent of GDP) were among the lowest in the EU. The recession reduced H1 revenues from VAT (down 15.8 percent) and CIT (down 7.5 percent). Higher PIT revenues and EU funds, up 10.4 percent and 18.1 respectively, have limited the total budget revenue decline to -1.6 percent compared to the same period in 2019. Budget expenditures were 13.6 percent higher, reflecting the COVID-19 response through expansions in social assistance and health-related spending, up by 23.7 percent and 16 percent respectively. The widening fiscal deficit has increased the estimated financing needs to around 13 percent of GDP in 2020, or around Euro 26-27 billion. The economic conditions and a relatively stable inflation environment, with the annual inflation rate running at 2.8 percent in July, allowed the NBR to lower the monetary policy rate by 0.25 pp twice, in May and August, to 1.5 percent in an attempt to bolster financial sector liquidity and support the economic recovery. Key risk indicators of credit institutions remain at

FIGURE 1 Romania / Real GDP growth and contributions to real GDP growth



Source: World Bank

FIGURE 2 Romania / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

adequate levels. The banking sector remains well capitalized, as the total capital ratio stood at 22.8 percent in June above the NBR's minimum requirements, and highly liquid with the liquidity coverage ratio at 269 percent in June compared to 245 percent in March.

Outlook

The economy is expected to contract by 5.7 percent in 2020. The severity of the recession and the magnitude of the 2021 economic recovery will depend on the evolution of the health crisis and its policy response, on the impact of the national economic stimulus, and on the spillovers from the stimulus pursued at EU level. Romania is expected to receive 79.9 billion euros from the EU by 2027. This amount would be received under the multiannual budget funds 2021-2027 (49.5 billion euros) and the economic recovery plan (30.4 billion euros, of which 13.7 billion euros in grants as reported by Romania's Ministry of European Funds). The EU grant funds are budget neutral and will be critical for Romania's growth recovery and for keeping the fiscal deficit in check.

To address the consequences of COVID-19, the fiscal deficit is expected to widen to around 9 percent of GDP in 2020, up from a planned deficit of 3.6 percent before the crisis. A substantial reduction of the deficit in 2021 is improbable as the government will have to support the economic recovery process. A widening fiscal deficit would push public debt to an estimated 45.1 percent of GDP in 2020 and 47.7 percent in 2021 from 37.6 percent in 2019. The bulk of the increase stems from the fiscal deficit. However, public debt remains one of the lowest in the EU.

Poverty is projected to increase on the back of the triple-hit in incomes facing poorer segments of the population, in the form of the domestic COVID-19 pandemic, the poor agricultural year, and declining remittance incomes. These households are anticipated to have been less supported by the fiscal response measures, which extended more directly to those in formal employment structures. Responsive social protection and active labor market policies would be needed to support these households, and the broader segment of workers who have been affected by labor market slowdowns.

Risks and challenges

In the short run, the key challenge is to contain the COVID-19 crisis and limit its health and economic consequences. A prolonged crisis with extensive additional mitigating measures to reduce transmission would affect growth prospects and push back the nascent resumption of activity seen in high frequency data of companies and jobs while raising unemployment and poverty. The pro-cyclical fiscal trajectory before the COVID-19 crisis added to the fiscal space constraints, feeding into lower investor confidence and increasing financing costs. Slower recovery of the European economy, and in particular of Germany and Italy, Romania's main trading partners, would put additional pressure on the domestic economy. In addition, the 40 percent increase in public pensions (resulting in fiscal costs close to 2.7 percent of GDP) passed recently by the Parliament, if not reversed, would seriously impact macroeconomic stability while, in the short run, could lead to a downgrade in Romania's sovereign ratings. Additional risk stems from Romania's historical low EU funds absorption rates raising questions on the country's capacity to take advantage of the EU recovery funds, which is one of its main economic recovery engines.

TABLE 2 Romania / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	7.1	4.4	4.1	-5.7	4.9	3.7
Private Consumption	9.6	6.5	6.2	-5.9	6.7	5.7
Government Consumption	4.6	4.5	7.6	9.8	3.5	3.0
Gross Fixed Capital Investment	3.3	-1.2	17.8	-1.9	5.1	4.1
Exports, Goods and Services	9.7	6.2	3.5	-17.3	7.8	6.8
Imports, Goods and Services	11.3	9.1	7.2	-11.0	8.1	7.3
Real GDP growth, at constant factor prices	7.6	3.9	3.5	-5.7	4.9	3.7
Agriculture	14.5	10.8	-3.2	-9.8	8.2	1.0
Industry	4.7	4.4	-1.5	-10.6	6.7	3.1
Services	8.4	2.9	6.9	-2.9	3.8	4.2
Inflation (Consumer Price Index)	1.3	4.6	3.8	2.8	3.4	3.1
Current Account Balance (% of GDP)	-3.2	-4.4	-4.7	-5.3	-4.9	-4.8
Net Foreign Direct Investment (% of GDP)	2.6	2.2	2.3	0.4	2.1	2.3
Fiscal Balance (% of GDP)	-2.8	-2.9	-4.4	-9.1	-6.3	-4.0
Debt (% of GDP)	36.8	36.3	37.6	45.1	47.7	50.5
Primary Balance (% of GDP)	-1.6	-1.6	-3.1	-7.7	-4.8	-2.3
International poverty rate ($1.9 in 2011 PPP)[a,b]	3.3	3.1	2.8	3.2	3.1	3.0
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a,b]	6.5	5.8	5.2	6.0	5.8	5.6
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]	13.0	11.5	10.2	12.3	11.8	11.4

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2006-EU-SILC and 2017-EU-SILC. Actual data: 2017. Nowcast: 2018-2019. Forecast are from 2020 to 2022.
(b) Projection based off elasticities calibrated on 2006-2015 growth periods and rapid assessment data, allowing for elasticities to vary between periods of contraction, recovery and expansion. annualized elasticity (2006-2015) with pass-through = 0.7 based on GDP per capita in constant LCU.

RUSSIAN FEDERATION

Table 1	2019
Population, million	144.4
GDP, current US$ billion	1689.3
GNI per capita, US$ (Atlas method)	11260.0
International poverty rate ($19)[a]	0.0
Lower middle-income poverty rate ($3.2)[a]	0.4
Upper middle-income poverty rate ($5.5)[a]	3.7
Gini index[b]	37.5
School enrollment, primary (% gross)[c]	102.6
Life expectancy at birth, years[b]	72.7

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), 2011PPPs.
(b) Most recent WDI value (2018).
(c) Most recent WDI value (2017).

A less than expected GDP contraction in the second quarter of 2020 and an upward revision of the oil price forecast led to an upgrade in Russia's economic outlook for 2020 to minus 5 percent (from minus 6 percent in July). A projected rebound in 2021 and 2022, of 2.8 percent and 2.4 percent, is based on the pandemic's effects fading, and domestic demand growth resuming. After an uptick in 2020, poverty rates are expected to decline in 2022 to below 2019 levels.

Recent developments

With the introduction of lockdown measures at the end of March, Russia was hit by domestic supply and demand shocks against a backdrop of already weak external demand and slipped into recession. In the second quarter of 2020, Russia's GDP shrank by 8 percent, y/y, though performing better than expected with real estate and financial sector supporting such dynamics. Unemployment rose to 6.4 percent in August from 4.5 percent in the beginning of the year. In May - June, the economy began to gradually rebound, supported mainly by domestic demand (Figure 1).

A decline in Russia's energy export receipts halved the current account surplus to US$23.3 billion in the first eight months of 2020. Increased capital outflow amidst financial volatility and geopolitical risks put pressure on the exchange rate, with the REER depreciating by 3.5 percent.

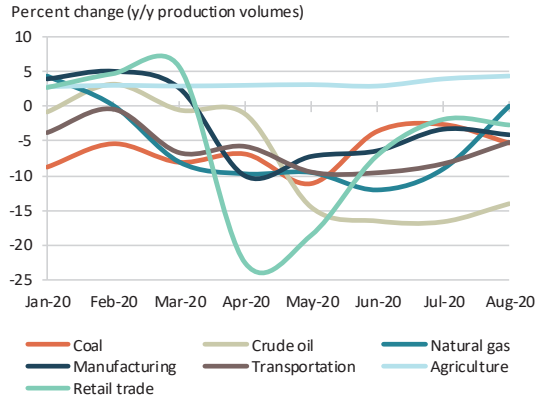
On the back of the ruble depreciation and rebounding domestic demand, annual headline inflation accelerated to 3.6 percent in August, yet it remains below the CBR target of 4 percent with the economy below its potential. In September, the CBR paused its accommodative policy actions, leaving the key policy rate at a record low of 4.25 percent. In addition to rate cuts and regulatory forbearance measures, the CBR introduced a range of support measures for banks, companies and households, including payment holidays for retail and SME borrowers. Consequently, key credit risk and performance indicators of banks remained stable. However, there has been a slowdown in lending, deterioration in asset quality and massive loan restructuring, which is estimated at about 13.3% of total banking sector loans in the period from March to beginning-September 2020.

In line with the fiscal rule, the decline in oil and gas fiscal revenues below the value corresponding to the threshold price of US$42.4/bbl was compensated from National Wealth Fund (NWF). Sizable additional domestic borrowing, carryover of unspent funds from 2019, and revenue generated from the Sberbank sale by the CBR, enabled the government to mobilize a fiscal response package of about 4 percent of GDP. While relatively small compared to advanced economies, it is at par with countries with similar GDP per capita. Fiscal support policies are likely to contain the poverty impact of the crisis, but their effectiveness will depend on take-up rates by beneficiaries and implementation capacity.

Outlook

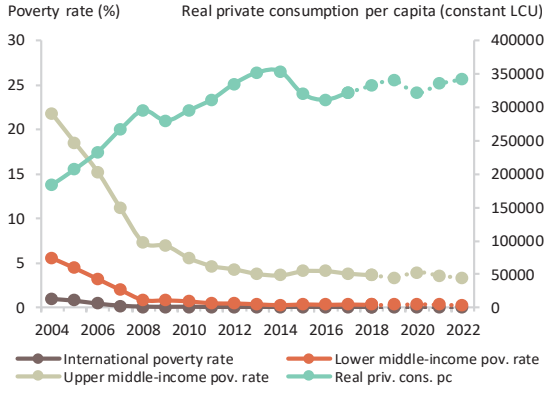
Russia's 2020 GDP is projected to contract by 5 percent, an eleven-year low. Assuming broad access to vaccines in mid-2021, GDP is expected to expand by 2.8 and 2.4 percent in 2021 and 2022, respectively. Recovery in consumer demand is expected to lead the rebound, supported by accommodative monetary stance. High levels of

FIGURE 1 Russian Federation / High frequency economic indicators



Source: Russian Statistical Authorities.

FIGURE 2 Russian Federation / Actual and projected poverty rates and real private consumption per capita



Source: World Bank. Notes: see Table 2.

uncertainty will weigh on investment, expected to grow by a modest 2 percent in 2021 and 4.1 percent in 2022. The fiscal rule relaxation would provide for more gradual consolidation in 2021-2022. With rebound of economic activity in the EU and China, Russia's main trading partners, export volume is expected to grow by 4 and 4.8 percent in 2021 and 2022. The general budget is expected to register deficits in 2021-2022, largely financed through domestic debt borrowing and proposed increases in taxes for the mining sector and income taxes. General government debt is expected to remain at comfortable levels and not exceed 24 percent of GDP by 2022. Poverty rates under international thresholds remain low. The poverty rate is expected to decline in 2022 to below 2019 levels as the economy rebounds. An uptick in poverty in 2020 is possible, if social policies have incomplete up-take or face implementation hurdles.

Risks and challenges

Risks to the economic outlook are heavily tilted to the downside. Geopolitical risks and the threat of potential new sanctions grew since August. An intensification of the spread of infections could worsen global growth, which could further dampen oil prices. Banks could face a significant deterioration in asset quality, profitability and capitalization. The CBR has recently prolonged the forbearance on impairment recognition until end June 2021. While these measures should ease regulatory pressure and allow banks to accumulate more profits to cover increases in problem loans, they will also delay recognition of losses. A protracted pandemic; broad vaccinations starting only in 2022; further declines in energy prices; and growing macro-financial vulnerabilities could lower GDP growth to 1 percent in 2021 and 1.2 percent in 2022.

The pandemic is estimated to result in school learning losses of more than one-third of a Russian school year, reducing marginal future earnings by about 2.5 per -cent per year over a student's working life. It has also underscored the urgency of reforms in social protection. Mitigating the impact of the COVID-19 crisis on the poor and vulnerable is attainable using the current welfare system but it needs strengthening along two dimensions: (i) its coverage of the poor must be expanded, and (ii) its generosity needs to be increased. Early projections for year 2020 end with a 12.2 percent national poverty rate (0.2 percentage points above a pre-pandemic scenario for the same year). The pre-pandemic goal of halving poverty to 6.6 percent by 2024 is unlikely to be attained. A new decree in July moves the goal of halving the poverty rate to 2030 (from a baseline official poverty rate in 2017 of 12.9 percent).

The state's presence in Russia's economy was broad and deep before the pandemic and could grow after the pandemic. Product market regulation in Russia is restrictive to competition mainly through direct state control in the economy. The government can foster competition and eliminate distortions associated with the presence of the state in the economy by: removing barriers for firms to contest markets where state-owned enterprises (SOEs) are present; limiting the procedural discretion with which companies—SOEs in particular—procure goods and services; and considering divestiture and privatization in a transparent and competitive process for SOEs in commercial sectors.

TABLE 2 Russian Federation / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	1.8	2.5	1.3	-5.0	2.8	2.4
Private Consumption	3.7	3.3	2.5	-5.7	4.2	2.0
Government Consumption	2.5	1.3	2.2	3.5	-3.0	0.0
Gross Fixed Capital Investment	4.7	0.2	1.5	-6.5	2.0	4.1
Exports, Goods and Services	5.0	5.5	-2.3	-12.9	3.9	4.6
Imports, Goods and Services	17.3	2.6	3.4	-15.2	6.4	5.4
Real GDP growth, at constant factor prices	1.8	2.5	1.4	-5.0	2.9	2.5
Agriculture	1.5	0.9	0.6	2.0	2.0	2.0
Industry	1.8	2.2	1.0	-4.5	1.9	2.7
Services	1.9	2.7	1.7	-5.7	3.5	2.4
Inflation (Consumer Price Index)	3.7	2.9	3.0	3.3	3.7	4.0
Current Account Balance (% of GDP)	2.0	6.9	3.8	0.3	0.6	0.7
Net Foreign Direct Investment (% of GDP)	-0.5	-1.4	0.5	0.0	0.2	0.3
Fiscal Balance (% of GDP)[a]	-1.5	2.9	1.9	-4.9	-2.9	-1.6
Debt (% of GDP)	15.2	13.6	13.9	20.5	22.9	23.7
Primary Balance (% of GDP)[a]	-0.6	3.8	2.7	-4.0	-1.8	-0.4
International poverty rate ($1.9 in 2011 PPP)[b,c]	0.0	0.0	0.0	0.0	0.0	0.0
Lower middle-income poverty rate ($3.2 in 2011 PPP)[b,c]	0.4	0.4	0.3	0.4	0.3	0.3
Upper middle-income poverty rate ($5.5 in 2011 PPP)[b,c]	3.8	3.7	3.4	4.0	3.6	3.3

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate. f = forecast.
(a) Fiscal and Primary Balance refer to general government balances.
(b) Calculations based on ECAPOV harmonization, using 2018-HBS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(c) Projection using neutral distribution (2018) with pass-through = 0.7 based on private consumption per capita in constant LCU.

SERBIA

Table 1	2019
Population, million	7.0
GDP, current US$ billion	51.4
GDP per capita, current US$	7378.7
School enrollment, primary (% gross)[a]	100.3
Life expectancy at birth, years[a]	75.9

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

After a couple of years of solid growth, the Serbian economy entered recession in 2020 caused by the COVID-19 pandemic. The immediate negative impact on the population and the economy was buffered by the large fiscal package of around 13 percent of GDP. As a result, there was not a substantial increase in unemployment and the GDP contraction in Q2 at 6.4 percent (y/y) was less pronounced than in neighboring countries. Poverty is estimated to be slightly higher than in 2019 but may worsen if the crisis is prolonged.

Key conditions and challenges

Serbia used most of the available fiscal space early on, when the COVID-19 pandemic started. The impact was favorable but came at a considerable fiscal cost. With the economy in recession, and public debt on a sharp rise, the space for future stimulus packages is limited. Therefore, further reforms are needed to bring the economy back to sustained growth and to secure jobs and incomes while strengthening resilience to shocks. Focus on improved business environment and governance in order to increase private investment, as well as efforts to improve the quality of infrastructure should be priorities.

Over the medium term the Serbian economy is expected to return to the pre-COVID-19 growth pattern. However, some challenges will become more urgent. First, an aging and shrinking population will leave Serbia with a smaller available labor force. Labor shortages combined with skills mismatches could significantly hurt competitiveness of the Serbian economy. Second, the impact of climate change – more frequent and severe droughts and floods - will hit agriculture and food production hard and will make the cost of infrastructure maintenance much higher. Progress on these challenges crucially depends on the pace of the EU accession process. A faster process could enable the timely adoption of structural reforms and faster and inclusive economic growth.

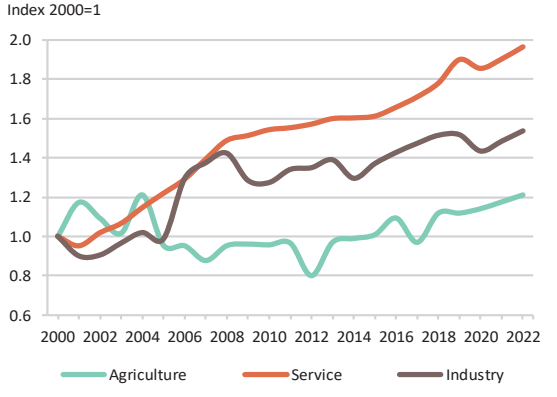
Recent developments

After robust growth of 4.2 percent in 2019, the COVID-19 pandemic caused a sudden stop in economic activity. It is estimated that GDP decreased 6.4 percent (y/y) in Q2. Sectors that were hit most are services (down 6.6 percent, y/y) and industry (down 6.2 percent, y/y).

On the expenditure side of GDP, both consumption and investment will have a large negative contribution to growth in 2020 (-2.1 and -1.4pp, respectively) while net exports will have a small positive contribution to growth (0.1pp). Both in the case of consumption and investment, the main reason for the decline is the private sector since the government sector's contribution to growth will remain broadly unchanged.

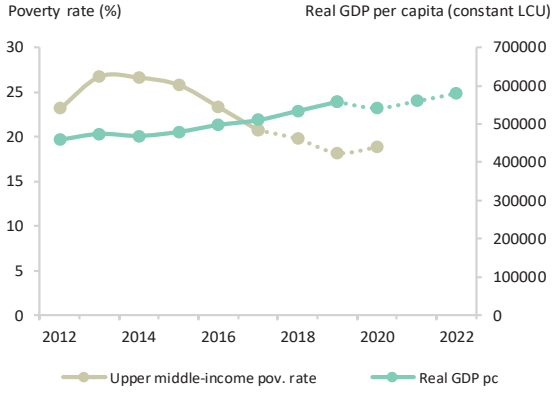
The large fiscal stimulus program, particularly the wage subsidy for all sectors, helped to temporarily protect formal jobs. However, informal employment was hurt. The Q2 employment rate among the population aged 15+ in 2020 was 48.2 percent, down from 49.2 percent in 2019 and back to 2017 levels. Given strict lockdown and containment measures in Q2 2020, inactivity increased compared to the same quarter last year, mainly because of the limited opportunities for informal workers to find jobs. The wage subsidy and cash support (including Euro 100 to all adults) helped to avert a spike in poverty for now. But better targeting of these measures could achieve similar results in terms of poverty alleviation at lower costs and allow for a longer duration of support.

FIGURE 1 Serbia / Index of real value-added by sector



Sources: WB staff calculations based on Statistics Office data.

FIGURE 2 Serbia / Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

After the consolidated general government budget showed a small deficit of 0.2 percent of GDP in 2019, the deficit is expected to deteriorate in 2020 as a result of the large fiscal stimulus program of close to 13 percent of GDP. In addition, revenues will decline as the economy slows down and numerous tax breaks are offered to businesses. Public debt is projected to increase to close to 60 percent of GDP by end-2020.

Inflation is low and stable as consumption is decreasing and despite the central bank significantly increasing the money supply. In addition, the NBS lowered its policy rate to 1.25 percent, a record low level. In 2020, the dinar was broadly stable against the euro, thanks to significant interventions by the NBS on the foreign exchange market. The banking sector's performance remains robust and NPLs have not increased. On the external side, the trade deficit increased further in the first half of the year as exports fell more than imports, although the CAD remained broadly the same compared to the same period in 2019.

Outlook

The COVID-19 pandemic and the related containment measures are taking a heavy toll on the Serbian economy. It is expected to enter recession in 2020 with a projected decrease in real GDP of 3 percent. Recovery will start in 2021, but at a modest pace. Investment will only slowly return to previous levels, and consumption will be subdued as the real impact on labor markets (both employment and wages) will be felt only later in the year or in early 2021. Over the medium term (2022-2023), growth will return to its previous trajectory. This medium-term outlook crucially depends on international developments (including the impact of COVID-19), the pace of structural reforms and political developments. Most importantly, Serbia needs to work further on removing bottlenecks to private sector growth stemming from the poor governance environment and red tape.

The adverse impacts of the pandemic are expected to lead to a small uptick in poverty in 2020, with significant downside risks. After several years of continuous decline, poverty (at the US$5.5/day middle-income-country poverty line) is estimated to increase slightly from 18.2 percent in 2019 to 18.9 percent in 2020.

Risks are associated primarily with the length and depth of the crisis caused by the COVID-19 pandemic and implementation of containment measures. If the crisis continues as the temporary effect of the policy package wanes, workers and families may suffer later in 2020 and early 2021. Poor and vulnerable households, who tend to depend more on self-employment and less secure jobs, may take longer to regain their income during the subsequent economic recovery.

In the medium term, regional disputes and slow progress with the EU accession process could affect investment sentiment and therefore delay investment projects in infrastructure and other sectors. Labor market challenges limit the scope for robust welfare improvements and could be exacerbated by a significant brain-drain.

TABLE 2 Serbia / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	2.0	4.4	4.2	-3.0	2.9	3.3
Private Consumption	1.9	3.1	3.1	-3.1	3.1	3.7
Government Consumption	3.3	3.7	8.7	11.3	-4.5	3.5
Gross Fixed Capital Investment	7.3	17.8	11.2	-12.3	10.4	4.1
Exports, Goods and Services	8.2	8.3	8.5	-10.2	7.8	8.5
Imports, Goods and Services	11.1	11.6	9.5	-8.7	6.9	8.0
Real GDP growth, at constant factor prices	2.0	4.5	4.2	-3.0	2.9	3.3
Agriculture	-11.2	15.2	0.0	2.0	3.0	3.0
Industry	3.3	2.8	0.2	-5.5	3.5	3.5
Services	3.2	4.1	6.8	-2.4	2.6	3.2
Inflation (Consumer Price Index)	3.1	2.0	2.2	1.9	2.5	2.8
Current Account Balance (% of GDP)	-5.3	-5.2	-6.9	-6.4	-6.5	-6.7
Net Foreign Direct Investment (% of GDP)	4.4	3.8	6.3	4.7	5.1	5.8
Fiscal Balance (% of GDP)	1.4	0.6	-0.2	-7.6	-2.1	-0.5
Debt (% of GDP)	58.7	55.6	52.9	59.6	58.5	56.0
Primary Balance (% of GDP)	3.9	2.7	1.4	-6.6	-0.8	1.6
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]		19.8	18.2	18.9		

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.

(a) Calculations based on ECAPOV harmonization and original 201 1 PPP, using 201 3-EU-SILC, 201 6-EU-SILC, and 201 7-EU-SILC. Actual data: 201 7. Nowcast: 201 8-201 9. Forecast are from 2020 to 2022.
(b) Projection for 2018 using point-to-point elasticity (201 3-201 6) with pass-through = 0.4 based on GDP per capita in constant LCU, for 201 9-2020 based on nowcasting and simulation of poverty impacts and policy responses.

TAJIKISTAN

Table 1	2019
Population, million	9.3
GDP, current US$ billion	8.1
GDP per capita, current US$	873.5
School enrollment, primary (%gross)[a]	100.8
Life expectancy at birth, years[a]	70.9

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) WDI for School enrollment (2017); Life expectancy (2018).

Tajikistan is experiencing its slowest economic growth in two decades. As the outbreak of COVID-19 slashed external and domestic demand, the authorities responded with fiscal and monetary stimuli to support the economy. Amendments to the 2020 state budget doubled expenditures on healthcare and expanded social transfers. We project growth to slow to 1.6 percent in 2020 as a whole and the pace of poverty alleviation to weaken.

Recent developments

In the first half of 2020, real GDP growth fell to 3.5 percent from 7.5 percent in 2019 as a whole. The substantial hit to the economy came in the second quarter of the year on the backdrop of expanding national lockdown measures and associated disruptions in trade and transport activities. A sharp drop in migrant remittances curtailed domestic demand, as did cuts to government investment outlays. Across sectors, hospitality and tourism experienced the deepest hit from the pandemic.

According to official estimates, the national poverty rate fell to 26.3 percent in 2019, with an extreme poverty rate of 10.7 percent. However, the slowdown in the economy in 2020 likely adversely impacted both poor and non-poor households. At the peak of the COVID-19 pandemic, two out of five households reported reducing their consumption of food, which is far above the 2019 level. Moreover, 20 percent of families were not able to obtain medical care, and only 5 percent received any official aid through August 2020, according to L2T Survey.

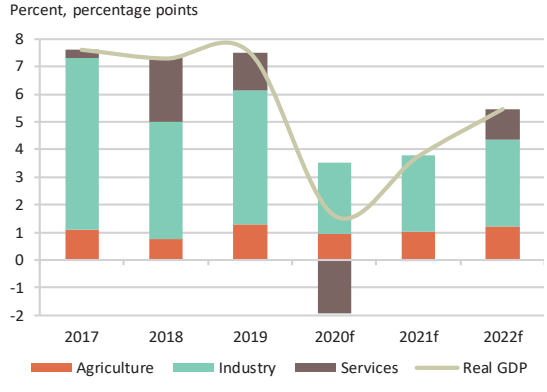
Although net exports grew, lower remittances – down almost 15 percent from a year earlier in the first half of 2020 - led to the deterioration of the overall external position in 2020 H1. The trade balance benefited from surging gold price and import contraction, primarily showing up in consumer goods.

Consumer price inflation eased to 8.4 percent (y/y) from 8.7 percent in June 2019. Despite weaker household demand and lower prices for imported fuel, the pass-through effect from the 9 percent (y/y) currency depreciation through mid-2020 limited the slowdown in inflation. To support economic activity, the central bank cut policy rates and instructed commercial banks to restructure loans and waive penalties for overdue payments.

The banking system has capital cushion at the rate of 19.7 percent, which is above the 12 percent required minimum threshold. However, the ongoing pandemic has magnified the risk of possible borrower defaults, and the current level of capitalization might not be adequate to absorb potential losses from non-performing loans, which reached 31 percent by mid-2020.

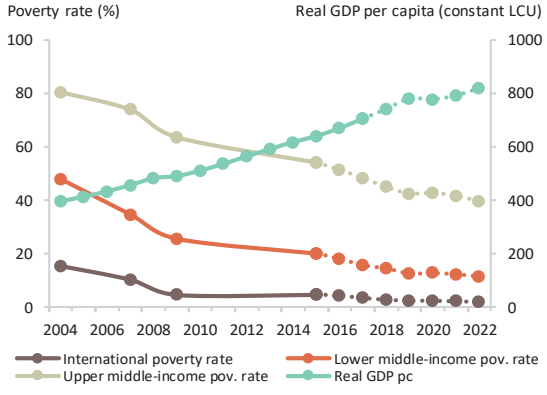
The fiscal deficit amounted to 2.3 percent of GDP in the first half of 2020, according to preliminary estimates. Tax collections fell below the targeted plans, resulting in cuts and scrutiny to non-priority current and capital expenditures. To ensure financing of the protected budget outlays, the authorities sold gold reserves. The government also amended the state budget for 2020 and introduced different fiscal benefits to support the economy and to safeguard the socially vulnerable population. These include tax and customs duty reliefs to the private sector and expansion of the social assistance programs such as one-off emergency COVID-19 transfers with the support from the donor community. The targeted social assistance (TSA) program was expanded nationwide since July 1, 2020, and annual amounts are expected to increase from the current TJS 440 to TJS 464 (roughly US$ 45) in the Fall

FIGURE 1 Tajikistan / Real GDP growth and sector contributions to growth



Sources: TajStat, World Bank staff estimates.

FIGURE 2 Tajikistan / Actual and projected poverty rates and real GDP per capita



World Bank. Notes: see table 2.

of 2020. Planned utility tariff increases were postponed. Despite difficulties in tax collections, the government honored its commitment to increase public sector wages and pensions by 10-15 percent since September 1, 2020.

Outlook

Real GDP growth is likely to slow to 1.6 percent in 2020 as consumption and investment remain anemic, and services continue suffering from the containment measures. We project growth prospects to improve in 2021-22 on the assumption that a vaccine will be found, and the hold of the pandemic will be loosened. The external current account deficit will likely widen sharply in 2020 and then gradually narrow over the medium term. The challenging business environment will continue hampering foreign investment.

The amended state budget envisages a fiscal deficit of 5.8 percent of GDP in 2020. The higher deficit is planned to be financed through external borrowing and grants provided by the IFIs to contain the impact of the pandemic and shore up healthcare and social systems. Budgetary allocations to healthcare are expected to double to about 4 percent of GDP, though coming at the cost of some other sectors. Tajikistan's participation in the debt service suspension initiative is expected to release some immediate pressures on the state budget. The fiscal position is forecast to improve starting in 2021 to ensure the sustainability of government debt over the medium term.

Risks and challenges

Risks to the outlook are primarily shaped by the progress made in finding a vaccine or a cure for COVID-19 and the restoration of remittances and external trade.

The economic recovery will be stifled if the outbreak resurges, and movement restrictions will be reinforced. Heavy reliance on remittances inflows and a small basket of export commodities continue to impose a high external risk to the Tajik economy. Domestically, the country faces the challenge of addressing inefficient SOEs and carrying out much-needed structural reforms to revive the private sector. Without a sufficiently broad tax base, the authorities will continue struggling to mobilize enough revenues to finance social outlays and strategic infrastructure projects. The fiscal space has been largely exhausted, and a high risk of debt distress suggests avoidance of non-concessional borrowing.

The establishment of a new state-owned bank aimed at becoming the vehicle for subsidized SME lending may ultimately distort sound market practices and result in inefficient allocation of scarce budgetary and financial resources. The burden on the banks from the pandemic induced weakening of activity may also undermine the health of the financial sector.

On the other hand, the macroeconomic environment is likely to benefit from the envisaged reforms in the tax system and rehabilitation plans in the energy and financial sectors.

To support vulnerable households, the government needs to increase the TSA amounts and index them so that inflation does not wash away the purchasing power of provided assistance.

TABLE 2 Tajikistan / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	7.1	7.3	7.5	1.6	3.7	5.5
Private Consumption	0.0	7.2	7.1	-2.4	1.8	5.8
Government Consumption	2.5	3.8	3.5	2.3	2.8	3.0
Gross Fixed Capital Investment	20.3	7.9	-6.4	-6.2	8.6	12.5
Exports, Goods and Services	0.0	2.2	3.5	-2.0	1.2	1.5
Imports, Goods and Services	0.0	3.3	2.2	-1.0	1.4	1.8
Real GDP growth, at constant factor prices	9.8	7.8	8.7	1.6	3.7	5.5
Agriculture	6.8	4.0	7.1	4.1	4.5	5.3
Industry	20.5	11.8	13.6	6.1	6.4	7.2
Services	2.9	6.3	4.9	-4.6	0.1	3.4
Inflation (Consumer Price Index)	7.3	3.9	8.0	10.0	8.0	8.0
Current Account Balance (% of GDP)	2.1	-5.0	-2.3	-6.1	-4.3	-3.6
Net Foreign Direct Investment (% of GDP)	-0.2	3.3	2.3	1.2	1.8	2.3
Fiscal Balance (% of GDP)	-6.0	-2.8	-2.7	-5.8	-3.3	-2.8
Debt (% of GDP)	50.4	47.9	45.2	51.0	49.2	47.0
Primary Balance (% of GDP)	-5.5	-1.6	-1.3	-4.4	-2.0	-1.0
International poverty rate ($1.9 in 2011 PPP)[a,b]	3.6	3.0	2.6	2.6	2.4	2.3
Lower middle-income poverty rate ($3.2 in 2011 PPP)[a,b]	15.8	14.6	12.7	12.9	12.4	11.5
Upper middle-income poverty rate ($5.5 in 2011 PPP)[a,b]	48.3	45.1	42.6	42.8	41.8	39.6

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2015-HSITAFIEN. Actual data: 2015. Nowcast: 2016-2019. Forecast are from 2020 to 2022.
(b) Projection using neutral distribution (2015) with pass-through = 0.87 based on GDP per capita in constant LCU.

TURKEY

Table 1	2019
Population (mid-year), million	82.6
GDP, current US$ billion	761.8
GDP per capita, current US$	9225.4
Upper middle-income poverty rate ($5.5)[a]	8.5
Gini index[a]	41.9
School enrollment, primary (% gross)[b]	93.2
Life expectancy at birth, years[b]	77.4

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), 2011PPPs.
(b) WDI for School enrollment (2017); Life expectancy (2018).

Turkey, like the rest of the world, has been enveloped by COVID-19. Timely, targeted measures succeeded in controlling the pandemic in the early stages, but a return to business as usual has led to rising cases. GDP is expected to decline by 3.8 percent this year. Aggressive monetary loosening has generated a large credit boom and added to depreciation and inflationary pressures. Though there are signs of an economic rebound in Q3, Turkey has less policy space now than before COVID-19 to respond to another shock. Poverty is projected to increase, especially amongst informal workers and households outside the social security net.

Key conditions and challenges

In addition to dealing with the fallout of COVID-19, Turkey is also facing its perennial challenge of pronounced economic volatility, a product of external shocks and destabilizing economic policies. Inflation, historically high compared to selected emerging market and developing economies, rose further over the last year, as have inflationary expectations, while policies have prioritized growth over stability. Economic volatility and low economic policy predictability are increasingly the biggest constraints to unlocking medium-term growth, as they undermine firms' ability to plan and undertake productive long-term investments.

The financial sector has long been a growth enabler for Turkey. But the operating environment for banks has deteriorated since 2018, and banking sector vulnerabilities have given rise to financial stability risks, heightened by COVID-19.

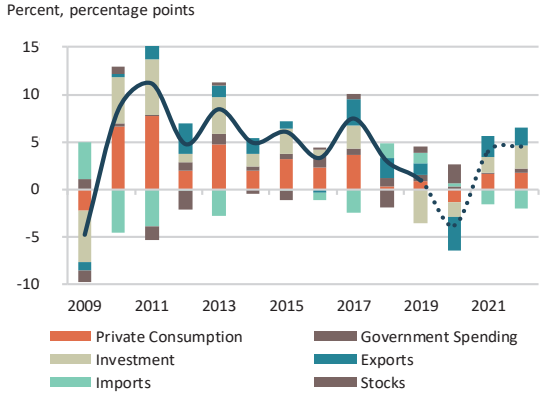
The financial system suffers from a chronic shortage of long-term finance, especially in local currency. Overreliance on external borrowing for longer-term finance along with currency volatility and high corporate leverage has exposed the banking system to imbalances, including open FX positions and rising distressed assets, despite high capital adequacy.

Recent developments

GDP contracted 10 percent in Q2 yoy as Turkey faced the full effect of COVID-19. Beginning mid-March, cases rapidly reached 5,000 a day before the prompt introduction of targeted measures brought new cases down to under 1,000 a day by June. But with a return to business-as-usual, cases are rising again. A targeted fiscal expansion supported furloughed workers, firms, households, and health services, with the 12-month central government deficit reaching 3.4 percent of GDP in June. Poverty is nevertheless expected to increase moderately and households who lost jobs or stopped actively seeking work will be the worst affected. In the first half of the year, the economy lost 1.8 million jobs. From a surplus last year, the current account tumbled back into deficit as exports were decimated. The deficit was US$20 billion (3.4% of GDP) in H1 2020 as exports fell 21 percent yoy while imports declined just 4 percent.

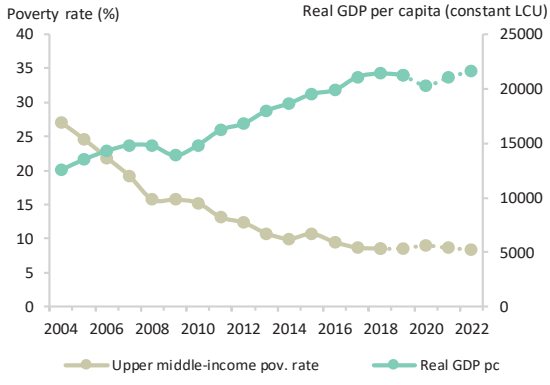
In response to the COVID19 shock, the authorities resorted to aggressive monetary loosening. Policy interest rates, falling since mid-2019, turned negative in real terms. The Central Bank increased currency in circulation by 60percent yoy and used other liquidity measures to boost money supply. Credit, which grew by 29 percent yoy by August, was further supported by loosening of macroprudential regulations and extensions of government credit guarantees. The Banking Regulatory and Supervision Agency (BRSA) introduced forbearance measures that relaxed the definitions of NPLs and

FIGURE 1 Turkey / Real GDP growth and contributions to real GDP growth



Source: Turkstat and World Bank staff calculations.

FIGURE 2 Turkey /Actual and projected poverty rates and real GDP per capita



Source: World Bank. Notes: see Table 2.

Stage-2 loans, making an assessment of banks' true asset quality challenging. Despite rapidly expanding credit, private consumption and investment, overcome by declining incomes and rising uncertainty, fell by 8.6 percent and 6.1 percent, respectively, in the second quarter.

Global uncertainty and domestic monetary loosening led to steady capital outflows, amounting to more than US$20bn (net) between March and June. These were offset by an additional US$10bn swap line with the Qatar Central Bank and use of Central Bank reserves. Even so, the Turkish Lira depreciated by 29 percent against the US$ between January and the end of August. The loose monetary stance and depreciation contributed to persistence of high inflation, reaching 11.8 percent yoy in August.

Outlook

While the economy seems to be rebounding from its low point this year, new outbreaks of COVID-19 in Turkey and major markets could easily reverse progress. Over the rest of this year, the economy is expected to slowly rebound, but GDP is still projected to decline by 3.8 percent in 2020, led by the massive deterioration in the current account, lower consumption on the demand side, and declines in both services and manufacturing output. The pace of recovery beyond 2020 will depend on the duration of the pandemic, the availability and distribution of a vaccine, and restoration of international trade and investment flows. In a baseline in which a second wave does not materialize and the pandemic is brought under control in late 2020 or in early 2021, economic growth would recover to 4 percent in 2021 and 4.5 percent in 2022. A downside scenario could see growth of just 1 percent next year.

Monetary policy needs to sharpen its focus on price and financial stability, with a return of real policy rates to positive territory. A 200 basis point rate rise in September marks a move in that direction, while the New Economic Plan focuses on stability and maps out both central and downsides scenario for the coming years. Inflation is expected to average nearly 12 percent over 2020 and remain around 10 percent in 2021 and 2022. The current account is expected to remain in deficit over these years as exports struggle to fully recover while global markets continue to suffer from weaker demand. The general government deficit for 2020 is projected to increase to 5.4 percent of GDP, but as temporary tax reductions and increased government spending on transfers to households are reined in, to fall back to around 3.0 percent in 2021 and 2022.

Most regulatory forbearance measures are aligned with global standards but those related to distressed asset classification, capital adequacy and credit growth call for a careful assessment of banks' financial soundness. The deteriorating economic environment will negatively impact banking sector profitability and capital buffers.

Turkey's external risk profile is heightened as gross international reserves have fallen and are now scant enough to cover one year's national debt service, with much of these reserves borrowed from the banking sector. This leaves the country with little space to manage exchange rate volatility in the event of a new external financing shock. Despite the banking sector's FX buffers they are also vulnerable to central bank FX reserves via swaps and required reserves.

Loss of income and employment, particularly in sectors like retail, hospitality, transport and construction, where many poor and vulnerable households work, are expected to raise the incidence of poverty, reversing a long downward trend. The poverty rate is projected to rise to 9.0 percent by end 2020, despite various income support measures, and hover around 8.5 percent in 2021 and 2022. But challenges of falling employment and a significant drop of 4 percentage points in labor participation (around 1,6 million workers) raise concerns about the pace and inclusiveness of the economic recovery.

TABLE 2 Turkey / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	7.5	3.0	0.9	-3.8	4.0	4.5
Private Consumption	5.9	0.5	1.6	-2.4	2.8	3.0
Government Consumption	5.0	6.6	4.4	2.3	0.6	2.8
Gross Fixed Capital Investment	8.3	-0.3	-12.4	-6.0	7.0	9.5
Exports, Goods and Services	12.4	9.0	4.9	-14.0	9.5	8.0
Imports, Goods and Services	10.6	-6.4	-5.3	-1.5	7.5	9.0
Real GDP growth, at constant factor prices	7.9	3.2	1.1	-3.8	4.0	4.5
Agriculture	4.9	2.1	3.7	2.0	2.0	2.0
Industry	9.3	0.5	-3.0	-4.0	4.5	3.5
Services	7.6	4.8	2.8	-4.4	4.0	5.3
Inflation (Consumer Price Index)	11.1	16.3	15.2	11.5	10.0	9.5
Current Account Balance (% of GDP)	-4.7	-2.7	1.2	-3.7	-4.3	-5.0
Net Foreign Direct Investment (% of GDP)	1.0	1.2	0.8	0.7	1.0	1.1
Fiscal Balance (% of GDP)	-1.8	-2.4	-2.9	-5.4	-3.0	-2.9
Debt (% of GDP)	28.0	30.2	32.5	40.3	40.6	39.1
Primary Balance (% of GDP)	0.1	-0.2	-0.4	-2.1	0.5	0.3
Upper middle-income poverty rate ($5.5 in 2011 PPP) [a,b]	8.7	8.5	8.6	9.0	8.7	8.4

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.

(a) Calculations based on ECAPOV harmonization, using 2011-HICES and 2018-HICES. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(b) Projection using point-to-point elasticity (2011-2018) with pass-through = 1based on GDP per capita in constant LCU.

UKRAINE

Table 1	2019
Population, million	44.3
GDP, current US$ billion	139.1
GDP per capita, current US$	3140.8
International poverty rate ($19)[a]	0.0
Lower middle-income poverty rate ($3.2)[a]	0.4
Upper middle-income poverty rate ($5.5)[a]	3.4
Gini index[a]	26.1
School enrollment, primary (%gross)[b]	99.0
Life expectancy at birth, years[b]	71.6

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent value (2018), 2011PPPs.
(b) WDI for School enrollment (2014); Life expectancy (2018)

A significant contraction is expected for 2020 as a result of COVID -19. However, domestic demand is rebounding and Ukraine has entered the crisis in better macroeconomic condition than in previous crises due to prudent macroeconomic management over the past several years. Financing needs remain substantial over the medium term owing to a heavy debt redemption profile. Going forward, it will be critical to maintain reform momentum to anchor investor confidence and support economic recovery.

Recent developments

Ukraine's economy was hit hard by the COVID-19 outbreak during 2020. Overall, GDP declined by 11.4 percent YoY in the second quarter bringing 1H20 GDP decline to 6.5 percent YoY. However, the negative impact appears to be less severe than initially anticipated as the full-scale lockdown lasted only from mid-March to early-May and has been replaced by an adaptive quarantine that has enabled many services (except passenger transport) to return to normal functioning. Domestic demand was also supported by a recovery in real wages (up 4.8 percent YoY in June, versus -0.4 percent in April), and continued remittance inflows. On the supply side, metals and mining, and manufacturing have been significantly impacted by weak external demand.

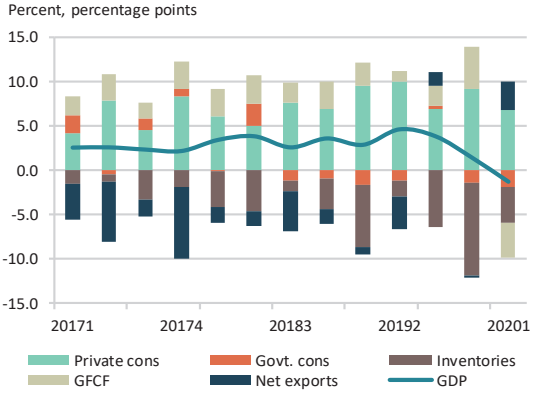
Improving terms of trade (due to lower energy prices and higher iron prices) and import compression (amidst slower investment activity) have contributed to a CA surplus of 4.8 percent of FY GDP in Jan-Jul Remittances have been relatively resilient, down 10 percent YoY in H1, while private capital inflows have also recovered following a brief period of limited outflows in the second quarter This has helped to reduce external financing needs and rebuild international reserves, which at US$28.5bn at end-July, amounted to about 4.6 months of next year's imports.

Since 2019, tight monetary policy, together with controls over public sector wages and current expenditures have helped to reduce inflation from over 9 percent in 2018 to 2.4 percent in July 2020, below the central bank's 5 percent inflation target, enabling it to cut its key policy rate by more than 10 percentage points to 6 percent in June 2020. With inflation expectations averaging 6.7 percent in August, real interest rates are close to zero and further easing may contribute to inflation pressures in light of more accommodative fiscal policy. Credit demand contracted in Q2, reflecting the impact of the COVID-19 shock. Banking liquidity remains supported by robust growth in deposits. At 25 percent, (Tier-2) capital buffers are well above regulatory minimums, while NPL coverage ratios amounted to 96.8 percent in Q2.

Fiscal pressures in 2020 arise from declining revenues, additional spending related to COVID-19 support measures, and large debt repayments coming due. As a result, a supplementary budget was passed in April which targeted a budget deficit of 7.6 percent of GDP (versus 2.5 percent in the original budget). However, H1 fiscal outcomes indicate an almost balanced budget reflecting low expenditure execution and better-than-expected revenue performance, and a deficit outturn of 5 percent of GDP is anticipated in 2020. Significant financing needs during 2020 have been alleviated by official EU and IMF financing of USD2.7bn, plus the issuance of USD1.3bn 12-year Eurobond in July. Domestic financing remains sufficient to cover domestic debt repayment needs.

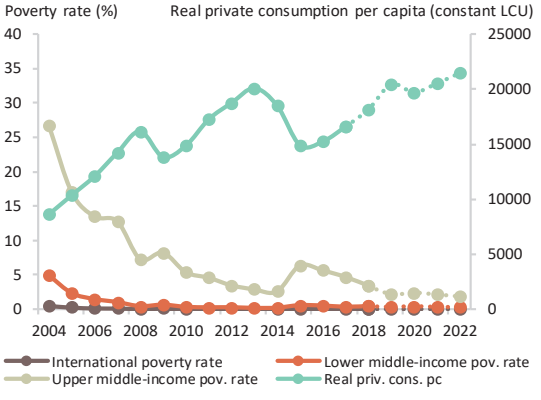
Moderate poverty (World Bank's national methodology for Ukraine) declined from a

FIGURE 1 Ukraine / Real GDP Growth and contributions to real GDP growth



Sources: UKRSTAT, World Bank.

FIGURE 2 Ukraine / Actual and projected poverty rates and real private consumption per capita



Source: World Bank. Notes: see table 2.

peak of 26.9 percent during the crisis of 2015 to an estimated 17.8 percent in 2019 due to reduction of unemployment rate to 8.6 percent and 9.8 percent growth in real wages. Disposable income grew by 6.6 percent in 1Q20, but the COVID-19 outbreak is likely to negatively impact employment and real wages and create conditions for an increase in poverty rates.

Outlook

The economy is expected to contract by 5.5 percent in 2020, as H1 weakness is only partly offset by a recovery in domestic demand in H2 and positive contributions from net exports. The baseline assumes some re-imposition of containment measures in response to a "second wave" (given that daily reported infections are still increasing) and a slower pace of reforms. Ukraine still expects to raise USD2.9bn in additional official financing (from the IMF, WB and EU) in the remainder of the year. If these funds are delayed, the Government will have to contain spending or borrow more domestically.

Going forward, growth is expected to remain modest at 1.5 percent in 2021, rising to about 3.7 percent by 2023. The outlook depends on the duration of the health crisis and reforms to address bottlenecks to investment and safeguard macroeconomic sustainability. With the recent loss of reform momentum, fixed investment is expected to reach its pre-crises level only at the end of 2022 and net exports (as import demand revives but the pace of export diversification remains slow) to continue to drag on growth in 2021.

Poverty based on the international US$5.5 a day poverty line is low in Ukraine and is expected to increase by 0.2pp in 2020. At higher thresholds, the poverty increase will be larger, with poverty based on the World Bank's national poverty line for Ukraine expected to increase by 2pp in 2020. Sustainable economic growth is needed to reduce poverty rates in the medium run.

Risks and challenges

Macro-fiscal risks relate to substantial funding needs over the medium term, with debt repayment needs estimated at above 7 percent of GDP in 2021 and 2022. Increasing global risk aversion could heighten financing pressures and costs of funding. The Government's initiative to increase minimum wages by 37 percent in 2021, if adopted, could push the fiscal deficit to over 6 percent of GDP and increase total financing needs to over 13 percent of GDP in 2021. Financing risks will remain high in the medium term, thus containing current expenditure pressures is needed to keep the fiscal deficit at more sustainable level, and also to anchor inflation expectations.

Increases in wages in the public sector will also need to be consistent with the direction of broader health and education reforms and correspond with growth in labor productivity. Strengthening safety nets is a priority, in particular through scaling up the targeted Guaranteed Minimum Income program.

Strong economic recovery remains constrained by low fixed investment, which has averaged 17.6 percent of GDP over the last five years. Reviving investment depends on progress with reforms that address: structural weaknesses in the financial sector (including limited progress in resolving non-performing loans); market distortions from the lack of an agricultural land market, an anticompetitive environment, and large numbers of SOEs, and macroeconomic vulnerabilities.

Finally, political and governance risks are high and increasing due to the deep-rooted influence of powerful vested interests that could derail or reverse ongoing reforms. Continued adherence to anti-corruption reforms and prudent macroeconomic policies is necessary to anchor investor confidence.

TABLE 2 Ukraine / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	2.5	3.3	3.2	-5.5	1.5	3.1
Private Consumption	8.4	8.9	11.9	-7.3	3.2	4.1
Government Consumption	3.3	0.1	-5.0	3.0	-1.0	0.0
Gross Fixed Capital Investment	18.4	14.3	14.2	-15.0	8.2	5.2
Exports, Goods and Services	3.6	-1.6	6.7	-4.5	1.7	3.1
Imports, Goods and Services	12.8	3.2	6.3	-9.8	6.6	5.0
Real GDP growth, at constant factor prices	2.6	3.3	3.2	-5.7	1.3	3.0
Agriculture	-2.5	7.8	1.3	1.0	3.5	4.5
Industry	2.1	2.0	-2.0	-4.0	2.0	4.0
Services	3.7	3.0	5.4	-7.5	0.6	2.3
Inflation (Consumer Price Index)	13.7	9.8	4.1	4.8	5.0	5.0
Current Account Balance (% of GDP)	-2.1	-3.2	-0.9	1.5	-1.9	-2.2
Net Foreign Direct Investment (% of GDP)	2.1	1.9	2.1	2.1	2.5	2.7
Fiscal Balance (% of GDP)	-2.3	-2.0	-2.1	-5.0	-3.0	-3.0
Debt (% of GDP)	71.9	60.6	50.4	62.0	58.9	56.8
Primary Balance (% of GDP)	1.5	1.4	1.0	-1.3	1.6	1.3
International poverty rate ($1.9 in 2011 PPP) [a,b]	0.0	0.0	0.0	0.0	0.0	0.0
Lower middle-income poverty rate ($3.2 in 2011 PPP) [a,b]	0.3	0.4	0.2	0.3	0.2	0.2
Upper middle-income poverty rate ($5.5 in 2011 PPP) [a,b]	4.6	3.4	2.1	2.3	2.1	1.8

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.
(a) Calculations based on ECAPOV harmonization, using 2018-HLCS. Actual data: 2018. Nowcast: 2019. Forecast are from 2020 to 2022.
(b) Projection using neutral distribution (2018) with pass-through = 0.87 based on private consumption per capita in constant LCU.

UZBEKISTAN

Table 1	2019
Population, million	33.6
GDP, current US$ billion	57.9
GDP per capita, current US$	1724.5
School enrollment, primary (% gross)[a]	104.2
Life expectancy at birth, years[a]	71.6

Source: WDI, Macro Poverty Outlook, and official data.
Notes:
(a) Most recent WDI value (2018).

The COVID-19 crisis in Uzbekistan has almost entirely extinguished GDP growth in 2020, and increased poverty levels for the first time in over two decades. Persistent COVID-19 disruptions have also tempered prospects for a quick recovery in 2021. Despite these challenges, Uzbekistan's outlook remains positive as reforms continue to shift the economy towards greater resource efficiency and private sector growth. As COVID-19 conditions ease over the medium-term, a rebound in economic growth and remittance incomes will contribute to further poverty reduction.

Key conditions and challenges

An effective transition—from state-driven to a competitive private sector-led market economy—is the most important challenge for Uzbekistan. Although the old state-led model generated high growth (averaging 6.7 percent between 2000-2019) and supported near-elimination of extreme poverty, these gains did not translate into sufficient job creation, labor productivity, and private sector growth. Uzbekistan's labor share of income is relatively low (about 46 percent in 2019), and 9.5 percent of the population still lives below the World Bank's lower middle-income poverty line ($3.2 a day, PPP 2011 adjusted). To tackle these challenges, ambitious reforms are being implemented.

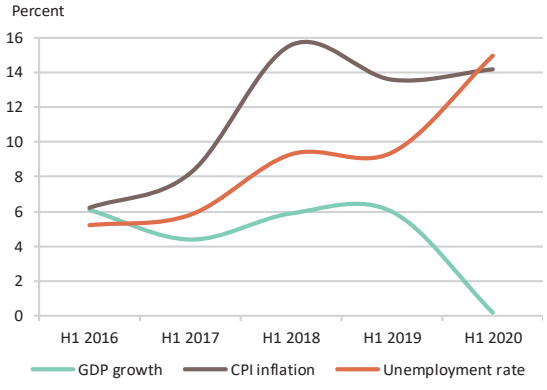
Since 2017, reforms have been enacted to remove controls in the foreign exchange market, liberalize prices, and reduce onerous business environment and export restrictions. The next phase of reforms is now being implemented to liberalize factor markets, agriculture, and banking, and to streamline management of state-owned enterprises. These reforms require increased transparency, a level playing field for the private sector and stronger safety nets to protect vulnerable citizens from adjustment costs. A key measure of reform success will be an increasing level of private sector participation in growth. Addressing human capital constraints—in education and mismatches in workforce skills—will also be important. The human and economic impact of the COVID-19 crisis will create additional challenges for the transition process. The persistence of global trade and financial market disruptions, and domestic virus containment measures, are expected to sharply lower growth and increase poverty levels in 2020. These adverse outcomes are expected to continue into 2021, or until the virus can be effectively contained.

Recent developments

GDP growth in the first half of 2020 was nearly zero, compared with growth of 5.8 percent in the first half of 2019. Higher gold production and favorable agricultural conditions helped offset a sharp fall in industry and services activity. A cumulative increase of about 17 percent in social payments and a 10 percent increase in minimum wages since February have helped preserve private consumption despite a 19 percent decline in remittances. Investment in fixed capital decreased by 12.8 percent in the first half of 2020.

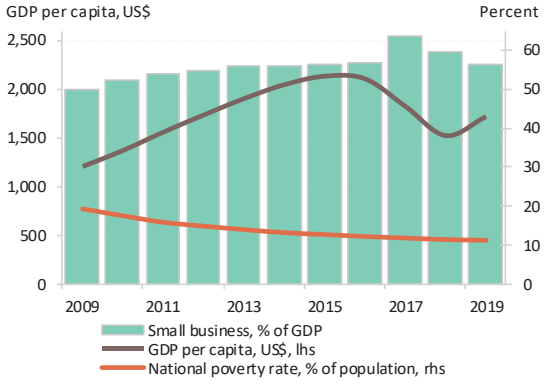
Lower remittances and a wider trade deficit widened the current account deficit to 7.7 percent of GDP in the first half of 2020. Exports fell by 22.6 percent in the same period, due to supply chain disruptions and a fall in key commodity prices (natural gas, metals). Imports fell by 15 percent due to a sharp fall in machinery and capital imports. Increased external borrowing from multilateral and bilateral partners helped finance the higher current account deficit.

FIGURE 1 Uzbekistan / GDP Growth, Inflation, Unemployment



Source: Uzbekistan official statistics for the first half of each year.

FIGURE 2 Uzbekistan / Poverty, GDP per Capita, and Small Business Development



Source: Uzbekistan official statistics. Due to the lack of data access, the Bank cannot validate the official figures. Note: The national poverty line is based on a minimum food consumption norm of 2,100 calories per person per day. Both the national poverty line and welfare aggregate exclude non-food items.

Lower revenue collections and large anti-crisis spending contributed to a fiscal deficit of about 5 percent of GDP in the first half of 2020. About 2.5 percent of GDP was directed to additional health spending, increases in low-income allowances, support to enterprises, and an expansion of public works. Despite a large revenue increase from higher gold exports, weaker economic conditions and tax deferrals contributed to a two-percentage point year-on-year decline in revenues as a share of GDP.

Annual inflation was 11.6 percent in August 2020. The effects of administered price increases and a depreciating exchange rate were moderated by lower seasonal food prices and the effects of slower credit expansion. In response to easing inflationary conditions, the central bank twice cut its policy rate in 2020, from 16 to 15 percent in April, and to 14 percent in September.

Banking sector credit and liquidity risks have increased significantly due to the COVID-19 crisis. Anti-crisis credit lines to firms contributed to an increase in credit to the economy by 18 percent during January-August 2020. The capital adequacy ratio fell to 19.4 percent in August from 23.5 percent at end-2019 and reduced the ratio of liquid to total assets to 10.3 percent in August from 11.3 percent at end-2019. Non-performing loans have also increased to 2.4 percent in August from 1.5 percent at end-2019, although the increase was tempered by anti-crisis loan deferments. On balance, the financial system remains well-capitalized to absorb potential credit shocks as temporary anti-crisis measures are eventually lifted.

The unemployment rate increased sharply from 9.4 percent in the first quarter of 2020 to 15 percent in the second quarter. The share of households with at least one working member fell by 40 percentage points in April. Although most of this was recovered in May, new lockdown measures have stalled employment recovery. Newly posted online job advertisements were down 74 percent year-on-year in August.

Outlook

The lifting of lockdowns in the third quarter, robust agricultural production, and a partial recovery of remittances will result in stronger economic activity in the second half of 2020 than in the first. Annual GDP growth is projected to be between 0.4-0.8 percent in 2020, considerably lower than in 2019. The pace of the recovery will depend on the duration of the pandemic, access to vaccines, and the price of international trade and investment flows. Assuming limited further lockdowns, an easing of the pandemic, and a broader global economic recovery, GDP growth is projected between 4.8-5.0 percent in 2021. Inflation will moderate over the medium-term but remain elevated by further price reforms.

The current account deficit is expected to be around 6 percent of GDP in 2020 due to a recovery in remittances and a lower trade deficit. The current account deficit is projected to remain at this level over the medium-term as imports of machinery and equipment resume post-COVID-19. This deficit is expected to be financed by higher public borrowing and gradually by rising foreign investment. The projected fiscal deficit of 7.5 percent of GDP in 2020 will moderate in 2021-22 as anti-crisis spending is gradually reduced and revenues recover. The deficit is projected to decline over the medium-term. The wider deficit in 2020 and the medium-term will be financed by increased external borrowing, and public external debt will increase to about 35 percent of GDP in 2020, Although debt has increased sharply since 2017, it is expected to stabilize over the medium-term, with most of the increase linked to a scale-up in multilateral support for the reforms.

TABLE 2 Uzbekistan / Macro poverty outlook indicators (annual percent change unless indicated otherwise)

	2017	2018	2019	2020 e	2021 f	2022 f
Real GDP growth, at constant market prices	4.5	5.4	5.6	0.6	4.8	5.3
Private Consumption	1.3	3.8	5.4	1.1	5.0	5.4
Government Consumption	6.1	3.7	5.5	12.8	2.1	2.2
Gross Fixed Capital Investment	7.1	18.1	33.9	-5.4	7.0	10.1
Exports, Goods and Services	1.3	10.7	10.9	-4.6	8.6	10.2
Imports, Goods and Services	2.2	26.8	47.3	-7.3	9.8	13.9
Real GDP growth, at constant factor prices	4.5	5.4	5.6	0.6	4.8	5.3
Agriculture	1.2	0.3	2.5	2.8	3.1	3.3
Industry	5.4	11.5	8.9	-1.8	4.0	4.3
Services	6.3	5.2	5.5	0.8	6.4	7.2
Inflation (Consumer Price Index)	12.5	17.5	14.5	12.9	10.6	8.9
Current Account Balance (% of GDP)	2.5	-7.1	-4.2	-6.1	-5.2	-4.3
Fiscal Balance (% of GDP)	-1.9	-2.3	-3.9	-7.5	-6.2	-5.8
Debt (% of GDP)	20.2	20.4	29.3	34.7	38.4	39.8
Primary Balance (% of GDP)	-1.8	-1.9	-3.5	-6.9	-5.8	-5.5

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices.
Notes: e = estimate, f = forecast.

WORLD BANK **ECA ECONOMIC UPDATE** FALL 2020

COVID-19 and Human Capital

The COVID-19 pandemic has hit human capital directly in Europe and Central Asia, adversely affecting both education and health. School closures may lead to learning losses equivalent to a third to a full year of schooling, and they are likely to exacerbate inequalities, by disproportionately affecting students from disadvantaged backgrounds. The disease has already killed thousands of people, and some patients who survive will suffer long-term damage to their health. Recovery from the pandemic will thus require strong investment in education and health.

This update examines human capital outcomes in the region and the ways in which the pandemic is likely to affect them. A focus on the quality of tertiary education and health risk factors of obesity, smoking, and heavy drinking highlights the challenges that are particularly important for the region. Post-COVID 19 policy initiatives to improve education and health will need to recognize the challenges posed by increased reliance on remote learning and the importance of being prepared for future pandemics, given the vulnerability of the region's aging societies and the large number of people with underlying health risks.

ISBN (electronic): 978-1-4648-1643-7

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